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EGYPTIAN AGRICULTURAL LIFE IN THE NEW KINGDOM

By

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I dedicate this thesis to
my daughter Yara
and
my parents
in love and gratitude

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INTRODUCTION

Agriculture was the backbone of the economic and social life in ancient Egypt. Thus, there is no wonder that reference works on Egyptian civilization contained numerous hints to it, both concise and detailed. Sixty-five years ago, **Hartmann, F.**, published his books: L' Agriculture dans l' Ancienne Egypte, Paris, 1932; **Montet, P.**, also handled this topic in: Les Scènes de la Vie Privée dans les Tombeaux Égyptiens de l' Ancien Empire, Strassbourg, 1925. Detailed lists of plots of agricultural lands, crops and owners in the Ramesside Period were fully studied by **Gardiner, A.H.**, in The Wilbour Papyrus 4 vols., Oxford 1941-1952. **Täckholm, V.**, & **Drar, M.**, published their book: The Flora of Egypt, 2 Vols., Cairo, 1950-1954. **Helck, W.**, made a detailed study of the ranks and titles on the Middle and New Kingdoms in his book: Zur Verwaltung des Mittleren und Neuen Reiches, Leiden, 1958. Also he dealt with agricultural properties and crops in the New Kingdom in his book: Materialien Zur Wirtschaftsgeschichte des Neuen Reiches, Teil I-VI, Wiesbaden, 1961-1969. In 1962, **Karig, J.**, dealt with agriculture (in fertile lands) in the Old Kingdom, in his unpublished thesis: Die Landschaftsdarstellung in den Privatgraben des Alten Reiches, **Gotting**, 1962, (pp. 57-73). In addition he made a study of other natural areas (such as deserts, marshes, navigation and picnic, bird catching and fishing). Prof. **Saleh, A.**, published a research work on "Land and Farmer (Fellah) in Ancient Egypt", in Arabic, in Bulletin of the Egyptian Historical Society, Cairo, 1974, (pp. 17-79). **Darby, W.**, & **Ghalioungui, P.**, & **Grivetti, L.**, published also their book: Food: The Gift of Osiris, 2 vols., London, 1977. Other new sources and scenes related to agriculture have lately appeared. A need exists to reconsider the subject and reinvestigate

it in detail. Thus, this thesis is concerned with a detailed study on agricultural life in the New Kingdom which is characterized by its copious sources.

The thesis is divided into six parts: the first part consists of two chapters. The first chapter includes a detailed study of kinds of agricultural lands: K3yt, nbb, tnt, m3wt, idb, p^c t-lands which are mentioned frequently in the Ramesside documents. The second chapter is devoted to agricultural properties with its rights and obligations in the New Kingdom. This chapter is concerned with a detailed study of: (A) public lands such as: Khato-land of Pharaoh, Minē - land of Pharaoh and royal personal estates such as lands of the royal Harem; (B) private properties and inheritance regulations; and (C) temple estates. The second part consists of five chapters. The first chapter deals with main food cereals, the study being concentrated on three chief cereals: barely, emmer and wheat. The second chapter is concerned with a detailed study of the following legumes and fodders: bean, pea, lūbyah-beans, falcon-face beans, lupin, lentils, fenugreek, vetch and clover whence its designations, mentions in the miscellanies and substantial finds in the tombs. The third chapter is devoted to oil seeds, the study being concentrated on castor-oil plant, olive, safflower, sesame, ben-oil tree, the thorn tree, almond tree and the radish. The fourth chapter is devoted to vegetables, this chapter being concerned with a detailed study of lettuce, onion, leek, garlic, coriander, dill, celery, parsley, purslane, cucumber, cabbage, cress and finally okra. The final chapter of this part deals with the gardens, it being concerned with a detailed study of the architecture of the New Kingdom gardens and their vines and fruit trees and flowers. The third part of this

thesis consists of four chapters. The first chapter is devoted to farming and irrigation tools, concentrating on the hoe, plough, rake, mallet, sickle, fork, scoops and the system of artificial irrigation. The second and third chapters deal with processes of farming and storing crops, being concerned with a detailed study of the methods of ploughing, sowing, harvest, threshing, winnowing and storing crops according to the agriculture scenes, and comparison of these methods in the New Kingdom with the Old and Middle Kingdoms. The final chapter of this part deals with domestic and fields animals with breeding and uses; the study concentrates on two categories of animals: large cattle which implies herds of bulls and cows, and small cattle which implies such animals as sheep, goats, kids and pigs. Also, this chapter includes donkeys, camels and horses. The fourth part of this thesis consists of three chapters. The first is devoted to taxes on the lands and crops, namely on survey of lands and agricultural measurements, taxes on agriculture and means of collecting and leases of agricultural lands. The second chapter covers posts related to agricultural economy in the state and temples. The study gives an outline survey of the grades of the administration for agriculture. The known titles relate to the fields, to crops, to the cultivators, to the granaries. Separate series of offices related to cattle, the high rank (high) steward who ran the great estates, and the vizier who was responsible to the King for all departments of natural life. The final chapter is devoted to industries related to agriculture, being concerned with a detailed study of the countryside and food industries. The fifth part of this thesis consists of two chapters. The first deals with gods of agriculture, the study concentrates on the following gods: Rennutet, Nepri, Ha^cpi, Osiris, Isis and

Min. The second chapter covers inundation and harvest festivals, especially with a detailed study of the festivals of Ḥaꜥpi and Rennutet. The last part of this thesis consists of four chapters. The first is devoted to the peasant's dresses and ornaments in the scenes and models in the New Kingdom, and comparisons with other periods. The second chapter deals with country life: the architecture of the country house, family members on work in the field and at home. The third chapter deals mainly with manners and customs of the ancient Egyptian peasants in building a house, celebration of marriage, birth ceremonies, dress and ornaments, family ties, farming and irrigation tools, harvest festivals, countryside industries, death, and the probable reflections of these in the present country. The final chapter of the last part deals with the social and legal status of the ancient Egyptian peasant, giving with a detailed study of the texts and scenes of nomarchs and landowners which included opposite sides of the countryside people's life and a small number of literary texts which pictured the poor people's life.

ABBREVIATIONS

- (A.) : Achmimic dialect
- AcOr : Acta Orientalia, Leiden.
- AE : Ancient Egypt (Journal), London, and New York.
- Aegyptus : Aegyptus. Rivista Italiana di Egittologia e di Papirologia, Milano.
- AJSL : American Journal of Semitic Languages and Literatures, Chicago.
- ArOr : Archiv Orientalni, Prague, Paris.
- ASAE : Annales du Service des Antiquités de l'Égypte, Cairo.
- (B.) : Bohairic dialect
- Badawy, Architecture : A. Badawy, A History of Egyptian Architecture : The Empire, Berkeley, 1969.
- Badawy, Dessin : A. Badawy, Le Dessin Architectural chez les Anciens Egyptiens, Cairo, 1948.
- BAe : Bibliotheca Aegyptiaca, Brüssels.
- Baker, Furniture : H.S. Baker, Furniture in the Ancient World. Origins and Evolution, (3100-475 B.C.), London, 1966.
- BdE : Bibliothèque d'Étude, Institut Français d'Archéologie Orientale, Cairo.
- BEHS : Bulletin of the Egyptian Historical Society, Cairo.
- Blackman, Fellāhīn : W.S. Blackman, The Fellāhīn of Upper Egypt, London, 1927.
- BIE : Bulletin de l'Institut d'Égypte, Cairo.
- BIFAO : Bulletin de l'Institut Français d'Archéologie Orientale, Cairo.
- BiOr : Bibliotheca Orientalis, Leiden.

- BMMA : Bulletin of the Metropolitan Museum of Art, New York.
- Breasted, AR : J.H. Breasted, Ancient Records of Egypt,
Chicago, 1906-1907.
- BRL : Bulletin of the John Rylands Library, Manchester.
- Broekhuis, Renewet : J. Broekhuis, De Godin Renewet,
Assen, 1971.
- Brugsch, Thesaurus : H. Brugsch, Thesaurus Inscriptionum
Aegyptiacarum, Leipzig, 1883-1891.
- Budge, The Gods : W. Budge, The Gods of the Egyptians II,
London, 1904.
- CAH : Cambridge Ancient History, Cambridge.
- Capart, Thèbes : J. Capart, Thèbes la Gloire d' un Grand Passé,
Paris, 1925.
- CCED : J. Černý, Coptic Etymological Dictionary, Cambridge.
- CdE : Chronique d' Égypte, Brüssels.
- CG : Catalogue Général des Antiquités Égyptiennes du Musée du
Caire, Cairo.
- Champollion, Monuments : J.F. Champollion-le-Jeune, Monuments de
l' Égypte et de la Nubie, 1835-1845.
- Charpentier, Botanique, G. Charpentier, Recueil de Matériaux
Épigraphiques Relatifs à la Botanique de l' Égypte
Antique, Paris, 1981.
- CHMJWH : Cahiers d' Histoire Mondiale, Journal of World History,
Caudernos de Historia Mundial
- CLEM : R.A. Caminos, Late-Egyptian Miscellanies, Oxford, 1954.
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The Tomb of Huy, London, 1926.
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York, 1922.
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at Thebes, New York, 1943.
- Davies & Gardiner, Antefoker : N.de G. Davies & A.H. Gardiner,
The Tomb of Antefoker London, 1920.
- Davies, Two Officials : N.de G. Davies & Nina de G. Davies, The
Tomb of Two Officials of Tuthomsis the Fourth,
London, 1923.
- (F.) : Fayyumic dialect
- Faulkner, Pyramid Texts : R.O. Faulkner, The Ancient Egyptian

- Pyramid Texts, Oxford, 1969.
- FCD : R.O. Faulkner, A Concise Dictionary of Middle Egyptian,
Oxford, 1981.
- FIFAO : Fouilles de l' Institut Francais d' Archeologie Orientale du
Caire, Cairo.
- Gardiner, AEO : A.H. Gardiner, Ancient Egyptian Onomastica
2 vols., London, 1947.
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Bruxelles, 1937.
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Documents, Oxford, 1968.
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London, 1930.
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Leiden, 1980.
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l' Ancienne Egypte, Paris, 1923.
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des Neuen Reiches, Teil I-VI, Wiesbaden, 1961-1969.
- Helck, Verwaltung : W. Helck, Zur Verwaltung des Mittleren und
Neuen Reiches, Leiden, 1958.
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Ramessid Period, Leiden, 1975.

- JAOS : Journal of the American Oriental Society, New Haven.
- JARCE : Journal of the American Research Center in Egypt, Boston.
- JEA : Journal of Egyptian Archaeology, London.
- JNES : Journal of Near Eastern Studies, Chicago.
- JSOR : Journal of the Society of Oriental Research, Chicago.
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- KHW : W. Spiegelberg, Koptisches Handwörterbuch, Heidelberg, 1965.
- Klebs, Reliefs : L. Klebs, Die Reliefs und Malereien des Neuen Reiches, Heidelberg, 1934.
- Kush : Kush. Journal of The Sudan Antiquities Service, Khartum.
- LÄ : Lexikon der Ägyptologie I-VI, Wiesbaden. 1975-1986.
- LD : R. Lepsius, Denkmäler aus Aegypten und Aethiopien, Leipzig, 1897-1913.
- Loret, Flore : V. Loret, La Flore Pharaonique d' après les Documents Hiéroglyphiques et les Specimens Decouverts dans les Tombes 2e edition, Paris, 1892.
- MÄS : Münchner Ägyptologische Studien, Berlin.
- MDAIK : Mitteilungen des Deutschen Archäologischen Institut Abteilung Kairo.
- MIE : Memoires de l' Institut d' Egypte (de l' Institut Egyptien), Cairo.
- MIFAO : Memoires Publiés par les Membres de l' Institut Français d'

Archéologie Orientale du Caire, Caire.

- MMA : The Metropolitan Museum of Art, New York.
- MMAF : Mémoires Publiés par les Membres de la Mission Archéologie Française au Caire, Paris.
- OIP : Oriental Institute Publications, the University of Chicago, Chicago.
- OLZ : Orientalistische Literaturzeitung, Berlin and Leipzig.
- Pap. : Papyrus.
- Petrie, Hawara : W.F. Petrie, Hawara, Biahmu and Arsinoe, London, 1889.
- Petrie, Kahun : W.F. Petrie, Kahun, Gurob and Hawara, London, 1890.
- PM : B. Porter, & R. Moss, Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs, and Paintings, 7 vols., Oxford, 1934-1974.
- PSBA : Proceedings of the Society of Biblical Archaeology, London.
- RdE : Revue d'Égyptologie, Cairo and Paris.
- Rosellini, Monumenti, I. Rosellini, I Monumenti dell' Egitto e della Nubie, Monumenti Civili, Pisa, 1832-1844.
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- RT : Recueil de Travaux Relatives à la Philologie et à l'Archéologie Égyptiennes et Assyriennes, Paris.
- (S.) : Sa^cidic dialect.
- SAK : Studien zur Altägyptischen Kultur, Hamburg.
- Saleh, The Civilization, A. Saleh, The Civilization of Ancient Egypt and its Monuments, Vol. I, (in Arabic), Cairo, 1962.
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- Wb : A. Erman & H. Grapow, Wörterbuch der Ägyptischen Sprache 5 vols., Leipzig, 1926-1931.
- WB äg. Drog. : Wörterbuch der Ägyptischen Drogennamen, Grundriss der Medizin der Alten Ägypter.
- Wreszinski, Atlas : W. Wreszinski, Atlas zur Altaegyptischen Kulturgeschichte, Leipzig, 1923.
- ZÄS : Zeitschrift für Ägyptische Sprache und Altertumskunde, Leipzig, Berlin.
- ZE : Zeitschrift Für Ethnologie, Berlin.

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VOLUME I

PART I

LAND AND PROPERTY REGULATIONS IN THE NEW KINGDOM

CHAPTER I

CHAPTER I

Kinds of Agricultural Lands in Texts and Scenes

Agricultural lands in the New Kingdom were designated by at least four basic terms : (a) k3yt, (b) Nhb, (c) Tni, (d) M3wt. Besides, there were others like Idb and P^ct.

(A) K3yt-Land



K3yt is the usual term for normal arable land, was "high" in contrast to the immediate river-bank and the hinterland near the desert edges (1). This type (k3yt) was the most ordinary (2). In the Wilbour Papyrus; in both texts A and B, the word k3yt literally means "high ground" or "height" (3). It occurs, in contexts like "measurement made in the high ground south of Sakō" (4) or "region of the high ground north of the village of Sure^c" (5). In Pap. Sallier IV,

(1) A.H. Gardiner, The Wilbour Papyrus II, Oxford, 1948, pp.27-28, 178 ff, and p.180; G.P.F. van den Boorn, The Duties of the Vizier, London, 1988, p.246.

(2) S.G. Gohary, Egyptian Society in the New Kingdom as Illustrated by the Late Egyptian Miscellanies, Liverpool thesis, 1978, Unpublished, p.119.

(3) Gardiner, Wilbour II, p.27.

(4) Gardiner, Wilbour III, Oxford, 1948, text A, 87, 42; 99, 28.

(5) Ibid., text B, 13, 23.

vs.7, 4, following summer cultivation, a harvest is being threshed on floors on the k3yt, i.e. on the higher level or normal land, not down on the river bank (6). In the demotic, the word 3h ky is translated in the Greek dockets as $\delta\eta\ \eta\pi\epsilon\iota\pi\omicron\varsigma\ \delta\iota\tau\omicron\phi\acute{o}\rho\omicron\varsigma$ "corn-bearing mainland" (7). 3h ky stands in parallelism with 3h m3i which render "Island-fields" (8), a rendering corresponding to the contrast between $\eta\pi\epsilon\iota\pi\omicron\varsigma$ and $\nu\eta\delta\omicron\varsigma$ in the Greek papyri. This contrast is found in the great endowment inscription of Edfu, where land called m3(i) is constantly opposed to land called ky. These two types of the land like the Greek $\nu\eta\delta\omicron\varsigma$ and $\eta\pi\epsilon\iota\pi\omicron\varsigma$ embody the Arabic distinction between Ray-land and Sharāki-land, the first consisting of those lands that were annually inundated and the second of those which were normally above level of the inundation as if corresponding to the term adopted in the Arabic cadastral surveys to Sharāki-land denoting land too high to be inundated requiring to be irrigated artificially by use of mechanical means of hoisting water from river or canal irrigation runnels. It is clear that k3yt in the technical sense must have signified agricultural fields of passably good quality. This is confirmed by the fact that in Coptic it has given rise to the very common words for "field" KOIE

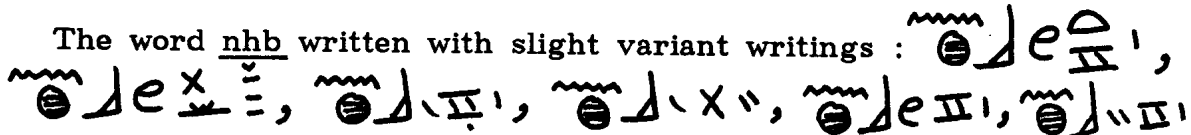
 (6) S.G. Gohary, op. cit., p.357, note 14.

(7) F.Ll. Griffith, Catalogue of the Demotic Papyri in the John Rylands Library Manchester III, Manchester, 1909, 147, note 4.

(8) W. Spiegelberg, Die Demotischen Papyri Hauswaldt, Leipzig, 1913, pp.3-4.

KΔIE (9). Malinine, M., assumed that the word k3yt refers to high-lying land and translated it as Sharāki-land in accordance with the common impression that the Arabic word refers to land suited for summer and/or garden cultivation (10). This previous study tends to confirm that k3yt was commonly used to designate the ordinary agricultural land, whether or not it included Ray-lands as well as Sharāki-lands. K3yt-land was assessed at 5 measures assessment basis for taxes (11).

(B) Nhb-Land 

The word nhb written with slight variant writings : 

(12). The Berlin Dictionary does not attempt to define closely the meaning of nhb-land (13). Nhb comes from a stem meaning "to open up" and must therefore have a sense not far removed from "virgin

(9) J. Černý, Coptic Etymological Dictionary, Cambridge, 1976, p.51.

(10) M. Malinine, Choix de Textes Juridiques en Hiéراتiques Anormal et en Demotique I, Paris, 1953, 69 (6).

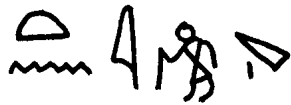
(11) Gardiner, Wilbour II, pp.29, 62, 71, 72; K. Baer, JARCE I, 1962, p.40; B. Menu, Le Régime Juridique des Terres et du Personnel Attaché à la Terre dans la Papyrus Wilbour, Lille, 1970, p.80; van den Boorn, op. cit., p.246.

(12) Gardiner, Wilbour II, p.28; id, Ancient Egyptian Onomastica I, Oxford, 1947, 10 *; id, JEA 27, p.65.

(13) Wb II, 308, 8-9.

soil" (14). Nhb by its etymology "open up" is thought to be "fresh land" previously unworked (15). The present Arabic equivalent is "أرض موطن". It seems to have been the best kind of land; therefore its assessment base in the fiscal documents was higher than the others, 10 measures of corn for the aroura (16). In Pap. Harris I, it is clear that such lands could be sown with barley and emmer (17).

(C) Tni-Land



The Berlin Dictionary does not attempt to define closely meaning of tni-land (18). It is to be noted that the verb tni usually rendered "become old", really means more than this - it means to "become decrepit" (19). Tni is etymologically the "tired or decrepit land" (20), (i.e. long cultivated). Schenkel proposes to consider tni and nhb-lands as being under perennial irrigation. Hence they produce more

 (14)Gardiner, Wilbour II, p.28.

(15) Ibid., II, pp.28-29; Gardiner, AEO I, 10 *; van den Boorn, op. cit., p.246.

* I owe this identification to Prof. A. Saleh.

(16)Gardiner, Wilbour II, pp.29, 180; K. Baer, JARCE 1, p.40; van den Boorn, op. cit., p.246.

(17)W. Erichsen, Papyrus Harris I, Bruxelles, 1933, p.69; 59, 6-7.

(18) Wb V, 311, 5.

(19)Gardiner, Wilbour II, p.29; R.O. Faulkner, A Concise Dictionary of Middle Egyptian, Oxford, 1962, p.299.

(20)Gardiner, Wilbour II, pp.29, 179, 181; id, AEO I, 10 *.

than one harvest, which would explain their higher taxation-rates in Pap. Wilbour (21). The present Arabic equivalent is أرض تعبانه (عبانه)*. It was assessed at a rate more than the arable land and less than the fresh land in the fiscal documents (i.e. Wilbour Papyrus) (22). and "tired land" was also valued at only half the price of arable (23). The assessors assessed tired land at 7 1/2 corn-measures per aroura (24).

(D) M3wt-Land



M3wt "new land" (25), would cover new patches of land, such as islands in the Nile, low-lying, "Gezira", riverside land between high and low water marks (26). The Greek word νησος "Island" incorporates two related categories distinguished by the terms iw "Island", and m3wt literally meaning "new land". This Greek word was used to describe not only the island of cultivatable land to be found in the course of the Nile, the area of which could alter, but

 (21) van den Boorn, The Duties of the Vizier, p.246.

* I owe this suggestion to Prof. A. Saleh.

(22) Gardiner, Wilbour II, p.180; Baer, JARCE 1, p.26; note 10;

Jac.J. Janssen, SAK 3, 1975, p.143.

(23) Gardiner, Wilbour II, p.29; Baer, JARCE 1, p.26, note 10.

(24) Gardiner, Wilbour II, p.29; van den Boorn, op. cit., p.246.

(25) Wb II, 27, 8; Gardiner, Wilbour II, p.27; id, AEO I, 12 *; FCD, p.103.

(26) S.G. Gohary, op. cit., p.119.

also new riverain land laid down by the Nile due to its shifting current and unequal pattern of inundation (27). The Coptic word **MoYε(S.)**, **MoYI(B.)** was probably an abbreviation of iw n m3wt "new island" (i.e. Island of newness) (28). This expression iw n m3wt is mentioned in papyrus Wilbour (29), Harris I (30), and Amiens (31). It designates a "new island", i.e. fresh river bank or island plots formed by shifts in the river's course, as distinct from the higher lying, long established "main land". The present Arabic equivalent is **أراضى الجزر***.

(E) Other Terms

(1) Idb-Land **Ⲁⲓⲃⲉⲛⲓⲁ, Ⲁⲓⲃⲉⲛⲓⲁ**

Literally means "Ufer, Uferland" (32), "riparian land" (33), the present Arabic equivalent is **أراضى الضفاف (الشاطئ)***. Idb or riparian land for land allotment reaching inward from the river channels, from its banks landwards (34). Idb-land is mentioned frequently in the

 (27)A.F. Shore, "Land and Land Tenure in Ancient Egypt", Unpublished, pp.5-6.

(28)Gardiner, AEO I, 12 *; Crum, op. cit., p.160 b; CCED, p.79.

(29)Gardiner, Wilbour I, text A, 12, 16; 22, 3; text B, 5, 27.

(30)W. Erichsen, Papyrus Harris I, p.32; 28, 1.

(31)Gardiner, JEA 27, pp.39-40.



* I owe this suggestion to Prof. A. Saleh.

(32) Wb I, 153, 2.

(33)Gardiner, Wilbour II, p.26; id, AEO I, 13 *; FCD, p.35.

* I owe this identification to Prof. Saleh.

(34)Gardiner, Wilbour II, p.26; S.G. Gohary, op. cit., p.119.

Wilbour Papyrus, where text A alone has more than eighty examples of idb-land (35). In the Golenischeff Onomasticon (1,2) the terms idb and p^ct stand side by side following "sand" and "new land" (36). The general sense of idb as "riparian land" emerged not only from the use of the idbwy Hr "the two river-bank of Horus" as a synonym for Egypt, but also from a possibly unique example of XXIV dynasty in which the word idb is determined with the sign for water  and which occurs on a donation stela where King Tefnakht presents to the goddess Neith "10 arouras of land in the idb-land, field added by the inundation-god (Ha^cpi) to be called "the new land of the House of Neith" (37). On the other hand, the mathematical use of idb in a single problem of the Moscow Papyrus does not appear to point to a piece of land roughly of the shape and proportions of the sign  used to determine the word - a triangular tongue of land (38). From these previous data, one may think that idb "riparian land" was normally a long strip which abutted at one end upon the river or a canal. Such land would obviously be of greater value than land without direct access to water, and it is precisely that consideration which in modern Egypt has led to so many plots being long and very narrow, every proprietor seeking to obtain at least a few yards of water-front.

 (35) Gardiner, Wilbour II, p.26.


(36) Ibid., p.26.

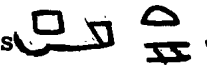
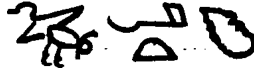
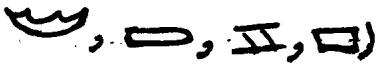
(37) J. Capart, Recueil de Monuments Egyptiens 2, Bruxelles, 1905, 92; Gardiner, Wilbour II, p.26.

(38) Ibid., II, p.26.


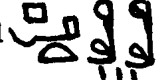
(2) P^ct-Land 

The word p^ct written with variant writings:

 (39).

The more normal writing is  (40). It is just possible that the word may be identical with the older form  (var. with ).

p^{3c}t "irrigable land". (41). The Berlin Dictionary (42) translated the word p^{3c}t as "water, flood" presumably on the evidence of the determinative and as "flood with water". Concerning the nature of p^ct,

it is obscure, whether it was rated higher or lower than idb is not clear. It is possible that p^ct was the word at the root of the familiar words  "Prince" and  "People considered as the elite".

Also as the p^ct people could mean, in A. Saleh's view, the elite (people); the p^ct - land might well also mean the special fertile land or something of this kind. The p^ct - people would be the $\alpha\upsilon\tau\omicron\chi\omicron\upsilon\epsilon\varsigma$ the original owners of the Egyptian soil (43).

The term p^ct is mentioned frequently in the Wilbour Papyrus; text A alone has more than forty examples of p^ctland (44).

(39) Gardiner, AEO I, 12*.

(40) Ibid., I, 13*.

(41) FCD, p. 87.

(42) Wb I, 497, 19.

(43) Gardiner, Wilbour II, p. 28, note 1.

(44) Ibid., II, p. 26.

It is also mentioned in the Golenischeff Onomasticon beside the term idb (45).

(45) Ibid., II, p.26.

CHAPTER II

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Agricultural Properties : Rights and Obligations in the New Kingdom

According to the study of the documents in ancient Egypt and particularly the Ramesside administrative documents, we find various kinds of agricultural properties enumerated (several of which, we find mentioned in different historical periods). Where the private and also shared family properties appeared, those properties were either personal or gifted property. A good part of all the land must have remained in Pharaoh's estate and have been administered by his agents. The largest landowners beside Pharaoh, particularly from the New Kingdom on, were the great temple foundations. All this in spite of the mention of traditional texts that all lands were property of the Pharaoh, who was the heir of the divine right in this life and the netherworld.

(1) Public(State)Lands

The Egyptian monarchy was divine and in consequence the King was theoretically the sole owner of the land throughout Egyptian history. He possessed the deeds of bestowal granted him as heir of the King of the gods (1). He could give estates, cattle and servants to members of his family or to people whom he regarded as their equal

(1) H. Kees, Ancient Egypt, London, 1961, p. 61; G.R. Hughes, Saite Demotic Land Leases, Chicago, 1952, p. I.

because of their position in society (2). The royal palaces owned the best land and cultivated it either by their officials, the King's people, the normarchs or rented it to individuals and institutions (3). In various Ramesside administrative documents (4). we find state lands such as harbours and fields of Pharaoh, and royal personal estates, such as lands of Harems, besides state institutions.

(A) Khato-Land of Pharaoh

Always labelled "of Pharaoh", i.e. state or crown land, it occurs frequently in the Miscellanies. In papyrus Bologna 1094 (5), a prophet in charge of a small temple distinguishes clearly between "the extent of the (land of the) House of Seth" and "the Khato land of Pharaoh under his authority". This context indicates that Khato land belonged to the crown, but could be placed in the care of local neighbouring

(2) Kees, Op. Cit., p. 62.

(3) A. Saleh, "Land and Farmer in Ancient Egypt", (in Arabic), in BEHS, Cairo, 1974, p. 22.

(4) A.H. Gardiner, Wilbour I-V, 1941-1952; id, Ramesside Administrative Documents, Oxford, 1968; id, Late-Egyptian Miscellanies, Bruxelles, 1937; id, JEA 27, 1941, pp.19-73; W. Helck, Materialien zur Wirtschaftsgeschichte des Neuen Reiches Teil I-II, Wiesbaden, 1961.

(5) R.A. Caminos, Late-Egyptian Miscellanies, Oxford, 1954, p.18, Bologna, 1094, 6, 10; Gardiner, Wilbour II, p.163.

temples to be cultivated. This situation finds abundant illustration in the other Ramesside documents, e.g. papyrus Turin 1895+2006, where its title page describes it as "Document of receipts of corn of Khato-land of Pharaoh from the hand of the prophets [of the temples of Upper Egypt]" (6). In the same papyrus, "[Brought] to the necropolies, [of] the corn of Khato-lands of Pharaoh by the hand of the prophet of Such[us, Pheni]" (7). And also a prophet of Suchus hands over 54 1/2 sacks of corn from Khato lands of Pharaoh, (evidently in his charge) (8).

In the Wilbour papyrus, its text B is wholly devoted to Khato lands of Pharaoh; many of these lands were situated in the fields of different temples, i.e. on the fields of the House of Amūn-Rē^c, Ptah, Rē^c, Anubis and elsewhere (9). In text B of Wilbour, Khato lands of Pharaoh were held by a variety of officials; high stewards, military officers, mayors of provincial towns, including prophets of local temples (10). Likewise, in text A of Wilbour, section I (f44 ff) (11), we find various officials as in text B; under prophets, (f47, 49, 50)

(6)Gardiner, JEA 27, p.23; id, RAD, p.36, 1, 3-4.

(7)Gardiner JEA 27, p.23; id, RAD, p.36, 1, 7.

(8)Gardiner, JEA 27, p.24; id, RAD, p.36, 2, 2-3.

(9)Gardiner, Wilbour III, text B, pp.109-133.

(10) Ibid., III, text B, par., 18, 22, 23, 25, 26, 29, 41, etc.

(11) Ibid., III, text A, section I, p.20.

(12); section II, ({113, 115), for officials (13), and ({114,116), for prophets; and section III, ({201-4), for officials (14), ({205-7), for prophets (15). Three kinds of Khato-land are distinguished in text B : K3yt "arable land", nhb "fresh land" tni "tired land" (16). The size of the plots of Khato-land in the Wilbour papyrus was 10 to 20 arouras, that is between 6 1/2 and 13 acres in size; and there were also holdings of over 100 arouras and even some of 200 to 340 arouras (17). Apparently Khato-lands of Pharaoh were fields set apart to supply revenue to the crown from among estates often actually owned by some local temples (18).

Sallier I (19) gives a picture of the harvesting of grain on Khato-lands of Pharaoh under the authority of some officials. Sallier I, 9, 7 (20) contains Khato-Land of Pharaoh in a long list of classes of royal state property, from which thirty arouras are assigned to a stable-master for fodder for the horse-team of Pharaoh.

 (12) Ibid., text A, section I, p.21.

(13) Ibid., III, text A, section II, p.45

(14) Ibid., III, text A, section III, pp.76-77.

(15) Ibid., II, p.78.

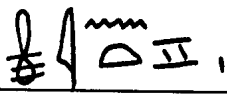
(16) Ibid., III, text B, pp.109-133.

(17) Ibid., II, p.182; Kees, op. cit., p.68.

(18) Gardiner JEA 27, pp.23-24.

(19) CLEM, p.30, Sallier I, 4, 11 ff.

(20) Ibid., p. 326, Sallier I, 9, 7; Gardiner, Wilbour II, p.78.

(B) Mint (Minē)-Land of Pharaoh :  , mint = Suburb

Another kind state or crown land (21). In Sallier I (22), it is explicitly used for growing fodder for horses under the charge of a stable-master, which is probably implicit in papyrus Bologna (23), where reference is made to horse being fed, and cultivators of Mint-land beaten by a stable-master. Such land could also be used for ordinary grain growing, as appears in several sections of papyrus Wilbour, under the authority of various religious, civil and military officials (24). After Ramesside times the terms Mint-land and Khato-land disappear from use, and in demotic the equivalent for is n3 3hw(t) pr-^c3 "the fields of Pharaoh" (25).

(C) Land of the Royal Harem

Concerning the land of the royal Harem, we find in the Wilbour papyrus, the Harem possessed lands; their lands were administered by the overseer of the King's apartments (26), a local mayor (27), a

(21) Gardiner, JEA 27, p.24.

(22) CLEM, p.326, Sallier I, 9, 7.

(23) Ibid., p.12, Bologna, 1094, 3, 3-4.

(24) Gardiner, Wilbour II, pp.198-200; III, pp.20, 76.

(25) Ibid., II, p.167.

(26) Ibid., III, text B, 19, 8.

(27) Ibid., III, text A, 38, 110.

simple controller (28), a prophet (29) and the overseer of the cattle of Amūn-Rē^c (30). In the Wilbour Papyrus, the lands of the royal Harem were situated in the new land, riparian land and p^ct-land (31). Harem property has no field of less than 3 arouras (32), the large size including one of 20 arouras (33), and 300 land-cubits (34).

(2) Private Properties and Inheritance Regulations

One of the earliest detailed information of private properties and inheritance regulations in ancient Egypt is that which was mentioned in Methen inscriptions, IV dynasty. Methen mentioned that "there were assigned to him 50 st3t of land by (his) mother Nebsent, she made a will thereof to her children; it was placed in their possession by the King's writing in every place" (35). As Prof. A. Saleh, formerly summed up this subject, in his study on land and farmer in Ancient Egypt, ~~this~~ text indicates that the woman had the right of property like the man, and her property was wide so that Methen alone inherited 50 st3t. Mention of the word "every where" may indicate distribution of the mother's land in different regions (36).

(28) Ibid., text A, 39.

(29) Ibid., III, text A, 276.

(30) Ibid., III, text A, 111, 277, 279.

(31) Ibid., III, 39, 276, 277, 278.

(32) Ibid., III, text A, 153.

(33) Ibid., III, text A, 276.

(34) Ibid., III, text A, 110.

(35) Urk I, p.2, 14-16; J.H. Breasted, Ancient Records of Egypt, Chicago, 1906, 175; M. Moret, RT 19, 1907, pp. 71, 72; H. Goedicke, MDAIK 21 1966, 1-71; Saleh, BEHS, 1974, p. 24.

(36) Saleh, BEHS, p. 24.

As the above-mentioned summary noticed the public rules of property which the Methen text revealed continued in the following times; whence the right of the males and females in the property of the land, its bequeathal and according to wills (37). Examples are the wills of the prince Nekurēc - IV dynasty (38) and Idu, IV dynasty (39). The Pharaohs gave their favorites, the high officials and the priests of the gods areas from the public lands to ensure their loyalty (40). Probably, the donations were of Sharaki-lands, which required artificial irrigation and intense labour, or of the newly settled areas so called "settlements" or "new villages", the purpose being clearly to promote interal colonization (41). Perhaps the state made over to the owners the authority with "the King's name" over those who lived on these lands from their agricultural labour. They were also provided with cattle, goats and sheep for its reclamation (42).

(37) Ibid., p. 25.

(38) Urk I, 16, 17; LD II, 15 a; Saleh, BEHS, p. 26.

(39) Urk I, 115-117; LD 11, 4 a; Saleh, BEHS, p. 26.

(40) Ibid., p. 27.

(41) Kees, op. cit., pp. 70, 159; Saleh, BEHS, p. 27.

(42) Ibid., p. 27.

The rich did as the Kings; they endowed a part of their lands on their tombs and the priests for making the mortuary offerings. This tradition had particular regulations for the property different from the private property in which the complete rights of disposition were in hands of its owner. These regulations distributed the rights of the parties in it as the following: the state owner of the land, owner of the donated land who entrusts it to the priestly staff for making the mortuary offerings to him in the tomb. Those priests could give the land to their children (43). Thus, the right of benefit became with passing of time like the right of private property (44).

In ancient Egypt, the inheritance is conveyed to the brothers, sisters and daughter's children and inferior mortuary priests or assistant mortuary priests, when owner of the inheritance had no legal sons, or his legal sons had died (45). As the above-mentioned reference commented, if the owner of the right of benefit could not cultivate the land by himself, he entrusted it to a cultivator who was mostly attached to the land for most of his life and the cultivator must pay to the owner of the land the dues instead of his

(43) Ibid., pp. 27, 28.

(44) J. Pirenne, Histoire des Institutions et du Droit Privé de l'Ancienne Egypte II, Bruxelles, 1934, p. 406; III, 1935, p. 278; Jouget, Histoire du Droits Public de l'Egypte Ancienne, p. 165; Saleh, BEHS, p. 28.

(45) Breasted, AR I, 202; S. Hassan, Excavations at Giza (1930-1931) II, Cairo, 1936, p. 190; E. Révillout, Précis du Droit Égyptien, Paris, 1903, pp. 242-260; Saleh, BEHS, p. 29.

payment to the state. In some cases, the cultivator could convey to his heirs his rights on the land and his obligations towards the administrator of the endowment so, the various holders of rights were enumerated on the one estate. As the legislators say: The land became owned by the state and owner of the endowment and his cultivator at the same time (46). This regulation did not abolish the other regulation, where the private property remained permanent, which the individual obtained for his life (47).

In the First Intermediate Period, the military service became a motive for possession of the land, when civil wars were vigorously waged between the rival nomarchs of the land. The warriors gained a better social standing in the new society, for example the advice of the King Khety IV (?) to his son (48). Not only the kinds of the agricultural properties were enumerated in the previous periods, but also in the Middle Kingdom; when we find that small private property continued (49). For example in the Hepzefi inscriptions (50). Also the tradition of rewarding the warriors with lands was continued in

(46) Ibid., p.30.

(47) Saleh, BEHS, p.30.

(48) Gardiner, JEA 1, 1914-1915, p.27; Kees, op. cit., pp.70, 71;
Saleh, BEHS, p.34.

(49) Ibid., p.35.

(50) Breasted, AR I, 535 ff; K. Baer, JAOS, 83, 1963, p.17; Saleh,
BEHS, p.35.

the Middle Kingdom as in the Ha^cnkhef text (51). The agricultural gifts were extended by the state to its high officials, as we find in the texts of Chnemhotep II, Ameni and others (52). And also the endowed lands were increased for making the offerings and to permit the priests to have the possession and the benefit from the yield and also rent more of the small lands (53). For examples (54) Hepzefi, the Hekanakhte texts and others.

In the New Kingdom, the prosperity increased and the wealth of the country was immense so that numerous classes of the society benefited from it. The ventures of the wars and the extent of the external properties and increase of the administrative officials in the internal and external affairs led to the rise of many people in the normal classes of individuals to a high standard of living and wide properties (55). From the time of the New Kingdom, estates frequently owed their origin to the rewarding of veterans with land and serfs as an expression of gratitude for services rendered to the King. Thus, the naval captain Ahmose, son of the justified Abana, who had

(51) Ibid., p.35.

(52) F.Ll. Griffith, et al., Beni Hasan, II, London, 1893, p.16; Saleh, BEHS, p.35.

(53) Ibid., p.35.

(54) T.G.H. James, The Hekanakhte Papers and Other Early Middle Kingdom Documents, New York, 1962, pp.1, 8; K. Baer, JAOS, 83, 1963, pp.2, 3, 9; Saleh, BEHS, p.35.

(55) Ibid., pp.35, 36.

served Ahmose, the King who liberated Egypt from the Hyksos mentioned on the walls of his rock tomb in his native city of El Kab, that the King Ahmose donated to him and his naval friends agricultural shares; each share was about 5 st3t, and his shares doubled until it reached 100 st3t (i.e. sixty-seven acres = 65 feddans) as reward for repeated proofs of bravery, at the utmost comparing this with the 150 arouras granted by Tuthmosis I to one of his officers (56). Also we have the example of Neshi, who lived on under Ahmose and was promoted to be "ship-master". Because of his distinguished services probably in the fleet during the war against the Hyksos Neshi was given a plot of land as reward by Ahmose, south of the Memphite nome (57). This land was held by one heir after another; a protracted legal battle was fought between the heirs in the Ramesside Period (58). Mes, who lived on under Ramesses II, was the last known rightful owner in it. This legal text indicates that the property of the land was preserved for his family. From one individual holder to another they transmitted its inheritance for a period of more than three centuries. The woman had right of the supervision of the land or upon

 (56) Urk IV, 6; Gardiner, JEA 5, 1918, p.52; Saleh, BEHS, pp.37, 38; A. Kadry, Officers and Officials in the New Kingdom, Budapest, 1982, pp.32, 33.

(57) Gardiner, in K. Sethe, UGAA IV, Leipzig, 1905, p.8 ff; G.A. Gaballa, The Memphite Tomb-Chapel of Mose, Warminster, 1977, p.28; B. Menu, op. cit., p.23.

(58) Gardiner, in : Sethe, UGAA IV, p.25; Kees, op. cit., p.72; Gaballa, op. cit., p.28 ff; W.F. Edgerton, JAOS, 70, 1950, p.301.

a part of it, if the heirs accepted, and she had the right of tenure in her name; the cultivation of the land for a long time and also payment of the taxes (the debts) are considered evidences of the property of the land (59). We understand from texts under Ramesses II that the donated land for the officers was passed to their sons and sometimes exempted from the taxes (60). And Herodotus (61) mentioned that the warriors were the only Egyptians except the priests who had special privileges : for each of them there was set apart an untaxed plot of twelve acres.

According to the study of the Wilbour Papyrus, we find the Pharaoh gave fields to persons performing special duties for the state (62). The actual holders of land are men and women in many different occupations and ranks. Then there are among the holders of the land simple soldiers ($w^c w$) no less than 153 of them are found in possession of fields (63). We find men of Sherden race as real owners of land, there are 42 of them found in possession of fields (64). There are

(59) Saleh, BEHS, p.37.

(60) Gardiner, The Kadesh Inscriptions of Ramesses II, Oxford, 1960;
Ch. Kuentz, La Bataille de Qadech les Textes et les Bas-Reliefs,
(MIFAO 55), Le Caire, 1928, p.275; Saleh, BEHS, p.38.

(61) Herodotus, Book II, 168; Saleh, BEHS, p.73, note 30.

(62) J. Janssen, SAK 3, p.144; B. Menu, op. cit., p.138

(63) Gardiner, Wilbour II, p.79, 80.

(64) Ibid., II, p.80; III, 26, 37; 27, 43; 36, 47; 61, 44; 70, 51; 67,
18; 81, 32.

other examples which indicate that Sherden possessed lands; we find in the Amiens Papyrus indications that Ramesses III founded in the Xth Upper Egyptian nome and possibly also elsewhere estates for the benefit of his Sherden auxiliaries (65). And also a donation stela of the twenty-second dynasty from the east bank some 15 km. south of Helwan mentions fields of Sherden (66). Craftsmen are mentioned as holders of land, there being only one example of each of the following : ikd "builder", hmww "carpenter", hmty "coppersmith", shty "alabaster-worker", wtw "embalmers" (67). We find a large number of the holders of land are men, who were agriculturalists by profession, general term for a cultivator of the soil ihwty, which was found so frequently in the non-apportioning paragraphs being associated with no less than 109 names (68). Sailors would hardly be expected to be found in possession of land, but three members of a ship's crew ist mnš have been accorded a few arouras apiece (69). Among the land-holders, there are the temple-scribes, who belonged to the House (n pr) of such and such a god : Amun (of Karnak), Suchus (of Anasha), Seth (of Spermeru probably) (70). There are simple scribes

 (65) Ibid., II, p.80.

(66) Ibid., II, p.80.

(67) Gardiner, Wilbour II, p.82; III, 89, 18; 82, 11; 46, 27; 24, 12; 77, 11; 89, 22; 77, 42.

(68) Ibid., II, p.82.

(69) Ibid., II, p.83; III, 47, 49; 48, 3.

(70) Ibid., II, p.83; III, 75, 39; 88, 44; 96, 27; 67, 8; 70, 5.

sš among the land in possession of fields (71). The ordinary priests w^cb of Osiris, Seth, Nephthys, Suchus and others were among the holders of the land, where there are 112 of them found in possession of fields (72). Also the officials of the state : rwdw "controllers", imy-r pr-hd "overseer of the treasury", imy-r pr "the (high) steward", imy-r ihw "overseer of the cattle", idnw "deputy", are all mentioned in the Wilbour Papyrus among the holders of the land (73). The most unexpected class to be found as individual holders of land were the slaves (hm) of whom no less than eleven are mentioned (74). A stela from Wady Halfah, now in Cairo Museum, appears to record the sale of land by slaves to a certain sandal-maker (75). The holdings were not held as a freehold, but they would be sold and passed on as an inheritance. The tradition of giving lands to the high officials continued in the New Kingdom, and these lands were used for requisites of their tombs and chapels for making the offerings (76). For example, on a donation stela of the reign of Ramesses I,

 (71) Ibid., II, p.83.

(72) Ibid., II, p.84; III, 19, 37; B24, 83; 18, 29; 26, 33; 32, 39; 40, 11; 54, 23; 47, 23; 84, 37.

(73) Ibid., II, p.83, 64; III, 23, 41; 28, 13; 75,,20; 82, 27-28; 86, 17; 27, 41; 65, 11; 8, 20; 59, 11-14; 71, 14; 71, 44; 24, 17; 28, 19, 23.

(74) Ibid., II, p.84; III, 8, 52; 26, 35; 78, 18.

(75) Ibid., II, p.84.

(76) Saleh, BEHS, p.37.

we find the King mentioning that he gave three arouras of land for the foundation (m3wd) of Hatia^y (77).

The private property continued in the New Kingdom, for examples, in Berlin Papyrus 9784, there is evidence that some agricultural land in Egypt was owed by the ordinary individuals. In the 27th year of Amenophis III, we find that Nb-mhy, who was a herdsman of the House of Amenophis III sold three arouras of the land to the herdsman Msi, receiving one cow as the price, in the presence of many witnesses, and the land-sale contract was done by the scribe Tt (78). In the Egyptian Museum at Cairo, a small, rectangular standstone stela was found at Koptos, north of Thebes. Its text contains a Ramesside land-sale, the lady Taronpet-menti had, it seems, inherited a field from her mother (Ta)wat(neter), it being situated among the donated lands belonging to a priest Montu-nakht. She sold a plot of land for 7 qite of silver (i.e. 0.7 or almost 3/4 of a deben), she was satisfied with the price of 7 silver qite. The size of the plot of land is not stated (or, is broken away), it seems, that 0,7 was paid for 2 arouras (79).

(77)W. Spiegelberg, ZÄS 56,1920, p.56; Gardiner, Wilbour II, 18;
B.Menu, op. cit., p.26

(78)Gardiner, ZÄS 43, 1906, p.31; W. Edgerton, JAOS 70, 1950,
p.301.

(79)K.A. Kitchen, Early Canaanites in Riode Janeiro and a "Corrupt"
Ramesside Land -Sale, Studies Presented to Miriam Lichtheim,
Jerusalem, 1989.

(3) Temple Estates

The chief god of the state, and its principal temple particularly, had a great share of the endowment lands. This appeared with temples of $R\bar{e}^c$, the main state god during the Old Kingdom, and the temples of Amūn- $R\bar{e}^c$, the principal god during the Middle and New Kingdom. When the Egyptians started their wide conquests abroad during the New Kingdom, their Pharaohs announced that they fought under the flag of their god Amūn- $R\bar{e}^c$ and ascribed their victories to his support. Consequently, they assigned a lot of the agricultural lands for his temples and supplied it with thousands of the peasants and captives to work in it as cultivators and herdsmen (80). Under Ramesses III, for example, Theban temples possessed 864,168 $\frac{1}{4}$ st3t of the agricultural land (81). the Heliopolis temples held 160,084 $\frac{3}{4}$ st3t (82). The Memphite temples held 10, 154 st3t of the agricultural land (83); and the lands given to the small temples were 36,012 st3t (84). The temples were in possession of a total of 1,070,419 st3t, or about 722,533 acres (85). The agricultural lands of these temples reached

(80) Saleh, BEHS, p.44.

(81) Pap. Harris I, 11, 7.

(82) Pap. Harris I, 32 a, 3.

(83) Pap. Harris I, 51 b, 1.

(84) Pap. Harris I, 62 a, 8.

(85) Breasted, AR IV, 167.

about 1100 square miles during the reign of Ramesses III (86), beside the other fortune of the buildings, gold, silver, and cattle (87). Influenced by the immensity of the property figures in the great Harris Papyrus I, Erman, A., sees that these estates were the total of the temples properties in the reign of Ramesses III either from the crown endowments or the private properties, but the text attributed it to the favour of Ramesses III, and this opinion is the most acceptable one (88), as Schäedel, H.D., shows that it represents the endowments (gifts) Ramesses III, particularly to the temples because of their help to him during his wars against the people of the Sea (89). The opinion of Historians differ in estimating the percentage of these lands to the whole agricultural lands in Egypt between 8, 10, 12, 15 % from its whole area (90). Wilson, J.A., arrived at the highly tentative conclusion that the temples of Egypt owned one person in every ten and one acre in every eight. The temple of Amūn-Rē^c alone would possess one person out of every fifteen and one acre out of every

 (86)J.A. Wilson, The Burden of Egypt, Cambridge, 1965, p.271; Saleh, BEHS, p.44.

(87)Breasted, AR IV, 151-169; Saleh, BEHS, p.44.

(88)A. Erman, Zur Erklärung des Papyrus Harris, Berlin, 1933, p.456 ff; Kees, op. cit., pp.66, 69; Saleh, BEHS, p.73, note 54.

(89)H.D. Schäedel, Die Listen des Grossen Papyrus Harris, Glückstadt, 1936, pp.52-56; Kees, op. cit., p.66; K. Baer, JARCE 1, p.42; Saleh, BEHS, p.73, note 54.

(90)J. Wilson, op. cit., p.270 ff; Saleh, BEHS, p.45.

eleven (91). The guesses of the others on the temple holdings have ranged from 2 percent of the people and 15 percent of the land to 15-20 percent of the people and 30 percent of the land (92). In the Harris Papyrus I, we find also Ramesses III, says to the god of Heliopolis, "I made for thee thousands of land anew in pure barley, I increased their fields which had decayed in order to increase by a great amount of the offerings, to thy great noble beloved name" (93). A similar picture of the conditions of land-ownership in the district north of Hermopolis is contained in the tax lists preserved in the Wilbour Papyrus, the land owned by the principal temple of the area was parcelled up into plots mostly of 5, 10, 20, arouras (3 1/4, 6 1/2, 13 acres) while plots of 40 arouras (26 acres) occur only very rarely. These plots were interspread between properties belonging to the Upper Egyptian temples, particularly the domain of Amūn-Rē^c and the royal mortuary temples (94). Also, in the Wilbour Papyrus, the donations to the god or gods of Pharaoh are neither very large nor very small; the smallest are of 5, 10 arouras, 20 arouras is a very common figure, and there is a single piece of 60, 80, 100 arouras (95).

(91) J. Wilson, op. cit., p.271.

(92) H. Schäedel, op. cit., p.56 ff; Breasted, AR IV, 166-67.

(93) Pap. Harris I, 27, 12.

(94) Gardiner, Wilbour II, p.72.

(95) Ibid., II, p.87; III, 62, 2; 90, 27; 30, 25; 31, 20; 46, 9, 11;
56, 18; 82, 35; 31, 8; 46, 10, 26, 32.

In the Ramesside administrative documents, there are references to the temple properties; where the Griffith fragments (96) give the position and the area of three large pieces of land belonging to a temple of the goddess of Truth, at the same time describing the nature of the land; the fields are two kinds, the first piece being n_hb-land or land only recently brought under cultivation, and both the other pieces being k3yt-land, i.e. arable land of the best quality. In the same papyrus, we find the temple of Khons was possessing lands near Kaw el Kebir and these lands were tenanted or at all events cultivated, by persons described as "the tax-payers of Tjebu" who paid their quota of corn into the granary of Amūn-Rē^c at Thebes; the corn could be delivered to the priests of Khons on demand. Some of the corn of these fields came from "the tax payers of Tjebu" (97). And in Pap. Turin 1887, we find that the temple of Khnum at Elephantine in the extreme south of the land possessed property in the Delta, the god is seen to have derived an income in corn from fields in the Delta (98).

On the stelae of the New Kingdom onwards; we find the donated temple lands, which were given by the Kings; for example, on the stela of Sethos I at Nauri (99), we read : "He made for Osiris list in hundreds of thousands, of low ground, islands, high ground, all land

 (96)Gardiner, RAD, p.71.

(97) Ibid., p.69, col., 1; Baer, JARCE 1, p.41.

(98)Gardiner, JEA 27, p.61, Pap. Turin 1887, vs.1, 10; Kees, op. cit., p.66.

(99)F.Ll. Griffith, JEA 13, 1927, p.199, line 24-25.

profitable for crops, that he may count them offered to his Ka". On the Abu Simbel stelae, from the Ramesside Period, we read : "fields presented to the image (?) of Amūn-Rē^c, Lord of the Thrones of the Two Lands, who is within Shetep-enteru" (100). And on a stela from Medamud, we read : "His Majesty commanded 50 arouras of donated fields to be given to the statue of Amūn-Rē^c, King of the gods, with the statue of Ra^cmesse-ḥeḳ-Ōn". i.e. Ramesses III (101). On a donation stela, from the reign of Osorkon II, we find the donated lands for the god Ptaḥ (102). In the reign of the last Egyptian King, Nectanebos II, the lands possessed by the temple of Horus at Edfu were 13,209 arouras of land, i.e. 8,806 acres, in the four nomes of the Upper Thebaid of which 5,660 arouras were of what was called "new land" and 7,548 of irrigated land (103).

Not only the temples received the royal endowments, but also they benefited from the individual agricultural real estates. If the individuals gave these gifts to the temples to approach the gods in most

 (100)Gardiner, Wilbour II, p.112;H. Gauthier, ASAE 36, p.49 ff, with pl.3.

(101)Gardiner, Wilbour II, p.112; Kitchen, BIFAO 73/1, 1973, pp.193-200, pls.XVI,XVII.

(102)Gardiner, Wilbour II, p.112, 113.

(103)W. Otto, Priester und Tempel in Hellenistischen Ägypten 1, Leipzig, 1905, 263 ff; H. Brugsch, Thesaurus Inscriptionum Aegyptiacarum, Leipzig, 1883-1891, 538 ff.

cases, they were done by the King's orders in other cases (104). An example of this practice in the New Kingdom is the endowment-established in Memphis by an official of Amenophis III, who had been greatly enriched by the King; it was for the chapel containing his King's statue, which was associated economically with the neighbouring temple of Ptah (105). Another case is that of a senior official who had been a royal scribe and an architect of the mortuary temple of Ramesses III; he made a donation of a domain for Amūn-Rē^c out of his estate on the west bank of the Nile (106). It is significant that the donation consisted of newly cultivated land in the north-west Delta which had previously been marsh (107).

The fact is that the donation stela with its usual representation of the field to a divinity became more common in the time of the Theocratic state, especially during dynasties XXII-XXIII (108). In Later Periods the officials and army officers of the Saite Kings created large foundations in Upper Egypt on behalf of the temples in the Delta, for example, the royal chief official and overseer of the treasury, Peftjaudineith made under Amasis of dynasty XXVI, a donation of the

(104) Saleh, BEHS, p. 45.

(105) W.F. Petrie, et al., Tarkhan I and Memphis V, London, 1913, pls. 79-80; Gardiner, JEA 27, p. 59; Kees, op. cit., pp. 68-69.

(106) A. Hamada, ASAE 47, p. 15 ff; Gardiner, JEA 34, 1947-49, pp. 19-22; Kees, Ancient Egypt, p. 69.

(107) Ibid., p. 69.

(108) Ibid., p. 69.

It is noteworthy, that the state in all ancient period was not unmindful about increase in the immense fortune of the temples upon the Egyptian economy, so the state obligated the temples to pay taxes out of the produce of their fields (115). In the Ramesside administrative documents, there are references that the late Ramesside temples paid taxes to the state (116). In Pap. Amiens (117) the verso records the movements of two (?) ships going from place to place in order to collect small quantities of grain from domains of Amun. The Griffith fragments contain the domains (rmnywt) of some smaller temples in Thebes, dependencies of the Amun temple, recording grain which may have been taxes from these domains (118). That these fragments prove the taxability of the temples seems too bold a conclusion, the tax being 20 % of the gross revenues (119). In Turin A , 1 , 2-4 (120), there are mentioned the harvest-taxes of the House or estate (pr) of Amūn-Rē^c, Kings of the gods, which are in the southern province, and loading it into the ships of the House of Amūn-Rē^c, which were under the supervision of the stable-master of the Residence Pwhem. This proceeding in a document of the mid twentieth dynasty finds its parallel in Papyrus Turin 1895+2006, which

(115)Kees, op. cit., p.59; Saleh, BEHS, p.45.

(116)Gardiner, Wilbour II, p.208.

(117)Gardiner, JEA 27, p.37 ff; id, RAD, pp.1-13; J. Janssen, SAK 3, p.147.

(118)Gardiner, JEA 27, p.65 ff; id, RAD, pp.68-71.

(119)J. Janssen, SAK 3, p.147.

(120) CLEM, p.449, Turin A, 1, 2-4.

records the actual collection of Amūn-Rē^c's dues in that region in the year 12 of the King Ramesses XI, with a fleet of ships (121). The temple lands could be exempted from the taxation, when there is given an order for whole or part exemption, by a royal decree on a particular occasion (122). Concerning the Koptos decrees which were issued in favour of the temples by Pharaohs of the Old Kingdom and later it is asserted by Moret (123), Kees (124), and Pirenne (125), that the temple of Koptos was exempted from taxation, but Gardiner (126), and Wilson (127) mentioned that the exemption conferred turns almost entirely on their duties in connexion with the temple for any service or corvee on behalf of the state and not from taxes in goods. The opinion of both Gardiner, and Wilson in the Koptos decrees is the most acceptable. Also in the Elephantine decree, apparently from Ramesses III (128), there is indeed, a prohibition addressed to the officials not to misappropriate temple property, but this prohibition should not be twisted into an assertion that the temple was exempt from the taxes

(121)Gardiner, JEA 27, p.23 ff; id, RAD, pp.35-44

(122)J. Wilson, The Burden of Egypt, p.99; Kees, op. cit., p.59.

(123)A. Moret, Histoire de l'Orient I, 1936, p.249.

(124)Kees, Kulturgeschichte des Alten Orients I, Munchen, 1933, p.251.

(125)J. Pirenne, op. cit., II, 184 ff, 259 ff; III, 445 ff.

(126)Gardiner, Wilbour II, p.202.

(127)Wilson, op. cit., p.99.

(128)Breasted, AR IV, 146-149.

(129). The exemption from taxation is ascribed to the priests by two classical authors (130), and possibly in the Bible (131). The donations of the state or the Pharaohs to the temples were mostly of Sharaki-land, which required artificial irrigation or the lands which needed increased labour for their reclamation; and when reclaimed, the state benefits from its taxes (132). The temple lands were not near to the temples, but the state made some donations to the Upper Egyptian temples in the Delta lands (133), and the state made some donations to the Lower Egyptian temples in the Upper Egyptian lands (134). Saleh, A., (135) mentioned that the state desired to prevent a concentration of the temple lands in one and the same region; and the Kings entrusted the princes and high officials with the priestly ranks (mostly honorary) in more than one temple at the same time. By this policy, the Kings ensured that the high officials benefitted from the real estates of the priestly ranks and restricted the wealth of the temples at the same time, and they were not to be a burden on the state treasuries with a vast amount of salaries or wages. And

(129)Gardiner, Wilbour II, p.202; W. Otto mentioned that Sethe mentioned nothing was known about the temples' freedom from taxes.

See W .Otto, op. cit., II, 43, note 2.

(130)Herodotus, Book II, 168; Diodors, I, 28, 1; 73, 5.

(131)Genesis, 47, 26.

(132)Saleh, BEHS, p.46.

(133)Gardiner, JEA 27, p.61; Saleh, BEHS, p.46.

(134) Ibid., p.46.

(135) Ibid., p.46.

to use a summary expression : what was given to the temples by the Pharaohs directly or indirectly, was turned again to service their state purposes; and what was given by the Pharaohs' right hand was returned (in part) taken back by their left hand, but lawfully.

In the Saite Period, this policy reached its aim and became effective in two ways. First, when the state sought to persuade the feudal lords to contribute a part of their real estates fortune to the great temples, in return for giving their priestly honorary ranks to them. In this way the state limited the feel not that they were sharing their wealths, but the temples shared with them. Secondly, on the other hand, the state did limit the hereditary high priests' monopolies and limited of their temple fortunes (136). Amūn-Rē^c's temples had the most share of the agricultural, human, animal and metallic wealth so, the Pharaohs of the Late Period persistently kept contact with these temples, with their sons being their mediators in governing these and also their mediators in concentration of the two religious and worldly authorities in their hands. This method was started by marriage of some princesses with the high priests of Amūn-Rē^c and appointment of King's sons as head of Amūn's Priests; and lastly by declaration of some princesses as a celibate high priestess for him in his temple (137). When the military competition became strong between Egypt

(136) Revillout, op. cit., pp.138-147, 153-154; Saleh, BEHS, p.47.

(137) Breasted, AR IV, 942-958; Gardiner, Egypt of the Pharaohs, Oxford, 1961, p.354; Saleh, BEHS, p.47; Kitchen, The Third Intermediate Period in Egypt, Warminster, 1986, table, 12, 13.

and the Persians at near the end of the Pharaonic Period, and the state was in need of the money to face the expenses of the war, the King "Dd-Hr", who belonged to the XXX dynasty did not find escape to benefit from the heaped up wealth in the temples by confiscation of valuable metals and imposition of economic exceptional obligations on its priests by inciting them to contribute a part of their own properties and satisfaction by spending 1/10 % of the real estates of the temples and turning the rest (the remaining) over to the state treasures till the war finished (138).

(138)M.F. Gyles, Pharaonic Policies and Administration, (663-323 B.C.), Chapel Hill, 1959, p.45; Saleh, BEHS, p.47.

PART II
AGRICULTURAL CROPS
(DESIGNATIONS, PRODUCTS, AND PROBABLE DISTRIBUTIONS)

CHAPTER I

CHAPTER I

Main Food Cereals

Our available knowledge about the flora of ancient Egypt is based partly on substantial finds of plants in the tombs, and partly on old mural paintings, reliefs, and written information in the Ancient papyri (1). The most important plants are always cereals, which give humanity its daily bread (2). According to the papyrus documents the three chief cereals which were cultivated in ancient Egypt are : barley it, emmer bdt, sw or swt wheat (3).

(1) Barley : ;  it (4)

This term is mentioned very often in the Miscellanies, e.g. in Papyrus Anastasi IV, 16, 6 (5); Sallier I, 5, 1 (6); Sallier IV, vs.

(1) V. Täckholm, LA II, 1977, p.267.


(2) Ibid., II, p.270.

(3) F.Ll. Griffith, JEA 7, 1921, p.212; Kees, Ancient Egypt, p.74;
V. Täckholm, op. cit., p.270.

(4) Wb I, 142, 10-20; FCD, p.32; G. Charpentier, Recueil de Matériaux Épigraphiques Relatifs a la Botanique de l'Égypte Antique, Paris, 1981, p.130, no.208.

(5) CLEM, p.247.

(6) Ibid., p.307.

9, 3 (7); Lansing, 6, 1 (8); Turin A, 1, 1 (9). In these previous references, the term it is used in a general sense for grain or corn. On other occasions, the term it could be either general or specific; so, in Papyrus Anastasi II, vs. 2, 1 (10); Papyrus Anastasi II, 8, 1 (11). It refers specifically to barley as in the obscure phrase b3y n it in the Papyrus Anastasi IV, 14, 7 (12) and in the threshing context in Papyrus Sallier IV, vs. 17, 7 and finally in sowing context in Papyrus Lansing, 6, 9 (13). The demotic word for the barley is it (14). The botanical name of the barley is Hordeum Vulgare (15). Coptic name for barley is ⲉⲓⲱⲧ (S.), ⲓⲱⲧ (B.) (16). The common compound , presumably to be read it-m-it, is coupled

 (7) Ibid., p.94.

(8) Ibid., p.389.

(9) Ibid., p.449.

(10) Ibid., p.64.

(11) Ibid., p.51.

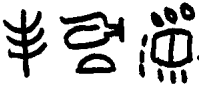
(12) Ibid., p.207.

(13) Ibid., p.390.

(14) W. Erichsen, Demotisches Glossar, Kopenhagen, 1954, 46, 1; G. Charpentier, Botanique, p.130, no.208.

(15) F. Hartmann, L' Agriculture dans l' Ancienne Egypte, Paris, 1923, p.51; Kees, op. cit., p.74; V. Täckholm, LA p.267; A. Saleh, The Civilization of Ancient Egypt and its Monuments, Vol. I, (in Arabic), Cairo, 1962, p. 82.

(16) Crum, A Coptic Dictionary, p.87 a; CCED, p.49; G. Charpentier, Botanique, p.190, no.208; Gardiner, AEO II, p.221; id, JEA 27, p.24, note 3; id, Wilbour II, p.70; Griffith, Demotic Papyri III, p.79, note 11.

with . There can be no doubt that it-m-it likewise means barley. Gardiner believes the existence of this due to the fact that it had by Ramesside times in addition of its meaning barley also acquired the more general meaning of corn (one may compare the use of hd silver, also in the general sense of money) (17). When it was desired to specify barley, as opposed to corn in general, the term it-m-it was employed which means barley as barley, i.e. barley which is really barley, barley in the form of actual barley (18). In the ostraca and papyri when real barley is meant, and not barley as a unit of value, the word is written, it-m-it barley as barley, which makes the distinction easy (19). In the records various papyri and ostraca relating to the corn from the XVIII to XX dynasties black ink was employed for it-m-it or more concisely it barley (20); though subsequently when both kinds of grain, barley and spelt are being added together as ss (from old s'sr, corn) red ink may be used (21). The amounts written in black are both smaller and fewer than those in red; most payments in corn and specially tax-payments, were made in spelt bd not in barley it. This agrees with the result of Griffith's

 (17)Gardiner, JEA 27, p.24, note 3.

(18) Ibid., 27, p.24, note 3; D.M. Dixon, in : The Domestication and Exploitation of Plants and Animals, London, 1969, p.137.

(19)Jac.J. Janssen, Commodity Prices from the Ramessid Period, Leiden, 1975, p.119.

(20)Gardiner, JEA 27, pp.27, 49; id, Wilbour II, p.70; CLEM, p.357 ff, Pap. Sallier IV, vs. 10, 2-6; Janssen, Commodity, p.119.

(21)Gardiner, JEA 27, p.24, note 3; Dixon, in : op. cit., p.138.

investigations, for the XX dynasty and until Ptolemaic times, when wheat swt was substituted for spelt as the principal cereal and barley took the second place. The supremacy of it, barley apparently belongs only to the Old and Middle Kingdoms, it seems that the spelt so prominent in the Ramesside Period and later was a poor kind of cereal (22). Barley is one of the oldest known cereals in human history. It was found in the Neolithic settlements in Egypt dating from more than 6000 years ago (23). It was mostly grown in the Old and Middle Kingdoms and the barley (of different varieties) in the Old and Middle Kingdoms had been the leading cereal, bdt being second to judge by the common expression it bdt barley and spelt and much other evidence. In the New Kingdom the same traditional expression occurs in the story of the Two Brothers : Bito loaded himself with barley and spelt (24). The barley was classified by variety into : it Smc "Upper Egyptian barley" and it Mhw "Lower Egyptian barley" (25). which probably refer to the geographical provenance of the grain rather than to any botanical difference. One may compare the market descriptions Baladi Beheiri "Lower Egyptian Baladi" and Baladi Saidi "Upper Egyptian Baladi" applied to the present time to the grain of Egyptian

(22)Gardiner, JEA 27, p.27.

(23)V. Täckholm & M.Drar, The Flora of Egypt II, Cairo, 1950, p.294;
F.F. Leek, JEA 59, 1973, p.199.

(24)F.Ll. Griffith, op. cit., p.79, note 11; Kees, op. cit., p.74.

(25)Gardiner, JEA 27, p.28, note 1; Kees, op. cit., p.74;W.J. Darby
& P. Ghalioungi & L. Grivetti, Food : The Gift of Osiris, II, New
York, 1977, p.841.

wheat, Triticum Pyramidale, according to its origin (26). Barley has been used as a foodstuff in Egypt since the most ancient times (27). Netlitzky, F., who examined the abdominal contents of a multitude of Egyptian bodies of Prehistoric times stated that almost every sample contained husks of barley (28). Barley also frequently occurs in tombs and settlements of all periods usually mixed with emmer (29).

Barley was the main cereal of Upper Egypt like emmer of Lower Egypt (30). According to Diodorus, the ancient Egyptians believed that Isis discovered wheat and barley growing wild and that her husband and brother Osiris showed man how to cultivate it. At the feasts of Isis baskets full of wheat and barley were carried in the procession to commemorate the benefaction of the goddess. Although barley grew abundantly in Egypt, it was also imported from Syria as early as during the time of Tuthmosis III and possibly before that date (31). Among the barleys of ancient Egypt the following types are represented :

(26) Dixon, in : op. cit., p.137; Täckholm & Drar, Flora II, p.232.

(27) Dixon, in : op. cit., p.134; Täckholm & Drar, Flora II, p.284;
Leek, JEA 59, 1973, p.200.

(28) Dixon, in : op. cit., p.134; Täckholm & Drar, Flora II, p.284;
Leek, JEA 59, p.200.

(29) F. Hartmann, L' Agriculture, p.51; Dixon, in : op. cit.,
p.134; Täckholm & Drar, Flora II, p.284.

(30) Leek, JEA 59, p.199.

(31) Täckholm & Drar, Flora II, pp.284-285.

(A) Naked barley

It was known in ancient Egypt from the Neolithic settlements in the Fayum (32). It resembles wheat. The kernel barley also resembles wheat. In most cases it is very difficult to distinguish carbonized grain of naked barley from grains of ancient wheat or threshed emmer. The dorsal furrow in the grains, however, is narrower and more shallow than that of the naked wheat (33). It was smaller in size than the naked barley grown at present in Egypt (34).

(B) Two-rowed barley

It was formerly cultivated to a small extent (35). All corns of a 2-rowed barley are straight while the corns of a 6-rowed barley have a characteristic twist (36).

(32)J. Percival, Nature 138, London, 1936, pp.271-272; Dixon, in :
op. cit., p.134; Täckholm & Drar, Flora p.286.

(33)Leek, JEA 59, p.200.

(34)Loret, Flore, p.24; Hartmann, L' Agriculture, p.51; Täckholm &
Drar, Flora II, pp.285-286.


(35)Täckholm & Drar, Flora II, p.286.

(36) Ibid., II, p.286.

(C) Four-rowed and six rowed barley

Most finds of Egyptian barley in the Egyptian tombs fall within the group of 4-rowed and 6-rowed types (37). The latter was the most cultivated cereal of ancient times. The 6-rowed barley was named *H. Paraeoparallelum*, because of its resemblance to *H. Hexastichum* V. *Parallelum* Kuke of present day. It was found mixed with 4-rowed barley; the two were probably cultivated together in ancient times, as is often the case in Egypt today (38).

(2) Malted Barley

Egyptian 
bš3, Coptic BHNY (S.), Βεϣ (B.), Greek ὀλυνεός (39).

Bš3 is an uncommon term for some form of cereal (40). On second dynasty stelae, bš(3) occurs along with wheat and dates (41). The presence of malt, wheat, dates on the second dynasty stelae indicates that then, as in early Sumer, malt was a primary food (42). In two

(37) Dixon, in : op. cit., p.134; Täckholm & Drar, Flora II, p.286.

(38) Ibid., II, p.287.

(39) Wb I, 478, 10; Crum, op. cit., p.46 b; CCED, p.29; FCD, p.85; Charpentier, Botanique, p.264, no.426; Gardiner, AEO II, p.223.

(40) Dixon, in : op. cit., p.139.

(41) J.E. Quibell, Archaic Mastabas, Excavations at Saqqara (1912-1914), Cairo, 1923, pl.28,1; C.F. Nims, JEA 44, 1958, p.61.

(42) Ibid., 44, p.63.

Old Kingdom tombs are scenes depicting men reaping a cereal which looks somewhat like barley; above the scenes is the following text : "Beer for those who cut the bš(3)". Bš3 is mentioned in the Old Kingdom tombs in bread-and beer-making scenes (43). From the III dynasty, through XII dynasty bš3 appears as label on granaries shown in funerary monuments (44). Dates usually occur in the same scenes in which bš3 occurs, but not always in adjacent bins (45). The pairing of bš3 and dates occurs also in four accounts from the Kahun Papyri (46) and in an account in Papyrus Boulaq 18 and in the Moscow Mathematical Papyrus (47). In the only New Kingdom reference to bš3, this word is to be translated malt in connexion with brewing. The tomb chapel of Neferhotep has the notation : "4th month of inundation, day 19, the day of moistening the bš3, and spreading out the bed of Osiris, N.N.". This refers to the making of the sprouted seed-bed in the form of Osiris. Here again bš3 is the name of the final product and means sprouted grain (48). Gardiner suggested that bš3 is a cereal somewhat resembling barley. There are many more indi-

 (43)Gardiner, AEO II, p.224; Nims, JEA 44, p.61.

(44)Gardiner, AEO II, p.223; Nims, JEA 44, p.61;Darby, et al., Food II, p.534; Dixon, in : op. cit., p.139.

(45)Nims, JEA 44, p.61.

(46)F.Ll. Griffith, Hieratic Papyri from Kahun and Gurob, London, 1898, pls.15, 66, 67; 8, 3, 4; 19, 3, 4.

(47)Nims, JEA 44, pp.61-62.

(48) Ibid., 44, p.63; Darby, et al., Food II, p.535; Dixon, in : op. cit., p.140.

cations that it was a cereal; it is placed in company with bnri, among the cereals, that cereal, which in combination with bnri, was used in making a much appreciated kind of beer. On this point the Moscow Papyrus is decisive; in Papyrus Mathematical Rhind no. 71 (49). Nims, C., suggest that bš3 means malt and that malt may also have served as a primary food in addition to being used in making beer, and he rejected the idea that bš3 was an old generic term for barley, as in the various Old Kingdom scenes of granaries, bš3, Upper Egyptian barley and Lower egyptian barley are all shown (50). Wild, H., thinks that bš3 could be a special quality of barley. In several tombs of the Old Kingdom, it is being reaped by harvesters who sing "Beer for reaping bš3" (51). Struve, W., after a lengthy analysis of the Moscow Mathematical Papyrus, concluded that bš3 was some kind of grain, and this word is found in texts accompanying bread and beer making (52). Others however think that the malt barley an important role in funerary rites. Loret, V., for example, describes from the Florence Museum, a hollow pyramid model containing germinated barley along with a picture of Osiris. He points out that the germination of the barley played a part in the funeral rites of the month of Khoiak celebrated in memory of Osiris's death (53). During the XVIII dynasty

 (49)Gardiner, AEO II, p.224.

(50)Nims, JEA 44, pp.62, 63, note 9.

(51)Darby, et al., Food II, p.535.

(52)T.E. Peet, JEA 17, 1931, p.155 ff.

(53)Loret, Flore, p.24; Dixon, : op. cit., p.134; Täckholm & Drar, Flora II, p.293.

so, called "Osiris-beds" are met with in the tombs. Osiris was a symbol of resurrection. A piece of linen, on which the figure of the god was drawn was stretched on a board, and the figure was covered with earth; barley was sown in it and was allowed to sprout; the whole was placed in the tomb to show that just as grain - an inert substance - could produce something living, so could the dead body come to life again (54). Specimens of such beds were found in the tombs of Yuia and Thuia (55) and Tutankhamun (56). In the Cairo Museum is an empty specimen from the tomb of Horemheb and in the Egyptian Museum at Stockholm is a small "Osiris-bed", of undate (57). Evidently the necklace of germinated barley found by Maspero, G., on the mummy of Kent at Sheikh ^cAbd el-Qurna (XX dyn.) served the same purpose, to symbolize resurrection (58).

Immediately before the harvest (which, in Egypt occurs in April or May), the prices of cereals are higher than at other times (59). In documents of the Ramesside Period, the ordinary prices of barley at the end of the XIX dynasty were the normal level of 2 deben per khar; under Ramesses III, the price of barley was 2 deben per khar;

(54) Täckholm & Drar, Flora II, p.293.

(55) Dixon, : op. cit., p.139.

(56) Täckholm & Drar, Flora II, p.293.

(57) Dixon, in : The Domestication and Exploitation of Plants and Animals, p.135.

(58) Ibid., p.135; Täckholm & Drar, Flora II, p.293.

(59) J. Černý, ArOr 6, 1934, pp.177-178.

a rise again, occurred afterwards, in a period of inflation in the reign of Ramesses VII, when during his reign the price of the barley rose to 8, and even 24 deben per khar, and immediately following; then a return to lower prices came at the end of the dynasty (60). There is one piece of evidence that in earlier times, just before the Ramesside Period, the normal fine barley was also, like emmer, 2 deben per khar namely Pap. Berlin 9784, 7, (year 27, of Amenophis III) (61). In some texts both the price of emmer and that of barley are mentioned or can be calculated, and it may therefore be useful to compare these in order to see if there was any difference. The price of barley and emmer are equal, or emmer is somewhat cheaper; the lower price of emmer is due to higher amounts of emmer in the rations distributed monthly to the workmen (62). We find also superiority of the barley over the emmer in the reign of Sheshonq III, where it is mentioned in Pap. Brooklyn 16.205, col.4, 4, that 2 khar of barley is the equivalent of 3 khar of emmer (63). And the same ratio is mentioned long previously in the XI dynasty in the Hekanakhte Papers (64).

(60)J. Janssen, Commodity, pp.122, 125, 127.

(61) Ibid., p.122, note 60.

(62) Ibid., pp.127-130.

(63)R. Parker, A Saite Oracle Papyrus from Thebes in the Brooklyn Museum, Providence, 1962, pl.19 and p.51.

(64)T.G.H. James, The Hekanakhte Papers, pl.8 and p.46.

The ancient Egyptians employed the grains of barley for bread and beer-making (65). It was a favourite gift to the temples and is mentioned as a divine offering (66) where we find inscriptions from the time of King Tuthmosis III, which tell of the King presenting offerings of barley to the gods : "My Majesty established for him the god [Re^c-Harakhti] a divine offering of barley" (67). Many Egyptian Kings took pride in offering this grain to the most important gods of Egypt. Funerary texts of the New Kingdom give additional credit to barley "...let my hands lay hold upon the wheat and the barley which shall be given unto me therein in abundant measure" (68). In the Nu Papyrus, the deceased had to say : "...let me live upon bread made of barley, and let my beer be made from red grain" (69). From a Papyrus dating to 252 B.C., that barley was commonly fed to animals; it was fed to the horses and to the cattle (70). Medically, even more than wheat, barley had wide applications, and was prescribed in different forms : as grain, powder, roast grain, fermented grain, groats or barley water. Against burns it was mixed with manna, northern salt, papyrus, burnt leather, grease of ox, wax and applied

 (65)Loret, Flore, p.23; Hartmann, L' Agriculture, p.57; Leek, JEA 59, p.200.

(66)Gardiner, JEA 27, p.28, note 1; Täckholm & Drar, Flora, p.285.

(67)Breasted, AR II, p.224.



(68)W. Budge, The Book of the Dead, 2e edition, London, 1949, 27, p.242.

(69) Ibid., 52, p.194.

(70)Darby, et al., Food II, p.484.

every day (71). Barley meal was mixed with dregs of wine, northern salt, dates and honey, and made into suppositories to cool the anus (72). After the Egyptians, the Greeks continued to use barley medically (73). So, barley water is today widely recommended by physicians for infantile diarrhoeas and as a diuretic.

(3) Emmer (Spelt)

Egyptian name  bdt earlier;  bty later (74).

Botanical Triticum dicocum (75). Coptic BWTE(S.), BWT
Bot (B.) (76). Greek ὄλυρα (77). In the Miscellanies, it occurs in such widely differing contexts as : (A) Idealized descriptions of the Delta Residence, or a grandee's villa, where the

(71) Pap. Ebers XII, 37.

(72) Ibid., XXXIII, 163.

(73) Pliny, Natural History XXIV, XLII, 71.

(74) Gardiner, AEO II, p.221; FCD, p.86.

(75) Gardiner, AEO II, p.221; id, JEA 27, p.28, note 4; id, Wilbour II, p.70; Charpentier, Botanique, p.276, no.443; Griffith, Demotic Papyri, p.79, note 11; Kees, op. cit., p.74; Täckholm, LA, II, p.267; B. Menu, Wilbour, p.78, note 129; A. Saleh, Op. cit., p. 82.

(76) Crum, op. cit., p.45 b; Gardiner, AEO II, p.221; id JEA 27, p.28, note 4; id Wilbour II, p.70; CCED, p.28; Charpentier, Botanique, p.276, no.443.

(77) Gardiner, AEO II, p.221; id, JEA 27, p.28, note 4; Griffith, op. cit., p.78, note 11; Kees, op. cit., p.74.

granaries are full of barley and emmer; references can be found in Papyrus Anastasi III, 2, 4 (78) and Papyrus Anastasi IV, 8, 10 (79). In the same document, Papyrus Anastasi IV, 8, 11, a reference is made to the seed-corn of emmer or mimi (80). (B) Actual accounts of harvesting and threshing, where regular administrative procedure is directly followed, e.g. black figures for barley and red figures for emmer in Papyrus Sallier IV, vs. 10, 2-6 and vs. 14, 1-7 (81) and the Amiens Papyrus (82). The amounts written in red are more than those in black; most payments in corn, and especially tax-payments, were made in emmer (bdt), not in barley (it) (83). Emmer was the most important cereal ancient Egypt (84). Excavation has shown that emmer was already grown in the Neolithic settlements on the north side of the Fayum (85). In the Old and Middle Kingdoms, the emmer was second, judging from the common expression it bdt barley and emmer. This expression occurs still in the New Kingdom, but the relative importance of the two cereals was already reversed (86). The emmer

(78) CLEM, p.74.

(79) Ibid., p.164.

(80) Gardiner, Wilbour II, p.113 ff.

(81) Ibid., II, p.70; CLEM, p.357 ff.

(82) Gardiner, JEA 27, p.49.

(83) Gardiner, Wilbour II, p.27.

(84) Täckholm & Drar, Flora II, p.228; See Figure 1, 2.

(85) W.B. Emery, Great Tombs of the First Dynasty, III, London, 1958, p.36; Kees, op. cit., p.74; Leek, JEA 59, p.199.

(86) Griffith, op. cit., III, p.79, note 11; Dixon, in : op. cit., p.138.

is depicted since the Old Kingdom, excellent representations are found in the tomb of Ti and Mereruka at Saqqara, dating from the V dynasty and the early VI dynasty (87). From the XX dynasty and through the Persian Period emmer was the main cereal (88). For example, in the inscription of the Adoption of Nitocris, in the reign of Psammetikhos I, two khar or bushel measures of bt_y are given to Nitocris from an endowment estate of Amun in the name of Heliopolis, after it has been offered as daily offering and the deity has enjoyed it (89). Other examples attest the pre-eminence of emmer; in each of the old marriage contracts the dowry consists of 2 teben of silver and 50 measures of bt_y, and in the sale of the slave in the reign of Taharqa the expression debt of silver and debt of bt_y occurs (90). In a list of cereal names include in the Onomasticon of Amenop^h XX dynasty are seven different kinds of bt_y. Of the seven kinds of bt_y named, four are distinguished by their colour : Bt_y h_dt, white emmer, found in religious texts as used for bread, also in the medical papyri. Bt_y Km(t) black emmer. Bt_y d_srt red emmer, found parallel to white emmer. Bt_y kt orange-red (?) emmer (91). It seems that

(87) Täckholm & Drar, Flora II, p.240.

(88) Griffith, Demotic Papyri, III, p.79, note 11; Gardiner, JEA 27, p.28; Kees, op. cit., p.74; Täckholm & Drar, Flora II, p.240.

(89) Griffith, op. cit., p.78, note 11; Caminos, JEA 50, 1964, pp.75-76; Dixon, in : op. cit., p.138.

(90) Griffith, op. cit., III, p. 78, note 11.

(91) Gardiner, AEO II, p.222; Dixon, in : op. cit., p.138; Darby, et al., op. cit., II, p.489.

the colour of the actual grain played a part in the scribe's choice of inks (92). During the Ptolemaic Period, ὄλυρα plays but a small part amongst the products of agriculture, πυρος being at trace as yet has been found of bty having been cultivated in Coptic times (93). Nowadays emmer is no longer grown in Egypt, although it is still grown today isolated tribes who cherish their old customs (94). It is entirely replaced by naked wheat (95). having a tough axis and dropping its grain easily (96).

From the middle of the XVIII dynasty, the price of emmer was between 1 and 2 deben of copper per khar, with indications of a somewhat higher level at the end of the XIX dynasty. During the following period the prices fluctuate between 1 and 2 deben until at the end of the middle phase of the XX dynasty (Ramesses VII) a sharp rise brings and even 12 deben per khar, while at the end of the dynasty the normal upper level of 2 deben again prevails (97). The prices of emmer and barley are equal, or sometimes emmer is cheaper, this is due to the workmen of the village, having received more emmer monthly than barley, as emmer was more plentiful (98). The emmer

(92)Gardiner, JEA 27, p.28.

(93)Griffith, op. cit., p.79, note 11.

(94)Leek, JEA 59, p.199.

(95)Täckholm & Drar, Flora II, p.241.

(96)Täckholm, LÄ II, p.271.


(97)J. Černý, ArOr 6, 1934, p.173 ff; J. Janssen, Commodity, p.116.

(98) Ibid., pp.130.

prices are higher before than after the harvest, which took place in the months of April and May because of greater scarcity before the new harvest (99). The emmer in the Old Kingdom was the principal bread-cereal (100). In the New Kingdom, the Egyptians also used the emmer for making bread (101).

(4) Wheat

Egyptian name  zwt  swt (102).

Demotic name sw (103). Botanical Triticum durum (104). Coptic name COYO (S.B.), COYΔ (F.) (105). Arabic Qamh . Greek βίτος, πυρος (106). Wheat was known in Egypt from the earliest time (107). It had been cultivated in the Neolithic, during the so called

 (99) Černý, ArOr 6, p.178; Janssen, Commodity, p.117.

(100) Griffith, JEA 7, p.212.

(101) Janssen, Commodity, p.112.

(102) Wb, III, 426; Gardiner, AEO II, p.223; id, JEA 27, note 4; Charpentier, Botanique, p.572, no.922.

(103) W. Erichsen, Demot. Glossar, 412, 5; Charpentier, Botanique, p.572, no.922.

(104) Loret, Flore, p.22; Griffith, JEA 7, p.212; Täckholm & Drar, Flora II, p.271.

(105) Crum, op. cit., p.369 a; Gardiner, AEO II, p.223; CCED, p.167.

(106) Gardiner, JEA 27, p.27; id, AEO II, p.223.

(107) Gardiner, JEA 27, p.27, note 4.

Girza or middle Naqada Period (108). It was mentioned in ancient Egyptian literature from the V dynasty (109). In the New Kingdom, it was distinct from it and bty, for on a stela of year eight of Ramesses II, the King bragging of his concern for the welfare of his workmen, says : "Upper Egypt continually conveys for you to Lower Egypt and Lower Egypt conveys for you to Upper Egypt, barley, emmer, swt-wheat, salt (?) and beans in immense quantity" (110). During Ptolemaic times, wheat was substituted for the emmer as principal cereal (111). During the time when Egypt was the granary of Rome wheat became still more popular and finally replaced the old emmer entirely (112). Concerning uses of wheat, it was employed frequently in medicine (113).

(108) Darby, et al., Food II, pp.490, 491.

(109) Täckholm, LÄ II, p.271.

(110) A. Hamada, ASAE 38, 1938, p.217-30.

(111) Gardiner, JEA 27, p.27; Griffith, op. cit., p.79, note 11.

(112) Loret, Flore, p.22.

(113) Darby, et al., Food II, p.492.

(4) Durah

Botanical name, Sorghum Vulgare (114). Crum, Coptic Dictionary, 45-6 gives durah as the meaning of ΒΩΤΕ and ὄλυρα (115). Arabic name Doura ⲟ/ϧ . Both Wilkinson, J.G., (116) and Rawlinson (117) published illustrations from several tombs, that they label the harvesting of doura, although omitting to identify these tombs. Moreover, Rawlinson concluded that this was the grain eaten by most Egyptians and he stated that Sorghum is a kind of spelt (118). On the other hand, Wilkinson mentioned that besides wheat, other crops are represented in the scenes of the tombs, one of which, a tall grain, is introduced as a product both of Upper and Lower Egypt. From the colour, the height to which it grows compared with the wheat and the appearance of round yellow heads it bears on the top of its bright green stalk, Wilkinson thought that it was intended to represent the durah. It was not reaped by a sickle, like the wheat and barley but men and sometimes women, were employed to pluck it up, which being


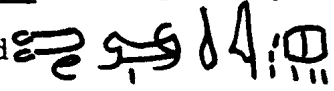
(114)Loret, Flore, p.25 Hartmann, L' Agriculture p.53; Gardiner, JEA 27, p.28, note 4; Kees, op. cit., p.75; Täckholm & Drar, Flora II, p.537.

(115)Gardiner, JEA 27, p.28, note 4; id, Wilbour II, p.71, note 4.

(116)J.G. Wilkinson, The Manners and Customs of the Ancient Egyptians, II, London, 1878, pp.50-51.

(117)G. Rawlinson, History of Ancient Egypt, I, New York, 1881, pp.34, 83, 84.

(118) Ibid., I, p.31.

done, they struck off the earth that adhered to the roots with their hands, and having bound it in sheaves, they carried it to what may be termed the threshing floor, where being forcibly drawn through on instrument armed at the summit with metal spikes the grain was stripped off, and fell upon the well-swept area (119); and he also stated that Sorghum was made into cakes for the poor and was very beneficial for babies (120) Erman (121) mentioned that on a few monuments of the time New Kingdom, the harvest of another cultivated plant is represented; it has a stalk with a small red fruit at the top; this, Erman recognised as the black millet, the durah of modern Egypt. It was not cut, but pulled up; the earth was then knocked off the roots, after which the long stalks were tied together in sheaves. To get the seed off the stalks a curious instrument something like a comb was used. Loret stated that the Egyptians knew Sorghum; and he added that one might also be tempted to compar Arabic duarh to the Egyptian word  twr which possibly designated a reed and to a possible variant depicted  twrwt3 which he claimed was certainly a cereal (122). Unger claims to have recognised some ancient Egyptian representations as durah, Sorghum Vulgare and he states that durah stems were found together with papyrus at Saqqara and that Rosellini found durah grain at Thebes

(119)Wilkinson, op.cit., II, pp.426-427.

(120) Ibid., I, p.179.

(121)A. Erman, Life in Ancient Egypt, London,1894, pp.434-435.

(122)Loret, Flore, p.26; Charpentier, Botanique, p.792, no.1343.

(123). Engelbach stated that Sorghum was found in Pre-dynastic Egyptian burials; but he did not admit that it was found in the tombs of the dynastic period. He denied that reliefs and paintings of dynastic Egypt illustrate the harvesting of that cereal (124). Candolle thinks that the ancient Egyptians knew the millet or sugary durah (125). Both records, however, are very dubious, there is no evidence that durah was cultivated in the Pharaonic Egypt. Schweinfurth (126) strenuously denied that durah i.e. Sorghum Vulgare was known to the ancient Egyptians; as its grains were not found in the tombs until late times, viz. the Coptic Period, and it is not mentioned in the offering lists of temples. The opinion of Schweinfurth is that the durah cultivation in ancient Egypt did not start before the Roman-Byzantine Period and the only authentic ancient instances of durah grain seem to be those found by de Davies, G., in the Coptic Monastery of Cyriacus at Thebes, dating from the sixth to seventh centuries A.D. Most probably durah was not cultivated as a cereal by the ancient Egyptians, where its grain was not found in the tombs and the monuments, as most probably the durah cultivation did not start before the Roman period. At present in Egypt, it is widely cultivated.

(123)F. Unger, Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften in Wien. Mathem.-Naturwiss. Klasse, 45, 1862, 38.

(124)Darby, et al., Food II, p.494.

(125)Hartmann, L' Agriculture, p.53.

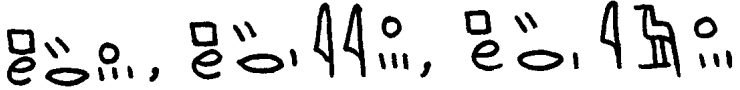
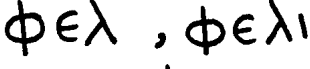

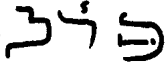

(126)G. Schweinfurth, BIE, 7, 1886, p.426.

CHAPTER II

CHAPTER II

Legumes and Fodders

Beans

Egyptian  pr (1).
Botanical Vicia faba L. (2). Coptic  (3).
Arabic fowl . Hebrew  (4). Greek  (5). Beans,
a staple today in Egypt, were known to the ancient Egyptians (6).
They were found in the first dynasties as a part of the offerings of

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- (1) Wb I, 531, 12; CCED, p.225; Charpentier, Botanique, p.298, no.466; L. Keimer, BIFAO 28, 1929, p.80; id, AE 1929, p.48; CLEM, p.212.
- (2) Keimer, BIFAO 28, p.80; id, AE 1929, p.47; Hartmann, L' Agri-culture, p. 54; Darby, et al., Food II, p.682; CCED, p.225; R. Germer, Flora des Pharaonischen Agypten, Mainz, 1985, pp.80-81.
- (3) Crum, A Coptic Dictionary, p.514 a; Wb I, 531, 12; CCED, p.225; Keimer, BIFAO 28, p.80; id, AE 1929, p.47; W. Helck, Materialien V, Wiesbaden, 1965, p.800.
- (4) Wb I, 531, 12; CCED, p.225; Charpentier, Botanique, p.298, no.466; Keimer, BIFAO 28, p.80; id, AE 1929, p.48.
- (5) M. Schnebel, Die Landwirtschaft im hellenistischen Aegypten, München, 1925, p.193; Keimer, BIFAO 28, p.80.
- (6) Darby, et al., Food II, p.682; E. Brovarski, & P. Lacovara, in : Egypt's Golden Age, Boston, 1982, p.109.

the descendants (7). Remains of beans were found in the V dynasty funerary temple of Sahurē^c (8), and in the tombs at Dra^c Abu el Naga dating to the XII dynasty (9). Royal decrees or records seem to indicate that beans were appreciated by the people and agreeable to the gods. Thus, Ramesses II wished to show his concern for his people "...Upper Egypt continually conveys for you to Lower Egypt, and Lower Egypt conveys for you to Upper Egypt, barley... and beans in immense quantity" (10). Beans are mentioned in Pap. Anastasi IV (11) in the letter which the scribe Amenemopē sent to Pbēs to make preparations for Pharaoh's arrival in which he says "apply yourself with.....beans, lentils, peas, seed-Egypt, gourd, corianders, shelled lūbyah-beans....". Ramesses III's endowment records amounts of beans to the granaries of the Theban temples (12). This plant does not seem to appear in tomb-scenes. According to Pap. Ebers (13) and

 (7)Hartmann, L' Agriculture, p.54.

(8)Keimer, BIFAO 28, p.80; Darby, et al., Food II, p.682.

(9)Loret, Flore, p.94; G. Schweinfurth, BIE 5, (2e serie), 1884, p.7;
 Keimer, BIFAO 28, p.80; Darby, et al., Food II, p.682.

(10)Dixon, in : Ucko & Dimbleby, The Domestication and Exploitation of Plants and Animals, p.139; A. Hamada, ASAE 38, 1938, pp.217-30.





(11) CLEM, p.200, Anastasi IV, 15, 11; 16, 1.

(12)Loret, Flore, p.94; Hartmann, L' Agriculture, p.54.

(13) Pap. Ebers LXXX, 640; XLIX, 270.

Chester Beatty (14), beans were used to treat stiff limbs, a prolapsed rectum and to regularize urine.

Pea

Egyptian  thwy (15).
Botanical Pisum arvense L. or P. Sativum (16). Coptic ΛΑΚΟΝΘΕ
(17). Arabic Bessila  Greek ΠΙΣΟΣ (18). This plant written
with the determinative , but more often , is an economic plant
kept in granaries (19). This plant does not seem to appear in tomb-
scenes. Specimens of Pisum arvense L. and P. Sativum were found in
the tombs (20). Two species of Pisum found were much smaller than

(14) Pap. Chester Beatty 5, 7-8.

(15) Wb V, 323, 1-4; WB äg.Drog., 559; FCD, p.301; Charpentier,
Botanique, p.816, no.1399.

(16) Keimer, Die Gartenpflanzen im Alten Agypten II, Mainz, 1984, p.7;
Germer, Flora, p.86; Charpentier, Botanique, p.816, no.1399;
Dawson, JEA 21, 1935, p.39; CLEM, p.117.

(17) Crum, op. cit., p.46; Loret, Flore, p.93; Keimer, BIFAO 28,
p.82; id, Die Gartenpflanzen II, p.7.

(18) Schnebel, op. cit., pp.185-189; Dawson, JEA 21, p.39; Keimer,
BIFAO 28, p.82.

(19) CLEM, p.165, Anastasi IV, 8, 11; 15, 11; Lansing, 11, 5.

(20) P.E. Newberry, in : W.F. Petrie, Hawara Biahmu and Arsinoe,
London, 1889, pp.49, 53; id, in : Petrie, Kahun Gurob and

those of the present day (21); which shows that the method of cultivation was less advanced than it now is. It is mentioned in Pap. Anastasi IV (22), where we find the pupil declares his intention to build a new villa for the teacher planted with grain, trees, legumes and vegetables. It is also mentioned in the same papyrus (23) in the letter which the scribe Amenemopē sent to P̄bēs to make preparations for Pharaoh's arrival. Concerning its medical uses, it is mentioned in Pap. Ebers for angina pectoris, cough and pain in breast and belly (24).

Hawara, London, 1890, p.50; Loret, Flore, p.92; Dawson, JEA 21, p.39; Keimer, BIFAO 28, p.82; id, Die Gartenpflanzen II, p.7.


(21) Newberry, in : Petrie, Kahun, p.50; Dawson, JEA 21, p.39.

(22) CLEM, pp.164, 165, Anastasi IV, 8, 10-12; 9, 1-3.

(23) Ibid., p.200, Anastasi IV, 15, 11.

(24) Pap. Ebers XXXVII, 191; LXXVII, 607; LXXXV, 693; CV, 859, CV, 860.

Lūbyah-beans

Egyptian  iwryt
(25). Demotic wr3 (26). Botanical Vigna Sinensis Endl = Dolichos
Lubia F. (27). Coptic οΥρω (S.B.F.), Δρω (S.F.) (28).
Arabic Lubyah لوبيا Greek φάβηλος (29). Lūbyah-beans were
known by the ancient Egyptians in the Old Kingdom onwards (30);
specimens were found in the V dynasty funerary temple of Sahurē^c
at Abusir (31). Lūbyah-beans are mentioned in offering lists (32).
Representations in fayence of Lūbyah-beans have been preserved

(25) Wb I, 56, 14-5; WB ^{ag.} Drog., 17; Charpentier, Botanique, p.56,
no.89; FCD, p.13; CCED, p.215; Keimer, AE 1929, p.47; Germer,
Flora, p.88.

(26) Erichsen, Demot. Glossar, 93, 3; Charpentier, Botanique, p.56,
no.89; CCED, p.215.

(27) Keimer, BIFAO 28, pp.77, 78, 86, 91; id, AE 1929, p.48; Helck,
Materialien, V, p.801; Tackholm, LÄ II, p.272; Germer, Flora,
p.87; Charpentier, Botanique, p.56, no.89; CCED, p.215.

(28) Crum, op. cit., p.489 a; Wb I, 56; CCED, p.215; Charpentier,
Botanique, p.56, no.89; Keimer, BIFAO 28, p.89; id, AE 1929,
p.48; J.W.B. Barns, Five Ramesseum Papyri, Oxford, 1956, p.26;
J. Janssen, JEA 52, 1966, p.88, note, vv.

(29) Keimer, BIFAO 28, p.77 ff; Germer, Flora, p.88.

(30) Keimer, BIFAO 28, p.86.

(31) Ibid., p.78; Germer, Flora, p.87.

(32) Ibid., p.87; Keimer, BIFAO 28, p.78.

from the Middle Kingdom (33). This plant does not seem to appear in tomb-scenes of the New Kingdom. In Pap. Harris I, it is mentioned that Ramesses III offered to the Nile god on one occasion, 11,998 jars of shelled Lūbyah-beans, (34) and on another, 2398 jars (35). In Pap. Turin 1907/8 (Ramesses VII), there occur words which may all indicate some kind of food, the first one Lūbyah-beans; usually they are measured in khar and oipě, it may be that 2 oipě are valued at 1 deben, which would mean 2 deben per khar (36). Lūbyah-beans are also mentioned in Anastasi III A (37), and Anastasi IV (38). Lūbyah-beans are still widespread in the Orient at present day.

(33) Ibid., 28, p.77 ff; Keimer, AE 1929, p.47; Germer, Flora, p.88.

(34) Pap. Harris I, 39 a, 13; Breasted, AR IV, 301

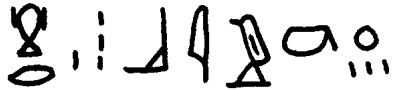


(35) Pap. Harris I, 55 a, 7; Breasted, AR IV, 350.

(36) Janssen, Commodity, p.355; id, JEA 52, p.88, note vv.

(37) CLEM, p.117, Anastasi III A, 1.

(38) Ibid., p.220, Anastasi IV, 61, 1.

Falcon-face beans

Egyptian  Hrw-bik (39). This word does not occur in the Berlin Dictionary either under hr or bik. Botanical Cicer Arientinum L. (40). Arabic name Hommes  Hebrew  (41). Greek ἑρὲ βίβου (42). The ancient Egyptians cultivated falcon-face beans at least since the New Kingdom (43). There are finds of this plant from Deir el Medina, in the Agricultural Museum, Cairo (44). This plant does not seem to appear in tomb-scenes. This plant is mentioned in Pap. Anastasi IV and Lansing (45) among the plants which the pupil planted in a villa for his teacher. Specimens of this plant were found in the tombs dating to the second to the third century A.D. (46).

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- (39) Keimer, BIFAO 28, pp.88, 89, 91; id, AE 1929, p.47; CLEM, p.166; Charpentier, Botanique, p.484, no.772; Germer, Flora, p.97.
- (40) Keimer, BIFAO 28, pp.80, 86, 91; id, AE 1929, p.48; CLEM, p.166; Täckholm, LÄ II, p.272; Charpentier, Botanique, p.484, no.772; Germer, Flora, p.96.
- (41) Keimer, BIFAO 28, p.88.
- (42) Ibid., pp.81, 86; Schnebel, op. cit., p.189.
- (43) Keimer, BIFAO 28, p.81; Darby, et al., Food II, p.685.
- (44) Ibid., II, p.685, fig.17, 11; Germer, Flora, p.96.
- (45) CLEM, pp.164, 165, 410.
- (46) Newberry, in : Petrie, Hawara, pp.49, 53; Keimer, BIFAO 28, p.80; Darby, et al., Food II, p.685; Germer, Flora, p.96.

Lupin

Demotic trmws, thrmws (47). Botanical Lupinus albus L., Lupinus termis forsk (48). Coptic name ΔΡΜΟΥC , ΔΡΜΟΥC (49). Arabic Termis ترمس. Greek Θέρμος (50). The opinions varied about origin and first appearance of lupin; where we find Unger (51) and Schweinfurth (52) mentioned that the lupin was known to the ancient Egyptians and it was among cultivated plants in ancient Egypt. While Candolle (53) mentioned that lupin could have been introduced into Egypt after the Exodus. Keimer (54) also mentioned that the Greeks and Romans cultivated only lupinus albus, which grows wild in

(47)Erichsen, Demot. Glossar, 648, 5; CCED, p.194; Charpentier, Botanique, p.812, no.1390; p.814, no.1396.

(48)Keimer, AJSL 42, 1926, p.285; Täckholm, LÄ II, p.272; Darby, et al., Food II, p.689; Germer, Flora, p.66; Charpentier, Botanique, p.812, no.1390.

(49)Keimer, BIFAO 28, p.83; id, JASL 42, p.285; CCED, p.194.

(50)Keimer, BIFAO 28, p.83; id, JASL 42, p.285; CCED, p.194; Charpentier, Botanique, p.812, no.1390.

(51)Unger, Sitzungsberichte d. Mathematische-naturwissenschaftliche Klasse der Akademie d. Wissenschaftlichen in Wien, 38, 1860, p.68-140.

(52)G. Schweinfurth, BIE 6, 1885, p.256.

(53)A. de Candolle, Origin of Cultivated Plants, (trans.) 2nd edition, New York, 1959, p.327.

(54)Keimer, BIFAO 28, p.83; id, JASL 42, p.285.

the region of the Mediterranean and *Lupinus Termis* Forsk had its origin in Sicily and Sardinia and was probably first introduced into Egypt in Roman times. According to Täckholm, V., the only species represented in Pharaonic Egypt is *Lupin digitatus*; this has been found twice, once at Abusir, from the Middle Kingdom (55) and again at Hawara from Graeco-Roman times (56). Both Wilkinson, J.G., (57) and Maspero (58) mentioned that lupines have been found in the tombs, but none of these authors presented any evidence in support of his statement. Nowadays, it is commonly cultivated in all parts of Egypt.


(55) Täckholm, Charles Bachtly, ed., le Monastere de Phoebammon dans le Thebaide, 3, Cairo, 1961, p.20.

(56) Ibid., p.20; Germer, Flora, p.67.

(57) Wilkinson, The Manners and Customs of the Ancient Egyptians II, p.403.

(58) G. Maspero, The Dawn of Civilization : Egypt and Chaldaeae, (trans.) by M.L. McLure, London, 1894, p.65.

Lentils

Egyptian  ^cršn (59).

Demotic ^cršn (60). Botanical Lens Esculenta Mch., Ervum Lens L.

(61). Coptic ΔΡΥΙΝ (S.B.F.), ΕΡΥΙΝ, ΕΡΥΔΝ (S.A.)

(62). Arabic ^cAds عدس. Hebrew קִסְלֵי שָׂדֵי (63). Greek

ΦΑΚΗ or ΦΑΚΟΣ (64). Lentils are known by the ancient Egyptians in the Old Kingdom; lentils have been found in the under-

(59) Wb I, 211, 15; CCED, p.12; Charpentier, Botanique, p.172, no.262; Keimer, BIFAO 28, pp.81, 88, 91; id, AE 1929, p.48; id, Die Gartenpflanzen II, p.8; Helck, Materialien V, p.801; CLEM, pp.117, 166, 212; Germer, Flora, p.87.

(60) Erichsen, op. cit., 66, 4; CCED, p.12; Charpentier, Botanique, p.172, no.262.

(61) Keimer, BIFAO 28, pp.81-86; id, AE 1929, p.48; id, Die Gartenpflanzen II, P.8; Darby, et al., II, p.687; CCED, p.12; Charpentier, Botanique, p.172, no.262.

(62) Crum, A Coptic Dictionary, p.16 a; Wb I, 211; CCED, p.12; Charpentier, Botanique, p.172, no.262; Keimer, BIFAO 28, pp.81, 86, 91; id, AE 1929, p.48.

(63) CCED, p.12; Charpentier, Botanique, p.172, no.262; Keimer, BIFAO 28, p.81; id, AE 1929, p.48.

(64) Crum, op. cit., p.16 a; Schnebel, Die Landwirtschaft im hellenistischen Aegypten, pp.191-193; Keimer, BIFAO 28, pp.81-86.

ground stores of Zoser's pyramid (65) and lentils were the food of the workmen who built the Giza pyramids (66). Mashed Lentils have been found among funeral offerings in the tombs of Middle and New Kingdom at Dra^c Abu el Naga and Deir el Bahari (67). The primary mentioned of lentils on the monuments under the name ^cršn was in the XIX dynasty (68). There are references to the lentils in the Miscellanies of the New Kingdom. It is mentioned in Pap. Anastasi IV (69), and Lansing (70) among the plants which the pupil planted in a villa of his teacher. It is mentioned also in Pap. Anastasi IV (71) in the letter which the scribe Amenemopē sent to Pbēs to make preparations for Pharaoh's arrival. In Pap. Turin 1907/8 (Ramesses VII) (72), there is mentioned the price of lentils : 10 hin (or 1/4 oipe) cost 1 deben. The tale of Wenamun relates that Egyptians lentils were bartered for lebanese cedar wood (73), and a late text indicates that they were

 (65)J.P. Lauer & Täckholm & A. Aberg, BIE 32, 1949-50, p.137;
 Germer, Flora, p.87.

(66)Hartmann, L' Agriculture, p.54.

(67)G. Schweinfurth, BIE 5, p.7, note 12; A. Ruffer, MIE 1, 1919,
 p.73; E. Brovarski, & P. Lacovara, in : Egypt's Golden Age,
 p.109.

(68)Loret, Flore p.93.

(69) CLEM, p.165, Anastasi IV, 8, 11.

(70) Ibid., p.410, Lansing, 11, 5.

(71) Ibid., p.200, Anastasi IV, 15, 11.

(72)Janssen, Commodity, p.356, table LVII.

(73)Breasted, AR IV, p.284.

offered to the gods "they bring to him [Harpocrates] as an offering the first fruits of grown lentils" (74). Pliny (75) mentioned that there were two kinds of Egyptians lentils "...one rounder and blacker, the other normal in shape...". There is a site famous for lentils, it is Pelusium next to northern Sinai "receive lentils of the Nile, a present from Pelusium; they are cheaper than spelt, dearer than beans..." (76). At present, lentils grow exclusively in Upper Egypt.

(74)Plutarch, Isis and Osiris in Moralia, (trans.) by F.C. Babbitt, Cambridge, 1936, 377, 65.

(75) Pliny XVIII, XXXI, 123.

(76)Martial, Epigrams I, (trans.) by C.A. Walter, New York, 1919, 13, 9.

Fenugreek

The opinions varied about Egyptian name of fenugreek. Dawson (77) tried to identify Trigonella foenum-graecum with šny-t3 "hairs of the earth" which is mentioned in Eloquent Peasant and medical papyri. While Loret (78) does not agree on Dawson's suggestion, he identified Trigonella foenum graecum L., with hm3yt and concluded that hm3yt is the common Egyptian green crop called Hilbah حلبه in Arabic. The Berlin Dictionary translated word šny-t3 "hairs of the earth" (79). Faulkner (80) translated the same word as "fenugreek (?)". It seems that opinion of Dawson is the most acceptable. Botanical name Trigonella foenum-graecum L. (81). Crum (82) translated the Coptic word Δ λ ι (B.) with fenugreek and beans.

(77) Dawson, JEA 12, 1926, p.240.

(78) V. Loret, Mélanges Maspero, Orient Ancien 1/2, (MIFAO 66), Le Caire, 1935-1938, pp.866-868.

(79) Wb IV, 501, 6-11.

(80) FCD, p.268.

(81) Dawson, JEA 12, p.240; Keimer, BIFAO 28, p.48; id, JASL 42, p.398; Täckholm, LÄ II, p.272; Germer, Flora, p.68.

(82) Crum, op. cit., p.4.

Vetch

Botanical name Lathyrus Sativus L. (83). Coptic 20Y9 (84).
Arabic name Gilban جلبان . Greek name ΑΡΑΚΟΣ (85).
The fruits of this plant were found in the excavations of Gebelien (86)
and tombs at Dra^c Abu el Naga and Hawara (87). This plant is a
native of Western Asia. It was probably introduced into Egypt by the
Greeks, who probably cultivated it from an early period for use as
fodder and also for its seeds (88). This plant grows wild nowadays
all over Egypt and is used as fodder.

(83)Loret, Flore, p.94; Keimer, BIFAO 28, p.83; Darby, et al., Food
II, p.692; Täckholm, LÄ II, p.272.

(84)Crum, op. cit., p.741; Loret, Flore, p.94; Keimer, BIFAO 28,
pp.84, 95.

(85)Schnebel, op. cit., pp.185-189.

(86)Schweinfurth, BIE 6, (2e Serie), 1885, pp.260-261; Loret, Flore,
p.94; Germer, Flora, p.84.

(87)Loret, Flore, p.94; Newberry, in : Petrie, Kahun, p.47; Germer,
Flora, p.84.

(88)Newberry, in : Petrie, Kahun, p.48.

Clover

Demotic 3trm (89). Botanical Trifolium alexandrinum L. (90).
Coptic ΤΡΙΜ(91). Arabic Berسيم. Greek ΤΡΙΦΥΛΛΟΝ(92).
Schnebel mentioned that the clover was cultivated in the Pharaonic
Egypt (93), but he did not present any evidence in support of his
statement. Keimer mentioned that the appearance of the clover was
certain in the Graeco-Roman Period (94), where seeds of this plant
found in a tomb at Hawara date from the Graeco-Roman Period (95).
Nowadays, the clover is the main fodder for the cattle, and the cul-
tivation of the clover is spread through the Nile Valley, particularly
in the Delta.

(89)Erichsen, Demot. Glossar, 14, 1; CCED, p.194; Charpentier,
Botanique, p.42, no.61.

(90)Loret, Flore, p.95; Keimer, BIFAO 28, p.85; id, AJSL 42, p.285;
Täckholm, LÄ II, p.272; Germer, Flora, p.71.

(91)Crum, op. cit., p.430 b; Loret, Flore, p.95; Keimer, BIFAO 28,
p.85; id, AJSL 42, p.286; CCED, p.194; Charpentier, Botanique,
p.42, no.61.

(92)Schnebel, op. cit., p.213; Keimer, BIFAO 28, p.85; id, AJSL 42,
p.286.

(93)Schnebel, op. cit., p.213.

(94)Keimer, BIFAO 28, p.85; id, AJSL 42, p.285.

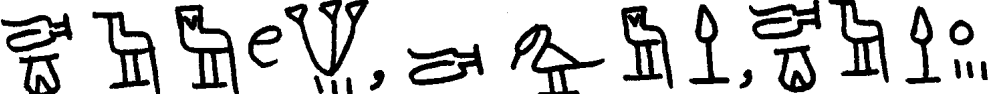
(95)Keimer, BIFAO 28, p.85; id, AJSL 42, p.286; Germer, Flora,
p.72.

CHAPTER III

CHAPTER III

Oil Seeds

Castor-Oil Plant

Egyptian 

dgm (1). Demotic name; tgm (2). this word stood for "ricinus plant, fruit, oil". Demotic tkm (3) stood also for ricinus oil. Botanical Ricinus Communis L. (4). Coptic THOMEC (S.), ⲬⲓⲈⲓⲈ (B.) (5). Arabic name Kharwa خروع. Apart from the mention of dgm in the texts, we have evidence that the plant was known to the ancient Egyptians; castor-seeds have been found in Egyptian tombs of various

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- (1) Wb V, 500, 9-13; FCD, p.317; WB äg. Drog., 583; CCED, p.207; Charpentier, Botanique, p.854, no.1467; Loret, Flore, p.49; Keimer, Kemi 2, 1929, p.100.
- (2) Erichsen, Demot. Glossar, 662, 2; CCED, p.207; Charpentier, Botanique, p.854, no.1467.
- (3) Erichsen, op. cit., 659, 10; Charpentier, Botanique, p.818, no.1406.
- (4) Keimer, Die Gartenpflanzen I, pp.70, 164; id, Kemi 2, p.100; Dawson, Aegyptus 10, 1929, p.52, note 2; CCED, p.207; Charpentier, Botanique, p.854, no.1467; Germer, Flora, p.103.
- (5) Crum, A Coptic Dictionary, p.466 a; CCED, p.207; Charpentier, Botanique, p.818, no.1406.

periods (6). In Berlin, Vienna, Louvre (7) and the Agricultural Museum, Cairo (8), there is a large series of these seeds discovered in ancient sites in Egypt many years ago. The cultivation of the castor-oil plant was evidently carried out on an extensive scale from the time of the XXVI dynasty onwards as the demotic and Greek documents plainly show (9). On Kohl-tubes mostly of later Thutmoside times, two six-inch sections of castor-oil reed are stated, in the neatly drawn black ink inscriptions on their sides (10). In addition to this, chemical analysis has revealed the presence of castor-oil amongst the decomposed debris of the contents of jars deposited in the tombs (11), where traces of castor-oil were found by chemical analysis by Lucas, amongst the samples examined by him from the tomb of Tutankhamun (12).

(6) Dawson, Aegyptus 10, p.62; Germer, Flora, p.104; Keimer, Die Gartenpflanzen I, p.71.

(7) Loret, Flore, p.49; Dawson, Aegyptus 10, p.62; Keimer, Die Gartenpflanzen p.71; Germer, Flora, p.104.

(8) V. Loret & J. Poisson, RT 17, 1895, p.188.

(9) Dawson, Aegyptus 10, p.65.

(10) W. Hayes, The Scepter of Egypt, II, 1959, p.191; Germer, Flora, p.104.

(11) Dawson, Aegyptus 10, p.62.

(12) H. Carter, The Tomb of Tut-Ankh-Amen, II, London, 1927, p.177; Dawson, Aegyptus 10, p.63.

The word dgm appeared from the New Kingdom onwards (13); it was mentioned frequently in the medicinal papyri (14). The word dgm is mentioned in an inscription written on the base of a statue in the Louvre and which dates from the time of Apries, XXVI dynasty. In this inscription, the owner of the statue recounts his gifts to the temples, and says with regard to the gods of Elephantine "I have given oil of dgm for the lighting of your temples" (15). This inscription led Révillout, E., to equate the Egyptian word dgm with the Greek kiki (16). A Demotic papyrus of the time of Amasis II, XXVI dynasty, refers to 200 hin of castor-oil of the yearly stipend of an official (17). A marriage-contract dated in the eleventh year of Ptolemy VII, mentioned 12 hin of tkm, as a part of the gift to the bride (18). A papyrus in the Louvre mentions an allowance of oil of tkm for lighting the temple of Imhotep-imuthes (19), and an ostrakon, containing a copy of an oath, states : "I have not rooted-up [any] castor-oil plant among thy castor-oil [crop]; I have not seen any one else rooting [it]

 (13) Germer, Flora, p.104.

(14) Loret, Flore, p.49; Germer, Flora, p.104; Pap. Ebers, 8, 14; 64, 14; 76, 17; Pap. Berlin Medical, 5, 10; Pap. Hearst, 2, 8; 3, 11.

(15) G. Maspero, ZÄS 1884, p.88.

(16) E. Révillout, ZÄS 17, 1879, p.92.

(17) F. Ll. Griffith, Demotic Papyri III, p.100.

(18) Révillout, ZÄS 17, p.89, and pl.5, line 4.

(19) Révillout, Revue Egyptologique 2, Paris, 1881, p.79, pl.7, line, 19; id, ZÄS 17, p.89, and pl.5, line 4.

up; no cow belonging to me has eaten it" (20). Other ostraca in the same collection deal with the rents of estates planted with Ricinus and with the allotment of land for cultivating the plant (21). In the Great Papyrus of Ptolemy Philadelphus the word $\chi\rho\acute{o}\tau\omega\nu$ is employed for the castor-oil plant (22) and the Greek writers mentioned that castor-oil was called kiki by the Egyptians (23); earliest mention of kiki is that of Herodotus (24). Under the Ptolemies, the production and sale of castor-oil is mentioned in the revenue laws, and this oil is second in importance and value only to sesame-oil, large quantities of both being used in the temples (25). Keimer stated that the price of castor-oil in early Ptolemaic times was half that of sesame oil (26). The word k3k3 certainly does not mean castor-oil, but is mostly a generic word for plant, though it seems to have been also used for indicating a specific kind of plant (27), where there is no possible

 (20)H. Thompson, Theban Ostraca, Toronto & Oxford, 1913, p.59, no. D 104 and D 180.

(21) Ibid., p.39, no. D 49 and D 107; p.48, no. D 6.

(22)Keimer, Die Gartenpflanzen I, pp.71, 166; id, Kemi 2, pp.101-102; Schnebel, Die Landwirtschaft im hellenistischen Ägypten, p.200.

(23)Herodotus, Book II, 94; Diodorus, Library of History I, 34; Strabo, Geography XVII, 5; Dioscorides, The Greek Herbal of Dioscorides IV, 164; Pliny, Natural History XV, 7.

(24)Herodotus II, 94.

(25)Dawson, Aegyptus 10, p.64.

(26)Keimer, Die Gartenpflanzen I, p.73; Janssen, Commodity, p.334.

(27)Dawson, Aegyptus 10, p.66; Janssen, Commodity, p.334, note 30.

etymological connection between the Greek word kiki and the Egyptian word dgm or tkm (28), and the word k3k3 never occurs in the lists of useful plants and marketable products of which there are many examples, nor in the very long lists of beneficial products given by Ramesses III to the temples of Egypt as detailed in the Harris Papyrus (29). An ostrakon found in the Coptic monastery of Epiphanius at Thebes refers to castor-oil under the name THKMC (30). Concerning castor-oil uses in ancient Egypt, there were various methods to obtain the oil : The seeds were either bruised and pressed, or roasted and boiled, in order to obtain the oil (31). It was extracted without employing either fire or water, the seeds being first sprinked with salt and then pressed (32). The press indeed, is employed for this purpose at the present day, when the oil is only wanted for lamps (33). The castor-oil was prepared by grinding the seeds in a mill, putting the ground mass into baskets and pressing it (34). The ancient Egyptians used dgm-oil for burning in lamps (35); we find this

(28) Dawson, Aegyptus, 10, p.68.

(29) Ibid., 10, p.67.

(30) Ibid., 10, p.68.

(31) Herodotus II, 94.

(32) Pliny XV, 7.

(33) J.G. Wilkinson, op. cit., II, p.400.

(34) Dioscorides I, 38.

(35) Wb V, 500; Loret, Flore, p.49; Hartmann, L' Agriculture, p.65; Keimer, Die Gartenpflanzen I, pp.72-73; Germer, Flora, p.104.

use for dgm-oil clearly on a statue in the Louvre Museum (36) : rdi
n(.i) sgnn n dgm r shd hbs r3-prw tn "(I) gave castor-oil to light
the lamp(s) of your temples". In addition to this, dgm-oil was also
used by the poorer people and workmen; both men and women anointed
themselves with it (37). This practice was still observed among the
Bisharin and Ababda of the south eastern Egyptian deserts (38). It
seems not to have been used in food by the Egyptians (39). In ad-
dition to these previous uses, the castor was used also in ancient
Egypt for medicinal purposes where its roots were crushed in water
and applied to an ill head to give improvement immediately; its seeds
were chewed with beer by a man to expel the disease in his belly. its
seeds were ground and mixed with oil and used by women to grow their
hair by rubbing their heads with this mixture, and it was used in its
seeds to anoint one who suffers from the nose (40). The castor-oil
is still largely used as medicine at the present day and in Nubia it
is used as for anointing the body and dressing the hair (41).

(36)Keimer, Kemi 2, p.104.

(37)Wilkinson, The Manners and Customs of the Ancient Egyptians II,
p.400; Dawson, Aegyptus 10, p.53.

(38)Darby, et al., Food II, p.782.

(39)Keimer, Die Gartenpflanzen I, p.73.

(40) Pap. Ebers, 8, 14; 64, 14; 76, 17; Pap. Berlin Medical, 5, 10;
Pap. Hearst, 2, 8; 3, 11.

(41)Lucas & Harris, Ancient Egyptian Materials and Industries, p.332.

Olive

The Egyptian name of the olive tree, is of West Semitic origin :

𓆎𓅓𓏏, its fruit 𓆎𓅓𓏏, 𓆎𓅓𓏏𓏏 dt (42),
its oil probably 𓆎𓅓 (43). Demotic name of olive tree dyt (44).
Botanical name Olea europaea L. (45). Coptic name 𐤃𐤐𐤄𐤀𐤐 (S.),
𐤃𐤐𐤀 (B.) (46). Arabic Zaytoon زيتون. Hebrew זית (47).

There is considerable difference in opinion, about the date of the first cultivation of the olive in ancient Egypt. Newberry (48) mentioned that the olive was known in Egypt in the Pre-dynastic Period, and this tree

(42) Wb V, 618, 4-5; CCED, p.320; Charpentier, Botanique, p.882, no.1523; Loret, RT 7, p.102; Keimer, Die Gartenpflanzen I, p.143; Helck, Materialien V, p.758.

(43) Loret, RT 7, 1886, p.102.



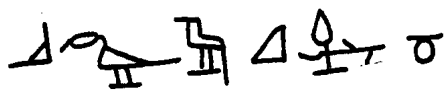
(44) Erichsen, op. cit., 674, 7; CCED, p.320; Charpentier, Btanique, p.882, no.1523.

(45) Keimer, Die Gartenpflanzen I, p.29; Darby, et al., Food II, p.718; Germer, Flora, p.150; id, LÄ IV, p.567; Charpentier, Botanique, p.882, no.1523.

(46) Crum, op. cit., p.790 b; CCED, p.320; Charpentier, Botanique, p.882, no.1523; Keimer, Die Gartenpflanzen I, p.143; Helck, Materialien V, p.758.

(47) CCED, p.320; Charpentier, Botanique, p.882, no.1523; Loret, RT 7, p.102; Keimer, Die Gartenpflanzen I, p.143; Helck, Materialien V, p.758.

(48) Newberry, AE part III, 1915, pp.97-98.

was planted on the north-west of the Delta, which was called "Olive-Land". He presented the following evidence; on a slate palette from Pre-dynastic Periods preserved in the Cairo Museum (CG.14238), there is sculptured a scene in relief depicting some domesticated animals, and below is represented a plantation of trees; These trees have thick trunks and branches. On the right-hand side of this plantation is the sign , which is certainly name of the tree, one of the readings of this  -sign is thnw. This, he took to be the olive-tree, hence, he translated the geographical name T3-Thnw "Olive-Land". In addition to this, he mentioned there is one other fact which points to the identification of thnw-tree with the olive, the common name of the olive tree in Egyptian texts was thought to be 



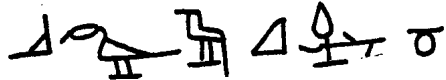
b3k. Keimer (49) commented on the study of Newberry, saying that the trees which are depicted on this palette are not olive trees, as probably the olive-tree was introduced Egypt in the New Kingdom. Petrie (50) remarked that the word olive was mentioned in the texts of III dynasty, where he translated the Egyptian word b3k as olive, but this is a mistranslation of b3k as olive. Lepsius, R., (51) also mentioned that on a tomb from the Old Kingdom, we see a scene representing pressing of the olive-oil. An early translation of the Pyramid Texts, referred to a sacred olive tree in Heliopolis (52), but this

(49)Keimer, BIFAO 31, 1931, pp. 131-133.

(50)Petrie, Medum, London, 1892, pl.13, col.I.

(51) LD II, pl.49.

(52)L. Speleers, Les Textes des Pyramides Egyptiennes, Bruxelles, 1923, p.12, par.118; p.21, par.252.

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(51) LD II, pl.49.

(52)L. Speleers, Les Textes des Pyramides Egyptiennes, Bruxelles, 1923, p.12, par.118; p.21, par.252.

was a mistranslation of b3k.t as olive. Montet (53) suggested that the olive-tree was introduced into Egypt during the Second Intermediate Period by the Hyksos. Hartmann (54) stated that cultivation of the olive-tree was introduced into Egypt during Egypt's conquests in Asia. Kees (55) believed that the olive-tree was not found in ancient Egypt, though he admitted that its cultivation was attempted by Ramesses III and accepted Strabo's statement that olives were found only in the Fayum and Alexandria. Greiss, E.A.M., (56) mentioned it seems that olive trees were known to the ancient Egyptians since the XVIII dynasty onwards. He stated that they cultivated olive for oil extraction rather than food. The cultivation of the olive tree was introduced into Egypt in the New Kingdom (57); where the evidence from the tombs for cultivation of this plant is not before the XVIII dynasty (58). The principal discoveries that can be traced are : In the tomb of Tutankhamun; where there was a large funerary bouquet composed of twigs and branches of the persea and olive (59), and a pectoral garland was made in four bands which were arranged so that the first

(53)P. Montet, Everyday Life in Egypt in the Days of Ramesses the Great, (trans.) London, 1958, p.82.

(54)Hartmann, L' Agriculture, p.67.

(55)Kees, Ancient Egypt, p.81.

(56)E.A.M. Greiss, Some Ancient Egyptian Plant Materials, Le Caire, 1957, p.154.

(57)Keimer, BIFAO 31, 1931, p.133; Germer, Flora, p.150; See Figure 3.

(58)Keimer, Die Gartenpflanzen I, p.29; Germer, Flora, p.150.

(59)H. Carter, The Tomb of Tut-Ankh-Amen II, p.33.

and second bands are composed of the olive (60); and its leaves are prominent in the crown of justification that was placed on Tutankhamun head (61). A fragment of a mural painting of the XVIII dynasty, shows a small part of an olive tree with several olives growing on it (62). In the Cairo Museum, there is a small twig with leaves of the olive tree marked as having been found by Schiaparelli, E., at Thebes and dated to the period XX-XXVI dynasties (63). In the Agricultural Museum Cairo, there are groups of olive stones from the New Kingdom, the site unknown (64). The word dt appeared in the texts from the XIX dynasty onwards (65), where it was mentioned in the letter which the scribe Pbes wrote to his lord, the scribe Amenemope, in order to give him a report on the Delta Residence (66). In the Papyrus Harris I, which contains the gifts of Ramesses III to the temples of Thebes, Heliopolis and Memphis, there are numerous references to olive lands and the gifts of olives to the temples :

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- (60) Newberry, in : Carter, Tut-Ankh-Amen II, (appendix) pp.190-191, pl.XXII.
- (61) Ch. Desroches-Noblecourt, Tut-ankh-Amen, New York, 1963, p.241, fig.146.
- (62) N.de G. Davies, in The Mural Painting of El-Amarna, London, 1929, pl.IX (c); Germer, Flora, p.150.
- (63) Lucas & Harris, op. cit., p.335.
- (64) Darby, et al., Food II, p.720, fig.18, 9.
- (65) Keimer, Die Gartenpflanzen I, p.143; Germer, Flora, p.151; id, LA IV, p.567.
- (66) CLEM, pp.74, 77, Anastasi III, 2, 5.

iry.i n.f K3-n-Kmt b^ch m t3wy m t3w^c3y n dt hr i3rrt inh^w m sbty
(67) "I made for it K3-n-Kmt, inundated like the Two Lands, in the
great olive-lands; bearing vines; surrounded by a wall".

iry.i n.k t3w n dt m niwt.k lwnw^cpr.i st m k3mw rmtw^c3 r irr nh^h
w^cb tpy n Kmt r s^cr rwy m^ch.k špsy (68) "I made for thee olive-lands
in the city of Heliopolis, I equipped them with gardeners and numerous
people, to make pure oil, the best of Egypt, in order to light the flame
in thy august house".

t3 n dt^cpr 1 ir n st3t db^chmt 1/4 (69) "olive-land, equipped : I
making stat 10,003 1/4".

t3 n dt^cpr 1 ir n st3t diyw^chmt 1/4 (70) "olive-land, equipped : 1
making stat 53 1/4".

dt mn.t sr snw (71) "olives : 62 measures (olives : jars (mnt) " (62).

dt g3y 310 (72) "olives : jars (g3y) 310".

dt hkt 1352 (73). "olives : heket 1352".

dt mn.t g3y 1726 (74) "olives : jars (mn and g3y) 1,726".

(67) Pap. Harris I, 7, 5.

(68) Pap. Harris I, 27, 10.

(69) Pap. Harris I, 73, 6.

(70) Pap. Harris I, 34 b, 4.

(70) Pap. Harris I, 18 b, 9.

(72) Pap. Harris I, 19 b, 15.

(73) Pap. Harris I, 65, 5.

(74) Pap. Harris I, 72, 8.

The classical writers supply additional information respecting the olive tree in Egypt ; thus Theophrastus (75) states that the olive tree grew in the Thebaid, though it is not watered by the river, but by the brooks, for there are many springs. Strabo (76) says of the Arsinoite nome, that it is the only nome planted with large, full-grown olive trees, which bear fine fruit (the rest of Egypt has no olive trees, except the gardens near Alexandria which are planted with olive trees, but do not furnish any oil). Pliny (77) says that in the neighbourhood of Thebes, where oak, persea, olive are also found. Greek papyri, mentioned the planting of olives and planting of olive shoots (78). At present, according to Fakhry, A., there are some 25,000 olive trees in Siwa, some of them very old (79).

Olive oil

A possible reference to olive oil is in the oft-quoted rations of Sethos I's Messenger and Standard-Bearer (80). In the Pap. Harris

(75)Theophrastus, Enquiry into Plants IV, 2, 9.

(76)Strabo XVII, I, 35.

(77)Pliny XIII, XIX, 63.

(78)C. Edgar, Zenon Papyri I, University of Michigan, 1931, no.59125;
II, no.59184, 59241.

(79)A. Fakhry, The Oases of Egypt, I, Cairo, 1973, p.27.

(80)Breasted, AR III, 208.

I, there are references to olive oil and its use for lighting (81). Davies, N. de G., in his discussion of the lamps of the New Kingdom, mentioned that olive oil was then used as an illuminant (82). In addition to the previous use, the olive-oil is mentioned as a drug and as a ceremonial unguent (83). The classical writers mentioned about the Egyptian olive oil; thus Theophrastus stated that, "the oil produced is not inferior to that of our country, except that it has a less pleasing smell, because it has not a sufficient natural supply of salt" (84). Strabo mentioned that if the produce were carefully gathered, good oil might be obtained, but this care is neglected, and although a large quantity of oil is obtained, yet it has a bad smell (85). Pliny stated that "the olives of Egypt are very flesh, but with little oil, and the oil produced is not inferior to that of our country, except that it has a less pleasing smell" (86).

(81) Pap. Harris I, 27, 10; Breasted, AR IV, 263; Loret, RT 7, p.102;

Keimer, Die Gartenpflanzen I, p.30; Helck, Materialien V, p.758.

(82)N. de G. Davies, JEA 10, 1924, pp.9-14.

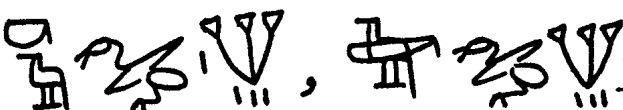
(83)Dawson, Aegyptus 10, p.65.

(84)Theophrastus IV, 2, 9.

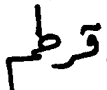
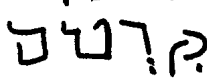
(85)Strabo XVII, 1, 35.

(86)Pliny XV, 4, 15.

Safflower

Egyptian name  kt / k3t (87).

Demotic name of its fruit gd (88) and gwd (89). Botanical Carthamus tinctorius L. (90). Coptic 60YΔ (B.), Δ0YΔ (S.) (91).

Arabic Kortum . Hebrew  (92). Greek XIVΩ (93). and the word XVῆκος was mentioned for its oil (94). Safflower was cultivated abundantly in ancient Egypt (95).

Loret (96) and Hartmann (97) mentioned that it was probably culti-

(87) Wb V, 148, 5-8; CCED, p.340; Charpentier, Botanique, p.758, no.1276.

(88) Erichsen, Demot. Glossar, 595, 6; Charpentier, Botanique, p.758, no.1276; CCED, p.340.

(89) Erichsen, op. cit., 576, 5; Charpentier, Botanique, p.766, no.1292.

(90) Loret, Flore, p.66; Hartmann, L' Agriculture, p.64; Keimer, Die Gartenpflanzen I, pp.7,80, 127; Germer, Flora, p.173; Charpentier, Botanique, p.758, no.1276 ; CCED, p.340.

(91) Crum, op. cit., p.840 b; Keimer, Die Gartenpflanzen I, p.127; Charpentier, Botanique, p.758, no.1276; CCED, p.340.

(92) Keimer, Die Gartenpflanzen I, p.128.

(93) Dioscorides III, 93.

(94) Keimer, Die Gartenpflanzen I, p.7.

(95) Lucas & Harris, op. cit., p.175.

(96) Loret, Flore, p.66.

(97) Hartmann, L' Agriculture, p.64.

vated from the Old Kingdom onwards; where in inscriptions of the Pyramid of Teti (VI dynasty) there is mentioned a word ns.ty; this plant may be safflower, a part of its flowers being used for dyeing. I think that the plant of safflower was cultivated in ancient Egypt from the New Kingdom onwards as the word ns.ty in Pyramid of Teti means "shrub alkanna tinctoria" (98). The plant kt which means "safflower" is mentioned in the Miscellanies of the New Kingdom onwards. It is first perhaps mentioned in the Horemheb Decree (99) as something habitually stolen. It is mentioned in Pap. Turin (100) after minerals in the collection : hrrwt kt, hrrwt hsb knw sp-2 "very many flowers of kt and flowers of lapis (or "blue flowers"). This plant mentioned in Ramesside administrative documents, in Gurob Fragments (101). It is mentioned in Pap. Harris I, among offerings which Ramesses III presented to Amun : prrt kt, hrrwt kt hkt 23000 (102). "seeds of kt and flowers of kt : heket 23000".

Safflower is sown in the middle of November, the seeds ripen in five months (103). Its height 1-2,5 m or more; the stem is corymbose,

(98) Wb II, 324, 3-12, 12; FCD, p.140; Charpentier, Botanique, p.412, no.651.

(99) Horemheb Decree, 24.

(100) F. Rossi, & W. Pleyte, Papyrus de Turin, Leide, 1869-1876, 67, 11-12.

(101) Gardiner, RAD, p.21, Gurob Fragments, verso, 21, 13.

(102) Pap. Harris I, 36 b, 7.

(103) J.G. Wilkinson, op. cit., II, pp.398-399.

leaves are oblong, and the serrated prickly heads are ovate-conical 3 cm. long, 2/5 cm. broad at the base (104). The chemical analysis of cloth, which has been found in the tombs, has revealed the presence of a red dye, which has been extracted from the flowers of the safflower (105). Chemical analysis of textiles from the twelfth dynasty showed it to be one of the dyes used (106). The ancient Egyptians used safflower, with other flowers to make the garlands that adorned their mummies; we see that on the chest of the mummy of Amenophis I, XVIII dynasty (107). Loret mentioned that on another mummy, discovered by Schiaparelli, at Dra^c Abu el Naga, we see a garland adorned with flowers, amongst them flowers of safflower (108). In Leiden Museum, there is a garland adorned also with flowers of safflower (109). Safflower-seeds were found at Gebelien, from Graeco-Roman Periods (110). Samples of safflower were found at Kom Ouchim, dating to the Roman Periods, are to be found at the Agricultural Museum, Cairo (111). In the legislation of Ptolemy

(104)R. Muschler, A manual Flora of Egypt, Berlin, 1912, p.1042.

(105)Hartmann, L' Agriculture, p.64.

(106)Darby, et al., Food II, p.805.

(107)Loret, Flore, p.66; Keimer, Die Gartenpflanzen I, p.7; Germer, Flora, p.174.

(108)Loret, Flore, p.66.

(109) Ibid., p.66; Keimer, Die Gartenpflanzen I, p.7; Germer, Flora, p.174.

(110)Keimer, Die Gartenpflanzen I, p.7; Germer, Flora, p.174.

(111)Darby, et al., Food II, p.805; Germer, Flora, p.174.

Philadelphus, there is a reference to safflower oil, where its oil seem to have been included in the monopoly (112). Pliny (113) mentioned that the safflower, which he calls by its Greek name of cnechos, was esteemed by the Egyptians on account of the oil it produced. Elsewhere, however, he seemed to confuse the safflower with the nettle from which he said that an oil, Cnidium (from Cnicos, a nettle, but more correctly called Cnecicum in another manuscript) was obtained (114). Safflower was not only cultivated in ancient Egypt for the red dye its flower produced, but for the oil extracted from its seeds (115). At present day, it is still plentiful, and it is chiefly for the sake of the oil, which is extensively used for the cooking (116).

(112)Keimer, Die Gartenpflanzen I, p.7.

(113)Pliny XXI, LIII, 90.

(114) Ibid., XV, VII, 30.

(115)Wilkinson, op. cit., II, p.399; Keimer, Die Gartenpflanzen I, p.7; Germer, Flora, p.174.

(116)Lucas & Harris, op. cit., p.336.

Sesame

Demotic name 3ki or 3ky (117) probably the older ikw (118). Botanical Sesamum indicum L. (119). Crum mentioned two words for sesame : OKE(S.), ΔKE (A.) (120) and CIMCIM, CEMCHM (S.) (121). Černý (122) mentioned that the word CIMCIM, sesame was a loanword from south Semitic and mentioned that the native Egyptian word is OKE . Akkadian Šamaššammu. Arabic Simsim . Greek βῆβαιον (123). The sesame plant is probably of tropical African origin (124). Its stems are erect, simple or branched from a few cm to 1,20 m long, leaves very variable, sparingly; pedicels, very short at length 5 mm long; calyx, 5 1/2 mm long; capsule 1,5-5 cm

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- (117) Erichsen, Demot. Glossar, 12, 1; Keimer, Die Gartenpflanzen I, p.134; W. Spiegelberg, Koptisches Handwörterbuch, Heidelberg, 1921, p.88; CCED, p.121.
- (118) Wb I, 139, 9; CCED, p.121; Charpentier, Botanique, p.128, no.204.
- (119) Keimer, Die Gartenpflanzen I, pp.18, 134; Germer, Flora, p.171; id, LÄ IV, p.553; Charpentier, Botanique, p.128, m no.204.
- (120) Crum, op. cit., p.254 b; Charpentier, Botanique, p.128, no.204; CCED, p.121.
- (121) Crum, op. cit., p.340; CCED, p.153.
- (122) Ibid., p.153.
- (123) Keimer, Die Gartenpflanzen I, p.60, note 10; CCED, p.153.
- (124) Muschler, op. cit., II, p.885; Germer, Flora, p.171.

long, 5-8 mm broad; seeds pale brown, 2 1/2 mm long (125); it ripens in about 100 days (126). In a tomb at Dra^c Abu el Naga, Schiaparelli found empty capsules of the sesame plant, similar to those which cultivated in the Delta. Schweinfurth examined carefully these capsules and mentioned that it seems almost from Graeco-Roman Period and not before that (127). Unger classified sesame plant amongst ancient Egyptian plants, according to a scene in the tomb of Ramesses III; we see in this scene, the bakers mixing sesame in a plate of aromatic grains (128). But Candolle observed carefully that these grains are not necessarily sesame, probably these grains are caraway, cumin, and aniseed; and he added also that sesame was not introduced into Egypt before the Greek conquest (129). Keimer (130) believed that cultivation of the sesame in Egypt, was started in the time which Egypt conquered Asia, where in that time numerous Asian plants were introduced into Egypt. Kees stated that from the New Kingdom, at least sesame was cultivated in Egypt for its oil which in the Hellenistic Period was the most highly valued in the oil monopoly (131). Loret

(125)Muschler, op. cit., II, p.885.

(126)Wilkinson, op. cit., II, p.402.

(127)Loret, Flore, p.57; Keimer, Die Gartenpflanzen I, p.19.

(128)F. Woenig, Die Pflanzen im Alten Aegypten, Leipzig, 1897, p.178;

Loret, Flore, p.57; Keimer, Die Gartenpflanzen I, p.19


(129)A. de Candolle, Origine des Plantes Cultivees, Paris, 1886, p.537.

(130)Keimer, Die Gartenpflanzen I, p.19.

(131)Kees, Ancient Egypt, p.77.

mentioned that Coptic word **OKÉ** shows that it was originally Egyptian; on the other hand, in the Egyptian texts there is found a plant which is called **AKÉ**, which is the Egyptian word for *Sesamum indicum* and *Shemshem* (132). According to the Greek authors and revenue laws of Ptolemy Philadelphus appears that cultivation of sesame and extraction of the oil from its seeds started not later than the Graeco-Roman Period; in addition to this, the royal supervision started in that time on extraction of sesame oil, with its monopoly (133). At present day, in Egypt, the sesame plant is grown, on account of the oil, which is expressed from the seeds.

Sesame-Oil

The oil, which is extracted from the seeds was called in Egyptian  **nhh** (134). Demotic word **nhh** (135). Coptic **NE2** (S.B.A.), **NH2** (S.A.) (136). Arabic *Zeit Simsim*

(132) Loret, Flore, p.57.

(133) Keimer, Die Gartenpflanzen I, p.20.

(134) Wb II, 302, 17-20; WB äg. Drog., 311; CCED, p.116; Charpentier, Botanique, p.406, no.640; Keimer, Die Gartenpflanzen I, p.134; Janssen, Commodity, p.330.

(135) Erichsen, op. cit., 224, 2; CCED, p.116; Charpentier, Botanique, p.406, no.640.

(136) Crum, op. cit., p.240 b; Wb II, 302; CCED, p.116; Charpentier, Botanique, p.406, no.640; Keimer, Die Gartenpflanzen I, p.134.

imported into Egypt in the New Kingdom from Syria (147) and references are mentioned to this oil in the papyri and monuments of the New Kingdom; where in the Palace of Amenophis III, dynasty XVIII, two jars labelled nhh were found which were contributed to the King's Second Sed-festival, in year 34. They appear to have been sesame oil (148). It was mentioned in Pap. Anastasi IV (149), and Pap. Sallier IV, in a list of commodities (150). In Pap. Harris I, this oil is mentioned as gifts for various temples :

nhh n Kmt mn.t 513 (151) "nhh-oil of Egypt : jars (mn) 513".

nhh n H3rw mn.t 542 (152) "nhh-oil of Syria : jars (mn) 542".

nhh mn.t 93 (153) "nhh-oil : jars 93".

nhh hnw 110,000 (154) "nhh-oil hin 110,000".

(147) Ibid., III-IV, p.694; Germer, Flora, p.172; id, LÄ IV, pp.552, 883.

(148) W. Hayes, JNES 10, 1951, p.93; Helck, Materialien III-IV, p.693; Germer, Flora, p.172.

(149) CLEM, pp.126, 128, Anastasi IV, 1 b, 2.

(150) Ibid., p.362, Sallier IV, vs.15, 2.

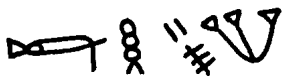
(151) Pap. Harris I, 36 c, 11.

(152) Pap. Harris I, 36 c, 12.

(153) Pap. Harris I, 19 b, 5.

(154) Pap. Harris I, 19 b, 6.

Flax

Egyptian name  mhy, mh^cw (155). Demotic name mhi (156) Botanical Linum usitatissimum L. (157). Coptic MA2E (S.A.) MA2I (B.) (158). Arabic Kettan كتان. Flax has been grown in Egypt from very early times; since flax fibre have been found in graves from Neolithic and Pre-dynasty Periods (159). A tall, erect annual, usually branched only at the top, leaves alternate, erect, 2-2 1/2 cm. long (160). Flowers of a rich blue, petals obvate (161). A winter crop in ancient Egypt as it is today (162). Its cultivation was at the same time as cultivation of barley and wheat (163), in the middle of November (164). Generally, fields of the flax adjoined fields of

(155) Wb II, 121, 4-7; Wb äg. Drog., 281; CCED, p.99; FCD, p.114; Charpentier, Botanique, p.354, no.551, 552.

(156) Erichsen, op. cit., 173, 3; CCED, p.99.

(157) Muschler, op. cit., I, p.569; Germer, Flora, p.100.

(158) Crum, op. cit., p.211 a; Wb II, 121; CCED, p.99; Charpentier, Botanique, p.354, no.551.

(159) G. Caton-Thompson & E.W. Gardner, The Desert Fayum, London, 1934, p.46; Greiss, op. cit., p.153.

(160) Muschler, op. cit., I, p.569; Germer, Flora, p.100.

(161) Germer, Flora, p.100.

(162) Kees, Ancient Egypt, p.77.

(163) Hartmann, L' Agriculture, p.148.

(164) Wilkinson, op. cit., II, p.398.

the main crops, e.g. barley and wheat (165). Harvesting of flax was not necessarily contemporaneous with the harvesting of barley. It might be pulled when the crop was young or old, the time being determined by the use for which the fibrous stalks were to be employed (166). It ripens in about 110 days (167). Scenes of cultivation and harvesting of the flax, which were depicted on the walls of the tombs appear proportionally less often than those which represented cultivation and harvesting of the main crops, e.g. barley, emmer and wheat (168). In a few tombs of the time of the New Kingdom, the harvest of cultivated flax is represented, it has a stalk with a small red fruit at the top. It was not reaped by a sickle, like the barley and wheat. We see in the tomb of Paheri at el Kab (169): and Sennezem at Deir el Medina (170) that both men and women were employed to pluck it up, while in the tombs of Nakht (171) Kha^cemhēt

(165)Hartmann, L' Agriculture, p.148; J. Tylor & F.Ll. Griffith, Wall Drawings and Monuments of El Kab : The Tomb of Paheri, London, 1895, pl.III; N. de G. Davies, The Tomb of Nakht at Thebes, New York, 1917, pl.XVIII; W. Wreszinski, Atlas zur Altaegyptischen Kulturgeschichte, Leipzig, 1923, 193.

(166)T.G.H. James, Pharaoh's People, London, 1984, p.120.

(167)Wilkinson, op. cit., II, p.393.

(168)Hartmann, L' Agriculture, p.146.

(169)Tylor & Griffith, Paheri, pl.III; James, op. cit., p.122; fig.9; See Figure 4.

(170)Wreszinski, Atlas, 19 a; See Figure 5.

(171)N. de G. Davies, Nakht, p.62, pl.XVIII; Wreszinski, Atlas, tafel.177; See Figure 4.

(172) Ipyu (173) the women were employed for this purpose. They struck off the earth from the roots with their hands, and having bound it in sheaves, they carried it to what may be termed the threshing-floor. To get the seeds off the stalks a instrument something like a comb was used. We see in the scene of Paheri's tomb (174), an old man whose duty it was to do the combing; he is seated in the shade of a sycamore, he pretends that the work is no trouble, and remarks to the peasant who brings to him a fresh bundle of flax to comb : ir in.k n.i db^c h3 psd ink shm.i st "if you bring to me eleven thousand and nine, I would comb them". The peasant however pays no attention to this foolish boast; 3s tw m ir ^c3-r p3 ^c3 3s n ihwtyw "haste", he says, "and do not talk so much, thou oldst amongst the field labourers". Flax occurs only once in the Miscellanies in Pap. Sallier IV, vs. 12, in connection with the figure 1000 (bundles ?) (175). In Pap. Harris I, there are references to flax as gifts to the temples :

Thebes : mh n^ch 64,000 (176) "flax : bales 64,000".

Heliopolis : mh n^ch 4,000 (177) "flax : bales 4,000".

Lesser Gods : mh n^ch 3,000 (178) "flax : bales 3,000".

(172) Wreszinski, Atlas, 193.

(173) Ibid., 367.

(174) Tylor & Griffith, Paheri, pl. III; James, op. cit., pp. 122-123.

(175) CLEM, p. 359, Sallier IV, vs. 12, 1.

(176) Pap. Harris I, 12 b, 5.

(177) Pap. Harris I, 32 b, 8.

(178) Pap. Harris I, 62 a.

The usual measure for flax, is $\frac{n^c}{h}$, its size is unknown. It is clearly apparent that flax is cheaper than vegetables; where in the Pap. Turin 1907/8, 11, 8 (Ramesses VII) regarding mhy, which certainly means flax, fifty bundles of it are said to cost 5 deben (179). The ancient Egyptians cultivated flax to use its fibres for making linen, for that purpose, flax was pulled out of the ground, not cut (180). In addition to this, it was used for making seats of chairs, bottoms of beds, strings, ropes, baskets and mats (181). The Egyptians extracted seeds of the flax plant to obtain the oil; it was known at an early date, though the first record of it that can be traced is of the Graeco-Roman Period, where in the papyri written in Greek, frequently references are made to linseed oil (182). It was used for cooking as that time such as in Nubia (183) and for burning in lamps, for which purposes it is still employed by the poorer classes in Egypt (184). In Pap. Ebers, there are references to using its seeds for medical purposes (185).

 (179) Janssen, Commodity, pp.364, 365, 369, and table LIX.

(180) T.G.H. James, op. cit., p.123; Germer, Flora, p.101.

(181) Greiss, op. cit., p.153; Germer, Flora, p.101.

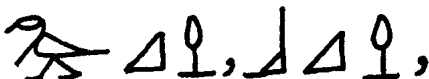
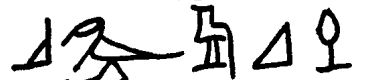

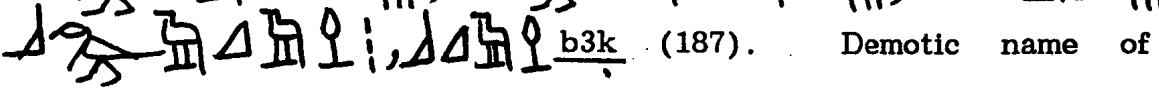
(182) James, op. cit., p.123; Germer, Flora, p.101.

(183) Ibid., p.101.

(184) Lucas & Harris, op. cit., p.333; Darby, et al., Food II, p.783.

(185) Pap. Ebers, 83, 6; 88, 18; Wb II, 121, 5; P. Montet, Les Scènes de la Vie Privée dans les Tombeaux Égyptien de l' Ancien Empire, Strasbourg, 1925, p.193; Germer, Flora, p.101.

Ben-Oil Tree

The Egyptian name of the moringa tree : ,
 b3k (186). The Egyptian name of moringa-oil:
,
 b3k (187). Demotic name of
moringa-oil bk (188). Botanical Moringa aptera Gaerta (189). Arabic
al Ban, Habb el-bân. A tree, 4-8 m high, leaves 30 cm long or more,
panicles 18-20 cm long. Flowers pale yellow. Capsule about 30 cm long.
Seeds 3-gonous. It ripens in February (190). B3k-trees were grown
in western Thebes (191); where in the garden of Ineni (Amenophis I
to Tuthmosis III) which was depicted on the walls of his tomb, we find
2 ben-oil trees (b3k) represented among other trees, which Ineni
planted during his life to enjoy in the hereafter (192). Loret (193)

(186) Wb I, 423, 9-15; 424, 1; FCD, p.78; Charpentier, Botanique,
p.234, no.379.

(187) Wb I, 424, 2-10; WB ^{ag.} Drog., 149; FCD, p.78; Charpentier,
Botanique, p.236, no.380.

(188) Erichsen, Demot. Glossar, 123, 4; Charpentier, Botanique,
p.236, no.380.

(189) Loret, Flore, p.86; Kees, op. cit., p.81; Keimer, Die
Gartenpflanzen II, p.27; Charpentier, Botanique, p.234, no.379.

(190) Muschler, op. cit., I, p.445; See Figure 6.

(191) Urk IV, 73, no.10; Pliny XII, 46.

(192) Loret, RT 7, p.104; M.F. Moens, OLP 15, 1984, p.12.

(193) Loret, Flore, p.86.

and Keimer (194) mentioned that in addition to Thebes, b3k-trees were grown also in the Delta and the Oasis of Dakhla. The seeds and fruits of the moringa tree have been found in many tombs; Schweinfurth found seeds of moringa in a tomb at Dra^cAbu el Naga (195). In 1887 Schiaparelli found seeds of this tree in a tomb at Thebes (dyn. XX-XXVI) (196). In 1888, Petrie found ten seeds of the moringa in a cemetery at Hawara from the Graeco-Roman Period (197). In Florence Museum, (no. 3618) there are seeds and fruits of the moringa tree (198). The b3k-tree is mentioned in the texts and on the monuments from the Old Kingdom onwards, where we find it mentioned in the Pyramid Texts (199) : b3k.t imyt Iwnw "B3k.t-tree being in Heliopolis". In the tomb of Ineni (200) b3k snw "two b3k-trees". In Pap. Sallier (201); where we find the following sentence in a letter concerning the wonders of Memphis : "Ptah, who is under his moringa-tree of Nebma^c-Re^c-uniting-himself-with-Ptah".

 (194)Keimer, Die Gartenpflanzen II, p.27.

(195)Loret, Flore, p.86; Hartmann, L' Agriculture, p.65.

(196)Keimer, Die Gartenpflanzen II, p.27.

(197)Newberry, in : Petrie, Kahun, p.47.

(198)Loret, Flore, p.86; Keimer, Die Gartenpflanzen II, p.27.

(199)Loret, RT 7, p.105.

(200) Urk IV, 73, no.10; Loret, RT 7, p.105.

(201) CLEM, p.333, Sallier, vs.1, 8.

Ben-oil is the oil extracted from the seeds or nuts of the moringa tree (202). It is mentioned on the walls of the tombs, where we find it in list of offerings (tombs of Rahotep and Nefert at Medum) b3k.t (203). It is mentioned on labels of jars, where twenty-two jars labelled b3k were found in the Palace of Amenophis III, dynasty XVIII (204). Concerning b3k-oil, Hayes mentioned that although b3k-trees were grown in western Thebes, all indications point to northern Egypt as the source of most of the oil of this type, where all the officials named on these jars were associated either with Memphis or, in the case of the King's scribe Huy, with Athribis in the Delta. We find Memphis named as the location of an orchard of b3k.t-trees, and a jar-sealing from the palace bears the legend "B3k-oil of the fortrees" (i.e. Tjel in the northeast Delta) (205). Moringa-oil is mentioned frequently in the papyri of the New Kingdom : In Pap. Anastasi III (206) P \bar{b} ēs wrote to his lord, the scribe Amenemop \bar{e} , in order to give him a report on the Delta Residence-the youths of Great-of victories are in festive attire every day; sweet moringa-oil is upon their heads. In Pap. Anastasi IV (207) where it was mentioned in the letter which Amenemop \bar{e} sent to the scribe P \bar{b} ēs concerning preparations for

 (202) Loret, RT 7, p.106; Hayes, JNES 10, 1951, p.93; Lucas & Harris, op. cit., p.331.

(203) Petrie, Medum, pl.13, col.1; Newberry, AE 1915, p.98.

(204) Hayes, JNES 10, p.93.

(205) Ibid., 10. p.93.

(206) CLEM, p.74, Anastasi III, 3, 2.

(207) Ibid., p.200, Anastasi IV, 15, 2, 4.

Pharaoh's arrival, he said to him "apply yourself with sweet moringa-oil and moringa oil of Nahrin". In Sallier IV (208); where it was mentioned in a letter concerning the wonders of Memphis "moringa oil is sweet and fat abundant". In Pap. Harris I, b3k-oil is mentioned as gifts for gods in the temples :

Thebes :

b3k dšr mn.t 31 (209) "red oil : jars (mn) 31".

b3k ndm mn.t 93 (210) "sweet oil : (mn) 93".

b3k ndm hnw 1,100 (211) "sweet oil : hin 1,100".

Lesser Gods :

b3k mn.t 1 (212) "oil (b3k) : jars (mn) 1".

b3k dšr mn.t 1 (213) "red oil (b3k) : jars (mn) 1".

Three kinds of oil were extracted from the seeds or nuts of the moringa tree : b3k w3d, b3k ndm, b3k dšr (214). The addition of the word ndm is found frequently with regard to b3k "ben oil", which

(208) Ibid., p.334, Sallier IV, vs.2, 7.

(209) Pap. Harris I, 18 b, 4.

(210) Pap. Harris I, 18 a, 15.

(211) Pap. Harris I, 18 a, 15.

(212) Pap. Harris I, 62 c, 13.

(213) Pap. Harris I, 63 c, 14.

(214) Wb I, 424, 5-9; Loret, RT 7, p.105; Charpentier, Botanique, p.236, no.380.

was commonly used for cosmetics (215); where young men are said to be in festive attire with b3k ndm on their heads (216). Moringa-oil has a sweet taste and is odourless, for which reason it is much esteemed in ancient Egypt for extracting perfumes from flowers and for cooking (217). Medicinally, it was used for treatment of head scurf (218), it was applied to ears to improve hearing (219). B3k-oil seems to have been rarely used by the workmen, possibly because it was too expensive (220). It is usually measured in mn.t-jars and hin (221). There are no prices recorded for this oil (222).

The Thorn Tree

Botanical name Balanites aegyptiaca Del. (223) Schweinfurth mentioned that the Arabic word for this tree is Hegelig, Haledj, Heleg in Sudan and Yaman, while Woenig mentioned a words Thamr-el Arab,

(215) Janssen, Commodity, p.337.

(216) CLEM, p.74, Anastasi III, 3, 2.

(217) Loret, Flore, pp.86, 87; Luas & Harris, op. cit., p.331.

(218) Pap. Ebers, LXIV, 15.

(219) Pap. Ebers, XCI, 764.

(220) Helck, Materialien, V, p.700.

(221) Pap. Harris I, 18 b, 4; 18 a, 14; 18 a, 15; 63 c, 13; 62 c, 14.

(222) Janssen, Commodity, p.330.

(223) Loret, Flore, p.102; id, RT 17, p.196; Keimer, Die Gartenpflanzen II, p.2; Germer, Flora, p.98; Charpentier, Botanique, p.120, no.198.

Thamr-el Abid, el-Hob (224). This tree was widely cultivated in Pharaonic Egypt (225); though it still occurs in Upper Egypt and in Kharga Oasis, it is rare, and still more so in the Delta, where only a few specimens grow in gardens (226). Nowadays, this tree is widely grown in north tropical Africa from Senegal to Abyssinia (227). The height of this tree was about 15 m (228), the fruit, which in appearance somewhat resembles a date, consists of a thin, brittle shell enclosing a fleshy mass, inside which is a hard kernel; this kernel furnishes the oil, which is slightly yellow in colour (229). The fruits and kernels of this tree have been found frequently in Egyptian tombs from the Old Kingdom onwards, where the earliest find of Balanites is a kernel from Saqqara dated to III, dynasty (230). More than one hundred fruits and kernels were found at Kahun from the XII, dynasty (231). One fruit and seven kernels were found in a tomb from the Second Intermediate Period (232). A lot of kernels were found in the

(224) Keimer, Die Gartenpflanzen II, p.3; Woenig, Die Pflanzen, p.319.

(225) Newberry, in : Petrie, Kahun, p.49; Lucas & Harris, op. cit., p.331; Germer, Flora, p.98.

(226) Lucas & Harris, op. cit., p.331; Germer, Flora, p.99.

(227) Newberry, in : Petrie, Kahun, p.49.

(228) Germer, Flora, p.98.

(229) Lucas & Harris, op. cit., p.331; Germer, Flora, p.99.

(230) Lauer & Täckholm & Aberg, BIE 32, 1949-1950, p.121 ff.

(231) Loret, Flore, p.102; Newberry, in : Petrie, Kahun, p.49; Keimer, Die Gartenpflanzen II, p.2.

(232) Ibid., II, p.2.

Valley of the Queens tombs at Thebes, XVII-XXV dyansties (233). One kernel was found in a tomb at Dra^c Abu el Naga, XX-XXVI dy-nasties (234). Six fruits and three kernels were found in the tombs at Gebelien, from the Graeco-Roman period (235). In Florence Mu-seum, there is a wood branch from a *Balanites aegyptiaca* tree (no.2692) (236). Täckholm (237) and Keimer (238) mentioned that almost all *Balanites* kernels from ancient Egypt were perforated, probably to obtain the inner almond that yielded its precious oil. Pliny (239) stated that its oil was part of the Mendesian scent that was made of *Balanites* oil, resin, myrrh. Theophrastus (240) referred to it also but, according to him, the husks of the fruit were used by perfumers for its fragrancy. The ancient Egyptians employed *Balanites*-oil which was expressed from the kernels for eating and anointing; its fresh fruits were eaten and there were made from it alcoholic drinks. In addition to these previous uses, the Egyptians employed also the wood of this tree for making some agricultural tools, furniture and ships

(233) Ibid., II, p.2.

(234) Ibid., II, p.2.

(235) Ibid., II, p.2

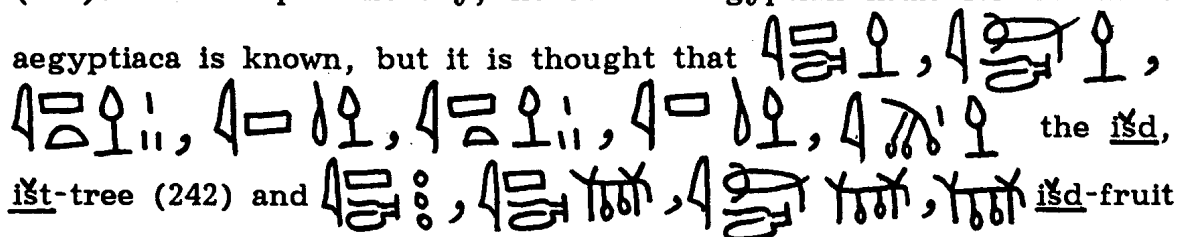
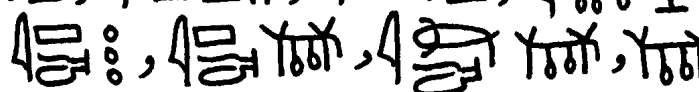
(236) Loret, Flore, p.102.

(237) Täckholm, Charles Bachtly, ed.le Monastere Monastery de Phoebammon dans le Thebaide 3, p.23.

(238) Keimer, Die Gartenpflanzen II, p.2.

(239) Pliny XIII, 11, 8.

(240) Theophrastus IV, 1, 5.

(241). At the present day, no ancient Egyptian name for *Balanites aegyptiaca* is known, but it is thought that  the isd, isd-tree (242) and  iste may be demotic name of *Balanites aegyptiaca* (244)

Almond Tree

Botanical name *Amygdalus Communis L.* (245). There is considerable difference in opinion about the origin of the almond tree. Candolle (246) mentioned that it was indigenous in the Eastern Mediterranean and Western Asia. Wilkinson (247) stated that it was

 (241) Keimer, Die Gartenpflanzen II, p.3; Germer, Flora, p.99.

(242) Wb I, 136, 5-8; 136, 13; FCD, p.31; Charpentier, Botanique, p.120, no.198; Loret, Flore, p.102; Germer, Flora, p.99.

(243) Wb, I, 136, 9-11; Wb ag. Drog., 63; FCD, p.31.

(244) Erichsen, op. cit., 45, 8; Charpentier, Botanique, p.120, no.198.

(245) Loret, Flore, p.83; Wilkinson, op. cit., II, p.405; Keimer, Die Gartenpflanzen II, p.25; Germer, Flora, p.59.

(246) de A. Candolle, Origin of Cultivated Plants, pp.219-221.

(247) Wilkinson, A Popular Account of the Ancient Egyptians I, New York, 1854, p.57.

one of the principal trees of ancient Egypt, but Montet (248) stated that it was unknown before the Roman Period. Loret (249) mentioned that it was introduced into Egypt from the Greeks. Germer (250) mentioned that it was indigenous in the Eastern Mediterranean. The almond fruit was known in ancient Egypt, since it has been discovered occasionally in tombs, the earliest known being of XVIII, dynasty date, about thirty almonds having been found in a small red pottery jar in the tomb of Tutankhamun (251), and a number of stones from el Amarna being in the museum of the Royal Botanic Gardens, Kew (252). Schiaparelli found almonds in an XVIII, dynasty tomb at Thebes, described by Mattiolo (253). In 1888, Petrie found four almonds in the Ptolemaic cemetery of Hawara (254). Six almonds were found in a tomb at Abusir, from the Greek Period (255). There have been nine almonds in the Cairo Museum for many years, of which neither the place of origin nor date can be traced (256). The handle

(248)Montet, Everyday Life in Egypt in the Days of Ramesses the Great, p.81.

(249)Loret, Flore, p.83.

(250)Germer, Flora, p.59.

(251)Lucas & Harris, op. cit., p.329; Keimer, Die Gartenpflanzen II, p.25; Germer, Flora, p.59; id, LÄ III, p.1177.

(252)Lucas & Harris, op. cit., pp.329-330.

(253)Darby, et al., Food II, p.752.

(254)Newberry, in : Petrie, Kahun, p.47.

(255)Keimer, Die Gartenpflanzen II, p.25.

(256)Lucas & Harris, op. cit., p.330.

of a walking stick made of almond wood of XVIII, dynasty date is in the museum of the Royal Botanic Gardens, Kew (257). Pliny mentioned the manufacture in Egypt of an unguent, the Mendesian unguent, containing oil of bitter almonds, which he says was expressed in Egypt (258). This statement of Pliny's is the only reference that can be traced respecting the use of almond oil in ancient Egypt. Loret (259) and Keimer (260) mentioned that the Coptic word for the almond tree was $\lambda\epsilon\upsilon\kappa\epsilon$. At present day, no ancient Egyptian name for the almond tree is known. Arabic name Loz $لوز$. At present day, the almond tree is often to be found under cultivation in the gardens of Egypt (261).

(257) Lucas & Harris, op. cit., p.330; Darby, et al., Food II, p.752.

(258) Pliny XIII : 2; XV, 7.

(259) Loret, Flore, p.83.

(260) Keimer, Die Gartenpflanzen II, p.25.

(261) Newberry, in : Petrie, Kahun, p.47.

The Radish

Botanical name Raphanus Sativus L. (262). Both Unger (263) and Woenig (264) classified the radish amongst ancient Egyptian plants. Radish was known in ancient Egypt at least from the Old Kingdom onwards; Herodotus (265) mentioned that radishes together with onions and garlic, were supplied by the state for the sustenance of the workmen who were engaged in building the Great Pyramid. The XIIth dynasty monarchs, like the IVth dynasty ones, also supplied their workmen with quantities of radishes for their sustenance (266); Petrie found two small radishes in a tomb at Kahun, from XII, dynasty (267). Radish was held in high esteem in Egypt on account of oil that was extracted from the seeds of the radish (268). Pliny (269) mentioned that "..... in Egypt, the radish is held in remarkable esteem because it produces oil which they make from its seed. The people are very fond of sowing radish if opportunity offers, be-

(262) Keimer, Die Gartenpflanzen II, p.29; Germer, Flora, p.55.

(263) Unger, Sitzungsbericht der Mathematische-naturwissenschaftlichen Klasse der Kaiserlichen, Akademie der Wissenschaften, Wien, 1859, p.117.

(264) F. Woenig, Die Pflanzen im Alten Agypten, pp.216-218, fig.107.

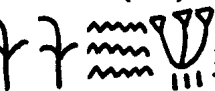
(265) Herodotus II, 125.

(266) Newberry, in : Kahun, p.50.

(267) Keimer, Die Gartenpflanzen II, p.29; Germer, Flora, p.55.

(268) Lucas & Harris, op. cit., pp.335-336.

(269) Pliny XIX, XXVI, 79, 80.

cause they make more profit from it than from corn [wheat] and have a smaller duty to pay on it, and because no plant there yields a larger supply of oil" . Dioscorides (270) stated that the oil was used in Egypt medicinally. Pliny (271) mentioned that radish juice was used to cure pediculosis. Although, the radish is still grown plentifully in the country, the oil is no longer prepared (272). The ancient Egyptian name for radish is uncertain, it is possible smw meant radish as well as herbs or weeds. Radish is known in Coptic as ΠΙ ΝΟΥΝΕ, ΝΟΥΝ (B.) (273), probably corresponding to a plant nn.t ( nwn) often mentioned in Egyptian texts (274). Loret mentioned also there is another Coptic name for radish ΠΕ ΠΑΝΟΝ, obviously derived from Greek (275). Arabic name figl

 (270)Dioscorides I, 45.

(271)Pliny XIX, XXVI, 86.

(272)Lucas & Harris, op. cit., p.336.

(273)Crum, op. cit., pp.227, 228

(274)Loret, Flore, p.108; Keimer, Die Gartenpflanzen II, p.29;
 Germer, Flora, p.56.

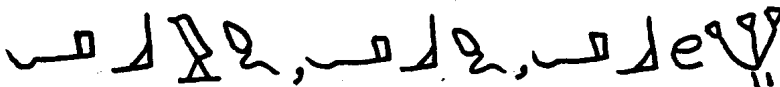
(275)Loret, Flore, p.108; id, ASAE 1, p.62, no.368.

CHAPTER IV

CHAPTER IV

Vegetables (Edible Plants)

Lettuce

Egyptian  ibw (1).

This word is translated also by Erman and Grapow besides lettuce as "an aphrodisiac", "an offering to the ithyphallic Min and Amun" and "a large bouquet of flowers" (2). Botanical name Lactuca Sativa L. (3). Coptic name ⲟⲩⲓⲛ (S.), ⲱⲃ, ⲱⲛ (B.) (4). Loret (5), by a comparison of Coptic ⲡⲓ-ⲱⲃ for the plant suggested that the plant ibw designated it, but this identification did not appear acceptable to Keimer (6) and Von Deines and Grapow (7) consider ibw as a yet undetermined plant. Arabic Kas خس. Greek ⲉⲣⲓⲃⲁⲛ

(1) Wb I, 176, 10; CCED, p.231; FCD, p.41; Charpentier, Botanique, p.150, no.237; Helck, Materialien V, p.806.

(2) Wb I, 176, 10-14; A. Erman & H. Grapow, Aegyptisches Handwörterbuch, Darmstadt, 1961, p.24.

(3) CCED, p.231; Charpentier, Botanique, p.150, no.237.

(4) Crum, A Coptic Dictionary, p.535 b; Wb I, 176, 10; CCED, p.231; Charpentier, Botanique, p.150, no.237; Keimer, Die Gartenpflanzen I, p.122.

(5) Loret, Flore, p.69.

(6) Keimer, Die Gartenpflanzen I, p.126.

(7) WB äg. Drog., 21.

(8). It was cultivated widely in ancient Egypt from the earliest times
(9). It was thought by the Egyptians to be the aphrodisiac of the fertility god Min (10). According to the scenes, we see the lettuce was one of the main plants in the garden (11); the lettuces were cultivated in small beds shaped like small tanks (12), that had to be watered laboriously with buckets carried on a yoke across the shoulders (13). Lettuce is characterized by its straight vertical stem that may reach between between 1-1 1/2 m. in height (14). Either because of its proud vertical growth, of its verdure, or as Keimer suggested, because it is the only Egyptian plant to exude a milky juice when squeezed, it was believed to be an aphrodisiac and to be somehow associated with the reproductive function. On the other hand,

(8)Dioscorides II, 165; H.G. Liddell & R. Scott, A Greek-English Lexicon, Oxford, 1961, p.806.

(9)Hartmann, L' Agriculture, p.56; Keimer, Die Gartenpflanzen I, pp.1-2.

(10)Kees, Ancient Egypt, p.77; E. Brovarski & P. Lacovara, in : Egypt's Golden Age, p.109.

(11)Keimer, Die Gartenpflanzen I, p.1; Charpentier, Botanique, p.151.

(12)Wreszinski, Atlas, 59; Griffith, et al., Beni Hasan I, pl.XXIX; E. Naville, The Temple of Deir El Bahari V, London, 1906, p.10, pl.CXLII; Keimer, Die Gartenpflanzen I, p.1.

(13)Wreszinski, Atlas, 59.

(14)Keimer, Die Gartenpflanzen I, p.3; id, ZÄS 59, 1924, p.140;
See Figure 7.

Athenaeus believed it to cause impotence (15). This belief persists in Upper Egypt. Whatever the origin of these beliefs, the lettuce was associated with Min, the god of vegetation and procreation (16) from the Old Kingdom onwards as in the following scenes : on a rock stela at Wadi el Hammamat, VI dynasty (17), on one of the royal decree steles, which were found in Koptos (18), on a block from remains of the temple of Antef at Koptos (19) and on remains of a pillar from the chapel of Sesostris I, at Karnak (20). In these scenes, we see the god Min represented standing on a square structure which seems to be a schematic rendition of the field on which the lettuce is growing.

In the New Kingdom, lettuce was represented frequently on the monuments. Thus in Deir el Bahari temple, there are two scenes; one represents the Queen Hatshepsut offering a field to Amūn-Min, who

 (15)Athenaeus, The Deipnosophists II, 69; Keimer, ZÄS 59, p.143.

(16)Dawson, JEA 18, 1932, p.153; Keimer, ZÄS 59, p.140 ff;
 Brovarski & Lacovara, in : op. cit., p.109.

(17)MM. J. Couyat & P. Montet, Les Inscriptions Hiéroglyphiques et Hiératiques du Ouâdi Hammâmât, Le Caire, 1912-13, p.59, pl.XVI;
 H. Gauthier, Les Fetes du Dieu Min, Cairo, 1931, p.161, fig.1.

(18)R. Weill, Les Decrets Royaux de l' Ancien Empire Egyptien, Paris, 1912, pp.40, 41, pl.VII; H. Gauthier, Min, p.161, fig.6.

(19)Petrie, Koptos, London, 1896, p.10, pl.VI, 6, 12; Gauthier, Min, p.162, fig.3.

(20)H. Chevrier, ASAE 30, 1930, pl.II; Gauthier, Min, pp.162-163, fig.5.

promises the Queen to give her a great number of Sed periods; behind him are five lettuces on a table which took the shape of the front of a shrine (21). The other represents the god of Min standing on a low pedestal; behind him are three long lettuces on a square structure (22). At the temple of Luxor, we see a scene representing the King Amenophis III, before the statue of Amūn-Rē^c, god of procreation. Behind him are three lettuces on a square structure in the shape of a shrine (23). We see in the same temple in the scene of transporting the statue of Amūn-Rē^c, three lettuces on a square structure (24). At Karnak temple, an second pylon, east face, we see a scene representing Ramesses II, standing before the statue of the god, and behind him six lettuces on a support with Egyptian cornice (25). At the Ramesses III temple at Karnak, there are two scenes. One represents Ramesses III burning the incense before the statue Amunkamutef, with behind him nine lettuces on a square structure in the shape of a shrine facade with Egyptian cornice (26). And the other represents Ramesses III presenting flowers to Amunkamutef behind the god there are seven lettuces on a support (27). In the

(21) Naville, The Temple of Deir El-Bahari VI, London, 1908, p.6, pl. CLVII.

(22) Ibid., I, London, 1895, pl. XX; Gauthier, Min, p.163, fig.6.

(23) Ibid., p.170, fig.11.

(24) Ibid., p.169, fig.9

(25) Ibid., pp.263, 264, pl. IX.

(26) Ibid., pp.268, 269, pl. XI.

(27) Ibid., p.275, pl. XIII.

temple of Derr, we see Ramesses II, offering two vases of wine to Amūn-Rē^c, whose arm (upraised) supports the Δ - whip; behind him, there are two lettuces on a supports in the shape of a shrine facade (28). In Medinet Habu temple, we see in the festival scenes of (Min)-(Amūn)-Rē^c, lettuces on a square (29), amongst the festival scenes. There is also a scene representing the King Ramesses III officiating with the Nmst-jar before Amūn-Rē^c behind him there are two lettuces on a support and the offering-table which was presented by the King to the god was adorned also with two lettuces (30). We see in the same temple another scene representing the King Ramesses III preceding the figure of Min carried in procession. Behind the god, four priests carried a table which has on it five lettuces (31). From the previous scenes, we observe the following : In the Old and Middle Kingdoms, the details of the lettuce leaves are clearly drawn and the square base seems to be a schematic rendition of the field on which the plant is growing; while in the New Kingdom, the lettuce was variously seen as a cypress, a sycamore, a persea, a fig tree, a palm, an acacia, and the square structure took the shape of the shrine facade. The lettuces were drawn between two and nine in number. Before the XIX dynasty, there was presented behind the procreation god either lettuces or two flowers, while at the beginning of XIX dynasty onwards behind the god of procreation was presented lettuces

 (28) A.M. Blackman, The Temple of Derr, Le Caire, 1913, pl.33.

(29) Medinet Habu IV, pls.210-211.

(30) Ibid., IV, 214 ff.

(31) Ibid., IV, pl.201.

with flowers. At the beginning of the XVIII th dynasty, in the scenes of the temples, we see frequently the scene which represents the King presenting lettuces with both his hands to the ithyphallic god Min, (Amun-Min, Min-Kamutef, Amun-Min- Kamutef). The text often clearly states the aim of the oblation is to have the god perform the act of procreation (32). In addition to previous religious scenes, we see the lettuces appearing among offerings in many tombs (33). The lettuce was mentioned in Pap. Sallier IV (34), and Chester-Beatty Papyrus (35) connected with ithyhallic Min and Amūn. It was mentioned in the contendings of Horus and Seth; where we find the gardener told Isis : Seth does not eat any vegetable here in my company except lettuce, and Isis added the semen of Horus to it (36). It was mentioned also in Pap. Ebers, recommended to cure impotence (37). Seeds of lettuce were found from the Pharaonic period in the Berlin Museum (38) and a number of lettuce seeds were found in a Graeco-Roman pottery vase

(32) Gauthier, Min, p.166.

(33) Loret, Flore, p.68; Hartmann, L' Agriculture, p.56; Griffith, et al., Beni Hasan I, pls.XVIII-XIX; N. de G. Davies, Nakht, pl.XI; Keimer, Die Gartenpflanzen I, p.1, Abb.2.

(34) CLEM, p.333, Sallier IV, vs. 1, 9.

(35) Chester-Beatty Papyrus, no.1, 11, 10-12.


(36) W. K. Simpson, The Literature of Ancient Egypt, New Haven & London, 1972, p.120; Germer, SAK 8, 1980, p.86.

(37) Pap. Ebers, LXXXIII, 663.

(38) Loret, Flore, p.69; Hartmann, L' Agriculture, p.56; Germer, Flora, p.185.

and are on exhibit at the agricultural Museum, Cairo (39). The ancient Egyptians obtained the oil from the seeds of lettuce which is used as a salad oil and in cooking (40). At the present day, the lettuce is cultivated widely in Egypt.

Onion

Egyptian 
hdw (41). Demotic name mdr, mdwl, mdl (42). Botanical Allium Cepa L. (43). Coptic ΜΧωλ, ΕΜΧωλ, ΜΧΟΥλ (44). Arabic name Basal بصل. Hebrew בצל Bezel (45). Greek Κρόμμυον

(39) Germer, Flora, p.185.

(40) Lucas & Harris, Ancient Egyptian Materials and Industries, p.333; Keimer, Die Gartenpflanzen I, p.5.

(41) Wb III, 212, 5-9; WB äg. Drog., 385; FCD, p.182; Helck, Materialien V, p.805; Charpentier, Botanique, p.434, no.795.

(42) Erichsen, Demot. Glossar, 195, 4; Charpentier, Botanique, p.370, no.585; CCED, p.101.

(43) Loret, Flore, p.36; Tackholm & Drar, Flora III, Cairo, 1954, p.93; Keimer, Die Gartenpflanzen II, p.54; Charpentier, Botanique, p.434, no.795, p.370, no.585; Germer, Flora, p.191.

(44) Crum, op. cit., p.213 b; CCED, p.101; Charpentier, Botanique, p.370, no.585; Keimer, Die Gartenpflanzen II, p.57.

(45) CCED, p.101; Charpentier, Botanique, p.370, no.585.

(46) and ἄβροδεῖλος(47). Akkadian bisru or bisru (48). Demotic name of wild onion mdwl hwt, Coptic name of wild onion EMXWΛ 2EYT, 200YT (49). Onion was one of the principal vegetables of the Egyptians (50). It was cultivated in ancient Egypt from the Old Kingdom; where the word hdw is mentioned in the Pyramid Texts of Unis and Pepi II (51). It was depicted on the walls of the tombs of the Old Kingdom, we see it represented among other vegetables in the tomb of Gm-n-k3 (52). We see also in the tombs of the Old Kingdom, scenes representing labourers eating onions (53). From the V dynasty onwards, we find it depicted on the offering tables with cakes, beef, geese, grapes, figs, wine and the victim (54). Besides that,

(46)Crum, A Coptic Dictionary, p.213 b; Keimer, Die Gartenpflanzen II, p.57.

(47)Dioscorides II, 199; Pliny II, 20.

(48) CCED, p.101; Charpentier, Botanique, p.370, no.585.

(49)Crum, op. cit., p.213 b; CCED, p.101.

(50)Newberry, in : Petrie, Kahun, p.48; See Figure 8.

(51)L. Speleers, Les Textes des Pyramides Egyptiennes II, p.71; Loret, Sphinx 8, 1904, p.144; Keimer, Die Gartenpflanzen II, p.55.

(52)W. von Bissing & A. Weigall & M. Bollacher, Die Mastaba des Gem-ni-kai, 2 vols. Berlin, 1905-1911, p.41, pl.XXVI, no.61, 67.

(53)A. Mariette, Les Mastabas de l' Ancien Empire, Paris, 1889, pp.340, 347; Hartmann, L' Agriculture, p.59.

(54)Loret, Sphinx 8, p.144; Hartmann, L' Agriculture, p.57; Keimer, Die Gartenpflanzen II, p.55.

Herodotus (55) related that the builders of the pyramid of Cheops consumed a great amount of vegetables including onions, garlic and radishes, which were among the popular foods in Egypt. From the Middle Kingdom, there is a scene in the tomb of Chnemhotep, XII dyansty, representing cultivation of onions in small beds shaped like small tanks, and irrigation of it by buckets carried on a yoke across the shoulders (56). From the New Kingdom, we find onions mentioned frequently in the Miscellanies and monuments of the New kingdom; in Pap. Anastasi III (57), it is mentioned in the letter which the scribe P \bar{b} es worte to Amenemop \check{e} in order to give him a report on the Delta Residence. Also, in Pap. Harris I, it is mentioned that Ramesses III offered to the temple of R \bar{e}^c 12,712 measures of onions (58) and to the temple of Ptah 2,366 measures of onions (59). In the texts from the New Kingdom, it is mentioned that onions should be worn around the neck on the Soker festival (60); we find that on the following monuments :

(55) Herodotus II, 125.

(56) Griffith, et al., Beni Hasan I, pl. XXIX; Keimer, Die Gartenpflanzen II, p.54.

(57) CLEM, p.74, Anastasi III, 2, 4.

(58) Pap. Harris I, 38 a, 14; Helck, Materialien V, p.805

(59) Pap. Harris I, 54 b, 10; Helck, Materialien V, p.805.

(60) Keimer, Die Gartenpflanzen II, p.56; Helck, Materialien V, p.806.

Concerning the Soker festivals at Medinet H \bar{a} bu, see : Gaballa & Kitchen, Orientalia 38, 1969, pp.1-76.

In the tomb of Amunmosi at Thebes, we find the following text (61) r3 n ts hdw r hh.k grh ntryt hb di.tw n.k hdw r hh.k "spell for tying onions at your neck (on) the night of the Neteryt-festival : one places for you onions at your neck". In the tomb of Iuy at Thebes (62) snw hdw m hb Skr "smelling onions on the Feast of Soker". In the tomb of Paser at Thebes (63) di.f šms.i.... hdw r hh.i hrw [Sk]r "May he cause me to follow ..., (with) onions at my neck" On the statue of Sennufer, XVIII dynasty, British Museum (64) hn.i m hdw m hb Skr "My garland with onions in the Feast of Soker". In the tomb of Min at Sheikh Abd el Qurna, XVIII dynasty (65) ts tw n hn m hdw "One tying garland together with onions". On statue of ^{cc}im, dyn. XIX-XX (66) hdw r hh.i "onions at my neck". On a funerary stele, dynasty XIX (67) hdw (r) hh.f hrw phr in[bw] "onions (at) his neck"

 (61)Keimer, Egyptian Religion I, 1933, p.54; id, Die Gartenpflanzen II, p.58, note 36.

(62)Keimer, Die Gartenpflanzen II, p.58, note 36; MMAF 5, 1894, p.653.

(63)Keimer, Egyptian Religion I, p.53; id, Die Gartenpflanzen II, p.58, note 36.

(64) Urk IV, 548; Keimer, Die Gartenpflanzen II, p.58, note 36

(65)P. Virey, RT 9, 1887, p.28; MMAF 5, p.364; Keimer, Die Gartenpflanzen II, p.58, note 36.

(66) Ibid., II, p.58, note 36.

(67) Ibid., II, p.58, note 36; Funerary Stele Louvre C 102.

(at) day change (or move) the walls". On stele, dyn. XIX-XX (68)
šms Skr hdw r hh.i "follow Soker onions at my neck".

Although onions were well-known from the scenes and texts during the Old Kingdom, actual onions have not been found from earlier than the New Kingdom onwards; where several bundles of onions with their stalks were found by Schiaparelli, in the tomb of Kha^c at Thebes, dynasty XVIII (69). About fourteen onions with part of their stalks were found by Quibell, in the tomb of Yuia and Thuia, dynasty XVIII (70). Two bundles of young onions were found at Deir el Medina by Bruyère (71). A wooden model of an onion, found at Saqqara, Late Period, is kept in the Agricultural Museum, Cairo (72). There are amounts of onions preserved in the museums; about hundred small onions of black to bright brown colour and with the outer tunics removed are kept in the Louvre Museum (73). Some small onions found at Thebes by Passalacqua, J., are in the Egyptian Museum at Berlin,

(68)Keimer, Die Gartenpflanzen II, p.58, note 36.

(69)E. Schiaparelli, La Tomba Intatta dell' Architetto ^cha, Turin, 1927, p.162, fig.146; Brovarski & Lacovara, in : op. cit., p.109.

(70)J.E. Quibell, The Tomb of Yuia and Thuia, Cairo, 1908, no.51186.

(71)B. Bruyère, Rapport sur les Fouilles de Deir el Médineh (1934-1935), (FIFAO), Le Caire, 1939, p.109.

(72)Täckholm & Drar, Flora, III, p.105.

(73)V. Loret, & J. Poisson, RT 17, 1895, p.184; M.A. Beauverie, BIFAO 35, 1935, p.125.

(no.1596) (74). Smith, G. E., examining the mummies of a number of priests and priestesses of the XXI dynasty, noted that onions were frequently put inside the body cavity (75). In the mummy of Ramesses IV, he found small onions put in front of the collapsed eyes (76). and an onion was found in the left armpit of the mummy of Ramesses II (77). Other finds of onions on mummies are mentioned by Daressy (78) who noted when examining some bodies of Amun priests of the XXI dynasty, that one had some flowering onions placed on the chest and another some onions attached to the sole of the foot and along the legs. Finally, Ruffer, M. A., (79) without any details, mentioned that onions were found with mummies as early as the XIII dynasty, this statement is contradicated by Smith, and Dawson, who date the use of onions in embalming to the XVIII dynasty.

(74)A. Braun, ZE 9, 1877, p.309.

(75)G.E. Smith, MIE 5, fasc.1, 1906, pp.30-31, pl.14, 15.


(76) Ibid., p.28.

(77)G.E. Smith, The Royal Mummies, Cairo, 1912, p.64.

(78)G. Daressy, ASAE 8, 1907, pp.32-34.

(79)M.A. Ruffer, MIE 1, 1919, pp.74, 76.

Leek

Egyptian 

i3kt (80). Botanical Allium Porrum L. (81). Coptic name

ḤḶḶ (S.), ḤḶḶ (B.) (82). Arabic Kurrat كرات. Hebrew
פ.ג.ז (83). Greek name Πραδον (84). Keimer mentioned

that the leek was introduced mostly into Egypt from Syria (85). It was one of the garden plants in ancient Egypt (86). It was served as food for the common people, as the case today. It is tall, stout plant with a narrow white bulb, leaves solid, 1/2-1 m. long, up to 5 cm. broad at base. Scape solid, up to 1 m. long, carrying a large spherical umbel, flowers long-pedicelled, segments greenish white or

(80) Wb I, 34, 1; WB äg. Drog., 12; FCD, p.9; CCED, p.42;

Charpentier, Botanique, p.50, no.74; Loret, Sphinx 8, 148.

(81) Loret, Flore, p.37; Hartmann, L' Agriculture, p.55; Keimer, Die

Gartenpflanzen II, p.59; Täckholm & Drar, Flora III, p.83;

Charpentier, Botanique, p.50, no.74; Germer, Flora, p.193.

(82) Crum, op. cit., p.67 b; Wb I, 34; CCED, p.42; Charpentier,

Botanique, p.50, no.47; Loret, Sphinx 8, p.145; id, RT 16, p.2

(83) Wb I, 34; Keimer, Die Gartenpflanzen II, p.60; Charpentier,

Botanique, p.50, no.74.

(84) Crum, op. cit., p.67.

(85) Keimer, Die Gartenpflanzen II, p.59.

(86) Ibid., II, p.59.

rosy (87). Pliny (88) alone among the classical writers, who wrote that the most esteemed leek came from Egypt. Concerning the leek, one of the most important proofs of its occurrence in ancient Egypt is the Bible; it is mentioned that during Exodus the Israelites regretted onions as well as melons, the leek and the garlic (89). Schiaparelli, 1886, found three bundles of leeks in a tomb at Dra^c Abu el Naga, dyn.: XX-XXVI, and he found also a bundle of leeks with its leaves in a tomb at ^cAsasif, its length about 60 cm. (90). Davies found bundles of leeks with their leaves in the tomb of Yuia and Thuia, dynasty XVIII (91). Undated seeds of leek found at Thebes are now on exhibit at the Cairo Agricultural Museum (92). The leek was represented on the offering tables of the tombs (93), the steles (94), and the temples (95). The ancient Egyptian name of the leek i3kt was mentioned in the papyri and inscriptions of the tombs

(87) Täckholm & Drar, Flora III, p.83.

(88) Pliny XX, XXI, XXII, 44-49.

(89) Bible, Numb., XI, 5; Loret, Flore, p.37; id, RT 16, p.1; Germer, Flora, p.194.

(90) Keimer, Die Gartenpflanzen II, p.59; Germer, Flora, p.194.

(91) Keimer, Die Gartenpflanzen II, p.59.

(92) Täckholm & Drar; Flora III, p.104; Germer, Flora, p.194.

(93) Griffith, et al., Beni Hasan I, pl.XXXV; Hartmann, L' Agriculture, p.55.

(94) Ibid., p.55.

(95) Ibid., p.55; Helck, Materialien V, p.198; Germer, Flora, p.194.

: In Pap. Westcar (96) t h3 hnkt ds 100 iw3 1 i3kt hršw 100 "a thousand loaves of bread, 100 jars of beer, an ox, 100 bundles of leeks". In Pap. Anastasi III (97), where the report which the scribe Pbes sent to his lord the scribe Amenemope about the Delta Residence "its granaries are full of barley and emmer : they draw near to the sky. Onions and leeks of the tr, lettuce of the grove". In Pap. Anastasi IV (98), where the letter which the scribe Amenemope sent to Pbes to make preparations for Pharaoh's arrival "apply yourself leek bulbs, 60 baskets". It is mentioned in tombs inscriptions from VII dynasty (99) and the Middle Kingdom (100) at Dendera. The ancient Egyptians employed the leek for medicinal purposes; it is mentioned in the Pap. Ebers (101) they employed i3kt knkn "beaten leek" for psh n rmtt human bites. Pliny (102) mentioned also the bites of beasts are treated by the leek in vinegar as are those of serpents and other poisonous creatures. The juice also is drunk with wine to counteract the bites of serpents and of scorpions.

 (96) Pap. Westcar, IX, 1, 20-21.

(97) CLEM, p.74, Anastasi III, 2, 4-5.

(98) Ibid., p.199, Anastasi IV, 14, 12.

(99) Petrie, et al., Denderah, London, 1898, pl.10.

(100) Keimer, Die Gartenpflanzen II, p.60, note 6.

(101) Pap. Ebers, 64, 6.

(102) Pliny XX, 21-22.

Garlic

Low-growing perennial plant, leaves flat, linear long-pointed up to 25 mm. broad, scape solid, up to 1 m., pedicels long, with scarious bracts at the base. Flowers white or pink. It is harvested in 5-6 months from the time of planting (103). This plant was cultivated in ancient Egypt; where Herodotus (104) mentioned that the pyramid builders consumed a great amount of vegetables including onions and garlic which were among the popular foods of the country. Pliny (105) stated that garlic and onion were treated as gods by the Egyptians when taking an oath. In the Bible (106), it is mentioned that during the Exodus the Isralites regretted the lack of garlic. In addition to these, substantial finds of garlic were found in the tombs. Clay models of garlic were found at Mahasna in the Predynastic cemetery (107). A bundle of garlic with stalks and bulbs was found by Schiaparelli, in the tomb of Kha^c at Thebes, dynasty XVIII (108). Six bulbs of

(103) Täckholm & Drar, Flora III, pp.87-88; See Figure 9.

(104) Herodotus II, 125.

(105) Pliny XIX, I; Ruffer, MIE 1, 1919, p.76; E. Brovarski & P. Lacovara, in : op. cit., p.109.

(106) Bible, Numb., XI, 5.

(107) E. Ayrton, & W. Loat, Pre-dynastic Cemetery at El-Mahasna, London, 1911, pl.16; E. Brovarski, & P. Lacovara, in : op. cit., p.109.

(108) E. Schiaparelli, Tomba Cha, p.162, fig.146; Täckholm & Drar, Flora III, p.103; Germer, Flora,

garlic were found by Carter and Carnarvon in the tomb of Tutankhamun (109), they were determined as Allium Cepa by Lucas (110), later they were re-identified by Tackholm and Drar, as Allium Sativum (111). A number of scapes and leaves bundled together, height about 60 cm. were found by Schiaparelli, in a tomb at ^cAsasif, dyn. XX-XXVI (112). He found also three bundles of garlic, their height between 10-12 cm. in a tomb at Dra^cAbu el Naga (113). Bulbs of garlic were found in a tomb at Deir el Medina from the New Kingdom (114). Several small bundles of garlic scapes and leaves bound together with halfa grass are kept in the Agricultural Museum, Cairo; they were brought from Luxor, undated (115). This plant seems not to appear in tomb-scenes. In Pap. Harris I (116), there is a word htn/hdn among a list of offering presented by Ramesses III to the gods; Loret (117) and Keimer (118) mentioned that this word means

 (109) Tackholm & Drar, Flora III, p.103; Germer, Flora, p.194.

(110) A. Lucas, ASAE 41, 1942, p.142.

(111) Tackholm & Drar, Flora III, p.103.

(112) Loret, Sphinx 8, p.138; Schwienfurth, BIE 6, 1886, p.49; Hartmann, L' Agriculture, p.58; Tackholm & Drar, Flora III, p.103.

(113) Loret, Sphinx 8, p.138; Schwienfurth, BIE 6, p.52.

(114) Darby, et al., Food II, p.660.

(115) Ibid., II, p.103.

(116) Pap. Harris I, 19 a, 13, 14; 72 b, 10.

(117) Loret, Sphinx 8, pp.141-143.

(118) Keimer, Die Gartenpflanzen II, pp.60-61.

garlic for the following reasons : This word was found between the two words š3wt, which means vegetables, it is probably cabbage, and i3rrt which means grapes. So, the word htn/hdn means garlic. The word htn/hdn was found also among a list of offerings between the two words š3wt "cabbage" and prrt šm^ct "southern fruit" which Ramesses III presented to the gods during the thirty-one year of his reign. The word htn/hdn could be identified with the Coptic word Ⲯⲗⲏⲛ(S.) Ⲯⲗⲏⲛ (B.) which means garlic (119). The word hdn was mentioned in a demotic papyrus in Leiden (120). Its ancient Greek name was βκορδον (121). As to the present day Arabic name Thoum ثوم, this is derived from Akkadain Shumu (122).


 (119)Crum, A Coptic Dictionary, p.615 b; Wb III, 354, 7; CCED, p.263; Charpentier, Botanique, p.544, no.872.

(120)F.Ll. Griffith & H. Thompson, The Demotic Magical Papyrus of London and Leiden, London, 1904, verso col. v 12, 17.

(121)Crum, op. cit., p.615 b; Loret, Sphinx 8, p.141; Keimer, Die Gartenpflanzen II, p.61.

(122)R. Campbell & Thompson, A Dictionary of Assyrian Botany, London, 1949, pp.52, 55.

Coriander

Egyptian 

§3w (123). The Egyptian name of coriander seeds was pr.t s3w (124).

Botanical name Coriandrum Sativum L. (125). Coptic name is

ВрϣНΥ(S.), ВЕРϣНОΥ(B.) (126). The Arabic name is Kuzbara

Greek was Χόριον (127). It is an annual plant, strong smelling,

glabrous, 40-50 cm. high plants, umbels 5-10 rays, petals radiating

(128). Sown in middle of December, cut in 4 months (129). Pliny

(130) mentioned that "..... the best coriander, as is generally

agreed, is the Egyptian". In The Bible, it is mentioned that ".... and

the house of Israel called the name there of Manna : and it was like

coriander seed, white; and the taste of it was like wafers made with

(123) Wb IV, 400; WB ag. Drog., 474; FCD, p.261; Charpentier,
Botanique, p.642, no.1047; Helck, Materialien V, p.802.

(124) Wb IV, 400; Pap. Ebers, 238; Pap. Hearst, 87; Charpentier,
Botanique, p.642, no.1047.

(125) Loret, Flore, p.72, no.122; Keimer, Die Gartenpflanzen I, p.40;
Charpentier, Botanique, p.642, no.1047; Germer, Flora, p.135.

(126) Crum, op. cit., p.44 a; Wb IV, 400.

(127) Dioscorides III, 63; Crum, op. cit., p.44 a.

(128) A.H. Montasir & M. Hassib, Illustrated Mannual Flora of Egypt,
part I, 1956, p.340.

(129) Wilkinson, op. cit., II, p.398.

(130) Pliny XX, 82.

honey" (131). Concerning substantial finds; remains of coriander found in Tutankhamun's tomb, are now kept at the Agricultural Museum Cairo, (cat. no.4206) (132). Schweinfurth found coriander in material from XXI dynasty tomb at Deir el Bahari (133). Petrie (134) found coriander in a cemetery at Hawara from the Graeco-Roman Period. In the Leiden Egyptian Museum, there are two packets of coriander grains which were found in a tomb (135).

The coriander was mentioned in the papyri of the New Kingdom onwards, where we find it mentioned in Pap. Anastasi IV (136) "the pupil declares his intention to build a new villa for the teacher, planted <with> trees on every side of it, there are therein coriander". In Pap. Anastasi IV (137), where the letter which Amenemop̄e sent to P̄bēs to make preparations for Pharaoh's arrival says "apply yourself with and coriander". Also in Pap. Harris

(131) Exodus XVI, 31.

(132) Germer, Flora, p.136.

(133) Loret, Flore, p.72, no.122; id RT 15, p.107; Keimer, Die Gartenpflanzen I, p.40.

(134) Newberry, in : Petrie, Hawara, p.52; Loret, Flore, p.72, no.122; Keimer, Die Gartenpflanzen I, p.40.

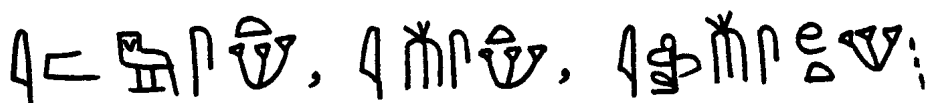
(135) Loret, Flore, p.72, no.122; id, RT 15, p.107; Keimer, Die Gartenpflanzen I, p.40.

(136) CLEM, pp.164, 165, Anastasi IV, 8, 11.

(137) Ibid., p.200, Anastasi IV, 15, 11.

I (138), where it is mentioned that Ramesses III, offered to the temple of Amun 620 measures of coriander. In the same papyrus (139), it is mentioned also that Ramesses III, offered to the lesser gods 390,215 measures and bundles of coriander, garlic and southern fruit. Pliny (140) mentioned that the coriander was used medically : it was used as an antidote for the poison of one kind of serpent; it was used with honey or raisins for healing spreading sores; was used with honey or raisins for treatment of diseased testes, burns, sore ears; was used with woman's milk for treatment of fluxes of the eyes, and it was taken in drink with rue for treatment of cholera. This plant has not been identified in tomb-scenes.

Dill

Egyptian ;
ims.t (141). The Egyptian name of dill seeds was

 (138) Pap. Harris I, 19 a; Helck, Materialien, IV, p.802.

(139) Pap. Harris I, 72, 10.

(140) Pliny XX, LXXXII, 216, 18 select.

(141) Wb I, 88, 9; WB äg. Drog., 34; CCED, p.35; Charpentier, Botanique, p.80, no.134; Keimer, Die Gartenpflanzen I, p.37.

pr.t imś.t (142). Demotic word ims.t, 3mys (143). Botanical name Anethum graveolens (144). Coptic name is ΔΜΙCΙ(B.), ΕΜΙCΕ (S.), ΕΜΙC (A.) (145). Arabic Shabat شبة. Greek ἄνηθον, ἄνητον (146). It is an annual plant, glabrous, 30-50 cm. high plant, umbels many-rayed, flowers yellow, fruit elliptical (147). Nowadays finding dill growing wild in Egypt is practically sufficient to prove its existence in ancient Egypt as well (148). This was later proved true by Schweinfurth, who found in the tomb of Amenophis II, eight twigs of this plant (149). Kees (150) mentioned that a medicinal herb was dill which was called amsety. It was elevated to become one of the four divinities of the Canopic jars who protected the stomach and entrails the dead so that they should not suffer hunger or want. In this way it personified certain vital characteristics of men in divine form. The dill was mentioned frequently in the fol-

(142) Keimer, Die Gartenpflanzen I, p.37; Charpentier, Botanique, p.80.

(143) CCED, p.35; Charpentier, Botanique, p.80, no.134.

(144) Loret, Flore, p.71, no.120; Keimer, Die Gartenpflanzen I, p.37; Germer, Flora, p.142.

(145) Crum, op. cit., p.56 a; Wb I, 88, 9; CCED, p.35; Charpentier, Botanique, p.80, no.134; Keimer, Die Gartenpflanzen I, p.147.

(146) Theophrastus I, 11.2; Dioscorides III, 58; Crum, op. cit., p.56.

(147) Montasir & Hassib, op. cit., I, p.333.

(148) Loret, Flore, p.71, no.120; id, RT 7, p.107.

(149) Keimer, Die Gartenpflanzen I, p.37; Germer, Flora, p.143.

(150) Kees, Ancient Egypt, pp.77-78.


lowing medicinal papyri: Pap. Ebers (151), Pap. Hearst (152), Pap. Berlin (3038) (153), for relieving headache and to soften the vessels or limbs. This plant does not seem to appear in tomb-scenes.

(151) Pap. Ebers, XLVII, 12-13; LXXXI, 10-14.

(152) Pap. Hearst, III, 13-15.

(153) Pap. Berlin 3038, XV, 8-10.

Celery

Egyptian name  m3tt (154). Demotic name myt (155). Botanical Apium graveolens L. (156). Coptic name MIT (S.B.), EMIT (B.) (157). Arabic Karafs كرفس. Greek βέλινον (158). Celery was well-known as a vegetable, but at the same time a symbol of sorrow, not only in Egypt, but also in ancient Greece. There was a saying in Greece, when somebody was about to die "he will soon need celery" (159). In the medical papyri, there are recorded four kinds of the celery (160); m3tt "m3tt cultivated", m3tt mhyt "marsh m3tt", m3tt mhty "northern m3tt", m3tt h3st "desert or mountain

(154) CCED, p.92; Charpentier, Botanique, p.320, no.501; Loret, RT 16, 1894, p.7; G. Léfèbvre, Essai sur la Médecine Egyptienne de l' Epoque Pharaonique, Paris, 1956, 54, 149.

(155) Charpentier, Botanique, p.320, no.501.

(156) Loret, Flore, p.70; id, RT 16, 1894, p.7; Keimer, Die Gartenpflanzen I, p.39; Täckholm, LÄ II, p.273; Charpentier, Botanique, p.320, no.501; Germer, Flora, p.137.

(157) Crum, op. cit., p.188 a; CCED, p.92; Charpentier, Botanique, p.322.

(158) Dioscorides III, 64; Loret, RT 16, p.7; Liddell & Scott, A Greek-English Lexicon, p.1590.

(159) Täckholm, LÄ II, p.273.

(160) Loret, RT 16, pp.8, 11; Charpentier, Botanique, p.320, no.501; Germer, Flora, p.137.

m3tt". Loret (161) mentioned that the northern m3tt probably was introduced into Egypt from Syria from XVIII dynasty onwards. Celery was found in garlands adorning mummies; the evidence is the garland of Kent's mummy, XX dynasty; it is composed of celery and petals of the blue lotus (162). And there is a celery garland found around the neck of a mummy which is kept in the Agricultural Museum, Cairo (163). Celery seeds which were found in a tomb are exhibited in the Florence Museum (no.3628) (164). The Agricultural Museum in Cairo possesses a few remains from the New Kingdom found at Thebes (165). Medically, it was given to retain urine (166), and it was applied externally to wounds (167), and stiff joints (168). This plant, too seem not to appear in tomb-Paintings.

 (161)Loret, RT 16, p.11.

(162)Loret, Flore, p.70; Hartmann, L' Agriculture, p.56; Keimer, Die Gartenpflanzen I, p.39; Germer, Flora, p.137.

(163)Täckholm, LÄ II, p.273.

(164)Loret, Flore, p.70; id, RT 16, p.7; Hartmann, L' Agriculture, p.56; Germer, Flora, p.137.

(165)Darby, et al., Food II, p.670.

(166) Pap. Ebers, L, 282.

(167) Ibid., LXVIII, 487.

(168) Ibid., LXXX, 634.

Parsley

Botanical name Apium Petroselinum L. (169). Of the four varieties of m3tt mentioned in ancient Egyptian texts, the northern variety m3tt mhyt has been identified by Loret (170) with parsley. Léfèbvre (171) was of opinion, however, that parsley was m3tt h3st "desert or mountain parsley". He based his translation on the resemblance in meaning of this word to Greek for parsley $\pi\epsilon\tau\rho\sigma\epsilon\lambda\iota\nu\omicron\nu$ (desert or rock parsley or celery). Arabic Baqdounes بقرونس . The extent of its use as a foodstuff in ancient Egypt is not evident, but Keimer (172) accepted that it was cultivated in ancient Egypt since it is still being sold in Egyptian plant markets. Medically, m3tt h3st was prescribed against urinary incontinence (173), to treat an obstacle in the right side (174). Pliny (175) described two kinds of parsley which confirm the meaning of the word "desert or mountain m3tt" mountain parsley beneficial to the urine and menses and rock parsley especially good for abscesses. This plant, too seems not to appear in tomb-scenes.

(169)Loret, Flore, p.11; Keimer, Die Gartenpflanzen I, p.39; Germer, Flora, p.144.

(170)Loret, RT 16, p.11.

(171)Léfèbvre, op. cit., 56, 149.


(172)Keimer, Die Gartenpflanzen I, p.39.

(173) Pap. Ebers, I, 282.

(174) Ibid., XLIII, 209.

(175)Pliny XX, XLVI, 117, 118.

Purslane

Egyptian  mhmhwt (176). Botanical Portulaca Oleracea L. (177). Coptic name is ME2MOY2E (S.), ME2MOY2I(B.) (178). Arabic name is Regla^د. Greek ΑΝΔΡΑΧΝΗ (179). Glabrous fleshy plant, petals usually 5 (4-6); stamens 5 or more, fruit a capsule opening by a lid, seeds tubercled, flowers smell, yellow, opening in the morning only (180). This vegetable is now commonly eaten as a salad or in stews (181). This plant, too seem not to appear in tomb-paintings.

(176) Wb II, 131, 15; CCED, p.99; Charpentier, Botanique, p.356, no.558.

(177) Loret, Flore, p.72, no.124; Täckholm, Students Flora of Egypt, Beirut, 1974, p.76; Germer, Flora, p.29.


(178) Crum, op. cit., p.211 b; Wb II, 131, 15; Charpentier, Botanique, p.356.

(179) Crum, A Coptic Dictionary, p.211 b.

(180) Täckholm, op. cit., p.76.

(181) Darby, et al., Food II, p.76.

Cucumber

Egyptian  'šp.t (182), š(s)p.t (183) and šb.t (184).

Probably cucumber seed was



pr.t šb.t (185). Demotic word špi (186), or šwbi (187). Botanical

name Cucumis Sativus (188) Coptic name ϣωπε, ϣωβε,

plur. ϣοοβε (189). Coptic name of cucumber seed βρα

(182) Wb IV, 284, 11; CCED, p.249; Charpentier, Botanique, p.616,
no.1002; Helck, Materialien V, p.804.

(183) Wb IV, 536, bottom; CCED, p.249; Charpentier, Botanique,
p.616, no.1002.

(184) Wb IV, 438, 2-4; WB äg. Drog., 485; CCED, p.249;
Charpentier, Botanique, p.662, no.1081.

(185) Wb IV, 438, 4; CCED, p.249; Charpentier, Botanique, p.662,
no.1081.

(186) KHW p.203; Erichsen, Demot. Glossar, 503, 2; CCED, p.249;
Charpentier, Botanique, p.662, no.1081.

(187) Erichsen op. cit., 496, 4; Charpentier, Botanique, p.662,
no.1081, p.694, no.1144; Griffith & Thompson, The Demotic
Magical Papyrus of London and Leyden III, (81), no.835; CCED,
p.249.

(188) Loret, Flore, p.75, no.129; Hartmann, L' Agriculture, p.55;
Darby, et al., Food II, p.694; Germer, Flora, p.129.

(189) Crum, op. cit., pp.580 b, 581 a; Charpentier, Botanique, p.662,
no.1081, p.694, no.1144; CCED, p.249; Keimer, Die
Gartenpflanzen I, p.103.

ὕωνε (190). Arabic name Khiyar, خيار. Greek βικύος, βικύός
 (191). The cucumber was cultivated in the tropical regions. It is an
 annual plant. Stem angular, petioles and peduncles covered with
 spreading stiff hairs. Leaves hispid, bright green, generally 11 cm.
 long and 12 cm. broad, pedately 6-7 nerved, short palmately
 3-5-lobed, lobes triangular. Fruit very variable in length and breadth,
 yellow-green, glabrous, covered with distant rounded tubercles. Seeds
 white, 1 cm. long, 0.3-0.4 cm. broad. Flowers February to April
 (192). In the Bible (193), it is mentioned that during the Exodus the
 Israelites regretted the lack of onions, as well as the cucumbers, the
 melons, the leek and the garlic. Concerning substantial finds; Petrie
 found fragments of leaves and stems of cucumber at Kahun, XII dy-
 nasty (194). Petrie found also seeds of cucumber in a tomb at Hawara,
 from the Graeco-Roman Period (195). The cucumber was represented

 (190)Crum, op. cit., p.581 a; Charpentier, Botanique, p.662,
 no.1081; CCED, p.249.

(191)Liddell & Scott, op. cit., p.1598 a.

(192)R. Muschler, A Manul Flora of Egypt II, p.936.

(193) Bible, Numb. XI, 5.

(194)Newberry, in : Petrie, Kahun, p.50; Loret, Flore, p.75;
 Hartmann, L' Agriculture, p.55; Germer, Flora, p.129.

(195)Newberry, in : Petrie, Hawara, p.52; Loret, Flore, p.75;
 Keimer, Die Gartenpflanzen I, p.15; Germer, Flora, p.129.

in the tombs on the offering tables (196); where we find it represented among the offerings in the tombs of Amenemhēt (197), Nakht (198) and Nebamūn (199) at Thebes, XVIII dynasty. Also, we find it represented in Deir el Bahari temple (200). There is found cucumber-shape bottle in Sedment tomb (2010), dynasty XIX-XX; its length 16.6 cm.; width 4,8 cm. A similar faience bottle was found at Gurob, among a group of objects dated to the reign of Amenophis III (201). Small bottles and flasks of this sort may have been used to hold additives for beer and wine (202).

The cucumber was mentioned in the papyri, where we find it mentioned in Pap. Anastasi IV (203), when the pupil declared his in-

 (196) Loret, Flore, p.75, no.129; Hartmann, L' Agriculture, p.55; Helck, LÄ II, p.921; J.K. McDonald, in : Egypt's Golden Age, p.115.

(197) Nina de G. Davies & A.H. Gardiner, The Tomb of Amenemhēt, London, 1915, pl.XIX.

(198) N. de G. Davies, Nakht, pls.X, XI, XX.

(199) T. Säve-Söderbergh, Four Eighteenth Dynasty Tombs, Oxford, 1957, pl.XX; Helck, LÄ II, p.921.

(200) Naville, The Temple of Deir el Bahari I, pl.XV.

(201) Petrie, Illahun, Kahun and Gurob (1889-1890), London, 1891, p.17; Petrie, & Brunton, Sedment, London, 1924, p.32; McDonald, in : op. cit., p.115; See Figure 10.

(202) McDonald, in : op. cit., p.115.

(203) CLEM, p.165, Anastasi IV, 9-2.

tention to build a castle for his teacher. He said that "I will tend for you five cucumber-beds to the south of your village and the cucumbers, carobs and i3ds-plants, will be abundant ". In Pap. Anastasi IV (204), in the letter which Amenemopē sent to Pḥēs to make preparations for Pharaoh's arrival, he says "apply yourself with cucumbers, 50 g3y-bowls, carobs, 50 g3y-bowles, leek bulbs, 60 baskets, amounting to 120 handfuls". Also in Pap. Harris I, where it is mentioned that Ramesses III offered to the temple of Rē^c at Heliopolis : sšp c 11,872 (205) "cucumbers : bowls, 11,872", sšp m ipt 106,000 (206) "cucumbers in measures 106,000". To the temple of Ptah at Memphis : sšp m ipt 21,000 (207) "cucumbers in measures 21,000". This plant has been identified in tomb-paintings.

Cabbage

Botanical name Brassica oleracea L. (208). Its flowers big, pale, 1.8-2.5 cm. long, fruit 10 cm. long, torulose, stout, vary glaucous, glabrous. Radical and lower leaves thick, fleshy, ovate or oblong, 15-20 cm. long, with white, terminal lobe very large, nearly round or ovate, middle stem leaves clasping, oblong. Upper less clasping,

 (204) Ibid., p.199, Anastasi IV, 14, 12.

(205) Pap. Harris I, 40 a, 1.

(206) Pap. Harris I, 40 a, 2.

(207) Pap. Harris I, 56 a, 1.

(208) Loret, Flore, p.108, no.183; Keimer, Die Gartenpflanzen II, p.30; Germer, Flora, p.51.

oblong linear (209). Cabbage was extensively cultivated in Egypt in Graeco-Roman Periods (210). Several seeds and fragment of leaves of the cabbage were found in a cemetery at Hawara from the Graeco-Roman Period (211). Pliny, Athenaeus and Dioscorides mentioned that cabbage grown in Egypt when compared with the quality produced in Asia minor or the Greek Islands "..... The cabbage which grows in Cyme is very good and sweet, but in Alexandria it is bitter. Seed brought from Rhodes to Alexandria produces a cabbage which is sweet for the first year, but after that period it becomes bitter" (212). Athenaeus (213) mentioned also that among the Egyptians it was the custom to eat boiled cabbage before all the rest of their food and he added they esteemed it as one of the most delicate of all vegetables known in ancient times. Keimer (214) mentioned that cabbage was cultivated in Egypt in the New Kingdom onwards. Breasted mentioned that Ramesses III offered to the god Amūn 620 measures of cabbage, where he translated the Egyptian word š3w.t, which is mentioned in Pap. Harris I, as cabbage (215). The word š3w.t men-

 (209) Montasir & Hassib, Illustrated Manual Flora of Egypt I, p.143.

(210) Newberry, in : Petrie, Kahun, p.47.

(211) Ibid., p.47; Loret, Flore, p.108; Keimer, Die Gartenpflanzen II, p.30; Germer, Flora, p.51.

(212) Pliny XX, 35; Athenaeus IX, 369; Dioscorides II, 146.

(213) Athenaeus I, 1.

(214) Keimer, Die Gartenpflanzen II, p.31.

(215) Breasted, AR IV, p.137.

tioned also in Pap. Sallier II (216), and Anastasi VII (217), Loret (218) translated it as cabbage and mentioned also Coptic word

ΠΙ-ΥΥ ΗΟΥ, which means cabbage identified the Egyptian word š3w.t. The translation of Loret and Breasted š3w.t as "cabbage" is not accepted by Egyptologists (219).

Gourd

Botanical name Lagenaria Vulgaris Ser. (220). The gourd was cultivated in the tropical regions of both the new and old world (221). Herbs with thick angled stems. Petiole of leaves straight, thick, often hollow, 5-30 cm. long, with short tooth like glands. Leaves 2-10 cm. broad. Sepals narrowly triangular (222). Flowers 5-10 cm. diameter, fruit extremely variable in size and shape. Flowers, February to March (223). Concerning substantial finds, it was found in the tombs; where Schweinfurth found gourd in a tomb at Dra^c Abu el Naga, XII

(216) Pap. Sallier II, 6, 6-7.

(217) Pap. Anastasi VII, 1/7.

(218) Loret, RT 16, p.3, note 9.

(219) See under Coriander.

(220) Loret, Flore, p.74; Loret, & Poisson, RT 17, p.189; Keimer, Die Gartenpflanzen I, p.13; Germer, Flora, p.133.

(221) Muschler, op. cit., II, p.934; Keimer, Die Gartenpflanzen I, p.13; Germer, Flora, p.133.

(222) Montasir & Hassib, op. cit., I, pp.469-470.

(223) Muschler, op. cit., II, p.934; Germer, Flora, p.133.

Cress

Demotic name hlyn (228). Botanical Lepidium Sativum L. (229).
Coptic ϣλδειν, ϣλειν (S.) ϣληιμι, δληιμι (B.)
(230). Arabic Rashad رشاد. Greek χάρδαμον (231). This
plant is tall, 30-60 cm. high, glabrous plant with slender. Leaves
undivided, linear to 1-2 pinnatisect. Pod over 5 mm. long, style
shorter than sinus (232). Cress was known by the ancient Egyptians
(233) It was found in ancient Egypt from the XVIIIth dynasty (234).
Grains of this plant were found in a tomb at ^cAsasif, from the
Graeco-Roman Period (235). In the Florence Museum (n.3624), there
are grains of this plant, which was found in a Pharaonic tomb (236).

(228) Erichsen, Demot. Glossar, 369, 1; Charpentier, Botanique,
p.522, no.851; CCED, p.241.

(229) Loret, Flore, p.110, no.189; Keimer, Die Gartenpflanzen II,
p.28; Charpentier, Botanique, p.522, no.851; Germer, Flora,
p.56.

(230) Crum, op. cit., p.560 a; Charpentier, Botanique, p.522, no.851;
CCED, p.241.

(231) Dioscorides II, 155, 184; Charpentier, Botanique, p.522, no.851.

(232) Tackholm, Students Flora of Egypt, p.202; Montasir & Hassib,
op. cit., p.162.

(233) Loret, Flore, p.110.

(234) Germer, Flora, p.57.

(235) Keimer, Die Gartenpflanzen II, p.28.

(236) Loret, Flore, p.110; Keimer, Die Gartenpflanzen II, p.28.

In the Louvre Museum, there are twenty grains of this plants (237).
This plant grows in Egypt nowadays.

Okra

Botanical name Hibiscus trionum (238). The plant is most probably of African origin (239). It is an annual plant, up to 60 cm. high. All leaves deeply palmate-lobed or lower ones undivided. Petals white with purple base, anthers yellow. Capsule oblong, blackish (240). Rosellini (241) mentioned that this plant was represented on the Pharaonic monuments and Maspero (242) mentioned also that this vegetable was found in ancient Egypt without any details; but the evidence is small for the existence of this plant in ancient Egypt. Petrie (243) found okra in a cemetery at Hawara, from the Graeco-Roman Period. It is nowadays widely cultivated.

(237)Loret & Poisson, RT 17, p.119; Hartmann, L' Agriculture, p.57;

Beauverie, BIFAO 35, 1935, p.146; Germer, Flora, p.57.

(238)Loret, Flore, p.106, no.176; Germer, Flora, p.121.

(239)Candolle, op. cit., p.190.

(240)Täckholm, op. cit., p.356.

(241)I. Rosellini, Monumenti I, pp.380-381, pl.XXXIX.

(242)Maspero, The Dawn of Civilization, p.65.

(243)Newberry, in : Petrie, Hawara, p.53; Loret, Flore, p.106;

Germer, Flora, p.122.

CHAPTER V

CHAPTER V

Gardens (Vines, Fruits Trees and Flowers)

The Gardens



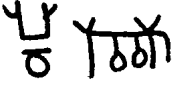
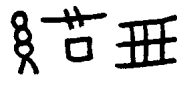

In the Old Kingdom, the gardens were undoubtedly known; however, they are rarely represented (1). In the Middle Kingdom mainly vegetable gardens and vineyards are pictured (2). The New Kingdom offers abundant representational material. It is an interesting period with regard to the garden lay-out : contacts abroad stimulated the cultivation of foreign plants and trees. In the Late Period there is some information about garden lay-out in the literature (3); apart from the tree-goddess scenes, garden pictures are not seen in this period. To the Egyptian the garden was an essential element in the life. He was happy when he could afford one laid out in front of his house or tomb chapel. He thought that the gods also liked gardens around their temples, and he did not fail to provide each temple with a garden. Texts and representations point out this important role played

(1)A. Badawy, Le Dessin Architectural chez les Anciens Egyptiens,
Cairo, 1948, p.247; M.F. Moens, OLP 15, 1984, p.11.

(2)A. Badawy, Dessin, p.248; M.F. Moens, OLP 15, p.11.

(3)D. Hennebo, Betrachtungen zur Altägyptischen Gartenkunst
(Archiv fur Gartenbau 3) 1955, p.176; Moens, OLP 15, p.11.

by garden architecture during the New Kingdom (4). In Egyptian the word garden is expressed in several ways :

-  š "pond, garden with pond" (5)
 k3m "garden, vineyard, property" (6) and "garden with vineyard, trees, flowers and vegetables" (7). Coptic ⲃⲱⲙ (S.B.) (8), plur. ⲃⲟⲟⲙ (S.), ⲃⲟⲟⲙⲉ (A.) (9).
 k3nw "garden" (10) and "garden with vineyard, trees, flowers, vegetables" (11).
 Hsp (h_zp) "garden" (12) and "plot with vineyard, trees, flowers, vegetables" (13).
 K3mw "gardener, vineyard-keeper" (14), Coptic

(4)A. Badawy, A History of Egyptian Architecture : The Empire III, Berkeley, 1968, p.488.

(5) Wb IV, 397; Moens, OLP 15, p.34.

(6) Wb V, 106, 4 ff; CCED, p.330.

(7) Moens, OLP 15, p.34.

(8) Wb V, 106; Crum, A Coptic Dictionary, p.817 b; Gardiner, AEO II, p.215; CCED, p.330.

(9) Wb V, 106.

(10) Wb V, 107; Keimer, Die Gartenpflanzen I, p.158; D. Wildung, LÄ II, p.378.

(11) Moens, OLP 15, p.34.

(12) Gardiner, AEO II, p.216 460; D. Wildung, LÄ II, p.376; FCD, p.178.

(13) Moens, OLP 15, p.34.

(14) Wb V, 106, 10; CCED, p.331.

(A) Gardens of Houses

From the study of the numerous representations in the tombs a standard type of garden can be described with the following features : a rectangular or nearly square ground-plan; an almost central position of the pond and/or the vineyard, which are surrounded by rows of trees; the main entrance of the garden, the pond and/or the vineyard and the garden house in the same longitudinal axis (16). This geometric planning was very advantageous in facilitating the irrigation (17). The enclosing wall was needed for protection from sand and storms and animals. In el Amarna this wall, which partly coincided with the enclosing wall of the estate, was built of bricks, was probably up to 3 m. high (18), and was 1/2 to 2 bricks thick (19). In some cases, particularly only one brick thick, the wall was strengthened on the inside with buttresses at intervals. The part which separates the garden from the outer world (especially on the street side) was

(15)Crum, op. cit., p.817 b; CCED, p.331.

(16)Moens, OLP 15, p.35; Badawy, Architecture, p.491.

(17)Moens, OLP 15, p.35.

(18)J. Pendlebury, The City of Akhenaten I, p.15 : O 49. 23, p.20
: N 49. 10; Moens, OLP 15, p.35.

(19)A.J. Spencer, Brick Architecture in Ancient Egypt, Warminster,
1979, p.95.

fortified more than the rest of the enclosing wall of the estate (20). In a few plots the whole streets side of the enclosing wall of the estate was strengthened (21). In the tombs of Kenamūn (22), Sennūfer (23), and el Amarna (24), the garden could be divided up by walls into separate parts. In el Amarna, the garden was accessible from the street (25) or from a court of the estate (26). In the latter case the entrance was usually situated in the proximity of the main entrance of the estate (27). The garden entrance often had the form of a pylon or a pylonlike fortification. It was sometimes more important than the

(20)L. Borchardt, & H. Ricke, Die Wohnhäuser in Tell El-Amarna, Berlin, 1980, P 47. 17, P 47. 22, P 47. 29, P 47. 2; N 50. 17; Moens, OLP 15, p.36.

(21)Borchardt & Ricke, op. cit., O 48. 1, O 49. 1, M 50. 1.

(22)B. Porter & R. Moss, Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs, and Paintings, I/I, second edition, Oxford, 1960, p.192; Badawy, Dessin, p.251, fig.316; id, Architecture, p.493, fig.257.

(23) PM I/I, p.198 (4); Badawy, Dessin, p.82, fig.84; id Architecture, p.20, fig.5; D. Hennebo, op. cit., III, p.193, fig.12; L.M. Gallery, The Garden of Ancient Egypt, Austin, 1978, pl.XXII, I 11. 14.

(24)Borchardt & Ricke, op. cit., p.47.19-20, Q 47.1, O 49. 6.

(25)Borchardt & Ricke, op. cit., Q 46. 1, P 47. 28, P 47. 29, Q 47. 1, O 48. 14-16, O 49. 1, O 49. 9, M 50. 1; Moens, OLP 15, p.36.

(26) Ibid., 15, p.36.

(27) Ibid., 15, p.36.

access to the dwelling-house and outbuildings (28). In el Amarna, these pylons were usually built of bricks (29), sometimes covered with plaster (30). Smaller additional gates, such as the gate connecting the garden with the rest of the estate (31) and an additional garden entrance from the outside also occur (32). The pond was an essential element of the Egyptian garden. Dependent on the underground water for the water supply, it was dug out deeply. The height of the underground water was determined by the level of the inundation water in a neighbouring canal, which was controlled by human intervention (33). A wall around the pond protected the garden from too high water-levels and prevented the subsidence of ground at the border of the pond, this wall was probably built of stone fragments

(28) Ibid., 15, p.36.

(29) Borchardt & Ricke, op. cit., Q 46. 1, P 47. 17.

(30) Moens, OLP 15, p.36.

(31) Badawy, Dessin, p.185, fig.224; id, Architecture, p.23, fig.8.

(32) Badawy, Dessin, p.82, fig.84; id, Architecture, p.20, fig.5;

Borchardt & Ricke, op. cit., P 47. 29, O 49. 9.

(33) Moens, OLP 15, p.37.

(34), or bricks in el Amarna (35). By means of the Shādūf (36) or jars carried at the ends of a pole slung on the shoulders (37), the water was brought up to the higher parts of the garden. The garden pictures show rectangular and T-shaped ponds. The T-shaped pond could have been inspired by the blind end of a canal, shaped as a transverse rectangular basin to facilitate the mooring and the circulation of the barks (38). In the pictures in the tombs of Sennufer

(34) Ibid., 15, p.37; R. Bruyère, Rapport sur les Fouilles de Deir el Médineh (1922-1923), Le Caire, 1924, p.11 : remains of a necropolis pond with surrounding wall built of stone fragments. But remark here the funerary context : stone might be used because of its imperishableness, or because it was easily available in the necropolis.

(35) Borchardt & Ricke, op. cit., Q 46. 1.

(36) L. Klebs, Die Reliefs und Malereien des Neuen Reichs, Heidelberg, 1934, p.25, fig.17; Badawy, Dessin, p.96, fig.101; id, Architecture, p.28, fig.14; W. Helck, Wirtschaftsgeschichte des Alten Agypten, Leiden, 1975, p.146.

(37) Badawy, Dessin, p.249, fig.312; id, Architecture, p.494, fig.258; Hartmann, L' Agriculture p.120; Klebs, Reliefs, p.34.

(38) Moens, OLP 15, p.37; See also no.45, below.

(39) and Ipuw (40) and el Amarna (41), there were several ponds. In Amarna the gardens had ponds or wells (42). A great deal of the wells of el Amarna did not belong to the garden, but were dug out only for household purposes (43). In the wells a straight or spiral staircase led to the bottom of a large and mostly circular hole. From this bottom the water was drawn by means of rope and basket or by means of Shādūf (44). The water of the garden pond was considered to be the Nun, the primordial water from which all life originated. The annual Nile flood caused a rise of the water-level in the garden pond. This relationship with the inundation water made the garden pond a symbol of fertility and regenerative, vital energy for the living as well as deceased. The T-shaped pond and its representations might have referred to an offering table which often assumed the shape of

(39)Badawy, Dessin, p.82, fig.84; id, Architecture, p.20, fig.5.

(40)Klebs, Reliefs, p.35, fig.25; Badawy, Architecture, p.283, pl.36; Hennebo, op. cit., p.186, fig.5; Gallery, op. cit., pl.XXIX, fig.25.

(41)Hennebo, op. cit., p.194.

(42)Klebs, Reliefs, p.22, fig.17; Badawy, Dessin, p.96, fig.101; id, Architecture, p.28, fig.14; Gallery, op. cit., pl.XXXI, fig.28.

(43)Moens, OLP 15, p.37.

(44)J. Penderbury, op. cit., I, pp.12, 47-48; Moens, OLP 15, pp.37,

a T (45). The water of this pond was the inundation water giving life and food to the deceased as to the living (46).

The vineyard occupied an important and very central place in the garden, and was enclosed by a wall (47). The vines grew up reaching beams or open papyri-form columns (48). The choice of the place for the cultivation of flowers was based on the necessity of a moist or easily irrigatable soil; they were cultivated in the vicinity of the pond (49). Some representations show the flowers growing on the sloping sides of the pond at the inside of the surrounding wall (50). Sometimes the flower beds were separated from the pond by a secondary

(45) Hennebo, op. cit., p.182; Badawy, Architecture, p.495; Moens, OLP 15, p.46; But see also no.38 above.

(46) Ibid., 15, p.46.

(47) M. Abd Er-Raziq, MDAIK 35, 1979, p.229; Moens, OLP 15, p.38; See Figure 11.

(48) Badawy, Dessin, p.251, fig.316, p.185, fig.224, p.253, fig.320; id, Architecture, p.493, fig.257, p.23, fig.8, p.25, fig.11; Hennebo, op. cit., p.191, fig.10, p.199, fig.15; Gallery, op. cit., I, pl.XXVIII, i 11.23; See Figure 11.

(49) Klebs, Reliefs, p.35, fig.25; Badawy, Architecture, p.283, fig.36; Gallery, op. cit., pl.XXIX, fig.25; Borchardt & Ricke, op. cit., Q 46.1; See Figure 12.

(50) Klebs, Reliefs, p.23, fig.15; Badawy, Dessin, p.253, fig.319; Moens, OLP 15, p.38; See Figure 12.

wall (51). In case of an infertile soil the flower beds were laid out by using Nile mud (52). The flowers were planted in one or more rows, which consisted of alternating species (53). The shrubs and small trees grew in the vicinity of the pond as they needed a more regular irrigation than tall trees, with roots reaching the underground water (54). A round the central part of the garden trees were planted in rows, forming parallel lines or rectangles, placed within each other. An equal distance between the trees of the same row was common (55). In one row either the same tree species or two or more alternating species were present (56). Pondweed rarely appears on the garden pictures of the New Kingdom (57). When the garden was laid out on dry and infertile soil, the trees were planted in pits filled with Nile mud and bordered with a circle or rectangle of bricks in order to prevent the washing away of the brought, fertile soil during watering (58). The Theban garden pictures, which belong to the tomb deco-

(51)Badawy, Architecture, pl.5; M.L. Gothein, A History of Garden Art I, London, 1979, p.24, fig.26; Borchardt & Ricke, op. cit., Q 46.1; Moens, OLP 15, p.38.

(52) Ibid., 15, p.38; Badawy, Architecture, p.492.

(53)Moens, OLP 15, p.38; See **Figure 12**.

(54) Ibid., 15, pp.38-39; See **Figure 13**.

(55)Klebs, Reliefs, p.24; Moens, OLP 15, p.39; See **Figure 13**.

(56) Ibid., 15, p.39.

(57) Ibid., 15, p.44.

(58)Badawy, Architecture, p.492; id, Dessin, p.248; Pendlebury, op. cit., I, P 47-48; Moens, OLP 15, p.39; See **Figure 14**.

ration, only represent plants which are valuable for the deceased, while el Amaran paintings preferably represent wild flowers owing to the naturalism in art (59).

Concerning the significance of the garden plants, it is mentioned that because the lotus closes its petals at night, when sinking in the water and reappears with the rising sun, reopening its petals, it had become the symbol of the sun and the eternal resurgence of life. The dead identified himself with the lotus which emerged from the primordial water (Nun) every morning. It was the symbol of fertility and eternal rebirth. The papyrus was possibly important for the deceased as a foodstuff, was considered as a symbol of fertility and growing life. The lotus, the papyrus and other ornamental garden flowers were used in flower bouquets. The offering of flowers to the deceased is often represented in and beside the garden pictures. These flowers were picked in the garden and offered to the Ka of the deceased were symbols of the plenitude of life (60).

Concerning the size of the garden; as a matter of fact the size of the garden was determined by several factors, such as its location and the availability of workers. The gardens of el Amarna have a surface varying from c.2120 m² to 1800 m² (61), without taking into

(59), Ibid., 15, p.40.

(60) Ibid., 15, pp.43-44.

(61) Ibid., 15, p.41.

consideration a small garden of c. 25 m² (62). Compared to the Theban gardens, the gardens of el Amarna were supposed to be rather small, because more intensive care and irrigation were required. The vegetation of el Amarna gardens was presumably rather poor.

Concerning the significance of the garden representations for the dead; the most important purpose of the garden representations was to bring about the regeneration of the deceased. The garden pictures also express the desire of the dead to possess such a garden in the hereafter. The garden protected him against hunger and thirst. The pond provided the indispensable water. The vineyard provided the deceased with grapes and wine. For that reason the supply of provisions and funerary offerings are usually depicted beside the garden representations (63). The garden protected the deceased from a second absolute death and assured him an agreeable existence in the hereafter (64).

(B) Necropolis Garden

The pictures of the necropolis gardens show rectangular or T-shaped ponds, full of fishes and flowers, shaded by sycamores or date palms and sometimes surrounded by a flower border or vegetable beds.

(62) Borchardt & Ricke, op. cit., O 48.13.

(63) Urk 1167 c 1165 B2; Text near garden picture.

(64) Urk IV, 1625; The text of the stela on the wall adjoining the garden picture

The existence of these funerary gardens is confirmed by text material (65). Archaeological remains of small artificial ponds and traces of trees are found in front of numerous private tombs at Thebes (66). The trees were planted in pits filled up with Nile mud and they needed abundant watering. The water basins were shallow. So, they had to be filled with brought water. Cultivation of flowers in and around these ponds was nearly impossible (67). It is still a problem how long these necropolis gardens were maintained (68). Anyway, they were small and only intended to symbolize the presence of shade flowers, fruits and vital inundation water for the deceased. The location of the funerary garden has been the subject of controversy, but it can be safely assumed that some kind of small garden was occasionally laid

(65) For instance : Sinuhe, 305-306; Urk IV, 26-29; Badawy, Dessin, p.258, fig.326; Wreszinsiki, Atlas, 170.

(66) Carnarvon & Carter, Five Years' Explorations at Thebes, Oxford, 1912, p.27; Bruyère, op. cit., pp.11-12; Bruyère & Kuentz, MIFAO 45, 1926, p.72; N.de G. Davies, Two Ramesside Tombs at Thebes, New York, 1927, p.35; H. Winlock, Excavations at Deir El Bahari (1911-1931), New York, 1942, 53.

(67) H. Winlock, op. cit., p.90 ; remainders of papyrus plants planted in Nile mud were found in two T-shaped ponds in front of Hatshepsut at Deir el Bahari.

(68) Bruyère & Kuentz, MIFAO 54, p.73; these necropolis ponds were filled with water at least on some festive occasions as the w3g-festival which coincided with the arrival of the new inundation water in Egypt.

out in front of the tomb itself and that more often a large garden was laid out below on the river bank and probably also near the portal of the tomb complex (69).

(C) Gardens of Royal Chapels and Mortuary Temples

Temples and private chapels also had gardens. Processional approaches to pylons, or in front of the temple quay along the river are represented in the tombs (70). A description is given in the unique text where the King Ahmose speaks of the pyramid and tomb chapel he planned to make for his grand-mother Queen Tetisheri : "Its lake shall be dug, its trees shall be planted" (71). In the temple of Hatshepsut at Deir el Bahari a garden with four ponds, papyrus, flowers, and vegetables is represented schematically (72). Queen Hatshepsut related on the walls of her mortuary temple at Deir el Bahari how she complied with the wish of the god Amūn-Rē^c, her father, to have a grove of myrrh trees "for ointment for the divine limbs" : "I have hearkened to my father...commanding me to established for him a Punt in his house, to plant the trees of God's-Land beside his temple, in his garden, according as he commanded. It was done, in order to endow the offerings which I owedI have made

(69)Badawy, Architecture, p.496.

(70) Ibid., p.495.

(71)Breasted, AR II, 36.

(72)Badawy, Architecture, p.495; G. Good & P. Lacovara, in :

Egypt's Golden Age, p.37.

for him a Punt in his garden, just as he commanded me, for Thebes. It is large for him, he walks abroad in it" (73). In Ramesses II's temple at Abydos, it is mentioned that Ramesses II planted many gardens, set with every (kind of) tree, all sweet and fragrant woods, the plants of Punt (74). Fragrant trees were perhaps an essential element of the Pharaoh's funerary garden (75). Ramesses III described the lake and garden in his mortuary temple at Medinet Habu : "I dug a lake before it, flooded with Nun, planted with trees and vegetations like the Delta" (76). And further : "It was surrounded with gardens and arbour-areas (lit. places of chambers of trees), filled with fruit and flowers for the two serpent-goddesses" (77).

(D) Gardens of the Gods' Temples

The temples of the various gods were provided with gardens in decorative layouts, as a source of flowers, vegetables, and even wine and olive oil. Texts are quite definite as to this specific purpose. Wine and Šdh (Shedeh-) liquor were presented together with vegeta-

(73) Breasted, AR II, 295.

(74) Ibid., III, 527.

(75) Badawy, Architecture, p.489. For lake and garden laid out by Sethos I at his temple at Abydos, see the Nauri Decree, published by F.Ll. Griffith, JEA 13, 1927, pp.202 ff.

(76) Breasted, AE IV, 189.

(77) Ibid., IV, 194.

bles and all beautiful flowers for divine offerings of every day (78), while olive oil was used to light the flame (79) in the sanctuary.

The Papyrus Harris I, contains records of the endowments and riches of the temples in the reign of Ramesses III. Gardens and lands estates are constantly mentioned in their lists. A seemingly important estate in the Delta (80) provisioned the Theben temples with wine and olive oil, and the fragments of its wine jars were found in the magazines of the Ramesseum. Of the total of 514 gardens and groves of the gods' estates (81), there were 433 gardens and groves (82). For Amūn of Thebes, 64 for Rē^c (83) to which two gardens and one grove of olive land were added as gifts (84) and 5 for Ptaḥ (85). It has been calculated from these lists that the real estate of Amun extended over one-tenth of the whole of Egypt, a figure that expresses a proportion similar to Amūn's share in other domains of the economy (86). Ramesses III more than once stated that he donated gardens "equipped with groves and arbours (chambers-of-trees), containing date trees;

(78) Ibid., II, 161, 567.

(79) Ibid., IV, 263.

(80) Ibid., IV, 216.

(81) Ibid., IV, 384.

(82) Ibid., IV, 226.

(83) Ibid., IV, 282.

(84) Ibid., IV, 288.

(85) Ibid., IV, 339.

(86) Ibid., IV, 171.

lakes supplied with lotus flowers, papyrus flowers, isi flowers, the flowers of every land, dedmet flowers, myrrh, and sweet and fragrant woods for thy beautiful face" (87). Elsewhere gardens were restored : "I made to grow the august grove, which was in its midst; I planted it with papyrus in the midst of the Delta marshes, (though) it had begun to decay formerly" (88). Flowers were grown in the forecourt of the temple of Re^c north of Heliopolis (89). Gardens were even planted for Amūn in the Southern Oasis, and the Northern Oasis likewise without number, manned with gardeners from the captives of the countries; supplied with lotus flowers and with Šdh and wine like drawing water in order to present them in "Victorious Thebes"; "I planted the city, Thebes with trees, vegetations, isi-planted, and menhet flowers" (90).

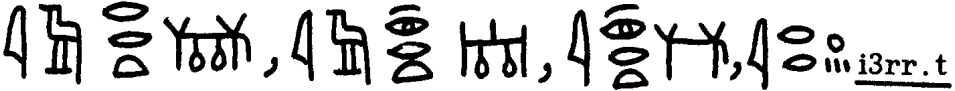
(87) Ibid., IV, 264.

(88) Ibid., IV, 271.

(89) Ibid., IV, 274.

(90) Ibid., IV, 213.

Vines

Egyptian  i3rr.t
(91) Demotic 3lly/elle (92). Botanical name Vitis Vinifera L. (93).
Coptic ελοολε (S.), αλολι (B.), αλαλι (F.),
ελαλε (A.) (94). Arabic name Enab *عنب*.

The vine is a climbing shrub (stems up to 35 m., but in cultivation usually reduced by annual pruning to 1-3 m.) with orbicular, cordate usually palmate 5-to 7-lobed, irregularly toothed leaves and numerous yellowish-green flowers in rather dense panicles. The wild forms of the vine are dioecious and bear bluish-black, relatively small and acid berries. The cultivated varieties have hermaphrodite flowers and sweet, ellipsoid to globose, green, yellow, red or purplish-black fruit (6-22 mm.). The cultivated form, most commonly found in ancient Egypt, has ellipsoid, about 20 mm. long, dark red fruit covered with a bluish gloss (95).

(91) Wb I, 32, 12-14; Charpentier, Botanique, 48, no.72.

(92) Erichsen, Demot. Glossar, 7, 16; Charpentier, Botanique, p.32, no.36; CCED, p.34; Helck, Materialien V, p.754.

(93) Loret, Flore, p.99, no.167; Keimer, Die Gartenpflanzen I, p.62; Germer, Flora, p.116; Moens, OLP 15, p.27.

(94) Wb I, 32; KHW 3; Crum, op. cit., p.54 b; Charpentier, Botanique, p.48, no.72; Helck, Materialien V, p.754.

(95) Moens, OLP 15, p.27.

Vineyards were mostly situated in the higher parts of the Nile Valley, which had to be irrigated artificially, the so-called "Sharaki-land" (96). Vineyards were widely cultivated in ancient times "in the Southern Oasis, and in the Northern Oasis likewise without number, in Upper Egypt countless others, and in the Northland by hundred-thousand". They were provided with gardeners from the captives of foreign countries (97). Seeds of varieties of wild vine have been found in Prehistoric sites (98). The earliest evidence for grapes comes from el Omari (99). The wine-press hieroglyph was used in the first dynasty (100), from which period wine jars also are known (101). The inscriptions of seals and clay stoppers of wine-jars from the royal tombs at Abydos show that the Kings of the early dynasties possessed special vineyards which were required to supply the royal tombs with wine (102); where were found sealed wine-jars dating from

(96)R.J. Forbes, Studies in Ancient Technology III, Leiden, 1955, p.73.

(97)Breasted, AR IV, 213.

(98)Moens, OLP 15, p.27; Ch. Meyer, LÄ VI, 1986, p.1169; Germer, Flora, p.116.

(99)J.M. Renfrew, Palaeoethnobotany, london, 1973, p.127; Germer, op. cit., p.116; Ch. Meyer, LÄ VI, p.1169

(100)Petrie, Social Life in Ancient Egypt, London, 1923, pp.102, 135; Lucas & Harris, Ancient Egyptian Materials and Industries, p.16.

(101) Ibid., p.16.

(102)Keimer, Die Gartenpflanzen I, p.113, note 3; Ch. Meyer, LÄ VI, p.1172.

the reign of King Den of the first dynasty (103). Names of vineyards of Kings Zet of the first dynasty, Kha^csekhemui the second dynasty are also known (104). King Peribsen of the second dynasty had his vineyard "Prince of the boats" laid out in the form of a ship (105). King Zoser of the third dynasty founded the famous vineyards "Praise of Horus the first in the heaven" and "Soul of Egypt" in the Delta (106). There are substantial finds from the cultivated vine dated from the third dynasty onwards (107). In addition, one of the earliest autobiographical inscriptions, by an Egyptian nobleman buried at Saqqara, contains a statement concerning his estate in the Delta : "vary many trees and vines were set out and a great quantity of wine was made therein". A vineyard of approximately 1350 acres was planted within the walls of the estate of his local governor named Methen (108). In the Pyramid Texts of King Unis of the fifth dynasty and his successors of the sixth dynasty, five wines are included as offerings in utterances numbered 153-157. These five wines were tra-

(103)P. Kaplony, Die Inschriften der Agyptischen Fruhzeit III, Wiesbaden, 1963, Abb.238-239; Germer, Flora, p.117.

(104)Kaplony, op. cit., I, p.120 ff; L.H. Lesko, King Tut's Wine Cellar, Berkeley, 1977, p.11.

(105)Forbes, Studies in Ancient Technology III, p.73.

(106) Ibid., III, p.73.

(107)Moens, OLP 15, p.27; Germer, Flora, p.117; Lauer, et al., BIE 32, p.133.

(108) Urk I, 9-11; A. Moret, RT 29, 1907, p.70; Breasted, AR I, 173; Keimer, Die Gartenpflanzen I, p.63.

ditionally included in later lists of offerings which played a great part in religious ceremonies as festival drinks, and of the five, one had a regional designation Lower Egyptian wine, cbš-wine, imt-wine, h3mw-wine and snw-wine (109).

Viticulture and vintage are often depicted upon walls of the tombs, for example, in a fifth dynasty tomb at Saqqara (110); in a sixth dynasty tomb at Saqqara (111); in a twelfth dynasty tomb at el Bersheh (112); in several tombs of the same period at Beni Hasan (113); in many others of XVIII, XIX, dynasties date respectively in the Theban necropolis (114);

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- (109) Faulkner, Pyramid Texts, Oxford, 1969, p.30, Utterance, 153-157; LÄ VI, p.1186.
- (110) Klebs, Reliefs I, p.56 ff, Abb.42, 43, 44; N. de G. Davies, Mastaba of Ptahhetep and Akhethetep at Saqqareh I, London, 1900, pls.XXI, XXIII.
- (111) P. Duell, et al., Mereruka II, Chicago, 1938, pls.CXIV, CXVI.
- (112) Newberry, et al., El Bersheh I, London, 1895, pls.XXIV, XXVI, XXXI.
- (113) Klebs, Reliefs II, 79 ff; Griffith, et al., Beni Hasan I, pls.XII, XLVI; II, pls.VI, XVI.
- (114) PM I/I, tombs no.18, 22, 39, 49, 52, 56, 79, 86, 82, 88, 90, 92, 100, 127, 188, 261.

Description of the Vintage Scenes in the New Kingdom in Chrono-logical Order

Antef (Hatshepsut to Tuthmosis III) (115)

The representation of the vintage starts on the left with the plucking of the grapes. The vines grow out of circular mud trenches. The two men plucking the grapes and the vintager who is about to remove a basket full of grapes are supervised by an overseer - an elderly man with a fat belly, long untidy hair, and a beard. He holds a whip and seems to put some grapes into his mouth. The conversation between him and the workmen is unfortunately undecipherable. The baskets of grapes are then carried off and emptied into the wine-press, where four men are treading out the juice in a large trough. To the right a man bends down and is filling the jars with the juice when it pours out from the press, presumably into a smaller basin. Above him was a little shrine of the snake-goddess Rennutet. In front of her are offerings and beneath the offering-table begins a text which continues above the vintagers treading the grapes : "a song (?) to [our] lady (Rennutet) : "O may she remain with us at this work May our lord (Antef) drink it (the wine) as one who is repeatedly praised by the King". Said (?) [for] the Ka of [the Herald Antef]". Then the residue from the wine-press is squeezed in a large piece of

(115) PM I/I, p.263 (5); T. Save-Soderbergh, Four Eighteenth Dynasty Tombs, pp.16-18, pls.XIV-XV; M. Wegner, MDAIK 4, 1933, p.69; See Figure 15.

cloth fastened between two poles and twisted with bars by four men. A broad stream of dark juice pours down into a white receptacle. The heading of this scene is one of the most interesting texts in the tomb, it reads : "[pressing, ^cth] the wine by the ^cprw for the Herald Antef. The wine has been found excellent and the filled jars are now carried off to the cellar by a procession of four men supervised by an overseer with a stick. The overseer calls out : "go on", and the last worker, with the heavy wine-jar on his shoulder, adds the remark : "lo the numbers (= the quantity) are heavy !. The man who has reached the door finds it closed, knocks at the door with no result, and says to the man behind him : [the] servant [p3] b3k is sleeping. His comrade remarks : He is drunken with wine, but the guardian, who is now waking up from his good sleep, assures them : "I have not slept at all !".

Wah (Tuthmosis III) (116)

The vines, growing in a natural arch, grow out of circular mud trenches. The representation of the vintage starts on the right with three men picking the grapes into deep wicker basket, one of them kneeling beneath the vines. The baskets of grapes are carried off and emptied into the wine-press by two men, where four men are treading out the grapes in a trough, supporting themselves by ropes suspended from a wooden bar erected above the press. The juice runs out the

(116) PM I/I, p.38 (5); Wreszinski, Atlas, 68; M. Wegner, MDAIK 4, p.69.

bottom through a conduit provided for it, where it may fall into a smaller basin beside the wine-press on the ground. A man bends down and is filling the jars with the juice. There are two rows of large jars; some of them have already been filled and sealed.

Senemi^coh (Tuthmosis III) (117)

We see in the hall a scene which represents a vineyard. The vines grow out of circular mud trenches. The vines grow up reaching beams supported by upright wooden poles with forked tops. Three men are kneeling beneath the vines picking the grapes into baskets. Three men are treading out the grapes in a rectangular basin; the men keep their balance, as they move their feet up and down, by holding cords suspended from a wooden bar erected above the press.


Amenemhēt (Tuthmosis III) (118)

In the hall, there is a scene which represents a gardener bending down to fill two watering-pots, carried by means of a yoke over his shoulders to irrigate the vines. And in remains of a scene which represents a vineyard, the vines grow out of circular mud trenches. Two baskets were filled with grapes.

(117) PM I/I, p.242 (11); Wreszinski, Atlas, 345.

(118) PM I/I, p.164 (8); Nina de G. Davies & Gardiner, Amenemhēt, p.30, pl.II.

Kha^cemwēset (Probably Tuthmosis III) (119)

We see a scene which represents a superintendent, leaning on his staff, and watching two Egyptians and a Nubian slave gathering the grapes. An old man carrying two pots slung from a yoke over his shoulders pours water into the circular mud trenches out of which the vines grow. In the second register six men, one again a Nubian, are treading out the grapes. In front of the wine-press, on altar perhaps of whitewashed brick, is Rennutet, the cobra-goddess always worshipped in this connexion. Her figure is partly true picture, and partly hieroglyphic writing, since below her are the signs  Prof. A. Saleh, translates nbt k3 as the "Mistress of the effectiveness" or "Lady of Nourishment" rather than "Lady of good fortune" or "of prosperity" which is supposed by Gardiner.* The man who stands before the piled-up offerings seems to pour wine into a cup with one hand, while the other holds aloft a flaming brazier. At his back a servant empties some ingredient from a small vassel into one of a number of large amphorae stacked against each other. Two of these are placed upright on stands of rushes, and are being sealed with mud seals doubtless giving the date and particulars of the vintage. Below is a ship laden with the wine-jars. It has arrived at its destination, and a sailor is carrying the jars ashore down a stepped plank.

(119) PM I/I, p. 344 (1); Nina de G. Davies & Gardiner, Ancient Egyptian Paintings I, Chicago, 1936, pp. 59-60, pl. XXVIII; R. Mackay, JEA 3, 1916, pp. 125-126, pls. XIV-XV; See Figure 16.

* A. Saleh, "Notes on the Egyptian K3", in Bulletin of the Faculty of Arts, Cairo University, Vol. 22, Part 2, December, 1960.

Puyemrē^c (Tuthmosis III) (120)

In the tomb of Puyemrē^c, the wine-press used is merely a great red trough (of pottery ?) in which men tread out the grapes, lifting and steadying themselves by straps fastened to a light pole overhead. As an alternative method of obtaining the juice, or to extract its last dregs, the grapes are placed in a mechanical press. This device consists of a long purse - like bag which ends in a loop at the ends. Two heavy stakes have been firmly set in the ground at somewhat less than the length of bag apart, and a toggle with a rope attached to it, has been inserted in each loop of the bag. The two eyelets being pushed from within outwards through holes provided for them in the center of the uprights, a staff is put through each of them on the outer side of the stakes. By turning these two hand-spikes in opposite directions, or holding one fast while the other is revolved, severe torsion can be applied to the bag when filled with the lees; the more so as the uprights prevent it from shortening much under the strain. So, when each staff is manipulated by two men, a broad stream of grape-juice exudes into a vessel placed below to catch it; overhead is the label the providers (^cprw) straining out wine. The juice is now poured into large jars to ferment. When this is at an end, the mouth will be stopped with clay and a seal of ownership stamped upon them. There will also be docketts scrawled on the shoulders of jars in Hieratic

(120) PM I/I, p.72, (8-9); Wreszinski, Atlas, 13; N. de G. Davies, The Tomb of Puyemrē at Thebes, New York, 1922, p.64, pl.XII; Wegner, MDAIK 4, p.70.

script mentioning the place of origin, the regnal year and the responsible official. The destined inscription here is probably that written above the jars, "Wine of the vineyard of Wat-Hor". A foreman Amenemhēt presents the account to his master through the scribe, Woser, who is "making a reckoning of the wine".

Rekhmirē^c (Tuthmosis III to Amenophis II) (121)

We see a scene which represents three men standing gathering the grapes; the bunches were carefully put into deep wicker baskets. The vines grow out of circular mud trenches. The vines grow up reaching beams supported by upright wooden poles with forked tops. Four men carried the baskets of the grapes on their shoulders to the wine-press, where eight men are treading out the grapes in a large trough; a chant to the trampling of the men's feet is recorded : "they say, O Rennutet, our mistress, give us thy plenteous supply !". To the right a man bends down and is filling the jars with juice when it pours out from the press.

(121) PM I/I, p.210 (10); N. de G. Davies, The Tomb of Rekh-mi-Rē^c at Thebes, I, New York, 1934, p.42; II, pl.XLV; Wreszinski, Atlas, 338; Wegner, MDAIK 4, p.69.

Mentiywy (Tuthmosis III - Amenophis II) (122)

The representation of the vintage starts with four men picking the grapes from the vines which are growing in a natural arch. The berries are put into a trough where three men tread out the grapes, keeping themselves from sinking in the mass too deeply hanging on to straps suspended from a beam overhead. It is characterically Egyptian that this beam should be decorated with hanging sprays of foliage. The juice runs out through a spout into a smaller trough. A man is filling the jars with the juice. Six large jars have been filled and sealed. Above the jars, there is a scene which represents the snake-goddess Rennutet, and in front of her the offering-table.

Pehsukher (Tuthmosis III - Amenophis II) (123)

We see in the hall, a scene that represents the vines bearing bunches of ripe grapes, growing upon a trellis-work, which is supported by open papyriform columns. Three men standing gathering the grapes by the hand are putting them in baskets, the rest of the scene is destroyed.

Menkheperra^csonb (Tuthmosis III - Amenophis II) (124)

(122) PM I/I, p.180 (8); Wreszinski, Atlas, 355.

(123) PM I/I, p.180 (5); Wreszinski, Atlas, 282.

(124) PM I/I, p.157 (5); Wreszinski, Atlas, 256.

We see in the hall, west wall, in the bottom register, three men are picking grapes from vines growing in a natural arch. The bunches were carefully put into deep wicker basket. In the middle register a group of men are treading out the grapes in a large trough, the men keeping their balance as they move their feet up and down by holding cords suspended from a wooden bar erected above the press. Besides the trough a man bends down and is filling the jars with the juice when it pours out from the press. Five large jars have already been filled, have fermented and the cover has then been sealed with a cap of mud on which a stamp is set. Between the wine-press and the jars there is a scene which represents the snake-goddess Rennutet upon a basket; in front of her is an offering-table. In the upper register, are two rows of filled jars; and two men are carrying a large jar of wine sealed.

Suemnut (Amenophis II) (125)

In the inner hall, we see a scene which represents a group of men bringing grapes before the overseer who is standing on the right. In the bottom register, a scene represents four men treading out the grapes in a large trough, they supporting themselves by ropes suspended from the roof. To the left a man bends down and is filling the jars with the juice when it pours out from the press into a smaller basin. Rennutet is depicted in front of wine-press.

(125) PM I/I, p.189 (10); M. Baud, Les Dessins Ebauchés de la Necropole Thebaine, (MIFAO 63), Le Caire, 1935, p.145, pl.XXII.

Userhēt (Amenophis II) (126)

In the inner room, we see a scene which represents the vines growing up on trellis-work, which is supported by open papyriform columns. Six men are standing plucking the grapes into baskets. Besides the vineyard there are three rows of baskets filled with grapes. A scribe is kneeling to write down the number of the baskets. A man bends down and is filling the jars with the juice. Large jars have been filled and sealed.

Kenamūn (Amenophis II) (127)

The pond is surrounded by a vineyard and of plantations trees. The vineyard is protected by a wall. The vines, bearing bunches of ripe grapes, grow upon a trellis-work, which is supported by open papyriform columns. All trees and plantes, surrounding the vineyard are represented upright.

(126) PM I/I, p.113 (13, 14, 15); Wreszinski, Atlas, 12.

(127) PM I/I, p.192 (15); N. de G. Davies, The Tomb of Ken-Amūn at Thebes, New York, 1930, p.46, pl.XLVII; Moens, OLP 15, pp.15, 16; Badawy, Dessin, p.251, fig.316; id, Architecture, p.493, fig.257.

Sennufer (Amenophis II) (128)

The enclosed vineyard replaces the usual central pond. A path leads to the garden house, which is sheltered by vines with ripe grapes. At both sides of the path two rows of vines are growing upon a beam or a raster of beams. Below the garden, are remains of vintage, with man treading grapes, and offerings to the snake-goddess Rennutet.

Nakht (Tuthmosis IV) (129)

We see on the back wall of the hall, right-hand portion, The representation of the vintage. This begins on the right with the plucking of the grapes. Two men are seen gathering grapes from the vines growing in a natural arch. The berries are then put into a trough where five men tread out the juice, keeping themselves from sinking in the mass too deeply by hanging on to straps suspended from a beam overhead. It is characteristically Egyptian that this beam should be decorated with hanging sprays of foliage. The juice runs out through a spout into a smaller trough whence it is conveyed away

(128) PM I/I, p.198 (4); J.G. Wilkinson, The Manners and Customs of the Ancient Egyptians II, p.134, no.130; Rosellini, Monumenti, pl.LXIX; Moens, OLP 15, pp.16-17.

(129) PM I/I, p.101 (6); N. de G. Davies, Nakht, pp.69, 70, pl.XXVI; Nina de G. Davies & Gardiner, Paintings, p.96, pl.XLVIII; Wreszinski, Atlas, 178; Wegner, MDAIK 4, pp.69, 70; **See Figure 17.**

in large jars. To the right a man filling the jars with the juice when it pours out from the press. Above him there are the filled jars.

Hepu (Tuthmosis IV) (130)

We see in the inner-room, a scene that represents a vineyard. The Vines are growing in a natural arch. Men are plucking the grapes into baskets, one of them kneeling beneath the vines. The rest of the vintage scene is destroyed. Below the vintage, there is a scene which represents the marsh-lands; the vintage scenes in the Theban tombs are as a rule combined with the scenes from the marsh-lands, probably because most of the important vineyards were in the Delta.

Nebamūn (Tuthmosis IV or Amenophis III) (131)

Nebamun's garden is accessible by a gate in the wall separating the garden from the dwelling-house; this gate leads to the vineyard. The vines are growing on beams supported by open papyriform columns united at the top by a light rail. In the alley two men are gathering grapes into deep wicker baskets, a man standing and the other kneeling beneath the vines. Among straggling vines outside, two

(130) PM I/I, p.133 (8); Wreszinski, Atlas, 230; Wegner, MDAIK 4, p.69.

(131) PM I/I, p.184; Wreszinski, Atlas, 48; N. de G. Davies & Nina de G. Davies, The Tombs of Two Officials of Tuthomsis the Fourth, London, 1923, pp.31-32, pl.XXX; Moens, OLP 15, p.18.
See Figure 18.

butchers are cutting up an ox for the sacrifice. Two other men bring ducks and an offering table fitted up with a brazier and libation jars, and two conical candles of fat for ignition. In the register, below this, the wine-press is set among the vines and a procession of men carried the baskets of the grapes on their shoulders. It is a decorated structure, consisting of a rectangular basin of stone erected on a platform, so that the juice as it runs out at the bottom through a conduit provided for it, may fall into a tank built against the platform on the ground. A light canopy, supported on columns is built over the press, so that the men do not sink over much into the mass. On the spout a bronze (?) figure of Rennutet, goddess of plenty, is set and this goes with the pretty decorations of papyrus and vine shoots which adorn the panels of the structure. A man is dipping a little jar in the juice as a first fruits to the goddess, with the words : "for thy Ka, O Rennutet ! give food and plenty". Seventeen large jars have already been filled have fermented, and the cover has then been sealed with a cap of mud on which a stamp is set.

Parennūfer (Amenophis IV) (132)

We see the vines are growing on a pergola supported on five papyrus columns. The overseer is standing on the right. Men are gartherring the bunches into the baskets, the harvesting scene shows pickers standing and kneeling beneath the vines, and a man on the

(132) PM I/I, p.294 (4); N. de G. Davies, JEA 9, 1923, pp.143, 144, pl.XXVI; Wegner, MDAIK 4, p.70.

left empties the grapes into an L-shaped trough, which is already well filled. The extraction and storage of the wine is depicted on the left side of the scene above. Here eight workers stand up to their ankles in the mass of the berries. The man in the centre appears to be chanting. Here the juice is being dipped up in little jars and then poured into large vessels which stand ready in rows. In order to extract the liquid still held by the trodden mass, this is put into bages, which are then twisted by hand-spikes between two fixed posts. After the vintage comes the thanks giving to the gods and the rendering of the account. A figure of Rennutet with tables of grapes before her shows that she still retained her position of patroness of the fruits of the earth.

Neferhōtp (Probably Ay) (133)

We see over the doorway that men are picking grapes from a vine. This is trained over a decorated beam supported on rough papyrus columns. Beyond the vineyard, the wine-press is seen, gushing forth wine under the pressure of the feet of the men who tread out the berries in the vat. A man bends down and is filling the jars with the juice when it pours from the press. Several jars have already been filled, have fermented, and have the cover of mud on which a stamp is set. Other jars are not yet ready for the final act. Beside the jars is a little shrine of the snake-goddess Rennutet, and in front of her,

(133) PM I/I, p.93 (15-16); N. de G. Davies, The Tomb of Nefer-
Hōtep at Thebes, New York, 1933, p.37, pl.XLVIII.

a libation. Below the vintage scene a room is shown in which are large piles of grapes or olives ready for the press.

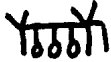



Ipuy (Ramesses II) (134)

We see on the front wall of hall, right-hand portion, the representation of the vintage. The leaves of the vine are drawn as a circular outline, this circle is coloured green and edged with black spots to represent the serrations. In its complete form the circle is divided into four or five segments. Two men are plucking the bunches of the grapes by hand into the baskets. Men are treading out the grapes in a large trough, they keep their balance as they move their feet up and down by holding cords suspended from a wooden bar erected above the press. Beside the trough, there are seven jars already filled and sealed with the mud stoppers bearing the year and the place of the vintage. The names of the workers were written beside them, one name "the servant men" is alone legible.

(134) PM I/I, p.316 (5); Nina de G. Davies & Gardiner, Paintings, p.190, pl.XCVIII; N. de G. Davies, Two Ramesside Tombs, p.62, pl.XXXIII; Wreszinski, Atlas, 365; Wegner, MDAIK 4, p.70;

See Figure 19.

We see on a passage wall a scene which represents a vineyard. Three men are standing picking grapes by hand into the baskets before the deceased and his wife who are angling in the garden pond.

According to our study of the previous scenes, it is clear that the vines were supported by upright wooden poles with forked tops, or else elaborately trained on trellis work supported by carved and painted papyriform columns. A vine and grape bunches supported by forked props is actually the very ancient hieroglyph  used in words meaning  i3rr.t "vine",  k3nw "garden",  irp "wine" (136). In some cases the vines were planted with mud basin built up around the roots, apparently a measure to conserve water. Vines are frequently shown growing around the garden pools in the centres of rather idyllic villas. Plucking scenes show pickers either standing or kneeling beneath the vines, depending on how high the vines had been trained and also perhaps on the variety of the grape. The pickers evidently worked without knives, picking the grape bunches by hand and placing them in baskets of rushes. The baskets were emptied into crushing vats that may have been made of clay, wood or stone. The grape bunches were crushed in the vats

(135) PM I/I, p.270; N. de G. Davies, Seven Private Tombs at Kurnah, London, 1948, p.44, fig.7

(136) Gardiner, Egyptian Grammar, third edition, Oxford, 1979, pp.484, 597.

by foot. There was usually a frame work over the vat, with ropes hanging down so that the men who were stamping could keep their balance in the slippery vat. This method is still used largely today in France and Spain, because it gives results that are in many ways better than those obtained by mechanical presses (137). After treading, the lees were transferred to a cloth bag for further squeezing. In one technique, one end of the bag was tied to a fixed support, and the other end was fixed to a pole, which was twisted by several men, a method still used in the Fayum at the beginning of the nineteenth century. In another, both ends of the bag were tied to poles, and two groups of workmen wrung the bag by turning the poles in opposite directions. In between the two groups, a fellow was busy with hands and feet keeping the poles apart (138). Men are filling the jars with the juice when it pours out from the press, presumably into a smaller basin. The jars of racked wine were then sealed with rush bung stoppers which were then covered with mud capsules that almost entirely enveloped the mouths and necks of the jars. Small holes were left near the tops of the capsules to allow the escape of carbon dioxide. Seal impressions of the state or the domain that produced and bottled the wine were applied to the still soft mud of the capsules. When fermentation finally ceased, the small holes were completely sealed with clay to prevent the further conversion of this

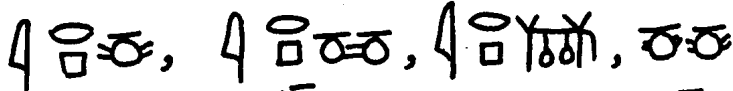
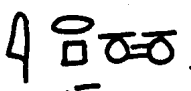
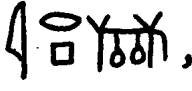

(137) Lucas & Harris, Ancient Egyptian Materials and Industries, p.17.

(138) Hartmann, L' Agriculture, pp.165-169.

now very enjoyable wine into vinegar (139). The colour of wine depends upon the colour of the grapes and whether or not the skins are included in the fermentation. Grapes shown in most tombs scenes of the New Kingdom at Thebes are dark-coloured (140), deep blue or violet; through less frequently they are shown as red, pink, green or white (141). The vine related to Hours, Osiris and Rennutet (142). The motif of the grape , the bunch of grapes and the vine leave are found in arts and crafts (143).

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- (139) Lucas & Harris, op. cit., p.17; Lesko, Tut's Wine Cellar, p.20; Hartmann, L' Agriculture, pp.169-172; Germer, Flora, p.117; Ch. Meyer, LÄ VI, p.1170.
- (140) N. de G. Davies, Nakht, pls.XXV, XXVI; id, Two Ramesside Tombs, pl.XXXIII.
- (141) Lucas & Harris, op. cit., p.18.
- (142) Hartmann, L' Agriculture, p.60; Moens, OLP 15, p.28.
- (143) Keimer, Die Gartenpflanzen I, pp.63-64; Moens, OLP 15, p.28.

Wines of the New Kingdom

Egyptian , , ,  irp (145).
Coptic $\text{H}\bar{\rho}\text{n}$ (S.B.), $\text{H}\bar{\lambda}\text{n}$ (F.) (146), and $\text{E}\bar{\rho}\text{n}$ (A.) (147).

Wine was most probably not a popular beverage in Egypt, its use being restricted to court circles and the upper classes. It seems to have been too expensive, it was not for example, part of the regular deliveries to the workmen at Deir el Medina (148). A large collection of wine labels were found in the palace-city of Amenophis III, at el Malqata in Western Thebes (149). The regular features listed above for wine labels, quantities are stated in gnw, mnw and hnw measures, names of both the owner's supervisor and the master winemaker are given, and reference is often made to the specific purpose or occasion for which the wine was prepared. Among the specific purposes listed "wine for offerings" and "wine for taxes" are encountered. Some wines at el Malqata were labelled as "blended". This could indicate either varieties of grapes were blended or that free flow juice was mixed with pressed juice or at the very worst that wine was mixed with the fermented juice of another fruit. Of the 845 dated jars found at el Malqata, 711 date to three years 30, 34 and 37. The years in this case

(145) Wb I, 115, 5; Charpentier, Botanique, p.100, no.168.

(146) Wb I, 115; KHW p.34; Crum, op. cit., p.66 b.

(147) KHW p.34.

(148) Janssen, Commodity, pp.350-352; E. Brovarski, & P. Lacovara,
in : Egypt's Golden Age, p.109.

(149) W.C. Hayes, JNES 10, 1951, fig.4-8.

clearly coincide with the three jubilees celebrated by Amenophis III. Other collections of wine labels were found in Tell el Amarna. These labels contain much the same type of information concerning vineyard and vintner. Most jars were labelled simply irp "wine" but about nine had the designation irp nfr "good wine" and eleven had nfr nfr indicating very good wine. Three wines were called "maa^c" genuine, and again only four were ndm "sweet". One jar was labelled "for merry making" and presumably was not of the best quality. Twenty-six different estates are represented in this collection of labels. Some of these estates belonged to Pharaoh Amenophis IV, Queen Nefertiti, their daughters and successor Smenkhkare^c. The majority of wines came from the "estate of Aten", the estate belonging to the priesthood of the Aten temple. Most of the wine came from the "Western river" or Canopic branch of the Nile. A few labels list the Southern Oasis as point of origin, and some have other local designations, but none came from the area of Tell el Amarna (150).

The hand written labels on the wine jars of Tutankhamun indicate a date identify the wine, often including a descriptive adjective. Of the three dozen wine jars in Tutankhamun's tomb, only four were labelled only four were labelled "sweet" (151). Perhaps this indicates a clear preference on the part of the young King for dry wines; on

 (150)J. Pendlebury, The City of Akhenaten, part III/I, London, 1951;

Lesko, op. cit., p.27 ff.

(151)J. Černý, Hieratic Inscriptions from the Tomb of Tut^cankhamun, Oxford, 1965, p.4; Brovarski, & Lacovara, in : op. cit., p.109.

the other hand, it may indicate that the wine was sweetened (152). The labels the estate responsible for production and bottling, the location of the vineyard from which the wine came, and the chief vintner. All of Tutankhamun estate-bottled wines came from either the estate of Aten, or the estate of Tutankhamun, the vineyards of these estates were mostly located in the Western Delta; a few lay in the Eastern Delta a region. A single exception was a bottle of wine from year 10, originating from Iaty in the Southern Oasis of el Kharaga (153).

The numerous wine-jars discovered in the store-houses of the Ramesseum, Ramesses II's mortuary temple at Thebes. Thirty-four geographical locations mentioned on the labels, including "the great river" which was certainly the Canopic branch of the Nile in the West Delta. "the waters of Amūn", "the waters of Ptaḥ" and "the waters of Prē^c" refer to other branches of the Nile. The estates and vineyards named on these labels include royal estates temple-owned estates and several locations in the northeast Delta near the Pelusiac branch. Thirty-four vintners most of whom have Egyptian names (154). A unique practice letter written by a scribe named Inena re-

(152)Lesko, op. cit., p.22; Brovarski & Lacovara, in : op. cit., p.109.

(153)H. Carter, Tut-Ankh-Amen III, pp.147-148; Lesko, op. cit., pp.22-23; Hayes, JNES 10, p.59.

(154)Spiegelberg, ZAS 1923, p.25 ff; Lesko, op. cit., p.36. For a full presentation of the inscriptions of the wine-jar docketts of the

cords the shipping of wine from a Delta vineyard belonging to the estate of the mortuary temple of Sethos II, XIX dynasty, "for my lord's information, the whole of the wine which I found sealed up with the master of vineyard-keepers Tjatory was : 1500 jars of wine, 50 jars of šdh-wine, 50 jars of p3wr-drink, 50 pdr sacks of pomegranates, 50 pdr sacks and 6 krht-baskets of grapes (155). King Ramesses III, XX dynasty, bestowed great quantities of offerings on the gods and their temples; 22,566 jars of wine to various temples at Thebes, 103,550 jars to the temples of Heliopolis, and 25,978 jars of wine to the temples of Memphis 3,287 for the small temples (156). And the income of the temples for thirty-one years was : 25,405 jars to the temples of Heliopolis, 390 jars of wine to the temples of Memphis (157). Wine was also imported as tribute or commercially from Arvad, Djahi and Retenu in Asia (158).

Rumesseum, see Kitchen, Ramesside Inscriptions II, 673-696, with VII, 49-75. For stamps of Sethos I at Qurna temple, see Kitchen, op. cit., I, p.223. For wine docketts of Ramesses II from Qanter (East Delta), see, M. Hamza, ASAE 30, 1930, pp.43-45; Kitchen, op. cit., II, 462. In Nubia, at Anba, wine for the Ramessum esates, see Kitchen, op. cit., II, 747.

(155) CLEM, p.155, Anastasi IV, 7, 3-5; Ch. Meyer, LA VI, p.1173.

(156) Breasted, AR IV, 172.




(157) Ibid., IV, 168.

(158) Ibid., V (index), p.170; Lucas, & Harris, op. cit., p.20;

Brovarski, & Lacovara, in : op. cit., p.109.

Fruit Trees

Date Palm

The Egyptian name of the date palm-tree was  bnrt (159). Demotic bnit (160) Botanical Phoenix dactylifera L. (161). Coptic B̄NNE(S.), BENI (B.) (162). Greek Ρόδιον (163). Dates were bnr (bni) (164), there were two types of dates bnr w3d "fresh dates" and bnr šw "dried dates" (165), dates wine was  bniw,  bnrt (166). Arabic name of the date is Balah بلح, Tamr تمر.

(159) Wb I, 462, 1; FCD, p.83; CCED, p.24; Charpentier, Botanique, p.250, no.406.

(160) Erichsen, Demot. Glossar, 117, 1; CCED, p.24.

(161) Loret, Flore, p.34, no.38; M. Renfrew, Palaeoethnobotany p.152; Charpentier, Botanique, p.250, no.406; Germer, Flora, p.232; Moens, OLP 15, p.30; Good & Lacovara, in : op. cit., p.38.

(162) WB I, 463; Crum, A Coptic Dictionary, p.40 a; KHW p.18; Charpentier, Botanique, p.250, no.406; CCED, p.24.

(163) Dioscorides I, 109; IV, 43; V, 54; Charpentier, Botanique, p.250, no.406.

(164) Wb I, 461, 12.

(165) I. Wallert, LÄ I, p.997; CCED, p.24.

(166) Wb I, 462; FCD, p.83.

Palm-fibre was šny-bnr(t) (167). Demotic šn-bnt or šr-bnt (168). Coptic ϣΟΥΒΕΝΕ (S.), ϣΕΝΒΕΝΙ (B.) (169). Envelope of the palm-tree flower (bally) šw bn(t). Greek ΒΕΒΕΝΙΟΝ, ΒΕΒΕΥΙΟΝ (170).

The date palm is an evergreen, dioecious tree (up to 40 m. high) with an undivided stem, pinnate leaves, small white flowers on a richly branched spadix surrounded by a solitary, large spathe. It usually has cylindrical, reddish-brown fruit containing a solitary stone and a fleshy. Generally, the date palm flowers during February and March and its fruit ripens in August and September. The tree needs artificial pollination to secure the production of normally developed fruit. The date palm can grow on any variety of soil if sufficiently irrigated (171). The average annual yield of a single tree is about 45 kg of fruit. The fruits are borne in bunches, each of which may consist of about forty strands, with 25-35 dates per strand. At present time the fruits are divided into three categories : soft dates, semi-dry

 (167) Wb I, 463; KHW p.18; Loret, RT 16, p.98; Helck, Materialien

V, p.815; CCED, p.24; Charpentier, Botanique, p.250, no.406.

(168) Erichsen, Demot. Glossar, 513, 1; CCED, p.24; Charpentier,

Botanique, p.250, no.406.

(169) Wb I, 462; KHW p.18; Crum, op. cit., p.40 b.

(170) CCED, p.24; Charpentier, Botanique, p.250, no.406.

(171) Moens, OLP 15, pp.30, 31; Tackholm, Student's Flora, p.763;

Tackholm & Drar, Flora II, pp.165-166; See Figure 20.

dates and dry dates which can be kept for a long time (172). Many authors believe the date palm to have originated in Africa, and it is also controversial whether the Egyptians knew the artificial pollination before the Middle Kingdom (173).

The date palm is one of the most important botanical species of the whole Near East (174). The date palm has been cultivated in Egypt from Prehistoric times (175). A mummy found at Risehat near Armant was found wrapped in a mat of plaited palm leaflets (176). Mats made of its leaflets have been found already in Neolithic settlements (177). Palm fibres have been found from Neolithic age (178). Date stones were found even in Pre-dynastic sites (179). Genuine dynastic finds of dates and date-cakes are countless (180). A tomb of the second

(172)J.M. Renfrew, op. cit., p.152.

(173)Moens, OLP 15, p.31; Wallert, Die Palmen im Alten Ägypten, Berlin, 1962, pp.13-17.

(174)Darby, et al., op. cit., II, p.724.

(175)Wallert, Die Palmen, p.15; F. Daumas, LÄ II, p.344; Täckholm, LÄ II, p.270.

(176)E.A.M. Greiss, Some Ancient Egyptian Plant Materials, p.32.

(177)Täckholm, LÄ II, p.270.

(178)Wallert, LÄ IV, p.658.

(179)W.C.Hayes, Most Ancient Egypt, Chicago, 1964, p.119;
Hartmann, L' Agriculture, p.25.

(180)Darby, et al., Food, II, p.724.

or third dynasty at Saqqara was roofed with palm logs (181), and a tomb of early date at Qau near Asyût, in a fourth dynasty tomb; and in the fifth dynasty of Ptahhotp at Saqqara, a roof of this kind has been copied in stone (182). Genuine wood was found in the tombs from XI dynasty at Deir el Bahari, XVI dynasty and from XIX-XX dynasties at Deir el Medina, Thebes (183).

Fruits, kernels, leaves, flowers, fibres from the leaf sheath and the wood of date palms are frequently found in tombs of all ages (184). In hieroglyphs the stripped rib of the palm meant year and this sign was often associated since the first dynasty with the hb-sd jubilee of life-renewal (185). It was even one of the plants drawn as a symbol of Upper Egypt (186), and its various parts were imitated amulets, jewels, shrines, furniture, and sacred architecture, from Archaic Period to Greek times (187). Palm trees appear in rock drawings of the Egyptian desert, in Proto-historic palettes like Narmer's palette

(181)J. Quibell, Archaic Mastabas, Excavations at Saqqara
(1912-1914), p.21.

(182)Lucas & Harris, op. cit., p.444.

(183)Greiss, Some Ancient Egyptian Plant Materials, p.146.

(184) Ibid., p.32.

(185)Germer, Flora, p.76.

(186)Wallert, Die Palmen, p.76.

(187)Darby, et al., Food II, p.729.

and other slates (188). The imitation of the leaves is found in the palmiform columns, V dynasty, and from XXVI dynasty onwards (189). The tree, leaves, and date were a popular motif in arts and crafts (190). Dates-palms were frequently planted in the New Kingdom gardens; where we find Ineni planted 170 date palms (bnr.t) in the garden of the house during his life to enjoy in the hereafter (191). We find also Minnakht (192), Min (193), Rekhmirē^c (194), Amenemḥab

(188)H.A. Winkler, Rock-Drawings of Southern Upper Egypt I, London, 1938-1939, p.11.

(189)Wallert, Die Palmen, p.35; Germer, Flora, p.233; Moens, OLP 15, p.31.

(190) Ibid., 15, p.31.

(191) Urk IV, 73 (6); H. Boussac, Le Tombeau d' Anna, (MMAF 18), Paris, 1896, pl.X; Badawy, Dessin, p.84, fig.87; id, Architecture, p.20, fig.6; Wallert, Die Palmen, pl.V; Moens, OLP 15, p.12; Loret, RT II, p.23; **See Figure 21.**

(192)Kelbs, Reliefs, III, p.24, fig.16; Badawy, Dessin, p.245, fig.307; id, Architecture, p.389, fig.207; Moens, OLP 15, p.13.

(193)Hennebo, Betrachtungen zur Altägyptischen Gartenkunst, p.191, fig.9; Moens, OLP 15, p.13.

(194)Badawy, Dessin, p.249, fig.312; id, Architecture, p.494, fig.258; Moens, OLP 15, p.14.

(195), Dhutnūfer (196), Ḳenamūn (197), Sennūfer (198), Sebkhotep (199), Nebamūn (200), Meryrē^c I (201), Neferronpet (202) and Tjanefer (203) all planted rows of date-palm in their house gardens during their life to enjoy in the hereafter.

Dates were frequently mentioned in the texts of the New Kingdom; where they are mentioned in Anastasi IV (204), Lansing (205), Rainer (206) and in Pap. Harris I, it is mentioned that Ramesses III offered

(195)Badawy, Dessin, p.252, fig.317; Hennebo, op. cit., p.190, fig.8;

Moens, OLP 15, p.15.

(196) Ibid., 15, p.15.

(197)Badawy, Dessin, p.251, fig.316; id, Architecture, p.493, fig.257; Moens, OLP 15, p.16.

(198)Hennebo, op. cit., p.193, fig.12; Badawy, Dessin, p.82, fig.84; id, Architecture, p.20, fig.5; Moens, 15, p.17.

(199)Hennebo, op. cit., p.189, fig.7; Moens, OLP 15, p.17.

(200)Hennebo, op. cit., p.191, fig.10; Badawy, Dessin, p.185, fig.224; id, Architecture, p.23, fig.8; Moens, OLP 15, p.18.

(201)Klebs, Reliefs, p.25, fig.17; Hennebo, op. cit., p.203, fig.18; Moens, OLP 15, p.19.

(202)Badawy, Dessin, p.258, fig.326; Moens, OLP 15, p.21.

(203)K.C. Seele, The Tomb of Tjanefer at Thebes, Chicago, 1959, pl.11, 1; Moens, OLP 15, p.21.

(204) CLEM, p.188, Anastasi IV, 12, 9.

(205) Ibid., p.381, Lansing, 3, 6.

(206) Ibid., p.505, Rainer, 53, 7.

to the Theban temples : bnr md3 65,480 (207) "dates : measures md3 65,480". To the Heliopolitan temples : bnr md3 241,500 (208) "dates measures md3 241,500" and bnr šw ^c 11,872 (209) "dried dates jars (^c) 11,872". To the Memphite temples : bnr šw ^c 2396 (210) "dried dates : jars ^c 2,396" and bnr md3 2,396 (211) "dates : measures md3 2,396".

From the Greek and Roman Periods many more descriptions of the tree, its fruit and its preparations have survived, when Theophrastus (212) and Pliny (213) mentioned that the best came from Siwa. Plutarch (214) stated that "if the Greek date palm were like that of Syria or Egypt there would be no other tree to compare it with". Pliny (215) who praised the dates of Siwa, also found fault with those of Upper Egypt "... all over the Thebaid and Arabia the dates are dry and small with a shrivelled body, and they are scorched by the continual heat, their covering is more truly a rind than a skin ..." in

(207) Pap. Harris I, 21 b, 2.

(208) Pap. Harris I, 37 b, 5.

(209) Pap. Harris I, 38 b, 3.

(210) Pap. Harris I, 54 a, 9.

(211) Pap. Harris I, 54 a, 10.

(212) Theophrastus 4, 3, 1.

(213) Pliny XIII, XXIII, 111-112.

(214) Plutarch, Table Talk, Cambridge, 1959, 8, 4, 732, C.D.

(215) Pliny XIII, IX, 47.

another passage, Pliny (216) further discussed the dates of Upper Egypt "... the date of Thebaid is packed into cakes at once before it has lost the aroma of its natural heat; if this is not done, it quickly loses its freshness and dries up unless it is warmed up again in an oven".

Apart from being directly consumed as fruit or as date-cakes, date-juice served to make a type of wine and to flavour beer (217). Date wine is mentioned occasionally in the ancient Egyptian texts, for example, in the second dynasty (218), in the sixth dynasty (219) and on two ostraca of XIXth dynasty in Cairo Museum (220) It is described also by Pliny (221) who mentioned that it was made throughout all the countries of the East, which probably was meant to include Egypt. It was prepared by steeping a certain kind of date in water and pressing out the liquid, which was left to ferment. In addition, date juice was very probably added to some kinds of beer to sweeten it and to assist fermentation. This is attested by several documents : The Moscow

(216)Pliny XIII, IX, 48.

(217)Helck, Das Bier im Alten Agypten, Berlin, 1971, pp.32-36;
Moens, OLP 15, p.31.

(218)Z.Y. Saad, CASAE XXI, p.9.

(219)Breasted, AR I, 336.

(220)Lucas & Harris, op. cit., p.23.

(221)Pliny XIII, 9; XIV, 19.

Mathematical papyrus (222), the papyrus Louvre 3326 (223) and a brewing scene in Antefoker's tomb at Thebes where dates are expressly so treated (224), a bas-relief in the Karlsruhe Museum (225), and by the common sequence of dates and cereals in the list of offerings ever since the second dynasty (226). That dates were utilized in brewing is, indeed, supported by many documents that enumerate the large quantities delivered to brewers, like the accounting papyrus E.3226 of the Louvre (227). Medically, dates were used internally in medications designed to purge (228), to clear the enigmatic whdw "pain" (229) or to regulate the urine (230). In vaginal pessaries, with other ingredients, they enhanced fertility (231). The date palm is sacred tree, related to Thot, Min, \overline{Re}^c and abode of the tree-goddess (232).

(222)W. Struve & T.E. Peet, JEA 18, p.155 ff.

(223)Gardiner, AEO II, pp.225-226.

(224)N. de G. Davies & Gardiner, The Tomb of Antefoker, London, 1920, p.15, pl.XI.

(225)A. Wiedemann & B. Portner, Aegyptische Grabreliefs, pl.VI.

(226)H. Wild, BIFAO 64, 1966, p.66.

(227)M. Megally, BdE 53, 1971, pp.34 ff.

(228) Pap. Ebers, VII, 22.


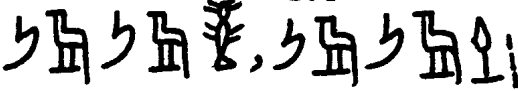
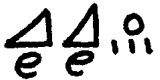

(229) Pap. Ebers, XXIV, 98.

(230) Pap. Ebers, XLI, 363.

(231) Pap. Ebers, XCIII, 783.

(232)Keimer, ASAE 29, 1929, pp.81-88; Wallert, Die Palmen, pp.98-106, 109-128, 135-139.

Dom Palm

The ancient Egyptian name of the doum palm-tree was ,
 m3m3 (233). Demotic word mm (234).
The Egyptian name of the doum-palm nuts  kwkw (235).
Demotic word kk (236). Botanical name Hyphaene thebaica (L.) Mart
(237). Coptic word is KOYK (238) and BNNEKOYK (239).
The Arabic word is Doum . Greek KOÛKI (240).

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- (233) Wb II, 29, 7; FCD, p.103; Charpentier, Botanique, p.316,
no.495; Keimer, Die Gartenpflanzen II, p.64; Germer, Flora,
p.235; Helck, Materialien V, p.793.
- (234) Erichsen, Demot. Glossar, 157,10; Charpentier, Botanique,
p.316, no.495.
- (235) Wb V, 14-15; CCED, p.53; CLEM, pp.206, 322; Keimer, Die
Gartenpflanzen II, pp.64, 65; Germer, Flora, p.235; Helck,
Materialien V, p.793.
- (236) Erichsen, op. cit., 561, 10; Charpentier, Botanique, p.746,
no.1246; CCED, p.53.
- (237) Loret, Flore, p.33, no.36; Hartmann, L' Agriculture, p.27;
Keimer, Die Gartenpflanzen II, p.64; Wallert, LÄ IV, p.658; F.
Daumas, LÄ II, p.344; Germer, Flora, p.234; Moens, OLP 15,
p.31; Good & Lacovara, in : op. cit., p.39; CLEM, p.322.
- (238) Crum, op. cit., p.100 b; CCED, p.53; CLEM, p.322.
- (239) Wb V, 21, 14-15; Charpentier, Botanique, p.316, no.495.
- (240) Loret, RT 2, p.24; Keimer, Die Gartenpflanzen II, p.65; CLEM,
p.322..

The dom palm is an evergreen dioecious fan-palm (up to 20 m.) with a repeatedly forked, light chocolate-brown trunk with black stripes, palmate-cleft leaves in a terminal crown on each branch, a spadix over 1 m. long, small yellow flowers and bumpy, brown-glossy, punctate with a stone about 4 cm. long, 2.5 cm. broad with a narrow cavity; its fruit is about 7-8 cm. long, 7 cm. broad (241). The fruit is eaten raw after being soaked in water or is made into a syrupy decoction (242). Dom palm is distributed in Arabia, Western Asia, and all over tropical and sub-tropical Africa (243). Nowadays, the tree is very common in Upper Egypt especially in Qena and Aswan, and in el Kharaga and Dakhla Oasis, but is rarely seen elsewhere in Egypt (244). The dom palm was well known to the ancient Egyptians (245). It grewed spontaneously in Egypt at least from Neolithic times onwards (246). The compact timber of the dom palm was useful building material; leaves, stalks and fibres were used in matting, basketwork, funerary garlands etc. and the fruit kernels served to make small objects of daily life (247). Concerning substantial finds,

(241) Täckholm & Drar, Flora II, p.274; Täckholm, Student's Flora,

p.763; Moens, OLP 15, p.31; Germer, Flora, p.234; See Figure 11, 13, 20.

(242) Darby, et al., Food II, p.732; Moens, OLP 15, p.32.

(243) Greiss, Some Ancient Egyptian Plant Materials, p.41.

(244) Ibid., p.147; Moens, OLP 15, p.32; Daumas, LÄ II, p.345.

(245) Greiss, op. cit., p.147.

(246) Moens, OLP 15, p.32.

(247) Täckholm & Drar, Flora II, pp.280-296; Lucas & Harris, op. cit., p.444; Wallert, Die Palmen, pp.22-28; Killen, Furniture, p.3.

amounts of dom fruits were found in the tombs, where fruits of the dom palm were found in graves from as early as the Predynastic Periods (248). Petrie found dom fruits in a tomb at Kahun from XII dynasty (249). In the Berlin Museum, there are several dom fruits, which Möller found in Thebes, from the reign of Tuthmosis IV (250). Fruits of the dom palm were found in the tomb of Tutankhamun, now kept in the Agricultural Museum, Cairo (251). Maspero found also several dom fruits in the tomb of Sennezem at Thebes, XX dynasty (252). Petrie found fruits of dom palm in a tomb at Hawara from the Graeco-Roman Period (253). Baskets, ribbing of seat of a chair and sandals, all from XVIII dynasty, kept in the Agricultural Museum, Cairo, were identified as split petioles or leaf lobes of dom palm (254). Leaves of dom palm were found from XVIII dynasty (255). And also leaves of dom palm were found in the tombs at Dra^c Abu el Naga, from XX-XXVI dynasties (256). Also many objects in the Agricultural

(248)G. Brunton & G. Caton-Thompson, The Badarian Civilisation and Predynastic Remains near Badari, London, 1928, p.63; Lucas & Harris, op. cit., p.444.

(249)Loret, Flore, p.35, no.36.

(250)Keimer, Die Gartenpflanzen II, p.64.

(251)Darby, et al., Food II, p.732, fig.18.17.

(252)Keimer, Die Gartenpflanzen II, p.64.

(253) Ibid., II, p.64.

(254)Greiss, Some Ancient Egyptian Plant Materials, p.148.

(255) Ibid., p.148.

(256)Keimer, Die Gartenpflanzen II, p.64.

Museum, Cairo, probably from the Roman Period were identified as dom, e.g. baskets, bottom of a bag, a basket lid and a seat of a chair (257).

The dom palm and its fruits were mentioned in the New Kingdom papyri; where Amenemonē speaks to the scribe Pentwēre. This letter is brought to you to the following effect : p3 m3m3 c3 n 60 mh p3 nty kwkw im.f wn h3nyny m-hnw kwkw iw mw m-hnw h3nyny (258).

"... thou great dom-palm of 60 cubits, on which there are nuts, there are kernels in the nuts and water in the kernels". In Pap. Harris I, it is mentioned that Ramesses III, offered to Amūn-Rē^c at Thebes : hw kwkw m ipt 449,500 (259) "Dom-palm fruits : in measures (ipt) 449,500". And also we find that the demotic word kk was frequently mentioned on ostraca which were found in Thebes (260).

Dom palm were frequently planted in XVIII dynasty gardens, where Ineni mentioned that he planted in his garden 120 dom palms (m3m3) to enjoy in the hereafter (261). We see also dom palms were represented bearing bunches of fruit around the ponds in the tomb-scenes

(257) Greiss, op. cit., p.148.

(258) CLEM, p.321, Pap. Sallier I, 8, 4-5; Keimer, Die Gartenpflanzen II, p.65; Loret, RT 2, p.23.

(259) Pap. Harris I, 19 b, 12.

(260) Keimer, Die Gartenpflanzen II, p.66.

(261) Urk IV, 73, 7; Boussac, Le Tombeau d' Anna, pl.X; Loret, RT 2, p.23; Moens, OLP 15, p.12; See Figure 21.

of Min (262), Rekhmirē^c (263), Amenemḥab (264), Dḥutnūfer (265), Kēnamūn (266), Sennūfer (267), Sebkḥotep (268), and Meryrē^c I (269). In addition to previous scenes, there is a scene in the tomb of Amennakht (no.218) at Deir el Medina, reign of Ramesses II, which represents Amennakht kneeling, he worships beneath a dom palm with bunches of fruit. Accompanying this scene, four short lines of text read : "A spell for drinking water beside a dom palm beside the feet of the god Min : praise to thee, who come forth from thy shadow, thou sole god who grows from the soil of the earth, and at whose root water is put ! Moisten the heart of the Osiris Amennakht" (270). The dom-palm also depicted on ostraca (271). For it was sacred, more

 (262)Hennebo, op. cit., p.191, fig.9; Moens, OLP 15, p.13.

(263)Moens, OLP 15, p.14.

(264)Badawy, Dessin, p.252, fig.317; Moens, OLP 15, p.15.

(265) Ibid., 15, p.15.

(266)Badawy, Dessin, p.251, fig.316; id, Architecture, p.493, fig.257; Moens, OLP 15, p.16.

(267)Hennebo, op. cit., p.193, fig.12; Moens, OLP 15, p.17.

(268)Hennebo, op. cit., p.189, fig.7; Moens, OLP 15, p.17.

(269)Klebs, Reliefs, p.25, fig.17; N. de G. Davies, The Rock Tombs of El Amarna I, London, 1903, p.42, pl.XXXII; Moens, OLP 15, p.19.

(270)Nina de G. Davies & Gardiner, Paintings II, pl.CII; III, p.194.

(271)Vandier d' Abbadie, Catalogue des Ostraca Figurés de Deir el Médineh I, Le Caire, 1936, nos.2001-2004; J.K. McDonald, in : Egypt's Golden Age, p.113.

especially to Thoth who, in his personification as a baboon, was often pictured with it on ostraca, on jewels, and in many paintings of the gardens that the deceased wished to visit after his death, to enjoy the cool shade of its leaves and the tasty fruits that he liked (272). An ostrakon from Stockholm Museum shows a monkey grabbing at a sack of palm fruit (273), a similar scene is portrayed in the tomb of Rekhmirē^c (274). The dom palm is sacred tree, it is also related to Tuēris and Min (275). From the Greek and Roman Periods many descriptions of the tree and its fruit have survived; Theophrastus mentioned that the dom palm was an Egyptian tree (276), he gave a good description of the fruit, and contrasted it with that of the date palm, "... it has a peculiar fruit, very different from that of the date palm in size, form and taste; for in size, it is nearly big enough to fill the hand, but it is round rather than long; the colour is yellowish, the flavour sweet and palatable. It does not grow bunched together, but the fruit grows separately; it has a large and very hard

(272)N. de G. Davies, Two Ramesside Tombs, p.23, pl.XVI; Keimer, MDAIK 8, 1939, pp.42-45; Wallert, Die Palmen, pp.86, 87; Darby, et al., Food II, p.732; Moens, OLP 15, p.32.

(273)B. Peterson, Medelhausmuseet Bulletin 7-8, 1973, p.98, no.108, pl.59; J.K. McDonald, in : op. cit., p.113.

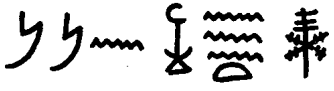
(274)Davies, Rekh-mi-Rē^c, pl.48.

(275)Wallert, Die Palmen, pp.97-98, 106-109; Moens, OLP 15, p.32.

(276)Theophrastus IV, 2, 7.

stone" (277). And Pliny (278) described the tree as having branches spread out like arms. Concerning its uses, Theophrastus (279) stated that in Nubia and Upper Egypt its fruit was used to make a variety of bread, and both he (280) and Pliny (281) noted that curtain rings were made out of its stone.

Argun Palm

Egyptian name  m3m3 n hnn.t (282). Botanical name Medemia Argun Wurttemb. ex Mart. (283). The Arabic name is Argum, Dom el dulla, Dullakh. The argun palm is an evergreen, dioecious fan-palm (up to 10 m. high) resembling the dom palm but having an unbranched stem. The fruit is ellipsoid (about 4 cm. long, 3 cm. broad) with a shiny, thin, deep purple skin and a stone surrounded by dry, yellow flesh (284). The palm is confined to the

(277)Ibid., 2, 6, 9.

(278)Pliny XIII, XVIII, 62.

(279)Theophrastus 2, 6, 10.

(280) Ibid., 4, 2, 7.

(281)Pliny XIII, XVIII, 62.

(282) Wb II, 29, 8; FCD, p.103; Charpentier, Botanique, p.318, no.496; Germer, Flora, p.235; Moens, OLP 15, p.32.

(283)Loret, Flore, p.34, no.37; Kiemer, Die Gartenpflanzen II, p.67; Wallert, LÄ IV, p.658; Germer, Flora, p.235; Moens, 15, p.32.

(284) Ibid., 15, p.32; Täckholm, Students' Flora, p.763; Germer, Flora, p.235; See Figure 12, 21.

tropical Africa and is not found nowadays in Egypt (285). The argun palm is a Nubian palm growing wild in Upper Egypt in ancient times (286). The ancient finds are exclusively confined to fruit. Its fruits have been found in the tombs from V dynasty onwards (287); where three fruits found at Saqqara are kept in the Agricultural Museum, Cairo, dating from V dynasty (288). Petrie found fruits of the argun palm in a tomb at Kahun, dating from XII th dynasty (289). Schweinfurth found also fruits in a tomb at Dra^c Abu el Naga, dating from XII (290). Specimens of argun palm fruits from different periods are kept in the Agricultural Museum Cairo, and in the Museums of Berlin, Louvre and Florence (no.3606) (291). This tree was represented in Ineni's tomb (292); it is mentioned that he planted 1 argun palm (m3m3 n h3nn.t) (293) in his garden during his life to enjoy in the hereafter. As picked from the tree, the fruit is edible but in Nubia it is first buried for some time, where upon it acquires a sweet taste,

 (285) Greiss, op. cit., p.50.

(286) Tackholm, LA II, p.269; Moens, OLP 15, p.32.

(287) Moens, OLP 15, p.32; Germer, Flora, p.235.

(288) Greiss, op. cit., p.148; Tackholm & Drar, Flora II, p.298.

(289) Loret, Flore, p.36, no.37; Greiss, op. cit., p.146.

(290) Loret, Flore, p.34; Greiss, op. cit., p.146.


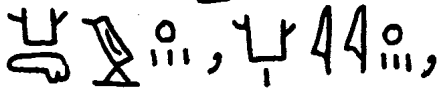

(291) Loret, Flore, p.34; Beauverie, BIFAO 35, 1935, p.123.

(292) Wreszinski, Atlas, 60; Boussac, Le Tombeau d' Anna, pl.X;
 Wallert, Die Palmen, pl.V; Germer, Flora, p.235; Moens, OLP
 15, p.12.

(293) Urk IV, 73; Loret, RT 2, p.23; Moens, OLP 15, p.12; See Figure

said to resemble that of the coconut (294). Nowadays, the tree is very rare in Egypt.

Sycamore

Egyptian name of the sycamore tree was  nht (295).
Demotic nhy (296). The sycamore fig was ,
 k3w (297). Botanical Ficus Sycomorous L. (298).
Coptic name of sycamore tree NoY2E (S.), NoY2I (B.)
(299). Arabic name Gemmeiz جميز.

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- (294) Täckholm & Drar, Flora II, p.298; Moens, OLP 15, p.32.
- (295) Wb II, 282, 7; KHW p.85; FCD, p.135; CCED, p.117;
Charpentier, Botanique, p.396, no.628; Janssen, Commodity,
p.370; Boorn, The Duties of the Vizier, p.236.
- (296) Erichsen, Demot. Glossar, 221, 7; CCED, p.117; Charpentier,
Botanique, p.396, no.628.
- (297) Wb V, 96, 14-16; FCD, p.283; Charpentier, Botanique, p.740,
no.1232.
- (298) Loret, Flore, p.46, no.61; Hartmann, L' Agriculture, p.28;
CCED, p.117; Daumas, LÄ II, p.345; Charpentier, Botanique,
p.396, no.628; Germer, Flora, p.25; Good & Lacovara, in : op.
cit., p.38; Moens, OLP 15, p.29.
- (299) Crum, op. cit., p.242 b; KHW, p.85.

The sycamore is indigenous in Arabia and Abessinia (300). It is a large, evergreen tree (up to 20 m. high) with a short, knotted trunk and oval, on both surfaces almost glabrous, leaves. Dependent upon the variety, the fruit is yellow and pear-shaped, or roseate and flattened. There is continuous fruit production during the whole year. The sycamore fig consists of a fleshy receptacle holding a large cluster of small flowers on its inner surface. Sycamore figs never produces seeds (301). A few days before the fruit is ripe the peasant climbs the tree and cuts or notches each individual fruit. This operation has always been performed in Egypt throughout the ages, and whenever fruits are found in the tombs, they have this incision (302). One who is known from the Old Testament to have been a sycamore-cutter was the Prophet Amos (303). By this method the insects, which breed in sycamore figs, are completely destroyed. A few days later the fruit is picked when it has developed its flavour and sweetness. The fig has to be opened with a knife, it is in the form of a broad ring sharpened on one side and set in a wooden handle. This form

 (300) Moens, OLP 15, p.29.

(301) Ibid., 15, p.29; See Figure 11, 12, 13, 22, 33.

(302) Keimer, AE 1928, pp.65-66; Täckholm, LÄ II, p.269. The ancient Egyptians had special words for figs cut and uncut-notched a cut figs were nk^cwt (Shipwrecked Sailor 49), uncut k3w Coptic words ελκω, ελκο meaning the fruit of the sycamore. See FCD, pp.141, 283; Keimer, AE 1928, p.65.

(303) Amos VII, 14.

of knife, is well known among the fellahin throughout Egypt wherever the sycamore grow (304).

The sycamore fig was an important foodstuff (305). It has been found in graves as early as the Predynastic Period (306), and the first dynasty (307). There are finds of branches and leaves in sarcophagi covering the mummy, the fruit was imitated in arts and crafts (308). Sycamore wood was appreciated; it was used for religious statues, and for construction of i.e. coffins, furniture and doors. In ship-building it was used for smaller components (309) In the twentieth dynasty, its hard wood was used frequently for making the religious and corn-measures; it is mentioned that Ramesses III offered several statues of sycamore wood to the Nile god and goddess : nh.t twt n H^cpy 5096 (310) "sycamore wood : statues of the Nile-god 5,096", nh.t rpyt hmt H^cpy 5098 (311) "sycamore wood : statues of the Nile-

(404)Keimer, AE 1928, pp.65-66.

(305)Moens, OLP 15, p.29.

(306)G. Brunton, Mostagedda and the Tasian Culture, London, 1937, p.91; Germer, Flora, p.26; Moens, OLP 15, p.29.

(307)Petrie, et al., The Royal Tombs of the First Dynasty II, London, 1900, pp.36, 38; Germer, Flora, p.26.

(308)Keimer, BIFAO 28, 1929, p.50-57; Moens, OLP 15, p.30.

(309)Lucas & Harris, op. cit., p.444; van den Boorn, The Duties of the Vizier, p.236.

(310) Pap. Harris I, 41 b, 1.

(311) Pap. Harris I, 41 b, 2.

goddess 5,098", nh.t twt n H^cpy 984 (312) "sycamore wood : statues of the Nile-god 984", nh.t rpyt hmt H^cpy 984 (313) "wood sycamore : statues of the Nile-goddess 984", twt n H^cpy 193370 (314) "statues of the Nile-god 193,370", nh.t twt n H^cpy rpyt hmt H^cpy 12158 (315) "sycamore wood : statues of the Nile-god, and statues of the Nile-goddess". Sycamore gardens are also mentioned; where we find Ramesses III gave to the gods as gifts : k3mw n nh.t 2 (316) "sycamore of garden 2". The sycamore figs are referred to frequently in the ancient Egyptian texts (317).

The tree is frequently planted in the New Kingdom; where we find Ineni alone planted 73 sycamores (nh.t) to be able to walk in the shade of the trees which he had planted while he was still alive (318). We see also sycamore trees were represented bearing fruit around the

 (312) Pap. Harris I, 55 a, 14.

(313) Pap. Harris I, 55 a, 15.

(314) Pap. Harris I, 73, 13.

(315) Pap. Harris I, 73, 14.

(316) Pap. Harris I, 56 c, 14.

(317) Breasted, AR II, 326; Shipwrecked Sailor, 49; Pap. Ebers, 102, 2; A.M. Blackman, JEA 16, 69.

(318) Boussac, Le Tombeau d' Anna, pl.X; Urk IV, 73; Moens, OLP 15, p.12; **See Figure 21.**

ponds in the tombs-scenes of Minnakht (319), Min (320), Rekhmirē^c (321), Amenemḥab (322), Sebkḥōtep (323), on a part of the tomb wall kept now in the British Museum (no.37983), we see on this monument two varieties of sycamore, one with the yellow and the other with roseate fruit (324), and also Ipuy (325). Sycamore figs are constantly represented as notched or cut.

The sycamore (nh.t) was one of the most important trees in ancient times; it was a sacred tree and abode of the tree-goddess (326). Scenes from the Book of the Dead which deal with Osiris as a judge in the underworld, and representations of the goddess is very frequently. The earliest figure of this goddess is twice represented on the south wall of the tomb of Nakht, where she stands on either side of an offering-table. In one hand she is provided with a tray of food,

(319) Klebs, Reliefs, p.24, fig.16; Badawy, Dessin, p.245, fig.307;

id, Architecture, p.389, fig.207; Moens, OLP 15, p.13.

(320) Hennebo, op. cit., p.191, fig.207; Moens, OLP 15, p.13.

(321) Badawy, Dessin, p.249, fig.312; id, Architecture, p.494, fig.258; Moens, OLP 15, p.14.

(322) Badawy, Dessin, p.252, fig.317; Hennebo, op. cit., p.190, fig.8; Moens, OLP 15, p.15.

(323) Hennebo, op. cit., p.189, fig.7; Moens, OLP 15, p.17.

(324) Klebs, Reliefs, p.23, fig.15; Badawy, Dessin, p.253, fig.319.

(325) Klebs, Reliefs, p.35, fig.25; Hennebo, op. cit., p.186, fig.59; Badawy, Architecture, p.283, pl.36.

(326) Moens, OLP 15, p.30.

while the other holds a long papyrus stem. The goddess is adorned with the sycamore on her head (327). In the tomb of Amenmosi, the goddess is standing in the tree offering food and drink to the Ba-birds of the deceased under the tree (328). In the tomb of Userhet, the deceased is represented as he sits with his wife and mother in the shade of a big sycamore. Before them is a small T-shaped pond from which two birds with human heads are drinking. Above the two women are two Ba-birds in flight. In the background is the goddess Nut with a tree on her head (329). In the tomb of Thonufer in Dra^c Abu el Naga, the deceased is sitting in front of a table richly supplied with food, accumulated in the Ka-sign. The tree goddess, standing among the main branches of the tree, is represented in human form with only the feet hidden; she holds in one hand a small basket with figs from the tree, while the other pours streams of water from a vase for a Ba-bird with human head on the ground beneath (330). This tree-goddess identified with Nut, the sun-god, Hathor and Isis (331). Two scenes are represented in the tomb of Sennezem at Deir el Medina. One of them illustrates chapter 59 of the Book of the Dead. Accompanied by spells for the breathing of air and the disposal of the

(327)N. de G. Davies, Nakht, pp.46-47, pl.IX.

(328)Wreszinski, Atlas, 120; **See Figure 23.**

(329)N. de G. Davies, Two Ramesside Tombs, pl.IX.

(330)K.C. Seele, The Tomb of Tjanefer at Thebes, pl.11, 1; Moens, OLP 15, pp.21, 22.

(331) Ibid., 15, p.47.

water (332). The scene represents the deceased and his wife kneeling at the tomb. In front of them the goddess Nut is shown standing in a sycamore; her legs and the lower part of her body are hidden in the trunk of the tree, which is laden with fruit and well covered with thick foliage. Nut offer the usual water jar and tray of bread, and Sennezem and his wife are represented as they extend their hands to receive the gifts (333). The second scene illustrates chapter 109 of the Book of the Dead. The sun-god is represented with falcon head, uraeus and sun disk. Behind him stands the deceased on a support. Beside these two figures and between two sycamore trees is a black and white spotted calf, the symbol of the newborn sun-god. In addition, the sun is represented as a disk illuminating the tops of the trees (334). The sacred tree and its goddess are represented also on stelas and offering-tables (335). Thus, we see on a limestone stela in the Cairo Museum a man named Kamosi with his wife at the foot of the tree of Nut, from which two arms alone are extended. One arm holds a libation vase, the other a tray, which are being offered to the couple (336). On offering-tables from Achmim, we see the goddess is re-

 (332)Moens, OLP 15, p.47.

(333)Fahmy Abd el Wahab, MIFAO 1959, pl.XXXV; Germer, Flora, p.27; **See Figure 24.**

(334)Buhl, JNES 6, p.93.

(335)Buhl, JNES 6, p.93 ff; Moftah, ZÄS 92, p.44 ff; Moens, OLP 15, p.47.

(336)G. Maspero, Guide du visiteur au Musée du Caire, Cairo, 1884, p.427, no.6050; Buhl, JNES 6, p.93.

presented by two arms extended from the sycamore tree. These tables are in the form of the Egyptian htp-sign (337) Representations have survived of a type of sacred tree associated with Hathor; where we see on an XVIII dynasty stela in Florence the Sycamore tree. In the tree Hathor is represented in human form except for a cow's head which is adorned with two cow's horns inclosing a sun disk with two long feathers. The lower extremities of the goddess are hidden in the tree. She extends her arms; with one hand she pours water from a libation vase to a woman on the right of the tree, the other hand supports a tray of bread. At the foot of the tree, a Ba-bird with human head is shown drinking from a pool (338). Isis also was associated with the tree cult, but she is not mentioned as a tree-goddess in the Book of the Dead. A pillar in the tomb of Sennufer at Thebes, bears a scene which represents the deceased sitting on a chair together with his wife. Before them, on the left, is a leafy tree on a standard. A female figure in the tree is identified by a text as Isis. She is provided with neither libation vase nor tray (339).

The tree-goddess function as funerary goddess was related to her role as mother goddess and sky goddess. As a mother goddess, the


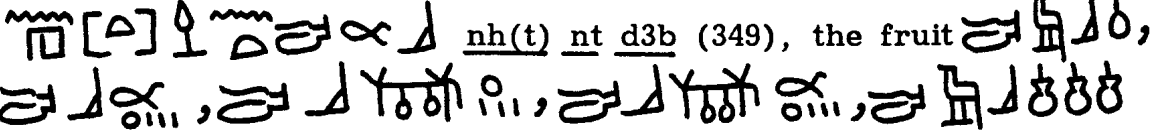
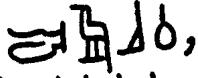
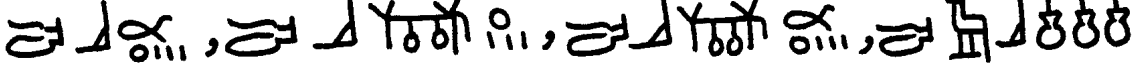
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- (337)A. Bey Kamal, Tables d' Offrandes Le Caire, 1906-1909, I-II, pls.XLI-XLIV; Buhl, JNES 6, p.93.
- (338)R. Moftah, ZÄS 92, 1966, p.44, Abb.4; Buhl, JNES 6, p.94.
- (339)P. Virey, RT 22, 1900, p.96.

tree-goddess appeared as the protectress of the dead (340). This quality was fulfilled by the sycamore : its broad, leafy, crown offered shelter from the hot sun (341). The main task of the mother goddess was to provide the dead with the new life (342). The fresh vital water offered by the tree-goddess was related to the fertile inundation water and Nun. This water could also protect the dead from the fire in the hereafter. The water referring to the sap of the tree can also symbolize the mothermilk of Nut (343). As a sky goddess, Nut provided the dead with air. So the tree goddess offered the necessary conditions for life. Medically, sycamore figs were prescribed against the scurvy (344). Its was part of a drink designed to distinguish fertile from sterile women (345), and of medicinal mixtures (346). Its leaves

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- (340) Buhl, JNES 6, pp.96-97; S. Schott, RdE 17, 1965, pp.81-87; K. Piehl, Inscriptions Hiéroglyphiques en Europe et en Egypte, 1st series, Leipzig, 1886, CXXV N; Moens, OLP 15, p.47.
- (341) Moens, OLP 15, p.47.
- (342) Davies, Ken-Amūn, pl.XLV b.
- (343) J-Ci. Goyon, Rituels Funeraires de l' Ancienne Egypte, Paris, 1972, p.241.
- (344) Pap. Ebers, LXXXIX, 749.
- (345) Wreszinski, Der Grosse Medizinische Papyrus des Berliner Muse-ums, (Pap. Berlin 3038), Leipzig, 1909, 193.
- (346) Pap. Ebers, XLII, 207, b-c; LXVII, 477.

were applied to hippopotamus bites (347), and its latex was used to darken scars (348).

The Fig

The Egyptian name of the fig-tree was  ^{d3b,}
 nh(t) nt d3b (349), the fruit ,
 d3b (350). Botanical name Ficus Carica L. (351). Arabic name Tin

The fig tree (2-3 m. high) has 3-to 5-lobed, hand-shaped leaves and bag-shaped spurious fruit consisting of a hollow, fleshy, receptacle in which the flowers are lining the walls. The tree bears fruits

(347) Wreszinski, Der Londoner Medizinische Papyrus und der Papyrus

Hearst, Leipzig, 1912, 243.

(348) Pap. Ebers, LXIX, 501.

(349) Wb V, 417; Urk IV, 73, (8); FCD, p.309; Charpentier, Botanique, p.838, no.1440.

(350) Wb V, 417; FCD, p.309; Charpentier, Botanique, p.838, no.1441; Loret, Flore, p.47; Helck, Materialien, V, p.756; Daumas, LÄ II, p.345.

(351) Loret, Flore, p.47, no.62; Kiemer, BIFAO 28, 1929, p.75; id, Die Gartenpflanzen II, p.41; Germer, Flora, p.24; Daumas, LÄ II, p.345; Moens, OLP 15, p.28.

twice or three times a year (352). The fig was eaten raw or dried, was appreciated for the fabrication of wine and was used in stuffing sacrificial animals (353). The fig tree belongs to the Mediterranean vegetation and was introduced into Egypt at early times (354).

Concerning substantial finds; Emery found a dish apparently of stewed figs, as a funeral meal, at Saqqara, from the first dynasty (355). A schist vessel in the shape of a fig leaf was found at Saqqara, II dynasty, and now is kept in the Cairo Museum (no.6280) (356). There are small faience models of figs, probably of the Middle Kingdom (357). Schweinfurth found fig fruits in the tombs at Dra^c Abu el Naga, from XII, XVIII dynasties (358). Some fruits were found at Deir el Medina, XIX dynasty (359). A fruit of the Passalacqua col-

(352) Täckholm, Students' Flora, p.55; Germer, Flora, p.24; Moens,

OLP p.28; See **Figure 14, 25.**

(353) Ibid., 15, p.29.

(354) Ibid., 15, p.28.

(355) W.B. Emery, A Funerary Repast in an Egyptian Tomb of the

Archaic Period, Leiden, 1962, p.6; Germer, Flora, p.24.

(356) Darby, et al., Food II, pp.708-709.

(357) Keimer, BIFAO 28, p.76; Germer, Flora, p.24.

(358) Loret, Flore, p.47, no.62; Germer, Flora, p.24.

(359) Bruyère, Rapport sur les Fouilles de Deir el Medineh (1934-1935),
p.108.

lection is in the Berlin Museum (360). Pottery model of figs found from the Roman Period is now kept in the Agricultural Museum, Cairo (361). The only recorded instance of the use of fig wood is for a mummy portrait of the third century A.D. (362).

The fig-tree and its fruits were frequently mentioned in the texts of the tombs and papyri from the Old Kingdom onwards; one of the earliest records of figs in ancient Egypt is in the interesting biography of a an official of the third dynasty, Methen : pr 3w mh̄w 200 wsh mh̄w 200 kd ^cpr w3h ht nfr ir š im.f ^c3 wrt w3h d3b i3rrt.... (363) ".... a estate 200 cubits long and 200 cubits wide, built and equipped; fine trees were set out, a very large lake was made therein, figs and vines were set out". From the New Kingdom, figs are frequently mentioned in the papyri; in Pap. Ebers d3bw 3šr "roast figs" (364). In Pap. Harris I, we find Ramesses III offered figs as a gift for his father Amūn-Rē^c : d3b b3kw ipt 310 (365) "figs of the

 (360)A. Braun, ZE 9, Berlin, 1877, p.300; Keimer, Die Gartenpflanzen II, p.41; Germer, Flora, p.24; Agyptisches Museum Berlin, no.7024.

(361)Darby, et al., Food II, p.712, fig.18.5.

(362)Lucas & Harris, op. cit., p.443.

(363) Urk I, 7; M. Moret, RT 29, 1907, p.68; Keimer, Die Gartenpflanzen II, p.43.

(364)Pap. Ebers, XIV, 1.

(365) Pap. Harris I, 19 a, 3; Helck, Materialien V, p.756.

impost : measures (ipt) 310", d3bw b3kw mh3 1410 (366) "figs of the
impost : weights (mh3) 1,410", d3bw b3kw msti 55 (367) "figs of the
impost : measures (msti) 55", d3bw m ipt 15500 (368) "figs : in
measures (ipt) 15,500", d3bw t3y 310 (369) "figs : measures (or
boxes) (t3y) 310". Also Ramesses III offered figs to the Nile-god :
d3bw sdf 4600 (370) "figs pyramids (?) (sdf) 4,600". Figs are men-
tioned in the letter which the scribe Amenemop^v sent to Pb^{es} to make
preparations for Pharaoh's arrival : d3bw n H3rw (371) "figs of
Khor", d3bw mh3 300 (372) "figs 300 strings", d3bw krht t3y 20 (373)
"figs, 20 krht-baskets". And the figs of the orchard and the fig-tree
(?) are also mentioned in the letter which the scribe Pb^{es} sent to the
scribe Amenemop^e as report on the Delta Residence (374). It is
mentioned also in the medical papyrus of Edwin Smith : d3bw nt d3b
"figs of the tree" (375).

(366) Pap. Harris I, 19 a, 4; Helck, Materialien V, p.756

(367) Pap. Harris I, 19 a, 5.

(368) Pap. Harris I, 19 a, 6; Helck, Materialien V, p.756.

(369) Pap. Harris I, 19 a, 7.

(370) Pap. Harris I, 36 b, 6; Helck, Materialien V, p.756.

(371) CLEM, p.201, Anastasi IV, 17, 5.

(372) Ibid., p.199, Anastasi IV, 14, 6.

(373) Ibid., p.199, Anastasi IV, 14, 6.

(374) Ibid., p.74, Anastasi III, 2, 5; 2, 8; Helck, Materialien V,
p.756.

(375) Pap. Edwin Smith, 9 (5, 4).

The fig-tree is represented on the tomb walls from the Old Kingdom onwards; where we see on one of the tomb walls of the Old Kingdom, a scene represents the fig tree bearing fruits, two men plucking the figs, one of them kneeling beneath the tree, while the other is standing on the tree branches, they gathering the fruits in the baskets. Accompanying the scene, is the following inscription : wh3 d3bw "plucking figs" (376). In a tomb, at Beni Hasan, XII dynasty (377). we see a scene represents a fig tree bearing fruits, two men one of them standing carrying a basket, while the other is kneeling on the land packing the ripe figs in a wooden box with cords for suspension from a yoke to be slung over the shoulders; three monkeys are among the branches, throwing with one hand figs in the baskets held by the peasants, and greedily helping themselves with the other. Fig-trees were planted in the New Kingdom gardens; where Ineni mentioned that he planted in his garden five fig trees (nh(t) nt d3b) (378). We see also fig trees were represented bearing fruit around the ponds in the

 (376) Keimer, Die Gartenpflanzen II, p.41; Germer, Flora, pp.24-25; Altenmüller & Moussa, Das Grab des Nianchchnum und Chnumhotep, pl.XV.

(377) Rosellini, Monumenti II, pl. XXXIX; Griffith, et al., Beni Hasan I, pl.XXIX; Keimer, Die Gartenpflanzen II, p.41; Germer, Flora, p.24.

(378) Urk IV, 73, (8); Boussac, Le Tombeau d' Anna, pl.X; Moens, OLP 15, p.12; See Figure 21.

tomb-scenes of Meryre^c I (379) and Neferhotp (380). Figs are frequently mentioned in the offering lists and represented on the offering tables from the Old Kingdom onwards (381) and found in arts and crafts (382). Medically, the fig is mentioned in prescriptions for internal use, in prescriptions for external use; enemas (383) suppositories (384) and wound dressings (385).

(379)N. de G. Davies, El Amarna I, p.42, pl.32; Moens, OLP 15, p.19.

(380)Klebs, Reliefs, p.26, fig.18; Davies, Nefer-Hotep, pl.XIV; Hennebo, op. cit., p.199, fig.15; Moens, OLP 15, p.20.

(381)Keimer, Die Gartenpflanzen II, p.43; id, BIFAO 28, p.76, pl.VIII; Wallert, LÄ II, p.145; Daumas, LÄ II, p.345; Davies, Nakht, pl.XII.

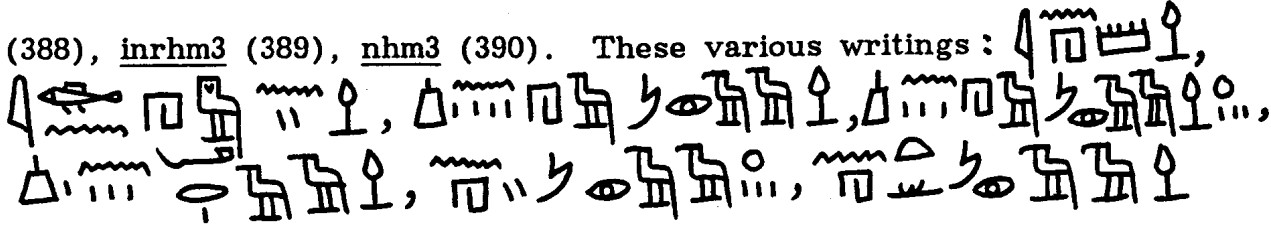
(382)Moens, OLP 15, p.29.

(383) Pap. Chester Beatty, 32.

(384) Pap. Ebers, XXXI, 141.

(385) Pap. Edwin Smith, 9.

Pomegranate

The ancient Egyptian name was inhmn (386), inhm3 (387), inhrm3 (388), inrh3 (389), nhm3 (390). These various writings: 
indicate that this tree was not indigenous to the country, but it was probably introduced into Egypt where it kept its original name. Botanical name Punica granatum L. (391). Coptic is Ⲫⲣⲙⲁⲛ(S.), Ⲉⲣⲙⲁⲛ(B.), ⲗⲈⲢⲙⲈⲛ(A.) (392). Arabic Romman رومان. The Hebrew word rimmon (393).

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- (386) Wb I, 98, 14; FCD, p.24; CCED, p.293; Moens, OLP 15, p.28.
- (387) Helck, Materialien, V, p.755; CLEM, p.77.
- (388) Ibid., p.158, Anastasi IV, 7, 5; 17, 5.
- (389) Ibid., p.206, Anastasi IV, 14, 5.
- (390) Charpentier, Botanique, p.390, no.627.
- (391) Loret, Flore, p.76; Keimer, Die Gartenpflanzen I, p.47; Germer, Flora, p.42; CCED, p.293; Brunner, LÄ II, p.891; Moens, OLP 15, p.28; Good & Lacovara, in : Egypt's Golden Age, p.39.
- (392) Crum, A Coptic Dictionary, p.703 a; Wb I, 98; CCED, p.293; Keimer, Die Gartenpflanzen I, p.152; id, BIFAO 31, 1931, p.184, note 3; Charpentier, Botanique, p.90, no.151.
- (393) Keimer, Die Gartenpflanzen I, p.151; id, BIFAO 31, p.184, note 3.

A small tree, 3-4 m. high or sometimes somewhat more (394). It has gleaming leaves, fragrant, deep scarlet, bell-shaped flowers and reddish-yellow, globular fruit with a little crown at the top (395). The fruit is large-up to 9 cm. across - with a thick, leathery skin, internally the fruit is divided into several cells each containing several seeds embedded in the juicy pink flesh (396). The pomegranate was greatly appreciated for its red, fragrant flowers and its sweet fruit, it was eaten fresh or flattened and boiled, and was probably used in the fabrication of Shedeh wine (397). It was probably introduced into Egypt from Western Asia from the first half of the XVIII dynasty, onwards (398). The tree is indigenous in Persia, Kurdistan, Afghanistan (399).

The oldest Egyptian text mentioning this tree was found at Thebes in the tomb of Ineni, who lived under Amenophis I to Tuthmosis III, where it is mentioned that among the trees he planted five pomegranates (inhmn) in the garden of the house during his life to

(394)R. Muschler, Flora II, p.673.

(395)Moens, OLP 15, p.28; **See Figure 14, 22, 33.**

(396)J.M. Renfrew, Palaeoethnobotany, p.152; **See Figure 14, 22, 33.**

(397)F. Woenig, Die Pflanzen im Alten Aegypten, p.323-327; Darby, et al., Food II, pp.616-617; Moens, OLP 15, p.28.

(398)Moens, OLP 15, p.28; Darby, et al., Food II, p.742; J.K. McDonald, in : Egypt's Golden Age, p.113.

(399)Keimer, Die Gartenpflanzen I, p.47; Beauverie, BIFAO 35, p.136; Moens, OLP 15, p.28.

enjoy in the hereafter (400). In the tomb of Meryrē^c I, at el Amarna, reign of Amenophis IV, we see trees of palm, pomegranates and figs surrounded the pond of the garden house (401). In the tomb of Neferhōtep (probably reign of Ay), the small garden contains a fig tree, a pomegranate, and a vine plantation (402). In the tomb of Ipuy, reign of Ramesses II, we also see the flowering pomegranate at the shore of the ponds among the trees (403). Pomegranate fruit is depicted among other examples of Asiatic flora that Tuthmosis III had carved upon the walls of his festival hall, at Karnak temple (404). In the tomb of Sebkhōtp at Thebes, we see a scene which represents thirteen pomegranates tied in a chain and bunches of grapes and lotus flowers are held by Sebkhōtp, major of the Fayum under Tuthomsis

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- (400) Urk IV, 73 (12); Boussac, Le Tombeau d' Anna, pl.X; Keimer, Die Gartenpflanzen I, p.48; Brunner, LÄ II, p.891; Germer, Flora, p.42; Loret, Flore, p.77, no.131; id, RT 2, p.110; McDonald, in : op. cit., p.113; Wreszinski, Atlas 60 a; **See Figure 21.**
- (401) Davies, El Amarna I, pl.XXXII; Loret, Flore, p.76; Keimer, Die Gartenpflanzen I, p.48; Germer, Flora, p.42.
- (402) Davies, Nefer-Hōtep pl.XIV; Klebs, Reliefs, p.26, fig.18; Moens, OLP 15, p.20.
- (403) Davies, Two Ramesside Tombs, pl.XXIX; Klebs, Reliefs, p.35, fig.25; Moens, OLP 15, p.20.
- (404) Wreszinski, Atlas II, 26-33; Keimer, Die Gartenpflanzen I, p.47; Germer, Flora, p.42; Brunner, LÄ II, p.891; McDonald, in : op. cit., pp.113-114.

IV (405). In the Theban tomb of the royal butler Dḥout, among gifts of flowers and fruits brought to Queen Hatshepsut, is a single huge pomegranate (406). The pomegranate appears with increasing frequency in reliefs in the temples of the New Kingdom onwards (407). Whether its representation in garden pictures referred to fertility and life, as it did in the later Greek-Roman mythology and in Christian symbolism (408).

The pomegranates are frequently mentioned beside the figs, raisins and dates in the papyri of the Ramesside Period; they are mentioned in the letter which Pbēs sent to Amenemopē as a report on the Delta Residence (409), and in the letter which Pbēs sent to the scribe Amenemopē as a report on a mission (410). Also, it is mentioned in the letter which the scribe Amenemopē sent to Pbēs to make prepara-

(405) Davies & Gardiner, Paintings I, pl. XLIV; McDonald, in : op. cit., p. 114.

(406) N. de G. Davies, "Tehuti : owner of tomb 110 at Thebes", in S. Glanville, ed., Studies presented to F. Ll. Griffith, London, 1932, p. 282; McDonald, in : op. cit., p. 114; PM I/I, pp. 227-228, (no. 110).

(407) McDonald, in : op. cit., p. 114.

(408) Keimer, Die Gartenpflanzen I, pp. 49-51 : because of its great number of seeds, a feature already noted by the Egyptians.

(409) CLEM, p. 74, Anastasi III, 2, 5.

(410) Ibid., p. 155, Anastasi IV, 7, 5; Helck, Materialien V, 755.

tions for Pharaoh's arrival (411). In Pap. Harris I, we find Ramesses III offered pomegranates as gifts to the gods as following : To the Theban temples inrh3 pdr 375 (412) "pomegranates : 375 pdr", inrh3 m ipt 15500 (413) "pomegranates : in measures (ipt) 15,500", inrh3 pdr 1240 (414) "pomegranates : 1,240 pdr". To the Heliopolitan temples : inhm3 m ipt 96000 (415) "pomegranates : in measures 96,000". To the Memphite temples : inhm3 m ipt 21000 (416) "pomegranates : in measures (ipt) 21,000". To the lesser gods : inrh3 pdr 66 (417) "pomegranates : 66 pdr", kwkw i3rrt d3bw inrh3 dg(3)y šbn pdr ipt šbn 2382605 (418) "dom-palm fruit, grapes, pomegranates and various fruit : pdr of various measures (ipt), 2,382,650". The motif of the pomegranate is found in Egyptian love poetry as well (419). Archaeologists have found several pomegranates

 (411) CLEM, p.155, Anastasi IV, 14, 5,; Helck, Materialien V, p.755.

(412) Pap. Harris I, 16a, 10.

(413) Pap. Harris I, 19 b, 13; Helck, Materialien V, p.755.

(414) Pap. Harris I, 19 b, 14; Helck, Materialien V, p.755. pdr, a container or measure of unknown nature used almost exclusively for grapes and pomegranates, see CLEM, p.158, Anastasi IV, 7, 5.

(415) Pap. Harris I, 40 a, 14; Helck, Materialien V, p.755.

(416) Pap. Harris I, 65 a, 5; Helck, Materialien V, p.755.

(417) Pap. Harris I, 65 a, 10; Helck, Materialien V, p.755.

(418) Pap. Harris I, 70 b, 8.

(419)A. Hermann, Altägyptische Liebesdichtung, Wiesbaden, 1959, p.128.

in the tombs of the New Kingdom onwards (420), and some are now kept in the Agricultural Museum, Cairo (421), and in Florence Museum (no.3608), Berlin, (Passalacqua no.449), London (no.5367), Leiden, and Turin (422). Also faience models of pomegranates were found in the tomb of Amenophis II, at Thebes (423). Pomegranate is imitated in many materials, including pottery, wood, faience, and metal, for use as vases and in miniature, as pendants to earrings (424). Chased on the neck and shoulder of a silver or electrum pomegranate from the tomb of Tutankhamun are garlands of lotus petals and a band of cornflowers and leaves (425). The pomegranate was used not only as a food and an offering but also parts of the pomegranate tree were prescribed as a vermifuge or deworming agent (426). There is evi-

(420)Loret, Flore, p.77; id, RT 7, p.108; Beauverie, BIFAO 35, p.136; Germer, Flora, p. 42.

(421)Keimer, Die Gartenpflanzen I, p.47.

(422)Loret, RT 7, p.108, note 8.

(423)Keimer, Die Gartenpflanzen I, p.47; Klebs, Reliefs, p.38; Beauverie, BIFAO 35, p.136.


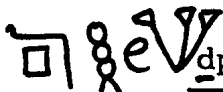

(424)Daressy, Fouilles de la Vallée des Rois, pl.XXX; B. Nolte, Die Glasgefäße im Alten Ägypten, Berlin, 1968, p.173; McDonald, in op. cit., p.114; See Figure 26.

(425)I.E.S. Edwards, Treasures of Tutankhamun, New York, 1976, p.165; McDonald, in : op. cit., p.114.

(426) Pap. Ebers, XVI, 15-18; Loret, RT 7, p.110; McDonald, in : op. cit., p.114.

dence that its juice was added to color and flavor some wines just as grenadine is today (427).

Apple

Egyptian  dph (428) and  dph (429).
Demotic word dph, dmp̄h (430), a loan-word from Semitic tappoukh (431) Botanical name Males Sylvestris Mill (= Pyrus Malus L.) (432).
Coptic Ⲭ(ϵ)ⲙⲡⲈⲢ (S.), ⲬϵⲙⲠⲈⲢ (B.),
ⲬⲓⲙⲡⲈⲢ (F.), ⲬⲙⲡⲏⲢ (A.) (433). The Arabic word is Toffah .

The apple tree was introduced into Egypt from the New Kingdom onwards; it was frequently cultivated in the Delta during XIX-XX,

(427) Darby, et al., Food II, pp.616-617; McDonald, in : op. cit., p.114.

(428) Wb V, 447; CLEM, p.77, Anastasi III, 2, 5; Helck, Materialien V, p.756; Charpentier, Botanique, p.842, no.1448.

(429) Wb V, 568, 10; CCED, p.314.

(430) Erichsen, Demot. Glossar, 677, 8; 680, 5; CCED, p.314; Charpentier, Botanique, p.802; Keimer, Die Gartenpflanzen II, p.26.

(431) CCED, p.314; Charpentier, Botanique, p.802.

(432) Loret, Flore, p.82, no.137; Renfrew, op. cit., p.136; Keimer, Die Gartenpflanzen II, p.26; Germer, Flora, p.62.

(433) Crum, op. cit., p.771 b; Keimer, Die Gartenpflanzen II, p.27.

dynasties (434). Apples are mentioned in the texts of Ramesside Period, where we find it mentioned in the letter which the scribe P \bar{b} es sent to Amenemop \check{e} as a report on the Delta Residence : inhm3 dph dt d3b n c t ht (435) "pomegranates, apples, olive, figs of the orchard". And in the letter which Amenemop \check{e} sent to P \bar{b} es to make preparations for Pharaoh's arrival (436). In Pap. Harris I, we find Ramesses III offered to the Nile-god as a gift : dph.t krht 848 (437) "apples : baskets (krht) 848". It is mentioned also in Pap. Rainer, XXI dynasty inrh3 dph dt (438) "pomegranates, apples, olives". Nowadays, the apple tree grows in the Nile Valley, especially in environs el Minya, Middle Egypt.

 (434) Daumas, LA II, p.346.

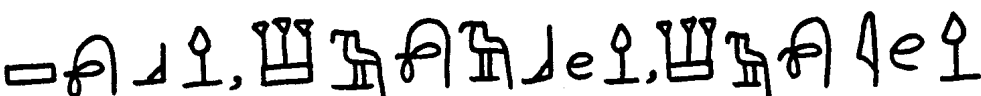
(435) CLEM, p.74, Anastasi III, 2, 5; Helck, Materialien V, p.756.

(436) CLEM, p.201, Anastasi IV, 17, 5; Helck, Materialien V, p.756.

(437) Pap. Harris I, 40 a, 15; Helck, Materialien V, p.756. krht is container for fruit. For different ways of writing the word; namely either as kht or even as kh \dot{h} . The word krht is never used, before the twentieth dynasty, the price of the krht fluctuates between 1 and 2 deben. The krht is somewhat more expensive than the kbs and less so than the dnit, though whether this may be due to quality or to size. See Černý, Commodity, pp.143-145, and table IV.

(438) Pap. Rainer, V. Keimer, Die Gartenpflanzen II, p.26, note 1.

Persea

Egyptian 

šwb (439). Demotic word šwb (440). Botanical name Mimusops
Schimperi Hochst. (441). Coptic ϣοϥε (S.), ϣβε (B.)
(442). The Arabic word Lebbakh لبغ.

The persea is a leafy, evergreen tree (15-20 m.) with oval, thinly stalked leaves and strongly flavoured flowers and fruit. The thin yellow, pointed fruit (about 4 cm. long-2 cm. width) is surrounded by short, lanceolate petals. Its inner part contains two or three gleaming seed kernels and very sweet, green pulp. The tree bears abundant fruit in every season (443). The persea is indigenous in Arabia, Abyssinia, and tropical Africa (444). It was probably culti-

(439) Wb IV, 435, 10; FCD, p.263; Charpentier, Botanique, p.658, no.1078; Helck, Materialien V, p.793.

(440) Erichsen, op. cit., 496, 3; Charpentier, Botanique, p.658, no.1078; CCED, p.258.

(441) Darby, et al., Food II, p.736; Keimer, Die Gartenpflanzen I, p.31; Moens, OLP 15, p.30; Charpentier, Botanique, p.658, no.1078; Good & Lacovara, in : Egypt's Golden Age, p.39.

(442) Crum, op. cit., p.603 a; Wb IV, 435, 10; Keimer, Die Gartenpflanzen I, p.144.

(443) Beauverie, BIFAO 35, p.133; Moens, OLP 15, p.30; See Figure 33.

(444) Moens, OLP 15, p.30; Good & Lacovara, in : op. cit., p.39.

vated in Egypt at least from the third dynasty onwards (445). The sweet fruit was eaten (446). Persea timber was used for the fabrication of statues, tables and other objects; the fruit, leaves and branches were worked up in bouquets and funerary; the fruit is also found as an ornamental motif in arts and crafts (447).

Concerning substantial finds; the earliest specimens of persea fruits have been found in the Zoser pyramid complex at Saqqara (448). Petrie found both its fruit and leaves in a tomb at Kahun, XII dynasty (449). Mariette found fruit in a tomb at Dra^c Abu el Naga, XII dynasty, Schweinfurth identified them as persea fruit (450). Models of the fruit made in glazed faience were commonly used as pendants to necklaces, reigns of Amenophis III and Amenophis IV (451). A fragment of a glazed tile of about the same date (Amenophis IV) as the pendants also bears a figure of the same fruit upon a background

(445) Moens, OLP 15, p.30.

(446) Ibid., 15, p.30.

(447) Keimer, Die Gartenpflanzen I, pp.32-33; Lucas & Harris, op. cit., p.445; Moens, OLP 15, p.30; Good & Lacovara, in : op. cit., p.39.

(448) Lauer, et al., BIE 32, 1951, p.130; Germer, Flora, p.148; Germer, LÄ IV, p.942.

(449) Newberry, in : Petrie, Kahun, p.49; id, Hawara, pp.48, 53; E. Schieman, MDAIK 10, 1941, p.128.

(450) Loret, Flore, p.62, no.98.

(451) Newberry, PSBA 21, 1899, p.304, fig.2; Germer, Flora, p.148.

of leaves (452). Carnarvon and Carter found leaves and fruits of the perseae tree during explorations at Thebes (453). In the tomb of Tutankhamun, there were bouquets made of twigs with branches of the perseae and olive (454). Dried perseae fruits were found in Tutankhamun's tomb, and now are in the Agricultural Museum, Cairo (455). Twigs were also found in the eighteenth dynasty tombs of Kha^c (456), and Meryetamun (457). Twigs and leaves of perseae were found in the wreaths around the mummy of Ramesses II (458). The head-rest identified by Ribstein as being made of wood was of New Kingdom date (459). Specimens of perseae fruits are kept in the Agricultural Museum, Cairo, and in the Museums of Berlin, Florence, Leiden, London and the Louvre (460). In the private tombs of the XVIIIth and later dynasties at Thebes, perseae fruits were often represented among the offerings piled up on the altars in front of the

(452) Newberry, PSBA 21, p.304; Keimer, Die Gartenpflanzen I, p.95, note 4; Germer, Flora, p.148.

(453) Carnarvon & Carter, Five years' explorations at Thebes, chapter 14.

(454) Carter, Tut-Ankh-Amen II, p.33, fig.27.

(455) Darby, et al., Food II, p.736, fig.18.20.

(456) Schiaparelli, Tomba Intatta dell' Architetto Cha, p.166; Daumas, LÄ II, p.347, note 16.

(457) H. Winlock, The Tomb of Queen Meryt-Amun at Thebes, p.52.

(458) Darby, et al., Food II, p.736.

(459) Lucas & Harris, op. cit., p.445.

(460) Beauverie, BIFAO 35, pp.133-134.

deceased (461). In the festival scenes of the same period, we see the fruit held in the hand by the guests, and sometimes it is held to the nose - in the same way as the lotus flower is so often represented - as if the guest was enjoying its sweet perfume. The same fruit is very often depicted either protruding from a lotus flower, or surrounded with flowers in the great garlands figured in XVIIIth dynasty tombs (462). In Deir el Bahari temple, we see a scene which represents two royal personages here making an offering of fruits, vegetables, and meat to the god Anubis; among these fruits, there are persea fruits (463).

Persea trees were planted in the garden of Ineni; where Ineni mentioned that he planted 31 persea trees (šwb) in his garden (464). And it seems that Ipuy also planted it in his garden (465). The persea tree and its fruit are referred to in the texts from the New Kingdom

(461) Davies, Nakht, pls. VIII-X, XVII, XXV; Wreszinski, Atlas, 57, 198; Keimer, Die Gartenpflanzen I, p.33; Newberry, PSBA 21, pp.303-304.

(462) Davies, Nakht, pl.XV; Wreszinski, Atlas, taf.7; Newberry, PSBA 21, p.304; Keimer, Die Gartenpflanzen I, p.33; Germer, Flora, p.148.




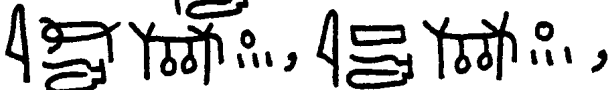
(463) Naville, The Temple of Deir el Bahari, part I, pl.XV.

(464) Urk IV, 73 (5); Klebs, Reliefs, p.39; Boussac, Le Tombeau d'Anna, pl.X; Moens, OLP 15, p.12; Germer, Flora, p.148.

(465) Moens, OLP 15, p.20; See **Figure 21**.

onwards (466). The perseae tree was a sacred tree (467); Kings were often represented protected by its foliage, or emerging from it (468). Plutarch, after saying that it was sacred to Osiris (469), stated that the perseae was especially consecrated to Isis, because its fruit resembles a heart and its leaf a tongue (470). From the Greek and Roman Periods many descriptions of the tree and its fruit have survived (471). Nowadays, it has disappeared in Egypt, but it is frequently found in Sudan.

Egyptian Plum

Egyptian  isd (472). Its fruits in the Old Kingdom , Middle Kingdom  and XVIII dynasty .

 (466) CLEM, p.28, Bologna 1094, 11, 1-2; Helck, Materialien V, p.793; Charpentier, Botanique, p.658, no.1078.

(467) Wb IV, 435; Moens, OLP 15, p.30.

(468) Darby, et al., Food II, p.740, fig.18.21.

(469) Plutarch, Isis and Osiris, 359, 20.

(470) Ibid., 378, 68.

(471) Theophrastus IV, 2, 5; Pliny XIII, XVII, 60-62; Strabo 17, 2, 4; Diodors I, 34.

(472) Wb I, 136, 5; Charpentier, Botanique, p.120, no.198; G. Jequier, BIFAO 19, 1922, p.221.

𓆎𓆏𓆐, išd (473). Botanical name Cordia Myxa L. (474).

Evergreen tree, a handsome tree, shrubs 5-8 m. high, leaves long-petioled, orbicular to ovate 5-15 cm. long. Flowers, not large (475). Its fruit resembles a medlar, and ripens in the winter. The fruit contains a large stone, but the fleshy part, owing to its nature and to the abundance in which it grows, provides the local people with quite a harvest, as after cleaning it they crush it and make it into cakes for storage (476). The išd tree is indigenous in tropical Africa, Madagascar, tropical Asia and Queensland (477). The išd tree was planted in the gardens (478). It is described in the lists of sacred groves in seventeen nomes of Upper and Lower Egypt (479). It was one of the sacred trees in Egyptian Pharaonic and the Greco-Roman Period (480). This tree was of great importance in the temple cult in Heliopolis and Heracleopolis (481). Išd-fruit is men-

(473) Wb I, 136, 6-11; Charpentier, Botanique, p.124, no.199.

(474) Lucas & Harris, op. cit., pp.23, 439; Darby, et al., Food II, p.705; Good & Lacovara, in : op. cit., p.39.

(475) R. Muschler, A Manual Flora of Egypt II, 780; Montasir & Hassib, Illustrated Manual Flora of Egypt I, p.369; **See Figure 27.**

(476) Darby, et al., Food II, p.707.

(477) R. Muschler, op. cit., II, p.780.

(478) Urk IV, 73 (19); Wb I, 136, 6; Jequier, BIFAO 19, p.223.

(479) Ibid., 19, p.222.

(480) Ibid., 19, p.222.

(481) Buhl, JNES 6, p.80; Jequier, BIFAO 19, p.222.

tioned in the texts from the Old Kingdom onwards, where it is mentioned in the Pyramid Texts (482). It is frequently mentioned in the names of the funereal domains of the Old Kingdom (483). It is mentioned on a Mastaba from the Old Kingdom pr išd "granary of išd-fruit" (484). It is frequently mentioned in the various medical papyri (485). The išd-tree is frequently mentioned in the texts of the New Kingdom; on the obelisk of Tuthmosis I, at Karnak (586). In Hatshepsut's temple at Deir el Bahari, chapel of Hathor (487), on the obelisk of Hatshepsut at Karnak (489), on the obelisk of Tuthmosis III, at Heliopolis, which is now in London (490); in the inscription of Sennufer, at El Bersheh, reign Tuthmosis III (491); on the stela of Sehtos I, from Karnak, Cairo Museum (no.34501) (492); on the obelisk

 (482)Faulkner, Pyramid Texts, Utterance, 160.

(483)H.K. Jacquet-Gordon, Les Noms des Domaines Funéraires sous l' Ancien Empire Égyptien, Le Caire, 1962, 34, 1962, 237, 31; 346, 2; 348, 6; 360, 26; 364, 100; 376, 5; 379, 11; 385,31; 403, 1; 406, 5.

(484) Wb I, 136, 12; A. Mariette, Mastabas, 279; E. Léfébure, Sphinx 5, 1902, p.4.

(485)Jequier, BIFAO 19, p.224; Léfébure, Sphinx 5, p.279.

(586) Urk IV, 93.

(487) Ibid., IV, 276, 11/2.

(489) Ibid., IV, 358.

(490) Ibid., IV, 591.

(491) Ibid., IV, 597.

(492)Helck, ZÄS 82, 1957, p.128.

of Ramesses II, at Louxor (493); in Bet el Wali temple, Ramesses II (494); in Ramesses III's temple, at Karnak (495) and in Ramesses III's temple, at Medinet Habu (496). The išd-tree was mentioned also in the texts of the rituals, which are depicted on the temples of Luxor (497), Karnak (498), and the temple of Sethos I, at Abydos (499). išd-fruit were frequently found beside the other fruits on offering-tables in the Old Kingdom onwards (500).

Concerning substantial finds; išd-fruits were found in baskets and vessels, some of these vessels had inscribed on them the Egyptian word shed, which is origin of the word išd (501). Möller found išd-fruit in a tomb, at Thebes XII dynasty (502). There are found seeds of Cordia Myxa, at Deir el Medina, dynasty XVIII, and these

(493) Ibid., p.129.

(494) Ibid., p.129.

(495) Ibid., p.129.

(496) Medinet Habu III, 1287; Helck, ZÄS 82, p.129.

(497) Helck, ZÄS 82, pp.125-126.

(498) G. Legrain, Les Temples de Karnak, Bruxelles, 1929, p.190 ff,
pl.121.

(499) J. Capart, Abydos : Le Temple de Sêti Ier, Bruxelles, 1911,
pl.4.

(500) Jequier, BIFAO 19, p.223.

(501) Ibid., 19, p.223, note 3.

(502) Germer, Flora, p.159; Keimer, Die Gartenpflanzen I, p.26.

are now exhibited at the Agricultural Museum, Cairo (503). Petrie found išd-fruit in a tomb at Hawara, from the Greaco-Roman Period (504). Fruits of this tree are kept in the Museums of Florence, Vienna, Berlin (505). Several representations in the temples of the long period beginning with Tuthmosis III, and extending into the Late Period show Amūn-Rē^c, Thoth, Rē^c-Ḥarakhti and the librarian goddess Seshat writing the names of the reigning King on the fruits and leaves of the sacred tree. This ceremony is intended to give the King a long and happy life. In Medinet Habu a representation show Atum, lord of Heliopolis, conducting the King Tuthmosis III, to the išd-tree, while his name is being inscribed on its fruits by Amūn-Rē^c (506). Accompanying this scene, is the following text : Dd mdw in Imn-R^c s3 (.i) nb t3wy (Mn-Hpr-R^c) smn rn.k hr išd špsi m Hwt-^c3t R^c (507) "words spoken by Amūn-Rē^c My son, O Lord of the Two Lands (Mn-Hpr-Rē^c), your name is made from upon the noble the išd-tree in the temple of Rē^c". In temple of Luxor-fourth antechamber, a scene represents Amenophis III standing beside išd-tree, in front of Amūn-Rē^c, who is writing the name of Amenophis III, on išd-fruits

 (503) Darby, et al., Food II, p.706, fig.18.3; Germer, Flora, p.159.


(504) Loret, Flore, p.63, no.101; Newberry, in : Petrie, Hawara, p.53;

Keimer, Die Gartenpflanzen I, p.26; Germer, Flora, p.159.

(505) Loret, Flore, p.63, no.101.

(506) Helck, ZÄS 82, p.177, Abb.1; E. Lefebure, Sphinx 5, p.7; LD III, 37.

(507) Urk IV, 596-7; Helck, ZAS 82, p.118.

(508). In Karnak temple, hypostyle, a representation shows Thoth writing the name of Sethos I, on the sacred tree; Wert-Ḥekau presents the kneeling King, who receives hb-sds from Rē^c-Ḥarakhti (509). In the temple of Sethos I at Abydos, west wall of second hypostyle court, a scene represents Sethos I kneeling on ; he offers to Ptaḥ symbolizing millions of jubilees, Rē^c-Ḥarakhti writing name of the King upon the leaves of the sacred tree (510). In the same temple, second court, a representation shows Ramesses II, receiving insignia from Rē^c-Ḥarakhti followed by Osiris, while Ptaḥ with Thoth writes the King's name on the išd-tree (511). In Karnak temple, hypostyle, a scene represents Ramesses II, kneeling in front of Amūn-Rē^c and Khons, with the god Thoth writing the name of Ramesses II upon the tree (512). In the same temple, second pylon, a representation shows Ramesses II, kneeling (?) holding insignia in his right hand, while the symbol of hb-sd is upon his left hand, his name (Wsr-M3^ct-R^c-stp-n-R^c) is being inscribed on the leaves of the tree (513). In Ramesseum temple-astronomical room, a scene represents

 (508) Helck, ZÄS 82, p.118, Abb.2.

(509) Ibid., 82, p.118, Abb.3; Legrain, op. cit., fig.127; Capart, op. cit., p.101, fig.60.

(510) Helck, ZÄS 82, p.119; Davies & Gardiner, Paintings II, pl.88; Capart, op. cit., pl.9.

(511) Helck, ZÄS 82, p.119.

(512) Ibid., 82, p.119; Legrain, op. cit., p.237, fig.143.

(513) Helck, ZÄS 28, p.121, Abb.5; Chevrier, ASAE 53, 1956, p.31, pl.18.

Ramesses II under the išd-tree in front of Atum, sfh-^cbw and Thoth, writing King's name (514). In the same temple, we find a scene represents the god Atum is inscribing the name of Ramesses II, on the išd-tree (515). In Derr temple, a scene representation shows Ramesses II, in the išd-tree, followed by Thoth writing, he receives a name from Ptaḥ and Sekhmet (516). In the shrine of Ramesses II, at Geb el Silsila, a scene represents Amūn-Rē^c writing on the fruits of the tree; behind him, the god Thoth is writing on his palette; in front of Amūn-Rē^c, Ramesses II is Kneeling (517). In the great temple of Abu-Simbel, great hall, a scene represents Ramesses II Kneeling under the sacred tree, before Rē^c-Ḥarakhti, while the god Thoth is writing the name of Ramesses II, on the leaf of the išd-tree (518). In Medinet Habu, a representation shows Ramesses IV, kneeling under the scared tree in front of Amūn-Rē^c, beside Amūn, Ptaḥ is standing, while the god Thoth is writing the name of the King on the tree; with him is the goddess Seshet (519) In the same temple, first pylon, we see Ramesses IV, kneeling under the sacred tree, in front of Amūn-Rē^c, we see Khons and Mut standing; Ramesses IV, the god

 (514) Helck, ZÄS 82, p.120; LD III, 169.

(515) Helck, ZÄS 82, p.122.

(516) A.M. Blackman, The Temple of Derr, Le Caire, 1913, pls.33, 34;

Helck, ZÄS 82, p.121.

(517) Ibid., 82, p.122; Lefebure, Sphinx 5, p.8.

(518) Helck, ZÄS 82, p.122.

(519) Ibid., 82, p.122; Medinet Habu pl.109.

Atum is writing King's name upon the tree (520). In Karnak temple, eighth pylon, we see a representation which shows Ramesses IV, standing beside the sacred tree, holding in his left hand insignia, while upon his right hand is the symbol of hb-sd (521). Among the statuettes of the Cairo Museum, is the base of statuette of Ramesses II, which is decorated with branches of the išd-tree, on the leaves of which the cartouches of the King are written (522). It was also supposed that a cat was sitting in the shade of the išd-tree, and chapter 17 of the Book of the Dead gives the following description (523) "I am the cat who split the side of the išd-tree in the night when the enemies of the All - Lord were destroyed. Who is that male cat (?). It is Re^c himself who is called miw because of the speech of Sia. He is like that which he has made, thus his name is cat". Variant : "it is Shu who takes care of the testament of Geb in favor of Osiris. Concerning the splitting of the side of the išd-tree in Heliopolis, it is the children of the weak ones who correct what they have done". Finally, the form of the name, the age of the King, and especially išd-tree branches bearing cartouches - all this would seem to indicate the event of coronation. It is known that at the coronation the name of the new King or rather the whole of his new titulary was written by the gods on the leaves of the sacred tree of Heliopolis.

 (520) Helck, ZÄS 82, p.123; Medinet Habu pl.109 c.

(521) Helck, ZÄS 82, p.124, Abb.6.

(522) Ibid., 82, p.127.

(523) T.G. Allen, Book of the Dead or Going Forth by Day, p.30, Spell

This moment, like that of placing the crown on the King's head, was one of the most important in all the ceremony. The Egyptian King hoped to live eternally having placed his name on the sacred tree of Heliopolis, where the names of the gods themselves flourished (524).

Christ's Thorn Tree or Jujube

Egyptian (525). Botanical name Zizyphus Spina Christi Wild (526). The Arabic name of the tree Sider and fruit Nabq. Its ancient Greek name was βοῦψ (527).

A tree with white, glabrous branches. Leaves glabrous or slightly pubescent beneath. Stipules transformed into spines in wild forms,

 (524) See the long inscription of Ramesses IV at Karnak published by Helck, ZÄS 82, 1957, pp.98-116, where this happened in Heliopolis, Memphis and Thebes for this particular King.

(525) Wb II, 245; FCD, p.130; Gardiner, Egyptian Grammar, p.573; Charpentier, Botanique, p.384, no.609.

(526) Loret, Flore, p.98, no.166; Beauverie, BIFAO 35, p.140; Kiemer, Die Gartenpflanzen I, p.64, no.43; Germer, Flora, p.114; Daumas, LÄ II, p.345; Wallert, LÄ I, p.659; C. Muller, II, p.1265; Good & Lacovara, in : Egypt's Golden Age, p.39.

(527) Wb II, 245; Keimer, Die Gartenpflanzen I, p.160; Charpentier, Botanique, p.384, no.609; Wallert, LÄ I, p.659.

unarmed in cultivated forms (528). Flower, March to April (529). Fruit edible (530). The fruit is about the size of a small cherry (531), and not unlike a yellowish-coloured cherry in appearance and it has a stone, not unlike a cherry stone in size and shape (532). The tree is indigenous in Nubia, Sudan, Abyssinia, Syria, Palastine, Persia, Afghanistan, Arabia (533), the Mediterranean region and spontaneous in tropical Africa (534). It was cultivated in Egypt from the oldest times, where dried fruits were found from Predynastic times (535).

Concerning substantial finds; dried fruits were found in the tomb of Hemaka at Saqqara, first dynasty (536). Dried fruits were found in the underground galleries of the Zoser pyramid complex at Saqqara (537). Stones fruits were found in the Neuserre^c and Sahure^c temples

(528) Täckholm, Students' Flora of Egypt, p.345; Montasir & Hassib, op. cit., I, 295; Muschler, op. cit., I, p.617; See Figure 28.

(529) Muschler, op. cit., I, p.617.

(530) Täckholm, op. cit., p.345.

(531) Täckholm, op. cit., p.345; Lucas & Harris, op. cit., p.446; Good & Lacovara, in : op. cit., p.39.

(532) Lucas & Harris, op. cit., 446.

(533) Keimer, Die Gartenpflanzen I, p.65; Beauverie, BIFAO 35, p.141.

(534) Lucas & Harris, op. cit., p.446; Muschler, op. cit., I, p.617; Beauverie, BIFAO 35, p.141.

(535) Petrie, Prehistoric Egypt, p.44; Germer, Flora, p.114.

(536) Keimer, ASAE 42, 1943, pp.279-281; Germer, Flora, p.114.

(537) Lauer, et al., BIE 32, pp.131-132.

and Sahurē^c pyramid, fifth dynasty (538). Petrie found fruit in tombs of XII dynasty at El Lahun (539). From the New Kingdom, dried fruits were found in the tombs of Tutankhamun (540), and in XX dynasty Theban tombs (541). Dried fruits are kept in European Museums (542). On the offering tables, there are represented the fruits and bread of nbs "t3w nbs" (543).

In the New Kingdom, we find two representations; one represents five christ's thorn trees (nbs) among other trees in the garden of Ineni (544), and the other represents men of the southern border who are presenting products of the nbs tree, namely ten bows made of its wood, three skins full of pats made from its fruits, and ten large cakes

(538) Keimer, Die Gartenpflanzen I, p.66.

(539) Newberry, in : Petrie, Kahun, p.50; Keimer, Die Gartenpflanzen I, p.66.

(540) Lucas & Harris, op. cit., p.446.

(541) Darby, et al., Food II, p.703.

(542) Beauverie, BIFAO 35, p.141.

(543) Maspero, PSBA 13,1891, p.497; Keimer, Die Gartenpflanzen I, p.68; Beauverie, BIFAO 35, p.141.

(544) Urk IV, 73 (15); Boussac, Le Tombeau d' Anna, Pl.X; Keimer, Die Gartenpflanzen I, p.68; Moens, OLP 15, p.12; See Figure 21.

of the same (545). It was a sacred tree (546), and it is described in the lists of sacred groves (547).

Later writers wrote of its popularity. Theophrastus (548) described it in great detail "..... The Egyptian christ's thorn is more shrubby than the lotus; it has a leaf like the tree of the same name of our country, but the fruit is different; for it is not flat, but round and red, and in size as large as the fruit of the prickly cedar or a little larger; it has a stone which is not eaten with the fruit, as the case of pomegranate, but the fruit is sweet and if one pours wine over it, makes the wine sweeter". Pliny (549) stated that the plant is widely found in Cyrenaica, where the kernel was also eaten. Its fruits and leaves were widely used medicinally, internally (550), in enemas (551) and externally (552).

(545) Davies, Rekh-mi-Re^c I, p.35; II, pl.XXIX.

(546) Wb II, 245, 12; Wallert, LÄ I, p.659; Maspero, PSBA 13, p.498.

(547) Buhl, JNES 6, p.81 ff.

(548) Theophrastus IV, 3, 3.

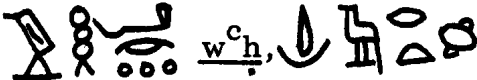

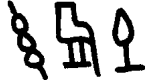

(549) Pliny XII, XXXIII, 111.

(550) Pap. Ebers, XLIII, 210.

(551) Pap. Ebers, XXXIII, 159.

(552) Pap. Ebers, XLIX, 272.

Carob

Three words have been proposed by Loret, as the ancient Egyptian name of the carob :  w^ch,  d3rt and  ndm (553). The first, w^ch, literally means "moon-shaped", and was thought by Loret, to designate the dry pod (554), Léfébvre, G. (555) agreed, but only provisionally, Von Deines-Grapow considered the meaning unclear (556). w^ch was found inscribed on two pottery jars in a first dynasty tomb of Hemaka at Saqqara (557). It was chewed and administered in enemas (558). The second name, d3rt was stated by Loret, to define the fresh fruit, on the ground of its closeness to its name in Coptic ⲪⲓⲠⲓ (559). Léfébvre translated this word colocynth (560). The third name, ndm, read by Loret, noutem was written with the sign of a pod  ndm, which could also be read "sweet" Loret therefore concluded that since carob was the only sweet-tasting pod known in Egypt, ndm must have been the name of

(553) Loret, Flore, pp.88, 89, 139, 141, 145.

(554) Ibid., p.89.

(555) G. Léfébvre, Essai sur la Médecine Egyptienne de l' Epoque Pharaonique, p.65.

(556) Von Deines & Grapow, Wörterbuch der Aegyptischen Drogennamen, Berlin, 1959, 134.

(557) Keimer, ASAE 43, pp.279-281.

(558) Pap. Ebers, LIV, 314; XCVI, 819.

(559) Loret, Flore, p.145.

(560) Léfébvre, op. cit., p.51.

that tree (561). De Buck, A. (562) Faulkner (563) Erman and Grapow (564) read this sign ideographically carob tree. On the other hand, Gardiner (565) read it "pod from some sweet smelling tree" , while Ebbell, B., translated ndm without presenting any evidences as "Moringa aptera Gaertn" (566). A tree previously recognized in ancient Egyptian b3k (567). Botanical name of carob Ceratonia Siliqua L. (568).

The carob tree is an evergreen tree often reaching 10 m. in height; leaflets, oblong, obtuse, flowers polygamous. Calyx tube, short, top-shaped with five dentiforml. Legume broadly 15-30 cm. long, 2-3 cm. broad 0.5 cm. thick, brownish black, with sweet pulp (569). Carob tree is a native of South Europe and the Mediterranean region

(561) Loret, Flore, p.88.

(562) A. de Buck, Grammaire Élémentaire du Moyen Egyptian, Leiden, 1967, 175.

(563) FCD, p.144.

(564) Erman & Grapow, Aegyptisches Handwörterbuch, 91; Wb II, 378.

(565) Gardiner, op. cit., p.483.

(566) B. Ebbell, ZÄS 64, 1929, p.51 ff.

(567) See part II, chapter II.

(568) Loret, Flore, p.87, no.148; Hartmann, L' Agriculture, p.34; Daumas, LÄ II, p.345; Germer, Flora, p.94; Keimer, Die Gartenpflanzen II, p.14; Good & Lacovara, in : op. cit., p.39.

(569) Montasir & Hassib, Illustrated Manual Flora of Egypt I, p.192.

(570). The carob was grown for its edible pod (571). The seeds of which were used as a sweetner (572). The fruit of the carob tree is known in Egypt at least from the XII dynasty (573); where Petrie found one pod and six seeds in a tomb at Kahun, XII dynasty (574). Bruyere also found fruits in an eigtheenth dynasty tomb at Deir el Medina (575). Schiaparelli found a basket of carob in tomb of Kha^c, XVIII dynasty (576).

The carob tree was planted in the gardens of the eighteenth dynasty (577); where Ineni mentioned that he planted sixteen carob trees

(570)Lucas & Harris, op. cit., p.443.

(571)Täckholm, Charles Bachtly, ed., le Monastere de Phoebammon dans le Thebaide 3, pp.21-22; Good & Lacovara, in : op. cit., p.39.

(572)P. Montet, Everyday Life in Egypt in the Days of Ramesses the Great, p.82; Good & Lacovara, in : op. cit., p.39.

(573)Loret, RT 15, p.111.

(574)Newberry, in : Petrie, Kahun, p.50; Keimer, Die Gartenpflanzen II, p.14.

(575)Bruyere, Rapport sur les fouilles de Deir el Médineh (1934-1935), 1939, p.108; Germer, Flora, p.95; Keimer, Die Gartenpflanzen II, p.15.

(576)Daumas, LÄ II, p.346.

(577)Loret, RT 15, p.112.

(ndm) in his garden during his life to enjoy in the hereafter (578).
śś(n)dm-word (which might possibly be carob-word) was frequently mentioned in the texts from the Old Kingdom onwards; where it is mentioned in Pap. Westcar (579). In the tomb of Rekhmirē^c in the text accompanying Rekhmirē^c's installation as Vizier (580), in User's tomb at Thebes, reign of Tuthmosis III (581), in Pap. Leiden (582). Also in Pap. Harris I, where we find Ramesses III offered śśndm wood as a gift for the gods as the following : śśndm s3y n mh 4 1 (583)
śśndm-wood : a plank of 4 cubits (length), 1", śśndm s3y 1 (584)
śśndm-wood : plank, 1". Carob fruit was frequently mentioned in the New Kingdom papyri; where it is mentioned in the letter which Pbes sent to Amenemope as a report on the Delta Residence : p3 dnrg mi dp bit (585) "the carob like the taste of honey". In the letter which Amenemopē sent to Pbes to make preparations for Pharaoh's arrival :

 (578) Urk IV, 73 (14); Boussac, Le Tombeau d' Anna, pl.X; Moens, OLP 15, p.12; See **Figure 21**.

(579) Pap. Westcar, VII, 12-13.

(580) Davies, Rekh-mi-Rē^c, pl.XV.

(581) Loret, RT 15, p.118; ZÄS 1883, p.132.

(582) Pap. Leiden, no.344, p.111, 1.5.

(583) Pap. Harris I, 34 a, 15.

(584) Pap. Harris I, 71 a, 7.

(585) CLEM, pp.74, 76, Ansatasi III, 2-3; J. Černý¹ thinks that Egyptian word dnrg, demotic glg, is probably Coptic

60λ06 "gourd", See CCED, p.330

dnrg g3y 50 (586) "carob, 50 g3y-bowls", ib n dnrg (587) "pulp of carobs". The scribe Amenemop^ē commanded Pbēs, let the basket-makers be supplied with carob beans, 30 g3y-bowls (588). The pupil declares his intention to build a castle for the teacher saying : "I will build for you a new villa upon the ground of your city, planted with trees on every side of it, therein carobs" (589). In Pap. Harris I, we find Ramesses III offered carob-pods as a gifts for the Nile-god as the following : dnrg m ipt 21000 (590) "carob-pods in measures (ipt) 21,000", dnrg m ipt 106000 (591) "carob-pods in measures (ipt) 106,000", shtp dnrg 92000 (592) "shetep (shtp) of carob-pods, 92,000". From the Greek and Roman Periods many descriptions of the tree and its fruit have survived (593). At the present time the only carob trees that can be traced in Egypt are a number of scattered ones growing along the north coast all the way from Alexandria to Sallum.

 (586) Pap. Anastasi IV, 14, 12.

(587) Pap. Anastasi IV, 14, 7.

(588) CLEM, pp.198, 199, Anastasi IV, 14, 4.

(589) Ibid., p.165, Anastasi IV, 9-2.

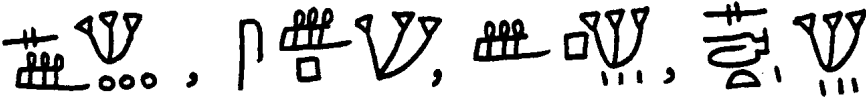
(590) Pap. Harris I, 56 a, 11.


(591) Pap. Harris I, 40 a, 3.

(592) Pap. Harris I, 37 a, 11.

(593) Theophrastus Plants, IV, 2, 4; Strabo, Gerography XVIII, 2, 2; Pliny, Natural History, XIII, 16, 59.

Raisins

Egyptian 

sšp (594). Arabic Zebeb زبيب. Raisins are known as a sweet fruit in ancient Egypt (595). Bruyere found raisins in a basket of toiletries at Deir el Medina, New Kingdom, this led to speculation that raisins were used in the manufacture of cosmetics (596). A basketwork bottle discovered in tomb of Tutankhamun was filled with raisins (597). Specimens of raisins from Deir el Medina, New Kingdom, are kept in the Agricultural Museum, Cairo (no.1407) (598). and there are raisins preserved in Egyptian Museum, Berlin (no.7004), but provenance not known and date uncertain (599). Raisins mentioned in a rock tomb at Meir  (600) sšp i3rr.t "raisins (lit. raisin-berries)".

Grapes were preserved by drying in the sun; in "raisin" form, they were much favour. In Pap. Harris I, we find Ramesses III offered to

(594) Wb IV, 284, 12; Charpentier, Botanique, p.616, no.1001.

(595) McDonald, in : Egypt's Golden Age, p.114.

(596) Bruyère, Rapport sur les Fouilles de Deir el Médineh I/2, Le Caire, 1937, p.109; McDonald, in : op. cit., p.115.

(597) Carter, The Tomb of Tut-Ankh-Amen III, p.150 and pl.80 b.

(598) Darby, et al., Food II, p.714, fig.18.6; See **Figure 29**.

(599) McDonald, in : op. cit., p.114.

(600) Blackman, The Rock Tombs of Meir IV, london, 1924, pl.XX (12).

the Nile-god raisins as gift : i3rr.t sšp ^c 11872 (601) "raisins (lit. raisin-berries) : jars (^c) 11,872. sšp ^c 11872 (602) "raisins : jars (^c) 11,872". sšp m ipt 106000 (603) Herodotus (604) reported that raisins, along with other spices and fruits, were packed into the cleaned carcasses of sacrificial animals. During the Roman Period raisins were used in cooking (605). Medically, raisins had many uses, they were incorporated into mixtures, enemas, external applications and inhalations (606).

 (601) Pap. Harris I, 39, 4.

(602) Pap. Harris I, 40 a, 1

(603) Pap. Harris I, 40 a, 2.

(604) Herodotus II, 40.

(605) Darby, et al., Food II, p.715.

(606) Pap. Ebers, XXIII, 99; XXX, 132; XXXIV, 172; XLIV, 223; LXXIII, 566; XC, 759; Chester Beatty, 25, 32.

Water Melon

Egyptian  bddw-k3

(607). Botanical name Citrullus Vulgaris Schrad (608). Coptic
ΠΕΛΕΠΕΠΩΝ, Π; ΠΕΛΠΕΠΕΝ-Ν-ΖΟΥ, Π (609). Arabic
name Battikh بطيخ . Hebrew abbattikhim (610). The identification
of bddw-k3 with water melon seems justified by the relation of the
Arabic, Coptic and Hebrew names for this plant. A large green striped
water melon is depicted with other offerings in the Old Kingdom tomb
of Iymery at Giza (611). The halved water melons in the painting from
the tomb of Userhēt contain more rind than their modern counterpart,
but the seeds and pink flesh are clearly depicted (612). Leaves of
water melon were found in the coffin of Nebseny at Deir el Bahari,
New Kingdom (613). Schweinfurth found Seeds of water melon found

(607) WB I, 488, 6-7; WB "äg. Drog.", 189; FCD, p.86; Charpentier,
Botanique, p.282, no.446.

(608) Loret, flore, p.73, no.125; Keimer, Die Gartenpflanzen I,
pp.17-18; Charpentier, Botanique, p.282, no.446; Darby, et al.,
Food II, p.717.

(609) Loret, Flore, p.73, no.125 and p.134.

(610) Numbers II, 5; Charpentier, Botanique, p.282, no.446.

(611) W.S. Smith, A History of Egyptian Sculpture and Painting in the
Old Kingdom, 2nd edition, Oxford, 1949, fig.206; Brovarski &
Lacovara, in : Egypt's Golden Age, p.109.


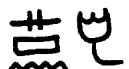
(612) Ibid., p.109; PM I/I, pp.97-99 (no.51).

(613) Loret, Flore, p.73, no.125.

in a tomb at Thebes, New Kingdom (614). There are seeds of water melon, Thebes, New Kingdom exhibited in the Agricultural Museum, Cairo (615). Bddw-k3 was utilized in medicine (616).

Flowers

Lotus

The ordinary Egyptian word for lotus has an early form  sšsn in the Old Kingdom and the First Intermediate Period to the early Middle Kingdom (617). and a later form  sšn in the Middle Kingdom onwards (618). Demotic word sšn (619). The word recurs as ⲱⲱⲎ (B.) "lily" in Coptic (620). It was borrowed into Hebrew as Šūšan, Šōšan (621). The Arabic word is Sousan. The ancient Egyptian name of the lotus leaf was

(614) Loret, Flore, p.73, no.125.

(615) Darby, et al., Food II, p.719, fig.18.8

(616) Pap. Ebers, XXX, 139; Pap. Berlin, 83, 111.

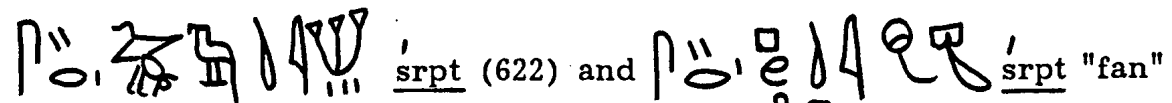
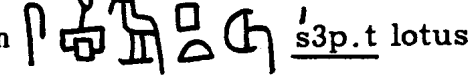
(617) Wb II, 487, 9.

(618) Wb 483 end; FCD, p.248; Gardiner, Egyptian Grammar, p.592; Kitchen, Varia Aegyptiaca 3, 1987, pp.29-31 (also ssn).

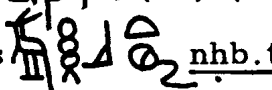
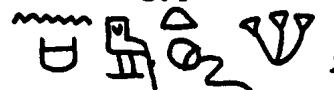

(619) Erichsen, Demot. Glossar, 464, 5; CCED, p.260.

(620) Wb III, 485 end; Crum, A Coptic Dictionary, p.608 a; CCED, p.260; E. Brunner-Traut, LÄ III, 1980, p.1091.

(621) Wb III, 485 end; CCED, p.260.


 srpt (622) and srpt "fan" (623) from its form in the Middle Kingdom  s3p.t lotus leaf (623).

The demotic word is srpt (625). The Coptic word is

ϬΑΡΠΟΤ (A.) ϬΑΡΦΤ (B.) (626). The ancient Egyptian name of the lotus bud was  nhb.t (627) and ,  nhm.t from XIX dynasty onwards (628).

The lotus is an aquatic herb of shallow water with solitary large flowers and rounded floating leaves on long petioles produced from a perennial rhizome. The white lotus (*Nymphaea Lotus* L.) has white flowers with obtuse petals and sepals, acutely dentate leaves and olive green spherical fruit divided into compartments containing little brown seeds. The blue lotus (*N. Caerulea* Sav.) has blue fragrant flowers

 (622) Wb IV, 195, 2-3.

(623) Ibid., IV, 195, 4.

(624) Wb IV, 18, 5-7; CCED, pp.159, 160; Charpentier, Botanique, p.604, no.978; p.558, no.897.

(625) Erichsen, op. cit., 442, 8; CCED, p.162.

(626) Crum, op. cit., p.356 b; CCED, p.161; Wb IV, 195, 2; Charpentier, Botanique, p.604, no.978.

(627) Wb II, 294, 3; Gardiner, op. cit., p.575; FCD, p.136.

(628) Wb II, 297, 10.

and narrow lanceolate, sharp - cut petals and sepals (629). The lotus is indigenous in Egypt (630).

One of the plants most characteristically associated with Egypt is the lotus. As a geographic symbol, the lotus represented the South, while the papyrus was the symbol of the North. Ḥa^cpi the Nile god was always characterized with one or both of these flowers which were often knotted as a sign of the union of the Two Lands (631).

The lotus related to Rē^c, Nefertum, Atum and to the four sons of Hours (632). Possibly because the lotus closed its petals at night and reopened them with the rising sun, the lotus flower came to symbolize the sun and the eternal resurgence of life. The priests of Iwnw explained the origin of the world as the emergence of the god Atum from a lotus growing out of the primordial waters, and they taught that at sunset the god entered the flower, which folded down its petals on him, and that was reborn as the flower unfolded, morning after morning (633). The dead identified himself with the lotus, which emerged from the primordial water (Nun) every morning. In love poetry too the lotus was the symbol of fertility and eternal rebirth (634).

(629) Täckholm, Students' Flora, p.144, fig.39; Moens OLP 15, p.22.

(630) Moens, OLP 15, p.22; See **Figure 30**.

(631) Darby, et al., Food II, p.621.

(632) E. Brunner-Traut, LÄ III, pp. 1091-1095; Moens, OLP 15, p.22.

(633) Darby, et al., Food II, pp.620, 621.

(634) Moens, OLP 15, p.43.

In Egyptian mythology the lotus played a prominent role, it signified the divine gift of eternal life. It capped the head of Nefertum who was qualified in the Book of the Dead "... the lotus at the nose of Re^c, when he ascends from the horizon every day" (635). Also the deceased was often represented emerging from a lotus, saying : "I am this lotus that shines in the earth" (636). The lotus is mentioned in prescriptions, but no definite pharmacological properties are known (637). There are three kinds of lotus :

(A)The White Lotus

It was known in Egypt from the first dynasty; where it was represented on the monuments (638). It was woven into garlands, some of which were found in XIII dynasty tombs (639) and covering mummies like that of Ramesses II (640). It was an element of flower bouquets (641). It was also an ornamental motif in arts, crafts and in architecture (lotiform columns) (642). In the New Kingdom, we see in the

(635)T.G. Allen, The Book of the Dead, p.183, Spell 174 c; p.189, Spell 178 t.

(636) Ibid., p.183, Spell 174 c.

(637)Moens, OLP 15, p.22.

(638)Loret, Flore, p.133, no.193.

(639)Darby, et al., Food II, p.633.

(640)Loret, Flore, p.113.

(641) Ibid., p.114.

(642)Moens, OLP 15, p.22; E. Brunner-Traut, LÄ III, pp.1091, 1092.

garden scenes the white lotus frequently flowering on the water (643). The white inner part of the rhizome was eaten raw, but it was much preferred boiled or roasted (644). It is common in the Delta today.

(B)The Blue Lotus

It rises slightly above the water and opens and closes daily without submerging; its sepals, or leaves, and petals are narrow. It sometimes shades off into pink. The scent of the blue lotus is extremely sweet (645). It was more popular in the gardens of ancient Egypt (646). It was found in the tombs by Schweinfurth, and Petrie (647). It was frequently represented on the monuments; where we find representations showing persons carrying the blue lotus on the walls of the tombs of the Old Kingdom onwards (648). It was borne by noblemen around their necks as a decoration (649). It was an element of flower bouquets and funerary garlands (650), and it was an ornamental motif

(643)Moens, OLP 15, pp.13, 17, 19, 20, 21.

(644)Pliny, Natural History XIII, XXXII, 110.

(645)Good & Lacovara, in : Egypt's Golden Age, pp.37, 38.

(646) Ibid., p.37.

(647)Loret, Flore, p.117, no.194.

(648) Ibid., p.117, no.195.

(649)Darby, et al., Food II, p.634.

(650)Klebs, Reliefs, pp.41-42; Keimer, AJSL 41, 1925, pp.150-157.

in arts and crafts (651). It was mentioned by Athenaeus who called it $\lambda\omega\tau\acute{o}s\ \kappa\upsilon\acute{\alpha}\nu\epsilon\omicron>s$ (652). It is common in the Delta today.

(C) The Pink Lotus (Nelumbium Speciosum).

The pink lotus has never been found in ancient Egyptian tombs. It was found in a tomb at Hawara, from the Graeco-Roman Period (653). Keimer stated that it was introduced into Egypt from India under Persian rule (654). Loret mentioned that although the pink lotus has never been found in Egypt, its name was known in the religious texts : nhb originally, nhb and nsb; it is found in the funerary texts of the Pyramid of Pepi I (col.440) (655). From the Greek and Roman Periods many descriptions of the pink lotus have survived (656). Nowadays, the pink lotus has disappeared in Egypt, it is found in Eastern Asia.

(651)Keimer, ASAE 48, 1948, pp.94-107; E. Brunner-Traut, LÄ III, pp.1091-1092.

(652)Athenaeus, The Deipnosophists XV, 21.

(653)Loret, Flore, p.111, no.192; Newberry, in : Petrie, Hawara, p.52.

(654)Keimer, MDAIK 2, pp.137-138.

(655)Loret, Flore, p.112, no.192.

(656)Herodotus II, 92; Theophrastus 4, 8, 7-8; Strabo 17, 1, 15; Pliny XVIII, XXX, 121-22; Athenaeus 3, 72, B-D.

Papyrus

Egyptian ⤵, ⤵, ⤵, ⤵, ⤵ w3d (657);
the demotic word w3dt, wy.t, wt (658). Coptic ⲠⲚⲟⲩⲧⲉ (659).
And there is another name for papyrus-plants Ⲙⲏⲩⲧⲉ mhy.t
(660). Botanical name Cyperus Papyrus L. (661).

Today papyrus occurs in Egypt only in isolated pools and gardens; in ancient times it was so dominant a feature in the northern marshes that it became the symbol of Lower Egypt (662) Papyrus, a marsh plant (up to 4 m. high) (663). Leafless (except in very young seedling stage), stems triangular, bracteate at base, ending in a rich umbel of numerous five - umbelrays carrying spikes of a few needle - like remote spikelets (664). The plant flowers during the whole year ex-

(657) Wb I, 263, 7; FCD, p.55; Gardiner, op. cit., p.480;

Charpentier, Botanique, p.198, no.306.

(658) Erichsen, Demot. Glossar, 77, 12; 80, 8; 105, 1.

(659) Crum, op. cit., p.493 b; CCED, p.217.

(660) Wb II, 124, 8 - 9; FCD, p.114; WB äg. Drog., 282; Charpentier,

Botanique, p.352, no.549.

(661) Loret, Flore, p.28, no.28; Hartmann, L' Agriculture, p.42;


Beauverie, BIFAO 35, p.118; Moens, OLP 15, p.23; Charpentier,

Botanique, p.198, no.306; p.352, no.549.

(662) Good & Lacovara, in : op. cit., p.39.

(663) Moens, OLP 15, p.23.

(664) Täckholm, Students' Flora, p.790; See Figure 30.

cept in the winter (665). Papyrus is probably indigenous in Egypt. But in the wild state it has nearly completely disappeared (only found in the Wadi el Natrun) (666). Wild papyrus grows nowadays in tropical Africa (667). The papyrus plant, a plant belonging to the sedge family (668), at one time grew abundantly in the marshy districts of Lower Egypt (669). Papyrus, being one of the most favourite plants of ancient Egypt, is often mentioned in the ancient literature (670). The papyrus-plant was used as the symbol of Lower Egypt, its picture and the ideogram  mh, a stylized form of the papyrus plant, entered into the composition of several hieroglyphic words connected with the Delta marshes, such as 3h-bit "Chemmis" (a Delta place); T3-Mhw "Lower Egypt" (the Delta); Mh-s "the crown of Lower Egypt" (671).

The Papyrus plant was employed by the Egyptians for many purposes, so some of which have been enumerated by the classical writers

 (665) Moens, OLP 15, p.23.

(666) Ibid., 15, p.23.

(667) Loret, Flore, p.29; Moens, OLP 15, p.23.

(668) Lucas & Harris, Ancient Egyptian Materials and Industries, p.137.

(669) Greiss, Some Ancient Egyptian Plant Materials, p.78.

(670) Täckholm & Drar, Flora II, p.103.

(671) Gardiner, Egyptian Grammar, p.481.

(672). The rhizomes and lower stem parts were consumed raw, boiled or roasted (673). Papyrus umbels were often used in the feasts and the funeral rites, even more frequently than the lotus (674). We see the papyrus umbels in the hands of the guests in the feasts, or of praying persons in the religious ceremonies. We find it as a precious gift on the altar and on the offering table in the temple and we see the umbel as an ornament on walls and tables etc. (675). Papyrus was used in formal bouquets throughout the different periods of the Egyptian history in all festivals and funeral rites (676). Formal bouquets as those used in ancient Egypt are still employed by the local people of Tunisia (677). Papyrus was a useful material for making funeral garlands (678). It was found as a motif in architecture (papyriform columns) (679). The earliest papyrus columns are known from the Old Kingdom onwards; where Zoser pyramid complex at

(672)Herodotus II, 37, 92, 96; Theophrastus IV, 8, 3, 4; Pliny XIII, 21-26; XXIV, 51.

(673)Keimer, JSOR II, 1927, pp.142-145; Täckholm & Drar, Flora II, p.105; Moens, OLP 15, p.24; Darby, et al., Food II, p.645; Good & Lacovara, in : Egypt's Golden Age, p.39.

(674)Greiss, op. cit., p.78; Täckholm & Drar, Flora II, p.106.

(675)Klebs, Reliefs, p.44 ff; Täckholm & Drar, Flora II, p.106.

(676)Klebs, Reliefs, pp.44-47.

(677)Keimer, AJSL 41, pp.146-153, fig.1-3.

(678)Hartmann, L' Agriculture, p.43; Täckholm & Drar, Flora II, p.108; Moens, OLP 15, p.24.

(679) Ibid., 15, p.24.

Saqqara (680), and the mortuary temple of Abusir (681). The most beautiful clustered papyrus columns are found in temples of Luxor and Karnak (682).

Papyrus is frequently represented on the monuments; the oldest representation known is supposed to be that on the schist palette from Heracleopolis, first dynasty, now in Cairo Museum, we see the first primitive of some papyrus stalks with round umbels (683). In the New Kingdom, we see papyrus frequently represented on the monuments (684). The most beautiful and natural papyrus paintings are those found in the natural paintings of el Amarna, from the reign of Amenophis IV (685). Umbles were often used as handles for mirrors, fans, doors, chairs and household furniture (686). Papyrus has been used for rope-making, sandals, mats, boxes, boats, baskets, sieves and stools (687). The main use of papyrus was for making sheets,

(680)Darby, et al., Food II, p.647, fig.16.12.

(681)Täckholm & Drar, Flora II, p.110.

(682) Ibid., II, p.110.

(683) Ibid., II. p.111.

(684)Klebs, Reliefs, p.44; Moens, OLP 15, pp.13, 15, 16, 18, 20.

(685)Davies, El Amarna VI, pl.XX.

(686)Täckholm & Drar, Flora II, p.112; Moens, OLP 15, p.24.

(687)Good & Lacovara, in : op. cit., p.39; Moens, OLP 15, p.24.

For details : See Part IV, Chapter II.

for writing purposes (688). The papyrus, possibly important for the deceased as foodstuff, was considered as a symbol of fertility and growing life (689). Papyrus related to Wadjet and Hathor (690). Papyrus blooms plucked in the marshes were brought to the benign Hathor whom the court ladies of the Old Kingdom served as priestesses. The Egyptian goddess following the example of Hathor, carried papyrus stalks as sceptres, especially the pacified lion goddess Sekhmet and her similar companions (691).

Foxtail Sedge

Botanical name Cyperus alopecuroides Rottb (family : Cyperaceae) (692). The foxtail sedge is a tall (more than 1 m. high), perennial marsh plant (693). Broad flat leaves, umbel rays to 18 cm. long, spikes 15-40 mm. long, 7-15 mm. broad, spikelets 4-8 mm. long, 2-3 mm. broad (694). Yellow spikelets crowded into cylindrical spikes

(688) Lucas & Harris, op. cit., p.138 ff; Hartmann, L' Agriculture, p.43; Moens, OLP 15, p.24; Good & Lacovara, in : op. cit., p.39.

(689) Moens, OLP 15, p.43.

(690) Ibid., 15, p.24; Sethe, ZÄS 64, pp.6-9.

(691) Kees, Ancient Egypt, p.84.

(692) Loret, Flore, p.31, no.31; Täckholm & Drar, Flora II, p.89; Moens, OLP 15, p.24.

(693) Ibid., 15, p.24.

(694) Täckholm & Drar, Flora II, p.89.

form rich compound umbels. The flowers bloom during the whole year, but less in the winter and the early spring (695). The plant is indigenous in Egypt (696); and is widely distributed throughout tropical Africa and Australia (697). The Arabic name is Samar سمار (698).

On the painted pavement from the great palace in el Amarna of Amenophis IV, we see foxtail sedge represented among other marsh plants (699). A small faience fragment exhibited in the Egyptian Museum, Cairo, has a painting of Samar in colour (700). The art of employing foxtail sedge in mat-manufacture was well known in Egypt from Prehistoric times (701). Foxtail sedge was found as an ornamental motif of the temple columns of the Late Period (702). From the Graeco-Roman Period, foxtail sedge flowers were used in the wreaths (703).

(695) Moens, OLP 15, p.24.

(696) Ibid., 15, p.24.

(697) Muschler, A Manual Flora of Egypt I, p.167.

(698) Täckholm & Drar, Flora II, p.167.

(699) Moens, OLP 15, p.19, pl.VI.

(700) Täckholm & Drar, Flora II, p.95.

(701) G. Brunton, Mostagedda, p.59; Täckholm & Drar, Flora II, p.95.

(702) Ibid., II, p.95; Moens, OLP 15, p.24.

(703) Täckholm & Drar, Flora II, p.96; Moens, OLP 15, p.24.

Corn-Flower

Botanical name Centaurea depressa Bieb (704). An annual plant, 40-60 cm. high, stems simple or branching from the base (705). The lower leaves are oblong and undivided, the upper ones are oblong (706). Heads ovate, 2-2,5 cm. long (707). The inner florets are violet, the outer dark blue (708). Flower march to April (709). It is introduced into Egypt from Southwest and Central Asia very probably during the XVIII dynasty and cultivated in the gardens (710).

It was represented on the painted pavement from the great palace in el Amarna, of Amenophis IV (711); and we find it represented in the scene of Ipuy's garden under Ramesses II (712). In the tomb of Sennezem, we see blue cornflowers represented alternates with the

(704)Keimer, Die Gartenpflanzen I, p.8; Germer, Flora, p.173; Moens,

OLP 15, p.25; Good & Lacovara, in : op. cit., p.39

(705)Muschler, op. cit., II, p.1035.

(706)Moens, OLP 15, p.25.

(707)Montasir & Hassib, Illustrated Manual Flora of Egypt I, p.511.

(708)Moens, OLP 15, p.25; **See Figure 33.**

(709)Muschler, op. cit., II, p.1035.

(710)Moens, OLP 15, p.25.

(711)Newberry, PSBA 22, 1900, p.134; Keimer, Die Gartenpflanzen I, p.9; Moens, OLP 15, p.19.

(712)Keimer, Die Gartenpflanzen I, p.9; Moens, OLP 15, p.20.

mandrake (713). The flowers were employed in bouquets and funerary garlands and were found as an ornamental motif in arts and crafts (714). In the Leiden Museum are preserved several garlands made of flowers a species of *Centaurea* and leaves of *Mimusops* (715). Schweinfurth found similiary made garlands among those which once adorned the mummy of Nesi-Khonsu at Deir el Bahari (716). Fragments of flowers of a species of *Centaurea* are also preserved in the Turin Museum (717). Petrie found wreaths in a tomb at Hawara, from the Graeco-Roman age and Newberry identified many corn-flowers among the wreaths (718).

(713)N. Scott, BMMA 31, 1973, fig.2; Good & Lacovara, in : op. cit.,
p.39.

(714)Newberry, PSBA 22, p.143, pl.1; Keimer, Die Gartenpflanzen I,
pp.9-10; Germer, Flora, p.173; Moens, OLP 15, p.25.

(715)Newberry, PSBA 22, p.143.

(716) Ibid., 22, p.143.

(717) Ibid., 22, p.143.

(718)Newberry, in : Petrie, Hawara, pp.48, 49; id, PSBA 22,
pp.143-144.

The Poppy

Botanical name Papaver rhoeas L. (719). An erect, branched annual, 20-60 cm. high, with stiff spreading hairs or bristles, lower leaves large, stalked (720). Flowers deep scarlet, usually with a black spot at the base of each petal, and small, nearly globular seed capsules (721). Flowers December to May (722). The plant has a poisonous, white milky juice. The corn poppy is indigenous in Europe, and in the temperate regions of Asia and North Africa (723). Local names is Zaghilil, Qarun (724).

It was already found in the cornfields of the Fayum as early as the XII dynasty; where its seeds have been found among barley of the XII dynasty discovered at Kahun (725). The flowers and leaves are

(719)Loret, Flore, p.110, no.191; Newberry, in : Petrie, Kahun, p.47; Moens, 15, p.26; Germer, Flora, p.44; Moens, OLP 15, p.26.

(720)Muschler, op. cit., I, p.376; **See Figure 33.**

(721)Täckholm, Students' Flora, p.153.

(722)Muschler, op. cit., I, p.376.

(723)Moens, OLP 15, p.26.

(724)Muschler, op. cit., I, p.376.

(725)Newberry, in : Petrie, Kahun, pp.47, 50; id, PSBA 22, p.145; Germer, Flora, p.44.

used in the bouquets and funerary garlands (726). The flowers served as an ornamental motif in arts and crafts (727). In the time of Tuthmosis III, it was cultivated in the gardens of Upper Egypt; where it is figured in the garlands represented in the mural paintings of the tomb of Nakht at Thebes (728). On a toilet-box of about the same date buds of the poppy are represented together with lotus flowers; this box was found at Thebes and is now preserved in the Louvre (729). In the reign of Amenophis III, and Amenophis IV, we find models of the petals among the bead pendants (730). Schweinfurth found its flowers in wreaths of the XXI dynasty, at Deir el Bahari (731). Petrie found petals of the plant in the wreaths of the Graeco-Roman period at Hawara (732).

In the New Kingdom gardens, we see the poppy represented on the painted pavement from the great palace in el Amarna, under Amenophis

(726)Schweinfurth, BIE 3, 1882, p.72; Loret, Flore, p.110; Keimer, AJSL 41, pp.150-157; Moens, OLP 15, p.26.

(727)Moens, OLP 15, p.26; Gremer, Flora, p.44.

(728)Newberry, PSBA 22, p.145.

(729) Ibid., 22, p.145.


(730) Ibid., 22, pp.145-146.

(731)Newberry, in : Petrie, Kahun, p.47; Loret, Flore, p.110; Germer, Flora, p.44.

(732)Newberry, PSBA 22, p.146; Loret, Flore, p.110; Germer, Flora, p.44.

IV (733), in Ipu'y's garden house under Ramesses II (734), in the tomb of sennezem at Deir el Medina (735), and in the garden house of Hatiay, Ramesses II (736). At the present day the common poppy is found nowhere in Upper Egypt (except under cultivation in a few gardens), and appears to be absent from the whole Nile Valley, but it is met with in abundance near Alexandria and on the Mediterranean coast as a weed in cornfields (737).

The Mandrake

Egyptian  rrm.t (738). Botanical name Mandragora Officinarum L. (family : Solanaceae) (739).

It is a perennial producing a rosette of large flat leaves from the center of which the flowers develop. The fruits that follow are about

(733) Newberry, PSBA 22, pp.144-146, pl.11, fig.1; Moens, OLP 15, p.19; Germer, Flora, p.44.

(734) Moens, OLP 15, p.20.

(735) Wreszinski, Atlas 19 ; Germer, Flora, p.44.

(736) Moens, OLP 15, p.21, pl.VII.

(737) Newberry, in : Petrie Kahun, p.47 ; id, PSBA 22, p.146.

(738) WB II, 439, 14-16; Charpentier, Botanique, p.434, no.689; Germer, Flora, p.171; Moens, OLP 15, p.26.

(739) Germer, Flora, p.169; Charpentier, Botanique, p.434, no.689; Good & Lacovara, in : op. cit., p.39; Moens, OLP 15, p.26; Keimer, Die Gartenpflanzen I, p.136.

the size of plums, and possess a rather desirable odor and a sweetish taste (740). The mandrake a native of Palestine (741). It was introduced into Egypt during the first half of the XVIII dynasty (742). It was popular in flower borders; its yellowish fruit was a common decorative motif (743).

The mandrake appears among the trees of the New Kingdom gardens; in the tomb of Sennezem it alternates with blue cornflowers and red poppies (744). We find it represented in the scene of Ipuy's garden (745). In ancient Egypt it was something to be enjoyed at festivals or on gala occasions by way of a taste or sniff (746). The fruit was known as an aphrodisiacum (747). The fruit is found in the mummy garland of Tutankhamun and was used as an ornamental motif in arts and crafts, imitations of the mandrake fruit in glazed pottery, it is now kept in the Agricultural Museum, Cairo (748). The mandrake

(740) Good & Lacovara, in : Egypt's Golden Age, p.39; See Figure 12, 33.

(741) Ibid., p.39; Germer, Flora, p.170; Keimer, Die Gartenpflanzen I, p.172 ff.

(742) Moens, OLP 15, p.26.

(743) Good & Lacovara, in : op. cit., p.39.

(744) Scott, BMMA 31, fig.2; Good & Lacovara, in : op. cit., p.39.

(745) N.de G. Davies, Two Ramesside Tombs, pl.XXVIII; Klebs, Reliefs Abb.35; Moens, OLP 15, p.20.

(746) Good & Lacovara, in : op. cit., p.39.

(747) Keimer, BIE 32, 1951, p.351; Moens, OLP 15, p.26.

(748) Ibid., 15, p.26.

fruit symbolized the joyous sensuality in Egyptian poetry. Taking into account this poetry the mandrake of the garden pictures, often represented bearing fruit, implicates a symbol of fertility (749).

(749)Derchain, CdE 99/100, 1975, pp.77-82, 86.

PART III

METHODS OF FARMING AND IRRIGATION

CHAPTER I

CHAPTER I

Farming and Irrigation Equipment and Tools in Scenes and Models

According to the agricultural scenes in the New Kingdom, we find that the Egyptians peasants employed various agricultural equipment and tools in the processes of farming and irrigation.

(1) Farming Equipment and Tools

(A) The Hoe

One of the most ancient and most important of agricultural tools (1). It was known in Pre-dynastic times, where we find it on the cylindrical seals which decorated the pottery of Naqada (2). In the first dynasty, it was employed in the fields, where we see on the Narmer palette, the King standing with a large hoe in both hands, excavating or deepening the canal; before him is a man holding a fibre basket for the soil, and beyond him is a man holding a bunch of ears of corn (3). When a King decided to build a temple, he performed

(1) Erman, Life in Ancient Egypt, p.428; Centre of Documentation and Studies on Ancient Egypt, "Agriculture in ancient Egypt".

(2) F. Hartmann, L' Agriculture, p.73.

(3) J. Quibell, Hierakonpolis I, p.9, pl.XXVI c, fig.4; F. Hartmann, L' Agriculture, p.73; K.W. Butzer, Early Hydraulic Civilization, Chicago, 1976, p.20.

the rite of consecration by means of a wooden hoe whose dimensions were definitely fixed (4). The hoes are frequently represented in the scenes, and several which have found in the tombs of Thebes are preserved in the Museums of Europe (5). We have some examples of real hoes in the agricultural Museum at Cairo.

The figure of the hoe in hieroglyphic is well known, the name of this tool was in Egyptian iknw (6). Usually it is determined with the wood sign, indicating that it is largely or wholly of wood, but there are also instances with the metal determinative showing that it might occasionally have a metal blade. In Pap. Mallet, 1, 10, it is mentioned "one iknw, makes 2 deben of copper", this is the price of the hoe in the Ramesside Period (7).

The hoe of the simplest form (8), consisted of two pieces of wood of unequal length, one limb shorter than the other (9), where we see on the agricultural scenes of the New Kingdom, the handle of the hoe

(4)Hartmann, L' Agriculture, p.73; A. David, Religious Ritual at Abydos, Warminster, 1973, pp.71, 73; S.K. Doll, in : Egypt's Golden Age, p.46.

(5)Wilkinson, The Manners and Customs of the Ancient Egyptians, II, p.393; S.K. Doll, in : op. cit., p.46, fig.14.

(6) FCD, p.32; Janssen, Commodity, p.328.

(7) Ibid., p.328.

(8)Petrie, Kahun, Gurob and Hawara, p.28, pl.IX, 1, 5.

(9)W. Hayes, The Scepter of Egypt II, 1959, pp.215-216.

was shorter than the blade (10). The handle was of uniform thickness, round and smooth; the blade was inserted into the handle, and they were bound together, about the centre, with a twisted rope from palm-fibre rope (11). The labourer grasped the handle of the hoe at the lower end and broke up the clods of the earth with the blade; by moving the rope he could make it wider or narrower as he pleased (12).

The hoe was used for breaking up the soil after plowing, or for cultivating already planted crops (13). It was also employed for mixing mud for bricks; since this hoe was found with other tools, including a mallet, a chisel and boning rods, it may have been used for brickmaking (14). A hoe is commonly seen in the hands of Ushebtis, small figurines placed in tombs, who, with the recitation of the proper magical spell, supposedly came to life and performed field work for the deceased in the afterlife (15).

The first dated example of the metal hoe is found with a group dated by a spearhead with the name of Ramesses II. This type is

(10)Tylor & Griffith, Paheri, pl.IV; Davies, Nakht, pl.XVIII;
Wreszinski, Atlas, 177, 189, 231; Hartmann, L' Agriculture, p.77.

(11)Wilkinson, op. cit., II, p.393; See **Figure 31**.

(12)Erman, op. cit., p.428.

(13)Davies, Nakht, pl.XVIII.

(14)S.K. Doll, in : Egypt's Golden Age, p.46.

(15) Ibid., p.46.

somewhat narrow. Two models of Siptah are rather wider, and two in a group of about the XXII dynasty from Girza are shorter and wider (16). The Berlin Museum has the head of a small hoe of iron, but of what date is uncertain, and no inference can be drawn from it, especially as its form differs essentially from those of the paintings (17). There is a model of the hoes of the New Kingdom preserved in Royal Ontario Museum, Toronto from Deir el Bahari, dynasty XVIII-XX. The wooden hoe with original binding has a broad blunt blade with two rectangular holes and a curved handle. Length of handle 45.7 cm; length of blade 33.6 cm. . The upper part of the handle is round; the lower part is wider and flatter with a rectangular perforation for the insertion of the blade tenon. A three-ply rope, tied around the handle and passed through the holes in the blade, could be loosened or tightened to change the angle between the blade and handle (18). Arabic name of the hoe is Turiyya **طوريا**.

(B) The Plough

The Egyptian plough appeared in the third dynasty at Medum, it was developed from the hoe (19). The plough was of the simplest construction, it was entirely of wood and almost precisely the same

 (16) Petrie, Tools and Weapons, London, 1917, p.19, pl.XIX.

(17) Wilkinson, op. cit., II, pp.251-252, fig.417; Hartmann, L' Agriculture, pp.75-76, fig.9.

(18) S.K. Doll, in : op. cit., p.46, fig.14.

(19) Petrie, Medum, pl.XVIII; Hartmann, L' Agriculture, p.78.

as it is today in Egypt (20). It consisted of a long wooden ploughshare, two slightly-bent handles and long pole, which is tied on obliquely to the hinder part of the ploughshare; it bears a transverse wooden yoke, about fifty-five inches or five feet in length, which is fastened to the horns of the oxen. In the Middle Kingdom another rope was added to bind the pole and ploughshare together (21).

In the New Kingdom, the handles were put on more perpendicularly and provided with places for the hands and the handles of the plough were longer in the New Kingdom (22), than the Old and Middle Kingdoms (23). At either side at the top end of the yoke was a slightly concave projection of semicircular form, which rested on a pad placed upon the withers of the animal; and through a hole on either side of it passed a thong for suspending the shoulder-pieces, which formed the collar. These were two wooden bars, forked at about half their length, padded so as protect the shoulder from friction and


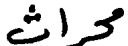
(20)Wilkinson, op. cit., II, p.390; S. Glanville, Daily Life, p.23.

(21)Wilkinson, op. cit., II, p.391; Erman, op. cit., p.427.

(22)Hartmann, L' Agriculture, p.80; N.de G. Davies, Rekh-mi-Rē^c pl.XXXIX; id, Puyemrē, pl.XXVII; id, Seven Private Tombs at Kurnah, pl.II; id, Two Ramesside Tombs at Thebes, pl.XXX; Wreszinski, Atlas 176, 189, 231.

(23)Vandier, Manuel d' Archeologie Egyptienne VI, Paris, 1978, figs.2, 3, 4, 5, 10, 11, 32, 35, 74, 103, 104, 105, 108.

connected at the lower end by a strong band passing under the throat (24).

There is also a plough which differs somewhat from the usual form; the ploughshare consists of two parts bound together, it has also a long piece added on behind and turned upwards obliquely, by which the ploughman guides the plough; this type of plough was drawn by men in the New Kingdom. The Egyptians employed this plough that was drawn by men when they wanted to loosen the upper coating of mud (25). In the New Kingdom, we find that the plough was drawn by a pair of oxen or cows and the ploughman guided and drove them with a long goad, without the assistance of reins which are used by the modern Egyptians (26). But in the Old and Middle Kingdoms, we see the ploughman accompanied by another man, who drives the animals, while the ploughman manages the two handles of the plough (27). Egyptian name of plough is  hb (28). It is still in use among the peasants. Arabic name is Mihrath.  .

(24)Wilkinson, op. cit., II, pp.391-392.

(25)Tylor & Griffith, Paheri, pl.IV; LD III, 10 a.

(26)Davies, Nakht, pl.XVIII; Rekh-mi-Rē^c, pl.XXXIX; id, Puyemré, pl.XXVIII; id, Seven Private Tombs at Kurnah, pl.II; id, Two Ramesside Tombs at Thebes, pl.XXX; Wreszinski, Atlas, 176, 189, 231.

(27)Vandier, Manuel VI, figs.3, 5, 9, 10, 11, 16, 17, 56, 74, 103, 104, 105, 108, 111.

(28)Gardiner, Egyptian Grammar, p.517, sign U 13; FCD, p.158.

(C) The Rake

The rake was also commonly used, and had from seven to nine teeth, cut in one piece of wood (29). It was for dragging the mud over the seed, when sown on the retiring inundation. The mud, when once dried, is far too hard to be broken up by a rake; like lighter soil, the only use of a rake is upon the soft mud (30).

(D) Mallet

Mallets were apparently first made from heavy tree branches (31), and the distinctive large heads developed later. Baton-shaped examples are known from all periods (32). True hammer-shaped mallets, though less common, are also known (33); they were often used for agricultural purposes. In tomb scenes, we see men with wooden hammer-shaped mallets accompany the plows to further break up clods of earth (34). There is a model of a mallet in Royal Ontario Museum, Toronto. It was found at Deir el Bahari, dynasty XVIII-XX. Length

(29) Petrie, Kahun, p.28, pl.IX, 14.

(30) Petrie, Tools and Weapons, p.54, pls.LXVII, LXVIII-LXIX.

(31) Ibid., p.40, pl.45.

(32) Ibid., pl.46; Davies, Rekh-mi-Rē^c, pl.LII; Griffith, et al., Beni-Hasan I, pl.29.

(33) Petrie, Tools and Weapons, pls.46, 71-75; Davies, Nakht, pl.XXI; Peet & Woolley, The City of Akhenaton I, pl.XIX.

(34) Davies, Nakht, pl.XVIII ff; F. Leek, JEA 59, 1973, p.199.

25.4 cm. This acacia-wood mallet made in one piece has a conical head and cylindrical handle; the head is smooth and shiny from use (35).

(2) Irrigation Equipment and Tools

In recent years two studies have been devoted to the system of artificial irrigation in ancient Egypt (36) They concentrate on the date of introduction, the technology and the management. The Nile flood was a matter for royal interest and care (37). It was the state's concern to provide for the basic requirements of life in rural Egypt. The construction and maintenance of the basic requirements of irrigation-system was the responsibility of the central authorities - at least in theory. This task was delegated to local officials who were to take care of the work using their own administrative apparatus (38). In the early of 18th dynasty, the system of artificial irrigation was fully operational, as is indicated in the duties of the vizier Rekh-mi-Rē^c "it is he who dispatches the councillors of the district to construct the channel(s) in the entire country (39). It seem that the councillors of the district are dispatched not only to construct

(35) S.K. Doll, in : op. cit., p.54, fig.25.

(36) Butzer, Early Hydraulic Civilization in Egypt, pp.15-56; H.D. Schneider, Shabtis I, Leiden, 1977, pp.9-13.

(37) Endesfelder, ZÄS 106, 1979, pp.38-9; van den Boorn, The Duties of the Vizier, p.241.

(38) Ibid., pp.241-242.

(39) Ibid., p.240.

channels. Probably, they supervise the maintenance of the entire irrigation-system, since the construction of any given channel is dependent on the management and control of the large natural basins inclusive of the construction of artificial dams and dykes. For the construction and maintenance, there is some evidence that local officials were involved. The Middle Kingdom Abydos stela CG.20531 c, of the "Chamberlain" Kheperkarē^c states that he was hnt(y) t3wy r hrp n.f m t3-wr "foremost of the Two Lands to control for him the channel(s) in the "Thinite nome" (40). His additional title is imy-r k3wt nbt nt nsw "Overseer of all constructions-work of the King". Endesfelder (41) calls attention to the Middle Kingdom title iry-mw, and for the New Kingdom to such titles as ^c3 (n) mw, hry (n) mw. We can conclude that the overall supervision of the construction and maintenance work of the irrigation-system seems to have been the responsibility of the councillors of the district. The system of perennial field-irrigation was primarily applied in the horticultural context, gardens and plantations producing crops such as lentils and onions but excluding cereals (42).

The perennial irrigation by means of Shādūf in the New Kingdom is restricted exclusively to horticulture. The Shādūf does not appear

(40)W. Schenkel, Bewässerungsrevolution im Alten Ägypten, Mainz, 1978, p.33; Boorn, op. cit., p.240

(41)Endesfelder, ZÄS 106, 1979, pp.47-9. For the title ^c3-mw "water-chief" see the remarks of Vleeming, Pap. Reinhardt, 81-4.

(42)van den Boorn, op. cit., p.246.

before the New Kingdom, it is first represented in the tomb of the high priest Mery-Rē^c, at el Amarna (43). It is only represented again in tombs of Neferhōtep (probably Ay), at Thebes (44), Nezemger (45) and Ipuy (46) both of the reign of Ramesses II, at Thebes. But its use in the New Kingdom appears limited to gardening alone (47). In these tombs, we see a scene represents water drawn from a shallow hole in the ground. The operator, then, as now, stripped to a waist-cloth, stands on a platform midway between the two levels, pulls down the bucket till it reaches the water and is filled, and then releases his hold, so that the weight at the other end raises the filled bucket. The water is then tipped into a hole or trough and is utilized at this higher level. Thus, land above the flood-level can be watered. The Egyptian language has preserved no known word for it. At the present day, the Shādūf is still used to irrigate small plots which situated beside the river and canals.

Buckets on a yoke were another method of irrigation adopted by the ancient Egyptians; men were employed to water the beds with

(43) Davies, El-Amarna, part I, pl. XXXII; Helck, Wirtschaftsgeschichte des Alten Agypten, p. 146; Good & Lacovara, in : Egypt's Golden Age, p.37; Butzer, op. cit., pp.46-7; Schenkel, op. cit., pp.65, 57, note 283; van den Boorn, op. cit., p.246.

(44) Davies, Nefer-Hōtep, p.36, pls. XLVI, XLVII; **See Figure 32.**

(45) Ibid., p.70, fig.9; PM I/I, p.252.

(46) Davies, Two Ramesside Tombs, pl. XXVIII; **See Figure 33.**

(47) Butzer, Early Hydraulic Civilization in Egypt, pp.43-47.

pails, suspended by a wooden yoke, that they bore upon their shoulders. The wooden bar or yoke is about three feet seven inches in length; and the straps, which are double, and fastened together at the lower as well as at the upper extremity, are of leather and between fifteen-sixteen inches long. The small thong at the bottom not only served to connect the ends, but was probably intended to fasten a hook, or additional strap, if required, to attach the burden; and though most of these yokes had two, some were furnished with four or eight straps; and the form, number, or arrangement of them varied according to the purposes for which they were intended (48).

The Egyptians do not appear to have used the water-wheel, so universally employed in Egypt at present day. The Sakiye is known definitely to have been use in Egypt only in the Ptolemaic Period (49). And it did not reach Nubia until the beginning of the Christian era (50). The Greeks in Egypt used three words for irrigation machines

ΚΥΚΛΕΥΜΑ , ΚΗΛΩΕΙΟΝ , Ἀντλημα ;
Κηλῶνειον is the word used by Herodotus when asserting that in Assyria, the crops are irrigated by hand and machines (51).

(48)Griffith, et al., Beni-Hasan, part I, pl.XXIX; Newberry, et al.,

El Bersheh, part I, pl.XXVII.


(49)Kees, Ancient Egypt, p.77.

(50)Butzer, op. cit., p.46.

(51)Davies, Nefer-Hotep, p.70.

(3) Harvest and Winnowing Equipment and Tools

(A) The Sickle

The form of the sickle was taken for the symbol  m3 (52). It was used in the Prehistoric age (53). In the earliest periods, it was of wood, with six or seven short serrated flints, to serve as the cutting edge, precisely the shape we should use today (54). The form of the sickle seems to have varied a good deal, sometimes very flat, more curved, with a marked heel or a deep semicircle (55). A groove held the notched flint flakes, which served as teeth, cemented in place with Nile mud and glue. The flints which have been used for this purpose can always be identified by a very high polish along the cutting edge, produced by siliceous straw, and a dull face elsewhere (56). In the scenes of the Old Kingdom, as at Giza and Saqqara, the forms of some sickles are drawn as nearly like that of Kahun as the style of art permitted (57). The earliest actual sickles preserved are

(52)Gardiner, Egyptian Grammar, p.516, U 1.

(53)Petrie, Tools and Weapons, p.46,; Hartmann, L' Agriculture, p.82.

(54)Glanville, Daily Life, p.24; James, Pharaoh's People, p.120.

(55)Petrie, Illahun, Kahun and Gurob, p.55.

(56)Petrie, Tools and Weapons, p.46, pl.LIV; id, Kahun, p.29, pl.IX

22; Hartmann, L' Agriculture, pp.82-83; James, op. cit., p.120;
A. Saleh, The Civilization, p. 87.

(57)Petrie, Illahun, p.55.

of the XII dynasty, from Kahun, there is also one in the British Museum undated (58).

In the scenes of the New Kingdom, we see the sickle more elaborate than the Old and Middle Kingdoms. A curved wooden sickle, its sixteen-inch blade grooved to receive a row of small serrated flint teeth (59). Towards the end of the New Kingdom the sickles were made from bronze and wooden handles (60). According to the scenes of the New Kingdom, we see how the reapers are at work holding the sickles with their right hands, while they hold the corn in their left hands, and we see some of them bending forward to cut the corn (61).

There is a model of a sickle of the New Kingdom preserved in the Brooklyn Museum, Brooklyn, New York. Possibly from Theban tomb (no.82), dynasty XVIII. Length 38.8 cm., width 22.5 cm.. The handle, body, and the tip of the wooden sickle were made in separate

(58) Petrie, Tools and Weapons, p.46, pl.LIV.

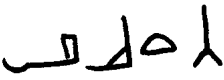
(59) Tylor & Griffith, Paheri, pl.IV; Nina de G. Davies, & Gardiner, Paintings, pl.L; N.de G. Davies, Nakht, pl.XVIII; Rekh-mi-Re^c, Pl.XXXIX; Seven Private Tombs at Kurnah, pl.II; N.de G. Davies & Nina de G. Davies, The Tombs of Menkheprasonb, Amenmose, and Others, London, 1933, pl.XVIII; Wreszinski, Atlas 61, 189, 281.

(60) Glanville, Daily Life, p.24.

(61) Davies & Gardiner, Paintings, pl.L; N.de G. Davies, Rekh-mi-Re^c, pl.XXXIX; Wreszinski, Atlas 58, 231, 279.

pieces and pegged together. An inscription usually translated as "the fieldworker of Amūn, Amenemhēt, repeating life" is inlaid in blue paste on the yellow body. The handle and tip segments were stained to imitate ebony, but the body was left its natural yellow color. On a sickle for actual use, slightly curved, rectangular serrated flint blades would have been inserted and guled into slots on the inner curve of the body (62).

(B) The Fork

The fork was used in the Old Kingdom (63). According to the scenes of the tombs in the Old, Middle and New Kingdoms, we find it consisted of a long limb with three prongs, it was used in sweeping the grain together with the chaff after the corn has been threshed (64). Egyptian name of the fork is  cbt (65).

(62)S.K. Doll, in : Egypt's Golden Age, p.47, fig.15; See **Figure 34**.

(63)Vandier, Manuel VI, figs.58, 59, 62, 83, 84; Petrie, Tools and Weapons, pl.LXVII, 41, 42.

(64)Vandier, Manuel VI, figs.58, 59, 62, 83, 84, 104, 111; Davies & Gardiner, Paintings, pl.L; Davies, Seven Private Tombs at Kurnah, pl.II; Tylor & Griffith, Paheri, pl.IV; Wreszinski, Atlas 231, 279; Shorter, JEA 16, pl.XV.

(65)Gardiner, Egyptian Grammar, p.517.

(C) The Scoops

Winnowing scoops are often found, and are shown in use on the scenes of the Old Kingdom (66). They were made from wood; some scoops have an equal rounding on each side, so that they could be held in either hand, usually they are only right or left-handed (67). The scoops were used in pairs to separate the grain from the chaff by tossing the threshed grain quickly into the air; this work seems always to have been performed by a team of women. They were wearing white scarves to keep the chaff and dust from their hair (68). Winnowing scoops changed little in form during the Pharaonic Period. An almost identical example from XII dynasty, but with incised lines on the grip, was found at Kahun (69), and XVIII dynasty scoops have been found at neighboring Gurob (70). There is a model of scoops of the New Kingdom preserved in Royal Ontario Museum, Toronto, from the Valley of the Kings, probably dynasty XVIII. Its length 31.7 cm. The right-hand winnowing scoop or fan, carved from a single piece

(66)Vandier, Manuel VI, fig.86; Petrie, Tools and Weapons, p.54, pl.LXVIII, 65-66.

(67)Petrie, op. cit., p.54, pl.LXVIII, 65-66.

(68)Vandier, Manuel VI, figs.86, 114; Tylor & Griffith, Paheri, pl.IV; Davies, Nakht, pl.XVIII; Seven Private Tombs at Kurnah, pl.II; Davies & Gardiner, Paintings, pl.L; Wreszinski, Atlas 147, 177, 189, 231.

(69)Petrie, Kahun, pl.IX, 11.

(70)Petrie, Tools and Weapons, p.35.

of wood, has a rectangular handle with a cylindrical grip. The other end is roughly spoon-shaped, thin, and slightly hollowed. It appears that the scoop was used heavily, for the left edge, originally straight, is quite worn and the tip of the spoon is gone (71).

(71)S.K. Doll, in : op. cit., p.47, fig.16; See Figure 34.

CHAPTER II

CHAPTER II

Processes of Ploughing and Sowing in Scenes

For Egypt the Nile is its source of life and its chief means of transport. Egypt's whole economy depends on the Nile; the Egyptian farmer can not count on the rainfall (1). The inundation brought with it, not only the fertile mud, but the needful humidity for the soil (2). The inundation reaches Aswan as early as the end of May or the beginning of June (3). The Coptic calendar places Lelet el-nukta, the night of the drop, on which, according to the ancient myth, a tear-drop from the eye of Isis causes the Nile to rise, on the 18th of June (the Coptic 11th of Ba^una) this date is quite near to that 23rd of June (in the Gregorian calendar) (4). The flood reaches the maximum level in late August in Aswan, to early September (5th/7th), in Cairo and the Delta and the water stands on the land to varying depth, ranging from 2 meters in the south to 1/2 meter in the north (5). When the inundation has been high the area of cultivation can

(1)Kees, Ancient Egypt, p.47.

(2)Erman, Life in Ancient Egypt, p.425.

(3)Wilkinson, The Manners and Customs of the Ancient Egyptians II, pp.428-429; Kees, op. cit., p.54.

(4)Kees, op. cit., p.54.

(5)S. Gohary, Egyptian Society in the New Kingdom as Illustrated by the Late Egyptian Miscellanies, p.117.

be extended (6). Diodorus says that the Egyptians were able to keep the water out by means of small dams, which could be opened if required and closed again without much trouble. In the scenes of the tombs are sometimes represented canals conveying the water of the inundation into the fields; and the proprietor of estate is seen sailing in a papyrus punt and superintending the maintenance of the dykes or other important matters connected with the land (7). Strabo says that the period of water on the land was forty days and sixty days for the receding of waters and the drying of the land. Then, by the end of September, or early October in Aswan and October in Cairo and the Delta, the waters sink from off the fields into the Nile bed proper. The drying-off of the land enabled the marking-out of fields and plots for the cultivation to be carried out to establish the actual amount of land that was to be cultivated for taxes and general income estimates. This is the time of the ts-prt, the issue of the "sowing order" (8).

(6) Davies, Nakht, p.61.

(7) Wilkinson, op. cit., II, p.388; M. Murray, The Splendour that was Egypt, p.79.

(8) ts-prt is well attested in the Miscellanies, this order was placed upon the cultivators of the land, especially the Khato-land of the Pharaoh, and this order was given before the beginning of season. See Gardiner, Wilbour II, pp.113-116; Menu, Wilbour, pp.93, 94; S. Gohary, op. cit., pp.125, 359, note 50.

During October and November, the sowing season is underway, the season known as "prt" running from November to March (9). This is the busy time of the year for the Egyptian farmer and he must work industriously (10). The land being cleared of the water and presenting in some places a surface of liquid mud, in others nearly dried by the sun and the strong winds (11), the farmer takes his team and his implements with him and goes off to the field (12). to prepare the land to receive the seed by the plough or hoe, or by more simple means, according to the nature of the soil (13). The farmers who till the land are singing (14) : hr nfr tw tw kbb n3 n ihw hr ith t3
pt hr irt n ib.n "a beautiful day, it is cool; the oxen draw well, the sky is doing according to our wish". and they set to work with good will for, H^cpy c3 wrt "the inundation is very great". And wise men already fortell that : rnpt nfrt šwt m stbw snb(t) smw nb hr n3 n
bhsw nfr r ht nbt "the year is good, free of troubles, rich (healthy) in all herbs; and the calves are excellent beyond anything".

 (9)Gohary, op. cit., pp.117, 118.

(10)Erman, op. cit., p.427.

(11)Wilkinson, op. cit., II, p.309.

(12)Maspero, The Dawn of Civilization, London, 1894, p.340.

(13)Wilkinson, op. cit., II, p.309.

(14)Tylor & Griffith, Paheri, pp.8-9, pl.IV; LD III, 10 a; James, Pharaoh's People, pp.108, 111; S.K. Doll, in : Egypt's Golden Age, fig.17; See Figure 35.

The first duty of the farmer is now to plough the land; this work is the more difficult because the plough with which he has to turn over the heavy soil is very clumsy (15). In some ploughing scenes at the New Kingdom, we see the ploughman holding with one of his hands the plough upright, while he is beating oxen with a stick with the other hand (16). In other scenes, we see that the ploughman presses down the handles of the plough with his hands to force the plough share to cut deep into the soil (17). We find at the tomb of Paheri one of the ploughmen calls to the other in front of him : 3s.tw p3 h3ty hrp n3 n ihw mk p3 h3ty-^c h^c hr ptr (18) "hurry up, leader, forward with the oxen ! Behold, the mayor is standing seeing (looking on)". At the tomb of Rekhmirē^c, we find also the ploughman cries to another saying "drive on, thou go on we are working for the master" the cry of the last man is difficult, but the overseer seems to be echoing the first appeal (19). In the tomb of Nakht, we see

(15) Erman, op. cit., p.427.

(16) Nina de G. Davies, Scenes from Some Theban Tombs, Oxford, 1963, p.5, pl.II; N.de G. Davies, Rekh-mi-Re^c, p.40, pl.XXXIX; id, Puyemrē, pl.XXVIII; id, Nakht, pp.61-62, pl.XVIII; Two Ramesside Tombs at Thebes, pl.XXX; Tylor & Griffith, Paheri, pl.III; id, Renni, pp.6-7, pl.IV; Wreszinski, Atlas, 9; Doll, in : op. cit., fig.17.

(17) Tylor & Griffith, Paheri, pl.III; Davies, Nakht, pl.XVIII; Wreszinski, Atlas, 189, 61.

(18) Tylor & Griffith, Paheri, pp.8, 9, pl.IV; See Figure 35.

(19) Davies, Rekh-mi-Re^c, p.40, pl.XXXIX.

one of the ploughmen here is guiding the plough with his hands with ease; but on the other hand, a peasant with unkempt locks such as dwelt on the edge of the desert, leans with evident labour on the upright stilts with his hands (20). The ploughman call to the oxen to pull hard and he orders them, when they have to turn at the end of the field to go round (21). While in the Old and Middle Kingdoms, we find the matter different; two men are needed for ploughing, one, the ploughman, presses down the handles of the plough, the other drives the oxen and encourages them by his songs or ingoading on the oxen with his stick because the ploughman was unable to do this for himself (22), and the driver turns around towards the ploughman and encourages him : "lean hard ! hold fast !" (23). According to scenes of ploughing in the New Kingdom, we find the Egyptian peasant employed frequently short-horned oxen (24), and rarely long-horned oxen (25) in the ploughing. On a fragment from tomb of Duauneheh

 (20) Davies, Nakht, p.61, pl.XVIII; See Figure 36.

(21) Erman, op. cit., p.428.

(22) P. Montet, Les Scènes de la Vie Privée dans les Tombeaux Égyptiens de l' Ancien Empire, p.183, pl.XV; Vandier, Manuel IV, figs.3, 5, 9, 10, 11, 16, 17, 56, 74 Old Kingdom; 103, 104, 104, 108, 111 Middle Kingdom; Y. Harpur, Decoratin in Egyptian Tombs of the Old Kingdom, London, 1987, pp.161-162.

(23) Maspero, op. cit., p.340.

(24) Davies, Rekh-mi-Rē^c, pl.XXXIX; Nina de G. Davies, Scenes from Some Thaben Tombs, pl.II; Tylor & Griffith, Paheri, pl.III.

(25) Davies, Puyemrē, pl.XXVIII; Wreszinski, Atlas, 422.

(no.125) at Thebes who was in office under Hatshepsut, we find oxen in pairs with shorter horns and a pronounced hump on their shoulders are drawing the plough to work the soil (26). The yoke here is not lashed to the horns of the oxen as was the Egyptian custom, but rests upon their necks forward of their upward-projecting humps; such oxen were related to Zebu, imported into Egypt from lands of Asia (27). Such oxen first appear in Egypt at the beginning of XVIII dynasty (28). In the New Kingdom the oxen were pure white (29), white with black spots (30), red or dappled red and white (31), and black colour (32). We see in scenes, the plough is drawn by pairs of oxen or cows,

(26)C. Aldred, JNES 15, pp.150-151, pl.XVII.

(27)Hayes, The Scepter of Egypt II, p.164, fig.90

(28)Hayes, JNES 15, pp.150-151.

(29)Davies, Rekh-mi-Re^c, pl.XXVIII; Nakht, pl.XVIII; Nina de G. Davies, Scenes from Some Theban Tombs, pl.II; Tylor & Griffith, Paheri, pl.III; Wreszniski, Atlas, 187.

(30)G. Foucart, Tombes Thebaines (MIFAO 57), Le Caire, 1932, fig.23.

(31)Tylor & Griffith, Renni, pp.6-7, pl.IV.

(32)G. Foucart, MIFAO 57, fig.3; Capart, Thebes, fig.200.

and there are generally two ploughs (33) or more in one field (34), the one behind the other (35) or the opposite the other (36). In the tomb of Panehesi at Thebes (no.16) we see a unique scene which represents an ox squatting on the ground and refusing to rise and draw the plough, a man with a stick in his raised hand is trying to urge it up. The ox stretches its head along the ground and looks up at the stick with an eye full of fear. The companion ox is still standing with the horns fixed to the cross bar which was forced into a vertical position by lowering its other and fixed to horns of the squatting ox (37). Both Klebs and Hartmann quote a plough drawn by horses in Prisse d' Avennes, *Monuments Egyptiens*, pl.35 ; but here Prisse is at fault, the relief showing oxen, not horses, attached to the plough.

(33) Davies, *Nakht*, p.61, pl.XVIII; *Puyemrē*, p.56, pl.XXVIII; Tylor & Griffith, *Renni*, pp.6-7, pl.IV; *Paheri*, pp.8, 9, pl.III; Wreszinski, *Atlas*, 20; S.K. Doll, in : *Egypt's Golden Age*, fig.17; **See Figure 37, 38.**

(34) Davies, *Rekh-mi-Rē^c*, p.40, pl.XXXIX; Nina de G. Davies, *Scenes from Some Theban Tombs*, p.44, pl.XXXI; Wreszinski, *Atlas*, 9; Foucart, *MIFAO* 57, figs.22-23; **See Figure 37, 38.**

(35) Davies, *Rekh-mi-Rē^c*, pl.XXXIX; Tylor & Griffith, *Paheri*, pp.8, 9, pl.IV; Wreszinski, *Atlas*, 20; Doll, in : *op. cit.*, fig.17; **See Figure 37, 38.**

(36) Davies, *Nakht*, p.61, pl.XVIII; Wreszinski, *Atlas*, 189, 422; Foucart, *MIFAO* 57, figs.22-23; id, *MIFAO* 1928, fig.3; *PM* I/I, p.309.

(37) Wreszinski, *Atlas*, 112; R. Rostem, *ASAE* 48, p.172, fig.8; Foucart, *MIFAO* 57, p.44, fig.23; **See Figure 38.**

The text is to be read : htri [n.ihw] r sk3 "a yoke [of oxen] to plough". Oxen and sometimes cows, but never horses were used for the ploughing (38). If the Egyptians wanted to loosen the upper coating of mud, they employed a lighter plough that was drawn by men (39). We find that clearly at the tomb of Paheri, where we see four men harnessed to the bar, while an old ploughman is pressing down the handles and guiding the plough with both hands. Behind them is Paheri, who is coming down to the river to see the ships laden with corn and passes by the labourers. The prince Paheri says to them : 3s.tn t3 3htw ptt (ptpt).ti hr p3 H^cpy c3 wrt (40) "hurry yourselves, the fields are broken up : and the inundation (of Nile) is very great". The drawers of the plough reply : dd.sn iry.n mk n m ir snd hr t3 3htw sy nfr.ti wrt (41) "they say, we are working, behold do not fear because of the fields, they are very good".

Before the land was ready for the seed, we see teams of men are breaking up the great clods with the hammers, the men are represented in front of the ploughs at the tombs of Kha^cemhēt (42) and

 (38) CLEM, p.392, Lansing, 6, 3-4.

(39) Erman, op. cit., p.428; James, op. cit., p.107, fig.6; See Figure 37.

(40) Tylor & Griffith, Paheri, pp.8, 9, pl.IV; Doll, in : op. cit., fig.17. ptt here in the tomb of Paheri indicating condition suitable for ploughing and sowing in which the fields are left after the inundation, See CLEM, p.394, Lansing 6, 7; See Figure 37.

(41) Tylor & Griffith, Paheri, pl.IV; Doll, in : op. cit., fig.17. See Figure 37.

(42) Wreszinski, Atlas, 189; See Figure 39.

Senem^coh (43) but behind the plough at the tomb of Nakht (44) We see also teams of men hoeing the land with the hoes, they are represented opposite the ploughs at the tombs of Menna (45) and Kha^cemhēt (64) and in front of the ploughs at the tombs of Paheri (47) Zeserkara^csonb (48), Sebkhōtep (49) and Ipuy (50). Accompanying this scene in the tomb of Paheri is the following inscription (51) : hnms 3s tw m b3kw mk wh^c n r nw nfr "friend, hasten at the work - let us finish (lit. go home after the work) in good time" . The reply is : iw.i irt h3w hr b3kw p3 sr grw "I shall do more than the work of the noble : be silent".

After the land had been prepared, the sowing of the seed followed. The grain is being sown during October and November (52). We see

(43)Wreszinski, Atlas, 343.

(44)Davies, Nakht, p.60, pl.XVIII; Wreszinski, Atlas, 176.

(45)Capart, Thebes, fig.200; Wreszinski, Atlas, 231.

(46)Wreszinski, Atlas, 189.

(47)Tylor & Griffith, Paheri, pl.IV; Doll, in : op. cit., fig.17.

(48)Nina de G. Davies, Scenes from Some Theban Tombs, p.5, pl.II.

(49)Wreszinski, Atlas, 20.

(50)Davies, Two Ramesside Tombs at Thebes, pl.XXX.

(51)Tylor & Griffith, Paheri, pp.8-9, pl.IV; Doll, in : op. cit., fig.17; **See Figure 35.**

(52)S. Gohary, op. cit., p.118. The verb sk3 is usually rendered "to cultivate", covering essentially two agricultural activities, viz. the sowing and the ploughing, see James, Hekanakhte Papers, 18,

a team of scribes of the corn standing before the heap of seed, watching the men sowing and noting down how each filled his little bag with seed (53). In most agriculture scenes, we see the sowers walking behind or in front of one or more ploughs (54). In some scenes, we see the sowers walking behind or in front of the hoe-men (55), while in a few scenes, we see the sowers walking before a flock of animals (56). We see in the scenes, the sowers are broadcasting

note 3; van den Boorn The Duties of the Vizier, p.243; Menu's remark that the use of sk3 implies the existence of certain rights to the cultivated fields on the part of the cultivator, see Menu, RdE 22, 1970, 122, note 2.

(53)Wreszinski, Atlas, 189.

(54)Davies, Nakht, pl.XVIII; Tylor & Griffith, Paheri, pl.III; Wreszinski, Atlas, 9, 26, 83, 343, 421; M. Baud & E. Drioton, MIFAO 57/1, fig.3; id, MIFAO 57/2, figs.22-23; Nina de G. Davies, Scenes from Some Theban Tombs, pl. II, N.de G. Davies, Seven Private Tombs at Kurnah, pl.XXXI; Capart, Thebes, fig.200; Prisse d' Avennes, Monuments, pls.XL-XLI;

(55)Davies, Nakht, pl.XVIII; Nina de G. Davies, Scenes from Some Theban Tombs, pl.II; Tylor & Griffith, Paheri, pl.III; Prisse d' Avennes, Monuments, pls.XL-XLI.

(56)Northampton et al., Theban Necropolis, (1898-1899), London, 1908, p.14, fig.15, pl.XIII; M.E. Rushdy, ASAE 11, 1911, p.162; U. Bouriant, RT 9, 1887, p.98; PM I/I, (no.146), p.258.

the seed from the basket which the sower held in his left hand (57) or suspended on his arm (58), sometimes with a strap round his neck (59). We see the sower in the most scenes his right arm was raised above his head with seed issuing diagonally from the hand towards the ground (60), while in some scenes, his right arm was extended anteriorly (61) or stretched down (62) with seed to scatters the seed into the ground. The first method of sowing was common in the Old and Middle Kingdom (63). We see in most sowing scenes at the New

(57)Tylor & Griffith, Paheri, pl.IV; Davies, Nakht, pl.XVIII; Rehmi-Re^c, pl.XXXIX; Nina de G. Davies, Scenes from Some Theban Tombs, pl.II; Wreszinski, Atlas, 83 (a-b), 189, 231, 343; Capart, Thebes, fig.200.

(58)Wilkinson, op. cit., II, p.395.

(59)Wreszinski, Atlas, 421.

(60)Tylor & Griffith, Paheri, pl.III; Davies, Scenes from Some Theban Tombs, pl.II; Northampton, et al., op. cit., pl.XIII; Wreszinski, Atlas, 83, 343, 421; Prisse d' Avennes, Monuments, pls.XL-XLI.

(61)Davies, Nakht, pl.XVIII; Baud & Drioton, MIFAO 57/2, figs.22-23.

(62)Davies, Nakht, pl.XVIII; Baud & Drioton, MIFAO 57/1, fig.3; Nina de G. Davies, Scenes from Some Theban Tombs, pl.II; Capart, Thebes, fig.200; Prisse d' Avennes, Monuments, pls.XL-XLI.

(63)Y. Harpur, op. cit., pp.159-160, figs.123, 125, 126; Vandier, Manuel VI, figs.2, 3, 4, 11, 37, 104, 106, 108, 111.

Kingdom, men are scattering the seed (64), while in some scenes the women are scattering the seed behind the plough; the woman was holding the basket in her hand, while she was scattering the seed with her right hand (65) and also we see in the scenes, the boys are scattering the seed behind the plough (66). The work of the sowing was not complete it had next to be pressed into the ground. The ploughs are being used to cover seed. A flock of pigs was used as another method of covering seed, probably on a soft ground into which the animals' hooves could sink to a reasonable depth. We see in the tomb of Nebamun at Thebes (no.146), a man going along throwing the seed and behind him the pigs are shown driven by a man with a whip (67). For this purpose a flock of sheep or goats was driven over the freshly-sown fields, we see the herdsmen swinging their whips to drive the sheep forwards. This trampling in of the seed is only re-

(64) Prisse d' Avennes, Monuments, pls.XL-XLI; Wreszinski, Atlas, 83, 343, 421; Tylor & Griffith, Paheri, pl.III; Davies, Nakht, pl.XVIII; Northampton, et al., op. cit., pl.XIII.

(56) Davies, Seven Private Tombs at Kurnah, pls.XXIV, XXXI; Two Ramesside Tombs at Thebes, pl.XXX; Baud & Drioton, MIFAO 57/1, fig.3; id, MIFAO 57/2, figs.22-23; Wreszinski, Atlas, 112. See Figure 40.

(66) Prisse d' Avennes, Monuments, pls.XL-XLI; See Figure 39, 41.

(67) PM I/I, p.258; Northampton, et al., op. cit., fig.15; Rushdy, ASAE 11, p.162; Bouriant, RT 9, 1887, p.98; See Figure 42.

presented in the scenes of the Old Kingdom; the custom probably continued later, but became less common (68).

(68) Vandier, Manuel VI, figs. 5, 9, 10, 16, 20, 22, 35; Y. Harpur, op. cit., pp. 162-163.

CHAPTER III

CHAPTER III

Processes of Harvest, Threshing, Winnowing, Sifting and Storing of Crops

The standing corn is measured before the harvest about March, in order to give or check estimates of yield, as well as the income for landowners and institutions and taxes for the state (1). Thus, in about April, up to early May, the harvest was carried out (2), followed directly by threshing. This was known as the season of smw running from March to July. The harvest and its attendant activities is mentioned much more frequently in the Miscellanies. Papyrus Sallier I gives a detailed sketch of the essential activities (3). Harvest-time comes, and the corn is cut by means of a short toothed sickle, with which, contrary to our custom, the reapers cut the stalks high above the ground (4), the straw having been left standing to be torn up

(1) See Part IV, Chapter I.

(2) Gardiner, Wilbour II, p.10; Janssen, Commodity, p.117; Kees, Ancient Egypt, p.35; Fairman, JEA 39, 1953, p.119.

(3) CLEM, pp.307-312.

(4) Tylor & Griffith, Paheri, pl.IV; Renni, pl.III; Davies, Nakht, pl.XVIII; Rekh-mi-Rē^c, pl.XXXIX; Seven Private Tombs at Kurnah, pl.XXII; N.de G. Davies & Nina de G. Davies, The Tombs of Menkheperasonb, Amenmose, and Others, plXVIII; Nina de G. Davies, Scenes from Some Theban Tombs, pl.II; Nina de G.

later by the roots (5), as if the straw were useless, and only added to the difficulty of threshing (6). The reapers work in gangs (7) where, in tomb of Rekhmirē^c at Thebes, we find the flax-reaping scene accompanied by the following text : "harvesting by the men of his funerary endowment (dt.f) in his field, who for him in the arable lands of the southern city they say : the field is in very good condition May its (linen) cloth turn out excellently (?) and may the mayor be glad, together with his servants" (8). The reapers are at work, holding the corn in their left hands, while they cut it high up with the right (9), and we see them in some scenes bending forward to cut the corn (10). In order to pull the flax, both arms

 Davies & Gardiner, Paintings, pl.L; Wreszinski, Atlas, 61, 189, 281; See Figure 43.

(5) Davies, Rekh-mi-Rē^c, p.40, pl.XXXIX; See Figure 43.

(6) Erman, Life in Ancient Egypt, pp.429-430.

(7) Tylor & Griffith, Paheri, pl.IV; Davies, Rekh-mi-Rē^c, pl.XXXIX; Wreszinski, Atlas, 189, 231; Hartmann, L' Agriculture, p.122-127; See Figure 43.

(8) Davies, Rekh-mi-Rē^c, p.40, pl.XXXIX.

(9) Tylor & Griffith, Paheri, pl.IV; Renni, pl.III; Davies, Nakht, pl.XVIII; Rekh-mi-Rē^c, pl.XXXIX; Nina de G. Davies, Scenes from Some Theban Tombs, pl.II; Davies & Gardiner, Paintings, pl.L; Wreszinski, Atlas, 61, 189, 281; Shorter, JEA 16, pl.XV.

(10) Tylor & Griffith, Paheri, pl.IV; Renni, pl.III; Davies, Rekh-mi-Rē^c, pl.XXXIX; Davies & Gardiner, Paintings, pl.L; Wreszinski, Atlas, 58, 231, 279; Davies, JEA 11, pl.IV.

had to be in front of the body, and both feet flat on the ground (11). The work proceeds quickly, as we see from the rapid movements of the reapers; we see the scribe, palette in one hand, extends the other towards the reapers at work before him (12). During operation of the harvest, there is a pause in the work; we see a woman moving among the gang with a tall jar of water, offering it to those who wish for it. We see that the reaper puts his sickle under his arm, and refreshes himself with a draught of water (13). During the work of the harvest, the reapers are singing (14) : hn.n wšb dd.sn hrw pn
nfr pri m t3 mhyt pri.ti t3 pt hr irt n ib.sn b3k.n mrwt ib.n "in answering chant they say : "this good day has come in the land, the north wind has come out, the sky is doing according to their wish, let us work and bind firm our heart". And their polite speeches to the owner of the land are : "for thy Ka, doubly pure (?) O mayer,

(11)Tylor & Griffith, Paheri, pl.III; Davies, Rekh-mi-Re^c, pl.XXXIX;

Boussac, Le Tombeau d' Anna, pl.IX; Wreszinski, Atlas, 58, 189;
See Figure 43.

(12)Davies, Rekh-mi-Re^c, pl.XXXIX; Davies & Gardiner, Paintings, pl.L; Klebs, Reliefs, pp.8-9, fig.6; Capart, Thebes, fig.197; Wreszinski, Atlas, 231.

(13)Tylor & Griffith, Paheri, pl.IV; N.de G. Davies & Nina de G. Davies, The Tombs of Menkheperasonb, Amenmose, and Others, pl.XVIII; Davies & Gardiner, Paintings, pl.L; Klebs, Reliefs, pp.8-9, fig.6; Wreszinski, Atlas, 231; T.G.H. James, Pharaoh's People, p.121; **See Figure 44.**

(14)Tylor & Griffith, Paheri, pl.IV; **See Figure 45.**

whom Nepri (the corn-god) loves " (15). The reapers were presumably the farmers, who have looked after the crops during the year. During the harvest season, these people, i.e. farmers, were entitled to food and ointment from the institutions for which they worked; food was issued daily and ointment was given out 3 times per month, (i.e. once every 10 days) (16).

Gleaning was carried out at midday. The previous day's gleaning were given to the scribes and lower employees (mrw). In the Late Egyptian Miscellanies, men were commissioned to do the gleanings, different from the tomb-paintings (17) where, we see in the reaping scenes, the women and children are gleaning behind the reapers similar to the Old Kingdom and they are carrying a basket on a hand, while they are gleaning with the other hand (18). We see in the reaping scene in the tomb of Menna at Thebes, one of the gleaners is perhaps the wife of one of the reapers, for she has come with a bag slung over her shoulder in which to put the spare ears of corn and a bottle of water for her man. We see also in the reaping scene

(15) Davies, Rekh-mi-Re^c, p.40, pl.XXXIX.

(16) CLEM, p.307.

(17) Ibid., p.307, Sallier I, 4, 5,1.

(18) Tylor & Griffith, Paheri, p.8, pl.IV; Nina de G. Davies, Scenes from Some Theban Tombs, pl.II; Davies & Gardiner, Paintings, p. 100, pl.L; Davies, JEA 11, p.16; id, Nakht, pl.XVIII; Wreszinski, Atlas, 58, 177, 188, 279; Hartmann, L' Agriculture, p.130; See Figure 44, 45, 46.

in the same tomb, a young girl, nude save for a girdle of beads, who bends down to gather some ears of corn, and two girls who were gleaning have stopped to quarrel over the corn. One has been kneeling down to gather up the ears that she has gleaned; the other girl has run forward to dispute her right to them. We see under a sycamore fig tree, a boy is sitting at rest on a stool, while another boy plays on a long reed pipe, like a modern Zammarah to amuse the reapers, a water-skin hung over his head. In the same scene, we see two little gleaners, one has a thorn in her foot; so she has seated herself on her gleaning bag, and stretches out her leg for her companion to remove the thorn; the friend's gleaning bag lies on the ground between them, just such a bag of coarse fibre as is commonly only found in the New Kingdom. The gleaners - the poorest people - wear a long Malas down to the ankles, the boys and men wear the usual waist-cloth, with a net of slit leather-work to take the wear, and a solid piece of the leather left in the middle of it for sitting on (19). We see in the tomb of Paheri at el Kab, a woman and a child are gleaning behind the reapers; one of them says (20) : imm n.i w^ct drt mk ii.n mšrw m ir n3 n khsw n sf grh m p3 hrw "give me a handful; behold we shall come in the evening do not repeat the unkindness (?) of yesterday, cease (it) today".

 (19) Davies & Gardiner, Paintings, p.100, pl.L; Petrie, AE 1914-1915, p.96; Capart, Thebes, p.282, fig.197; Klebs, Reliefs, pp.8-9, fig.6; Wreszinski, Atlas, 231; Glanville, Daily Life, pp.25-27.

(20) Tylor & Griffith, Paheri, pl.IV; James, op. cit., p.122; See **Figure 45**.

When the corn has been cut it is bound in sheaves, the united sheaves are heaped up in a wicker pannier. One man then holds a staff across the pile, and his comrade, is shown leaping up and down with his arm hooked over a stick which has its other end passing through a hole in the edge of a pannier overcharged with ears of corn. He is trying to exert greater pressure on the ears to force them into pannier. On the other end, his fellow crams the sheaves down into the pannier and secures it with a rope. Under such conditions, the gleaners who are gleaning the ears are likely to fill their bags with ease. The quail and doves caught in the corn are shown in the scene above as harvest booty (21). We see in the scenes two men wearing a kind of leather network with a patch at the back to protect their linen-cloths; they are carrying the pannier on a pole between them upon their shoulders for the threshing-floor where the corn is emptied upon the ground for other men to fork up (22). We find in the tomb of Paheri an overseer holding a twig in his right hand and calling out

(21) Davies, Nakht, p.61, pl.XVIII; Wreszinski, Atlas, 177, 187; R.

Rostem, ASAE 48, 1948, p.172; See Figure 46.

(22) Tylor & Griffith, Paheri, p.9, pl.V; Renni, pp.7-8, pl.IV, V;

Davies, Rekh-mi-Rē^c, p.40, pl.XXXIX; id, JEA 11, p.16; pl. IV;

Nina de G. Davies, Scenes from Some Theban Tombs, p.4, pl.II;

Davies & Gardiner, Paintings, p.100, pl.L; Klebs, Reliefs, p.9,

fig.6 a; Wreszinski, Atlas, 231, 279, 189, 177, 58; Hartmann, L'

Agriculture, p.130; See Figure 43, 44, 45, 46, 47.



to the carriers saying (23) : 3s.tn mh rdwy.tn p3 mw iw ph.f n3
kniw "hurry yourselves, quicken feet : the water is coming, and (will
soon) reach the baskets", (i.e. the inundation coming before the
harvest operations are complete). The carriers say : iw p3 šw šmw
h3 di.tw n p3 šw swnt it m rmw "the sun is hot ! May the sun be
given fish in payment for the corn !". And a man carrying back the
pole of an empty basket exclaims : n wrš p3 nb3 hr rmn.i rwd.wy
sw ib.i "does not the pole stay all day on my shoulder (?) how firm
is my will !".

In two tombs of the New Kingdom, we find the corn was carried
on the back of the donkeys (24), the drivers watch them calling to
them and brandishing their sticks. In the meantime the sheaves have
been tied up in large panniers, which were hung over the saddle of
the donkey. The donkeys go slowly enough, though the drivers never
cease calling out to their beasts to run, when they arrive at the corn
stack, which has been raised in the threshing-floor. The sheaves are
divided, and two workmen busy themselves with throwing up separate
bundles of ears on the stack. Great skill and strength seem to have
been necessary for this work, a third man is often to be seen gath-

(23) Tylor & Griffith, Paheri, p.9, pl.V; James, op. cit., pp.124-125,
fig. 10; See Figure 45.

(24) Davies, Seven Private Tombs at Kurnah, pl.XXXI; id, JEA 11,
1925, pl.IV; Wreszinski, Atlas, 422; Baud & Drioton, MIFAO 57/2,
fig. 22; See Figure 48.

ering one by one the ears that have fallen below (25). In the Old and Middle Kingdoms, we also find farmers employed the donkeys to transport the crops to the threshing-floor (26).

The corn was carried to the threshing-floor, which was situated near the field (27) or probably near the town (28). It had a shape [ spt (zpt) threshing-floor] (29) well-known from the hieroglyph used in writing the word (30). It was a flat round area with the sides raised (31). The plot takes the shape of the hieroglyph  the cosmic mountain. We find the threshing-floor mentioned in Egyptian texts in the Ramesseum dramatic Papyrus and another in

(25) Davies, Seven Private Tombs at Kurnah, pl.XXXI; Wreszinski, Atlas, 61; Capart, Thebes, fig.195; Baud & Drioton, MIFAO 57, fig.22.

(26) Hartmann, L' Agriculture, p.397; P. Montet, Les Scènes de la Vie Privée dans les Tombeaux Égyptien de l' Ancien Empire, p.206, pl.XVII; Vandier, Manuel VI, figs.4, 16, 20, 24, 35, 37, 42, 45, 50, 55, 59, 61, 62, 66, 95, 105; Y. Harpur, Decoration in Egyptian Tombs of the Old Kingdom, pp.165-166.



(27) Wilkinson, op. cit., II, p.418.

(28) Erman, op. cit., p.430.

(29) Gardiner, Egyptian Grammar, p.498.

(30) H. Stricker, JEA 41, 1955, p.42, fig.6.

(31) Erman, op. cit., p.430. In the Old Kingdom the threshing-floor was circular, but in two dimensions it is shown as a band above the baseline. See Harpur, op. cit., p.167.

which barley is laid on the threshing-floor (32). There are two words employed for threshing-floor, both preserved in Coptic : dnw  e II, was a threshing-area (33); the word dnw was frequently found in Pap. Amiens (34), and the other word was  htiw "threshing-platform" (35). In the tomb of Menna the actual preparation of a circular threshing-floor can be seen, accomplished by men using pitchforks that look remarkably like those used today (36).

The corn is spread out on the threshing-floor and trodden by the hooves of animals driven about in it. In the Old Kingdom, the animals used for this purpose were donkeys and oxen (37), but in the Middle

(32) Stricker, JEA 41, p.42.

(33) CLEM, 357, Sallier IV, verso, vs.10, 1; Gardiner, JEA 27, 1941, p.63; Fairman, JEA 64, p.188.

(34) Gardiner, JEA 27, p.63.

(35) CLEM, p.53, Anastasi II, 7, 5; pp.361-362, Sallier IV, verso, vs.13, 1; 14, 1; Gardiner, JEA 27, p.63; Jequier, BIFAO 19, 1922, p.84 ff.

(36) A. Mekhitarian, Egyptian Painting, New York, 1954, p.77; S.K. Doll, in : Egypt's Golden Age, p.44.

(37) Hartmann, L' Agriculture, p.136, fig.34; P. Montet, op. cit., p.230 ff, pl.XVIII; Vandier, Manuel VI, figs.20, 49, 50, 55, 58, 59, 65, 69, 75, 78.

(38), and New Kingdoms (39) oxen were employed alone. They were driven round the floor in a circle; sometimes the oxen are linked to one another by collars or a rope fastened to their horns in order to force them to go round the heap and tread it regularly and to prevent them eating too much of the grain because the oxen were not muzzled. We find a man keeps them moving with a two - tonged whip, while his comrade sweeps the grain together with a fork which has two or three prongs (40). Nowadays, oxen are not used in the fields, for threshing the corn; other animals, like cows, buffaloes and even donkeys, are used. In the tomb of Paheri, we find during the operation of the threshing, a man who drives the oxen with a whip singing, and saying (41) : hwi.tn n.tn sp snw ihw hwi.tn n.tn dh3 r wnm
it n.nbw.tn m rdi wrd n ib.tn tw tw (sp snw) kbb "thresh for yourselves, thresh for yourselves, oxen : thresh for yourselves,

(38)Hartmann, L' Agriculture, p.299; Vandier, Manuel VI, figs.104, 105, 111, 114.

(39)Tylor & Griffith, Paheri, pl. III; N.de G. Davies, Five Theban Tombs, London, 1913, p.22, pl.XIX; Puyemrē, p.57, pl.XXVIII; Nina de G. Davies, Scenes from Some Theban Tombs, pl.II; Davies & Gardiner, Paintings, I, pl.LI; Wreszinski, Atlas, 189; Baud & Drioton, MIFAO 57/2, fig.22; Shorter, JEA 16, pl.XV.

(40)Tylor & Griffith, Paheri, pl.IV; Davies, Scenes from Some Theban Tombs, pp.4-5, pl.II; Davies & Gardiner, Paintings, p.100, pl.L; Wreszinski, Atlas, 231, 279; See Figure 46, 49, 50.

(41)Tylor & Griffith, Paheri, pl.IV; Glanville, Daily Life, pp.25-27; James, op. cit., p.125, fig.10; See Figure 45.

thresh for yourselves : straw to eat, corn for your masters, let not your hearts be tired : it is cool". After the corn has been threshed, it is collected together with the chaff, by means of a wooden fork, into a big heap. This sweeping together is called i^cb "unite" (42)

The next necessary work is to separate the corn from the chaff by tossing the threshed grain quickly into the air with the pairs of scoops. This easy work seems always to have been performed by a team of women, they are always shown dressed in a loin-cloth, with a white kerchief on the head to protect their hair from the fine dust. One of them is sweeping the grain together for the others to scoop up. The breeze carries the white chaff aside while the grain falls down between them (43). The corn has already been passed through a great rectangular sieve to separate it from the worst impurities (44). In almost every Old Kingdom and Middle scenes the work is performed by women (45).

(42)Gardiner, Egyptian Grammar, p.551.

(43)Tylor & Griffith, Paheri, p.8, pl.IV; Davies, Nakht, p.62, pl.XVIII; id, JEA 11, pl.IV; Nina de G. Davies, Scenes from Some Theban Tombs, pp.4-5, pl.II; Davies & Gardiner, Paintings, p.100, pl.L; Wreszinski, Atlas, 83, 177, 189, 231, 142; Scheil, MMAF 5/2, p.609, fig.3; Virey, MMAF 5/2, 1891, p.292; See **Figure 45, 49, 51.**

(44)Erman, op. cit., p.432.

(45)Hartmann, L' Agriculture, p.139; P. Montet, op. cit., pl.XVIII; Vandier, Manuel VI, figs.50, 65, 83, 111, 114; Harpur, op. cit., p.168. The winnowing scenes of K3-hi.f at Giza and Tii at Saqqara

Three objects found in the winnowing scenes as depicted in the tomb of Nakht, Zeserkara^csonb, and Kha^cemhēt at Thebes (46), namely, the ancient "bride of the corn", the loaves of bread, and the vessel of water, are found still to persist in modern times in association with the winnowing, when the heaps of corn are standing ready to be winnowed. The owner brings some loaves of bread, dates and other foodstuffs in the evening and puts them in among the grain. The men who winnow it on the following day eat this food, together with any people who happen to be present. These gifts are regarded as "Baraka" and are believed to ensure plenty, the bread was put in the heaps of grain; and after, not before, it was winnowed. Also, the gift of bread was the perquisite of the man who did the winnowing and was not shared with others. Another example, in the case of beans, bread and cheese are brought by the owner just before sunset, the beans having been already winnowed. These gifts remain thus buried all night, and the man who removes the beans to the owner's granaries eats this food after he has completed his work, a Kullah of water standing in a hollow on the pile of beans. It is placed on the mound before sunrest when the bread is placed inside the pile - any people who happen to come the spot and require a drink may refresh

include a man in the group. See Harpur, Decoration in Egyptian Tombs of the Old Kingdom, p.168, figs.154-5.

(46) Nina de G. Davies, Scenes from Some Theban Tombs, pl.II; N.de G. Davies, Nakht, pl.XVIII; Wreszinski, Atlas, 142, 189, 177; W.S. Blackmann, JEA 8, 1922, pp.235-240; Doll, Egypt's Golden Age, pp.44-45, fig.19; See Figure 52, 53, 54.

themselves from the Kullah. Moreover, the water, as well as the bread, is believed to ensure a plentiful harvest in the ensuing year. Above the winnowing scenes, there is a strange object to which offerings are made. Crescent-shape, or in the very rough form of a human or bird, it is apparently an ^carūset el-Qamh "the bride of corn" sacred to Rennutet, goddess of the harvest. Made just before the harvest from the best ears of corn in the fields, it was woven into this shape, and similar examples can even now be found in modern Egypt, where it may be hung in the storeroom or in the door of a shop, or placed with the rest of the harvest in order to ensure continuing agricultural bounty and general prosperity.

After the winnowing, the scribes belonging to the state come, they measure the heaps of corn before they are taken into the granary (47). At the tomb of Menna, we see scribes registering the harvest; four squat on the ground as they write on their writing boards. Three scribes standing opposite appear to be noting on the palettes themselves the amounts as measured by the labourers in front of them (48). These employed for this purpose wooden measures which look like our bushels (49). We see, also, other labourers gathering the scattered grain that fell from the measure, by means of besoms and winnowing

(47)Erman, Life in Ancient Egypt, p.433; See Figure 52.

(48)Davies & Gardiner, Paintings, p.101, pl.L; Wreszinski, Atlas, 231.

See Figure 55.

(49)Hartmann, L' Agriculture, p.141; Glanville, Daily Life, p.27.

scoops (50). We see another scribe who sits on top of the heaped-up corn, and keeps count with his fingers (51), sometimes we see him registering accounts of corn (52), in other scenes, we see sš hsb Cy3 scribe of account of corn, standing on the heaped-up corn, registering on his writing board (53), and sometimes, we see him again reckoning with his fingers (54). We see the box to hold the scribes' writing-materials stood on the ground near them (55). At the tomb of Paheri, we see a scribe squatting on a pile of grain is described as "the scribe of counting grain, Djehutnufe"; he notes down a record of the measuring on his palette, while another man, possibly some kind of supervisor, appears to be keeping a less formal tally of filled measures on a winnowing scoop. Two pairs of labourers carry away the measured grain in sacks raised on their shoulders. They walk towards an enclosure surrounded by a crenellated wall within which there are four piles of grain and a growing tree. Inside the enclosure one man empties his sack, while another walks out through the

 (50)N.de G. Davies, JEA 9, p.142, pl.XXV; Wilkinson, The Manners and Customs of the Ancient Egyptians, II, p.420.

(51)Davies & Gardiner, Paintings, p.101, pl.L; Wreszinski, Atlas, 231;
See Figure 49.

(52)Tylor & Griffith, Paheri, p.8, pl.IV; Wreszinski, Atlas, 231;
 Mackay, AE 1920, p.113, fig.7; **See Figure 45.**

(53)Wreszinski, Atlas, 58; Shorter, JEA 16, pl.XV; Boussac, MIFAO 18, 1896, pl.II.

(54)Davies, Nakht, pl.XVIII; Wreszinski, Atlas, 177; **See Figure 51.**

(55)Davies & Gardiner, Paintings, p.101, pl.L; Wreszinski, Atlas, 231;
See Figure 49.

doorway carrying two empty sacks. One of the piles seems to consist of some commodity other than grain; it might be flax seed (56).

We see in the storing scenes, the workmen wear over their white waist-cloths a leather-net, with a square patch left in the middle to meet the wear of sitting; they are carrying the corn in sacks on their shoulders to the granaries (57). These granaries were, at all periods, built essentially on the same plan. In a court surrounded by a wall were placed one or two rows of conical mud buildings about 16 feet high and 6 1/2 feet broad; they had one little window high up, and another half-way down, near the ground. The lower one, which served for taking away the corn, was generally closed on account of the mice and the workmen emptied their sacks through the upper window, which was reached by a ladder (58). The Miscellanies abound in references illustrating the hard life of the farmer and the heavy harvest taxes inflicted upon him, and also painting a graphic picture of how miserably the peasant fared when the harvest was poor (59).

(56) Tylor & Griffith, Paheri, pl. IV; See Figure 45.

(57) Ibid., p. 8, pl. IV; Wreszinski, Atlas, 279; Davies, JEA 11, p. 16, pl. IV; JEA 9, 142; Rostem, ASAE 48, fig. 17; Boussac, MIFAO 18, pl. II; Shorter, JEA 16, pl. XV; See Figure 56, 57.

(58) Tylor & Griffith, Paheri, p. 8, pl. IV; Wreszinski, Atlas, 279; Shorter, JEA 16, pl. VX; Rostem, ASAE 48, p. 176, fig. 17; See Figure 57.

(59) CLEM, p. 247, Anastasi V, par. 11; pp. 315-316, Sallier I, par. 6; p. 390, Lansing, par. 6.

Summer Cultivation Crop

Summer cultivation is considered a vexed problem by many scholars because it entails the acknowledgment of permanent, whole-year irrigation and the possibility of producing two harvest a year. Fairman (60), in his review of Gardiner's *Pap. Wilbour*, seems to have been the first to tackle the problem. Among his references he point out the present passage as suggestive of the existence of summer cultivation. Baer (61) and Schenkel (62) subsequently denied this. There are some possible references to summer cultivation in some agricultural documents from the Middle Kingdom onwards. From the eleventh dynasty, in the first letter, first line of the Hekanakhte papers (63) the writer was concerned in case of the water of inundation should reach the fields before the crops could be reaped. From the twelfth dynasty, a record of field-measurements published by Smither (64) in this record, a reference is made to a field-measurement being carried out sometime round 19th January. From XVIII dynasty, in the tomb of Rekhmirē^c, a long inscription lists the duties of the Vizier. In this

(60) Fairman, JEA 39, 1935, p.119.

(61) Baer, JARCE 1, 1962, p.40, note 98; id, JAOS 83, 1963, p.2, note 4.

(62) Schenkel, Bewässerungsrevolution im Alten Ägypten, pp.65-8; id, LÄ I, p. 777; id, LA III, p.931.

(63) Gardiner, Wilbour II, p.10; James, The Hekanakhte Papers, p.13 ff.

(64) Smither, JEA 27, 1941, pp.74-76.

inscription the Vizier is said to be he who despatches his local officials (i.e. mayors and head of divisions) to cultivate in the summer season (65). From the third year of King Merenptah, in Pap. Sallier IV, vs.10, 2 (66), a reference is made to winnowing done on the threshing-platform in the fourth of Akhet day 4, equivalent to October/November. In the same papyrus, vs.13, 6, 7, another reference is made to some work being done on the threshing-floors on the first and second days of the third month of Akhet, i.e. about September/October. In this context, the term k3yt used for the location of the threshing-platform in Pap. Sallier IV (vs.10, 2; 13, 1; 14, 1-2), should not be translated "arable land" but as "high-lying". It seems that these meanings remained in use side by side in Ramesside Period (67); here, the whole point is that the summer threshing was being done on "the threshing-floors on the high-lying land" above the inundation level. From the time of the King Ramesses V, in Pap. Wilbour (68), reference is made to surveys being done on the 15 th day of the second month of Akhet, i.e. July/August, just before the start of the showing of the rising water.

(65) Davies, Rekh-mi-Re^c, p.92; Urk IV, pp.1110-1113; van den Boorn, The Duties of the Vizier, p.244.

(66) CLEM, p.357 ff.

(67) Gardiner, Wilbour II, p.27 ff and 178 ff.

(68) Ibid., II, p.10.

CHAPTER IV

CHAPTER IV

Domestic and Field Animals (Breeding and Uses)

The ancient Egyptians divided herds of domesticated animals into two major categories. Large cattle which implied herds of bulls and cows. Small cattle which implied such animals as goats, sheep, and pigs. The domestic and field animals breeding and uses takes up much space in the representations on the monuments from the Old Kingdom onwards.

(1) Large Cattle

(A) Cattle (Bulls and Cows)

Cattle and matters pertaining to them occur frequently in the Late Egyptian Miscellanies. Cattle were looked after by a series of agricultural officials, the chief among them was probably the overseer of cattle (1). Another official involved with cattle was the chief record keeper (2). Beside these, there were also the scribes (3), who worked for the chief record keepers, and the blind men (4), who were employed in fattening up the cattle. In Pap. Harris I, 7, 9 some more

(1) CLEM, p.373, Lansing, par.2, 1, 2, and p.413, par.10, 13 a, 7.

(2) Ibid., p.305, Sallier I, par.3, 4, 4.

(3) Ibid., p.304, Sallier I, 3, 4.

(4) Ibid., p.51, Anastasi II, 7, 5.

officials of cattle were mentioned such as : the scribe of the oxen, the controllers of cattle (rw_udw) (5). In Wilbour Papyrus cattle were assigned fields and domains for their food (6).

Cattle were in part fed by being taken out to pasture (7). In the scenes of cattle breeding, the herdsmen were leading the cattle to their pasture, they drove them to the place of good herbs (8). After the threshing process was finished, cattle ate the remaining straw (9). Cattle were also kept in stables (10) being given grass to fatten them up (blind men were employed to feed them) (11). The mdt, s3 "stable" (12), which is mentioned on the New Kingdom as place where the cattle

(5) Breasted, AR IV, 212.

(6) Gardiner, Wilbour text A, section I, par.31; text A, section II, par.104; text A, section III, par.174; text A, section IV, par.243.

(7) CLEM, p.307, Sallier I, par.4, 4, 7, 8; H.S. Smith, in : Ucko & Dimpleby, The Domestication and Exploitation of Plants and Animals, p.308; Darby, et al., Food I, p.108.

(8) Erman, Life in Ancient Egypt, p.438.

(9) Tylor & Griffith, Paheri, p.15 and pl.III; S.K. Doll, in : Egypt's Golden Age, p.46.

(10) CLEM, p.189, Anastasi IV, 13, 4; H.S. Smith, in : op. cit., p.308; N.de G. Davies, El-Amarna I, pl.XXIX; Doll, in : op. cit., p.46; Darby, et al., Food I, fig.3.18c

(11) CLEM, p.51, Anastasi II, 7, 5; Wilkinson, The Manners and Customs of the Ancient Egyptians I, p.317.

(12) FCD, p.29; Urk IV, 1282, 8.

kept at night, must have been an open fold; and, in fact a picture at el Amarna shows us the oxen lying in an open yard (13). The farm-yard, where the cattle were kept, stood at some distance from the house, and corresponded to the department known by the Romans under the name of rustica though enclosed separately. It consisted of two parts, the sheds for housing the cattle, which stood at the upper end, and the yard, where rows of rings were fixed, in order to tie them while feeding (14).

We see in the scenes, the herdsmen had a much more prosaic method of fattening their cattle, namely, with the dough of bread. This method must have been in common use in the Old Kingdom. The herdsmen are seen beating dough and making it into rolls; they then squat down before the bulls and push the dough from the side into their mouths, admonishing them to eat them. A good herdsmen had also to see after the drink for the cattle; they set a great earthen vessel before them, patting them in a friendly way to encourage them to drink (15). The Egyptians talked to their oxen, they gave them names : the cow "purest of bull" the calf "good ox", and they decked

(13)Erman, op. cit., p.444.

(14)Wilkinson, op. cit., I, p.371.

(15)Erman, op. cit., p.438; E. Zeuner, A History of Domesticated Animals, London, 1963, p.225; Darby, et al., Food I, pp.108-109, figs.3.18a, 3.18b, 3.18c; A. Ruffer, MIE 1, 1919, p.9. Ruffer stated that cattle to be slaughtered for daily consumption were often stable fed.

out the finest with coloured cloths; they had pretty fringes, they represented their cattle in all positions with an observation both true and affectionate, showing plainly how dearly they valued them (16).

Cattle were of different breeds : some were local; when Egypt ruled over Upper Nubia and for a time over Syria also, oxen were often brought into the Nile Valley either in trade or as tribute or as spoil from these countries (17). In the time of Tuthmosis III, 18th dynasty, some cows were brought from Palestine and from Nubia (18). Under Ramesses III, there were included seventeen oxen amongst the charges on his Syrian property (19). Bulls were brought from the land Kheta and cows from Elasia (20), which may be somewhere in Cyprus; in addition, some kinds of bulls were also brought from the West (21).

(16) Erman, op. cit., p.443.

(17) N. de G. Davies & Nina de G. Davies, The Tombs of Menkheperresonb, Amenemose, and Others, p.12, pls.XIII-XV; Nina de G. Davies & Gardiner, Huy, p.25, pl.XXVIII, XXX; Kees, Ancient Egypt, p.86 note 3; C. Aldred, JNES 15, 1956, pp.150-151, pl.XVII; Zeuner, op. cit., p.227, fig.8 : 27.

(18) Kees, Ancient Egypt, p.86; Erman, op. cit., p.443; LD III, 30 b, 8.

(19) Erman, op. cit., p.303.

(20) CLEM, p.201, Anastasi IV, 17, 8, 9; Kees, op. cit., p.86.

(21) CLEM, p.200, Ansatasi IV, 15, 5; Erman, op. cit., p.443; Also, cattle of Libyan breed : their fat was used for jubilees of

Some of these cattle were long-horned ng3w (22), some other short-horned wndw (23). In the scenes of the New Kingdom, we see cattle with short horns and long horns are represented, where the Egyptians in their reliefs preferred to represent the long-horned species, because they looked more beautiful and imposing (24). We see also, on the scenes hry-s3 (25) kind of cattle, has short horns too, but is generally smaller and sometimes hornless (26). These cattle may be regarded as a third species, we never find them employed in ploughing or threshing; the peasants liked to deck them out in bright cloths and bring them as a present to their master (27). The colours of these cattle can be noted. They had plain black,

 Amenophis III; docketts from his Malaqata place, West Thebes, See Hayes, JNES 10, 1951, p.91.

(22) WB II, 349, 1-3; CLEM, pp.438-439, Koller, par.3, 3, 6; FCD, p.14; Davies, Puyemrē, p.63, pl.XII; Rekh-mi-Rē^c, p.103, pl.XXXII; Zeuner, op. cit., p.223.

(23) Wb IV, 695, 13; CLEM, p.200, Anastasi IV, par.20, 15, 5, and pp.210, 438; FCD, p.63; Davies, Puyemrē, p.63, pl.XII; Rekh-mi-Rē^c, p.103, pl.XXXII; Zeuner, op. cit., p.223.

(24) See Part III, Chapter II, III.

(25) Urak IV, 1134, 8; FCD, p.175.

(26) Davies, Rekh-mi-Rē^c, p.103, pl.XXXII; Puyemre, p.63, pl.XII; Davies & Gardiner, Huy, p.25, pl.XXVIII, XXX; Zeuner, op. cit., p.223.

(27) Erman, op. cit., p.437.

brown, brown and white, black and white, possibly pure white, and white spotted with black (28).

Cattle were alike owned by private estates as well as temples, royal establishments and landowners. From Libya in the eleventh year of the reign of Ramesses III - one of the few credible enumerations of its kind : 3,609 cattle (29), another credible piece of information is that reported by Renni an early dynasty XVIII nomarch of el Kab, a region with little cultivated land. He states that he mustered for the cattle levy 122 cattle (30). We see from these examples that the proprietors possessed large herds of oxen and cows. The ancient Egyptians however, with great admiration for oxen, never grew weary of representing them again and again, while they rarely give us pictures of sheep, goats or donkeys, so the oxen and cows were the dearest to the heart of Egyptians and special attention was paid to their breeding; they were kept under observation (31).

According to the agricultural scenes of the New Kingdom, we see the oxen were employed for the ploughing and threshing the corn (32) In Pap. Turin A (33), we find that the peasants had often to hire

(28)Zeuner, op. cit., p.224; Darby, et al., Food I, p.98.

(29)Kees, op. cit., p.87.

(30) Urk IV, 75; Kees, op. cit., p.87.

(31) LD II, 77, 105; Erman, op. cit., p.441.

(32)See Part III, Chapter II, III.

(33) CLEM, p.453, Turin A, par.3, 2, 7, 9.

yokes of oxen for their ploughing from the large herds of institutions, whose herdsman would book for the return of hired animals, hence the overseer of cattle belonging to the institution concerned, (i.e. replacement animals) for livestock gone missing. Also these cattle used for pulling stone blocks, and funeral sarcophagi (34), where we find the King Ahmose employed the shorter horned oxen with hump on their shoulders to haul lime-stone from Turrah quarries (35); and the Egyptians used the bulls for sacrifices and killed them for meat (36). The Egyptians used the cows, in addition to operations of the agriculture, for milking, where we see in the scenes, when the milkman wanted to milk the mothers of the calves (or as we should say the milch cows), he had to tie their feet together, or to make one of his fellows hold their front legs firmly. The calves which disturbed his work had also to be tied up to pegs (37). In addition to this, the cows were increasing the herds by calving, where we see in the scenes, a cow is shown calving, with the herdsman helping by pulling the calf (38). Cow and bull worship spread throughout the Nile

(34)H.S. Smith, in : op. cit., p.308; Darby, et al., Food I, p.120.

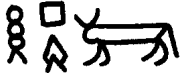
(35)Aldred, JNES 15, pp.150-151.


(36)H.S. Smith, in : op. cit., p.308.

(37)Darby, et al., Food I, p.109; Zeuner, op. cit., pp.224-225; H.S.

Smith, in : op. cit., p.308; E. Brovarski & P. Lacovara, in : Egypt's Golden Age, p.107.

(38)Zeuner, op. cit., p.224; Darby, et al., Food I, p.108, figs.3.11, 3.12, 3.13; Egyptian word of the calf was bhs (bhz), See FCD, p.24; Gardiner, Egyptian Grammar, pp.458, 463; Urk V, 156, 8.

Valley. The cow was considered sacred throughout much of the dynastic period, and was associated primarily with the goddess Hathor; at other times, with both Isis and Nut (39). The bull known by the Egyptians as depicted by  Hp and by the Greeks as Apis, was worshipped at Memphis (40).

The cattle are branded with the stamp of the department to which they belong (41). We see that on the scenes of the tombs of the New Kingdom (42), where the cattle are represented lying on the ground with their feet tied, they are stamped by means of its points with dots on the right shoulder. We see in the scene , one man heats an iron on the fire, while another is holding the hot iron tool by means of twigs to operate on the animal. There is a similar scene in the tomb of Userhet (no.56), in West-Thebes; there one tool, like our first, has five points, but the brand of the other is an eye ; such brands as this were probably uncommon, or they would be shown on the sides of cattle; points were unnoticeable. A model of a calf branded with a

 (39)Darby, et al., Food I, p.124, figs.1.5, 1.6b, 1.9, 1.10.

(40) Ibid., I, p.128.

(41)Erman, op. cit., p.444; Doll, in : Egypt's Golden Age, p.46.

(42)Tylor & Griffith, Paheri, p.7, pl.IV; N.de G. Davies & Nina de G. Davies, Two Officials, p.32, pl.XXXI-XXXII; Davies, Ken-Amūn, pls.XXVII-XXVIII; Nefer-Hōtep, pl.XXXXIII; Davies & Gardiner, Huy, pl.XL; Wreszinski, Atlas, 187; See **Figure 58**.

cross within a circle is in the Berlin Museum (43). Cattle might have been marked with the name of the festival during which they were to be sacrificed (44), or with the name of King or institution by which they were owned or to which they might be paid as tax (45). Others were marked with a hieroglyphic sign indicating that the animal was part of a special cattle-tax payment (46).

Registration of Cattle

Our knowledge of the early chronology is by the records of the cattle census that was made every two years. The earliest examples of this census are to be found on the Palermo stone (47). In the New Kingdom, we find registration of cattle represented at the tomb of Paheri at el Kab (48), where we see in this scene, Paheri is seated on a stool writing. Before him is a box, and above on a tray are a palette, a roll of papyrus, and a water-skin. There accompanies him the following text : hsb tnwt mmnt in h3ty^c n Iwnyt imy-r 3htw
nw^c rsy mh ib mnh n nb.f š3^c m Pr Ht-hr nfryt r Nhb sš P3-hry
"reckoning the numbers of the cattle by the mayor of Letopolis (Esna),

(43)Nde G. Davies & Nina de G. Davies, Two Officials, p.33, note 1.

(44)J. Leclant, MDAIK 14, 1956, p.133.

(45)Davies & Gardiner, Huy, pl.40; Davies, Ken-Amūn, pl.XXVII.

(46) Ibid., p.33, no.4.

(47)Zeuner, A History of Domesticated Animals, p.228.

(48)Tylor & Griffith, Paheri, p.7, pl.III.

the overseer of the fields of the southern district, the excellent satisfier of the heart of his lord, beginning from the House of Hathor as far as Hieraconpolis, the scribe Paheri". We see the animals are driven towards Paheri by their herds in four rows. A bull is charging a fallen man, whom his fellow servant attempts to protect. Oxen and cows with their calves are represented in the upper two rows; below, asses, goats with kids, and swine. The asses are driven by a man with a whip, carrying a staff and a foot-hobble over his shoulder. We find also counting of the stock at the tomb of Renni at el Kab (49), where we see in this scene a procession of cattle represented before Renni, the list of the stock taken down by scribe Djehuti, is : cattle 122, sheep 100 (?), goats 1200, pigs 1500.

The Tax on Animals

In the New Kingdom, the government of Egypt depended for the major portion of its revenues on the taxes on cattle. These were based on a periodic national census of farm animals carried out in the New Kingdom by scribes, accountants, and herdsmen of cattle under the supervision of the chief overseer of cattle and included not only a direct tax paid in animals out of the yearly increase of the herds, but also a fee paid in produce on draught beasts rented by the state to individual farmers and institutions. At the beginning of XVIII dynasty the mayor Renni of el Kab paid out of the state herds pastured in his district a cattle tax of 2922 animals. Later in the New Kingdom

(49) Tylor & Griffith, Renni, p.7, pl.IV.

the rental fee on draught animals seems to have been estimated in copper. It would appear that the branded hides of animals which had died in the interim between the taking of the census and the collection of the tax were offered either in lieu of the animals themselves or as evidence of the fact that they were dead (50). Among the herds there were cattle belonging to the King which must probably have been treated from the point of view of the tax just like private property (51).

Cattle Prices

Live-stock prices are first met with in the documents of the Ramesside Period. The price was largely determined by the quality of the cattle (52). The prices of oxen both high and low are found at all periods, the highest occurring in year 24 of Ramesses III : a male bull is value 141 deben, while in year 7 of Ramesses VI or VII, an ox is sold for the lowest value of 20 deben. A price from the Late Period is to be found in the stela of Sheshenq, line 14, where we read : "10 oxen, making in silver 5 deben". This would mean that each ox

(50)W. Hayes, CAH II, Cambridge, 1962, part II, chapter IX, pp.21-22.

(51)Kees, Ancient Egypt, p.88.

(52) Ibid., p.89; Janssen, Commodity, p.176.

cost 1/2 deben of silver, which will have been the equivalent of 30
deben of copper (53).

(53) Ibid., pp.175-177; Deben of copper, being an Egyptian weight
of about 91 grammes, See Kees, op. cit., p.89.

(2) Small Cattle

Goats and sheep are generally referred as tp n i3wt (54), as shown in Pap. Anastasi V (55). In Pap. Harris I, the word ^cnh is the only word that appears as an indication for small cattle, it would therefore, appear that from the XIX dynasty the word ^cnh replaced the word ^cwt as the generic term for small cattle (56). These live-stock seem to have been similiary organized to the other kinds of cattle, belonging to fields and domains of different temples; some belonged to individuals, and were looked after by slaves (57). Great care was bestowed on small cattle-breeding, where it seems that Upper Egypt possessed sufficient pasturage on dry soil on the borders of the desert for small cattle, sheep and goats (58). In Pap. Wilbour, we find a mention of provender fields for white goats (59).

(A) Sheep

The earliest pictorial evidence comes from the Predynastic Period, where on the Naqada palette, they are sleek-haired, with a ruff down the throat; they have long, straight, loosely spiral horns; and a long

(54)C. Nims, JEA 22, 1936, p.51 ff.

(55) CLEM, pp.242, 244, par.9, 14, 1, 2.

(56)Janssen, Commodity, p.165.

(57) CLEM, pp.280-281, Anastasi VI, par.2; Kees, op. cit., p.87.

(58)Kees, op. cit., p.90.

(59)Gardiner, Wilbour III, p.74, par.190.

tail extending beyond the hocks, the ears are small and erect (60). In the Old Kingdom, sheep are represented with horizontally twisted horns, corkscrew-horned, large lop-ears, long tail (61). In the Middle Kingdom, the Egyptian hair-sheep was replaced by a breed with ammon's horns and wool. This sheep had a but slightly convex nose, and the hair on the head was short. The colour of the fleece was white, brown or black; the tail was long and fat (62). Ammon-horned wool-sheep arrived in the Middle Kingdom, and by the New Kingdom, had replaced the older breed completely in Egypt (63). According to the scenes of the Old Kingdom, the sheep were driven over the freshly-sown fields to press the seed into the tough mud (64), while we see on the scenes of the New Kingdom, the pigs were often employed for this purpose (65). In Pap. Sallier I, sheep are referred to as part of the provision for the palace (66).

(60)Zeuner, op. cit., p.178.

(61)Vandier, Manuel VI, figs.5, 6, 9, 10, 20, 22, 35, 56, 74.

(62) Ibid., VI, fig.109; Zeuner, op. cit., p.183.

(63)Zeuner, op. cit., p.185.

(64)Vandier, Manuel VI, fig.22; Y. Harpur, Decoration in Egyptian Tombs of the Old Kingdom, pp.162-164.

(65)See Part III, Chapter II.

(66) CLEM, p.305, Sallier I, par.3, 4, 2, 3.

(B) The Goat

In the corkscrew goat of ancient Mesopotamia the horns rise more or less steeply from the head. This is also the case in some of the Egyptian goats, for instance that depicted on the tomb tablet of Sebek of the eleventh dynasty (67), but already prior to this date corkscrew goats were known in Egypt, the horns of which usually diverged at a much wider angle, also we find goats with horizontal twisted horns and scimitar horns and the ears of the goat were drooping (68). At Beni Hasan, a goat is depicted with twisted horns extending horizontally from the skull (69). By the Hyksos Period, the shape of the horn was twisted, sometimes in a corkscrew (70). Goats with closely twisted (i.e. corkscrew) horns may often constitute a characteristic local breed, but they may well have been developed in several places independently by selective breeding (71). According to the scenes of the New Kingdom, we find that goats were represented with curved horns, horizontal twisted horns, extending from the skull. It was high-legged and short-haired, it had a long face with a straight nose,

(67) Zeuner, op. cit., p.137.

(68) Wilkinson, op. cit., II, p.447, no.484; Zeuner, op. cit., pp.137, 138; Vandier, Manuel VI, figs.20, 49.

(69) Wilkinson, op. cit., II, p.452, no.487; Darby, et al., Food I, p.223; Zeuner, A History of Domesticated Animals, p.137.

(70) Ibid., p.139.

(71) Ibid., p.137.

and the ears were erect (72). The goats show red, black, and white varieties (73).

In general the goat is the domesticated animal of the ordinary man. Officially, the he-goat, like the pig, was in the symbolism of sacrifice proscribed as being the physical embodiment of Seth, and its skin has been used for water containers, as today; in addition to this the skin was used for the wrapping of the dead, a use almost certainly of Pre-agricultural origin (74). Goats were apparently sacrificed at certain festivals; where we find in Pap. Harris I (75), mentioned ".... 1089 goats offered in sacrifice to the Nile god". Herodotus, mentioned that " such Egyptians as possess a temple of the Theban Jove (Amun) or live in the Thebaic canton offer no sheep in sacrifice, but only goats" (76).

(72) Davies, Seven Private Tombs at Kurnah, p.21, pl.XV; Two Ramesside Tombs at Thebes, p.59, pl.XXXIV; Tylor & Griffith, Paheri, p. pl.IV.



(73) Davies, Two Ramesside Tombs at Thebes, p.59, pl.XXXIV; N.de G. Davies & Nina de G. Davies, The Tombs of Menkheperasonb, Amenmose, and Others, p.12, pls.XIII, XV.

(74) Zeuner, op. cit., pp.151, 138.

(75) Pap. Harris I, 38 a, 3.

(76) Herodotus, II, 42.

(C) The Kid

One of the small-cattle,  ib, this form replaced  after XVIII dynasty (77). According to the scenes of the New Kingdom, the kid was represented horizontally horned, long haired, a long face with a straight nose, high-legged and it had a very short spiral tail (78). In Pap. Anastasi IV, there is reference to fat kids of the southern region as a part of the supplies to be ready for Pharaoh (79). We find that a swine-sacrifice together with one of a he-kid appears in the calendar of festival in connection with the preliminary celebration of the old Memphite festival of Soker (on the 24th of the month Chioak), and the he-goat, was used for sacrifice as such by the middle classes (80).

Small Cattle : Prices

We find prices of small cattle in documents of Ramesside Period; it appears that the value of small cattle fluctuated between 1 and 3 deben, with signs of a rise toward the end of the XXIst dynasty. That the variations in price are not in the main a reflection of the economic situation is shown by O. Gardiner 252 (no.8), where in a single text four $\overset{c}{\text{nhw}}$ are valued respectively at 1, 1/2, 2 and 3 deben, this

(77)Gardiner, Egyptian Grammar, p.459; id, JEA 17, 246, E.8.

(78)Tylor & Griffith, Paheri, p.7, pl.III; Renni, p.7, pl.IV.

(79) CLEM, p.200, par.20, 15, 5.

(80)Kees, Ancient Egypt, p.91.

difference being due clearly to size and or quality of animals. The prices of small cattle in XVIII dynasty were relatively high, one price for small cattle may be compared with records of sales of the Ramesside Period. In Pap. Berlin 9784, 87, of the XVIII dynasty, six cwt are valued at 3 sniw and the sniw was then the equivalent of 8 1/3 deben; this means that they cost about 4 deben each (81).

The Pig

The domestic pig was already known to the Egyptians of Predynastic times (82). Small models of it in clay have been found in graves of that period at Abydos and elsewhere in Upper Egypt (83). A glazed figure of a sow (84), dating from the first dynasty has been discovered at Abydos, and it is remarkable that it is similar in the shape to the faience amuletic sows that were common in Saite times. The earliest mention of the domestic pig in literature occurs in the biography of Methen (85); he says that on the death of his father he was given the deceased man's property, which included "People and small cattle" the latter, according to the determinatives of the

(81) Janssen, Commodity, pp.166-167.

(82) Newberry, JEA 14, 1928, p.211; Zeuner, op. cit., p.261.

(83) Quibell, Hierakonpolis I, pl.XXII, 8; Newberry, JEA 14, p.211.

(84) Petrie, et al., Abydos II, London, 1903, pl.VI, no.66, and p.25;
Newberry, JEA 14, p.211; Darby, et al., Food I, p.180, fig.4.3.

(85) Urk I, 3; Newberry, JEA 14, p.211.

word used, comprising asses and pigs (86). Swine (š3w) are mentioned in the inventory of Thutinekht's possessions given in the Eloquent peasant, where pigs are listed among the favourable farm products "...his Upper Egyptian corn [wheat], his barley [his] asses, [his] swine, his small cattle ..." (87). An Egyptian sage, describing the conditions of his country during the civil wars between the Thebans and Herakleoplitanes, says under Sesostris I, Menthuweser (88) was placed in charge of the royal farms, and gives as one of his titles imy-r š3w "Overseer of swine", the only example of such a title that has been found in Egypt. One text, attributed to Khamose, who ruled Upper Egypt during the waning years of the Second Intermediate Period, describes the King's power over the southern and middle portions of the land and mentions the rearing of swine "...Elephantine is strong, and middle part [of the land] belongeth to us as far [north] as Cusae. The finest of their fields are ploughed for us, our oxen are in the Delta, wheat is sent for our swine, our oxen are not far away" (89).

 (86)Darby, et al., Food I, p.180. Also in the Satrap stela in the Cairo Museum, the word mnmn "cattle" is determined by three oxen, ram, a gazelle, a pig, and ass. See Newberry, JEA 14, p.211, note 4.

(87)Newberry, JEA 14, p.211; Gardiner, JEA 9, 1923, pp.5 ff; Darby, et al., Food I, p.185.

(88)Newberry, JEA 14, p.211; Darby, et al., Food I, p.185.

(89)Erman, The Ancient Egyptians : a Sourcebook of their Writings, p.53; Darby, et al., Food I, p.186.

That pigs were bred in considerable numbers throughout the Nile Valley in the New Kingdom is proved by several contemporary statements. Renni, mayor of el Kab, says that he possessed 100 sheep, 1200 goats and 1500 pigs (90). The royal scribe Amenhotep records that among the property given by King Amenophis III to the temple of Ptah at Memphis were 1000 pigs and 1000 young pigs (91). In the reign of Sethos I, the pig was bred for the temple domains at Abydos (92), Griffith (93), in the Abydos Decree of Sethos I, at Nauri, translated the word š3w by "Dogs", but this obviously an error; the domesticated animals named are asses, goats and pigs. Ramesses III included pigs in his list of offerings to Ptah-Soker at Medinet Habu (94). It is mentioned in the papyri, where in the medical papyrus such as Ebers, the blood, gall, liver of pigs were often directed to be used in the medical prescriptions; in the Hearst medical papyrus,

- (90) Urk IV, 75, 1. 15; Tylor & Griffith, Renni, p.7, pl.IV; Kees, op. cit., p.87; Darby, et al., Food I, p.186.
- (91) Petrie, et al., Tarkhan I and Memphis V, pl.LXXX, 1; Darby, et al., Food I, p.189; Brovarski & Lacovara, in : Egypt's Golden Age, p.107.
- (92) Newberry, JEA 14, p.211; Darby, et al., Food I, p.189; Brovarski & Lacovara, in : op. cit., p.107.
- (93) F.LI. Griffith, JEA 13, 1927, p.202 ff.
- (94) H. Nelson, in : H. Nelson & U. Hölscher, Work in Western Thebes (1931-1933), Chicago, 1934, p.59; Brovarski & Lacovara, in : op. cit., p.107.

there is a prescription against the bite of a pig (95). An account papyrus in the handwriting of the Late New Kingdom, also refers to swine (96).

Herds of pigs are depicted in Theban tombs (97). The el Kab district exceptional in this respect, perhaps because, as Herodotus relates, pigs were offered as sacrifice to the moon (98). In Renni's tomb at el Kab occurs the earliest representation of domesticated swine (99). In the tomb of Paheri, also at el Kab, a swine herd is figured driving a drove of pigs (100). In tombs of the XVIII dynasty at

(95)Newberry, JEA 14, pp.211, 212, note 1; Darby, et al., Food I, pp.189-199.

(96)A. Mariette, Les Papyrus Egyptiens du Musee de Boulaq Paris, 1871-1872, II, pl.V.

(97)Wilkinson, The Manners and Customs of the Ancient Egyptians III, 34; Newberry, JEA 14, p.219, pl.XIX[1]; PM I/I, pp.161 (no.81),237 (no.123), 257 (no.145); Darby, et al., Food I, pp.186-188, figs.4.9, 4.10; Brovarski & Lacovara, in : op. cit., p.107.

(98)Tylor & Griffith, Renni, p.5, pl.II; Herodotus, II, 47.

(99)Tylor & Griffith, Renni, p.5, pl.II; Newberry believes that the tombs of Renni and Paheri at el Kab represent the earliest known instances of swine in Egyptian tomb art. See Newberry, JEA 14, p.212.

(100)Tylor & Griffith, Paheri, pl.III; Darby, et al., Food I, p.186, fig.4.8; See Figure 59.

Thebes (101), swine are again depicted in agricultural scenes; they are shown being driven over fields of newly sown grain that the seed might be trodden into the ground and so protect it from the ravages of birds, - a custom that still prevailed in Egypt a thousand years later when Herodotus visited the Nile Valley (102). Artists, moreover, they would not have included swine in scenes of every day life unless they were familiar with them (103). Swine were certainly known and eaten by workers and artisans of the Ramesside Period, as large numbers of pigs bones and skulls were found in trash deposits around workers' houses at Deir el Medina (104). These skulls are now on deposit in the collection of the Agricultural Museum, Cairo (105). In the Late Period, pigs were among the animals sacrificed, where pigs were found inside the step-pyramid complex of King Sekhem-khet, III dynasty, from XXVI dynasty (106). In Graeco-Roman times, swine were bred in considerable numbers throughout the country. Among

(101)Northampton, et al., Theban Necropolis, pls.XIII, XIX;
Wilkinson, op. cit., II, p.100, no.360; Zeuner, op. cit., p.262;
Darby, et al., Food I, pp.186-187.

(102)Herodotus, II, 14; Newberry, JEA 14, p.212; Darby, et al., Food I, pp.186-187.

(103)Darby, et al., Food I, p.188.

(104)Keimer, BIE 19, 1936-7, p.149; Kees, Ancient Egypt, p.92;
Darby, et al., Food I, pp.188-189; Brovarski & Lacovara, in :
op. cit., p.107.

(105)Darby, et al., Food I, p.189.

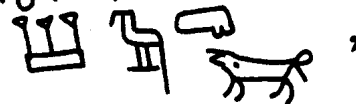
(106) Ibid., I, p.190.

the papyri from the Archives of Zenon, there are many references to the sacrifice of pigs on the day of the festival of Arsinoeia (107).

In ancient Egypt swine were sacrificed to the moon-god, Osiris, and to Set, once a year at full moon; afterwards they then eat the flesh. The pigs were sacred among the Egyptians particularly with the Thebans and Saites (108). We have important evidence from native Egyptian sources as to the sacredness of the animal. In the Book of the Dead, Chapter CXII, Set is said to transform himself into a black pig. In the same chapter, we read of the sacrifice of swine; and of swine being an abomination of Horus but the traditional animal of Set. In the annals of Sahurê^c on the Palermo stone, Set appears as a hog with bristled back. It is as a pig, not a hippopotamus (109).

Names and Prices of Pig in Ancient Egypt

The commonest name for the domestic animal was š3, fem. š3.t, pl. š3w, Coptic ⲙⲉ : fem. ⲉⲙⲱ, pl. ⲉⲙⲱⲁⲩ (110). It is first found in the texts of the Herakleopolitan Period;



(107)C. Edgar, ASAE 18, 1919, p.239.

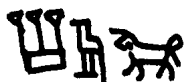


(108)Herodotus, II, 47; Newberry, JEA 14, p.213.


(109) Ibid., 14, p.214; Darby, et al., Food I, p.181, figs.1.20, 1.21.

(110)Newberry, JEA 14, p.212; In Greek the pig was named βύς,

Latin SU-S, See JEA 14, p.212, note 9.

 (111). In the New Kingdom the following writings occur

 Pap. Ebers; with  determinative, in the XVIII dynasty copies of the Book of the Dead (Chapter CXII), we have 

 (112). Another name that was sometimes employed for the domestic animal was rri; fem. rr.t (113). In a list of offerings in the temple of Ramesses III, at Medinet Habu, the pig is named iph, but this word has not been found elsewhere (114). According to documents of Ramesside Period, the prices of pig were between 1/2 to 1 sniw (O. Černý¹ 5, vs.2; O. Cairo 25572, vs.13) or 5 to 7 deben (O. Berlin 12405, 6) (115).

The Donkeys

The donkey was first domesticated in the Nile Valley. In Egypt it was known as a domesticated beast from at least Protodynastic times onwards. It is depicted on a Naqada palette as tribute from Libya (116); therefore, it is possible that the donkey was first domesticated in Libya. Thence the practice would have spread to Egypt. On the other hand, the close connection which existed between Nubia and

(111)Newberry, JEA 14, p.212; K. Sethe, ZÄS 58, p.71, 20.

(112)Newberry, JEA 14, p.213; K. Sethe, ZÄS 58, 1923, 71, 20.

(113)Newberry, JEA 14, p.213; Gardiner, JEA 3, p.103.

(114)Newberry, JEA 14, p.213.

(115)Janssen, Commodity, p.177.

(116)Zeuner, A History of Domesticated Animals, pp.375-376.

Egypt even in Predynastic times renders it probable that the domesticated donkey contains a fair amount of southern blood (117). The corn was carried on the backs of those patient animals - even now the beasts of burden of modern Egypt are the donkeys - to the threshing-floor (118). We see quite a number of them being driven in wild career on to the fields their drivers behind them calling out them and brandishing their sticks (119); these scenes are still seen in the daily life of modern Egypt. The corn is spread out and trodden by the hooves of the animals driven in it; the donkeys were employed for this purpose, we see them munching a few ears, while threshing (120). Nowadays, donkeys are used for the threshing of the corn beside the cows and buffaloes. According to the scenes of the New Kingdom, we see the grain conveyed from the fields to the ships on the backs of men and asses (121). The donkeys were carrying the provisions for the labourers of the quarries; for instance, we read

(117) Ibid., p.376.

(118) Davies, Seven Private Tombs at Kurnah, p.35, pl.XXXI; Wreszinski, Atlas, 61, 421, Capart, Thèbes, fig.195; Baud & Drioton, MIFAO 57, p.42, fig.22; Vandier, Manuel VI, figs.4, 20, 35, 42, 45, 50, 52, 55, 56, 59, 62; Zeuner, op. cit., p.378; Y. Harpur, op. cit., pp.165-166.

(119) Davies, Puyemrē, pl.XII; M. Baud, MIFAO 63, 1933, p.151, fig.66.

(120) Erman, Life in Ancient Egypt, p.431; Zeuner, op. cit., p.378; Vandier, Manuel figs.49, 50, 55, 58, 59, 69, 75, 78.

(121) Davies, Two Ramesside Tombs at Thebes, p.57, pl.XXX.

that 200 donkeys carried the supplies for 350 men (122). Thus to find water and food for these animals must again have been an arduous undertaking in the desert (123). In the scenes, we never find any one represented riding on a donkey, only two ancient people practised riding on donkeys regularly, namely the Jews and the Nubians (124).

Prices of the Donkeys

The word c₃ donkey (125), occurs frequently in the texts from Deir el Medina and considerable numbers of ostraca were used to record disputes about donkeys (126), which the workmen hired one from another, either to carry water from the river or to cart wood for cooking. Sometimes a donkey died during the work and the hirer had then to replace it (127). According to the donkeys' prices in documents of Ramesside Period, it is apparent that the price of a donkey oscillates between 25 and 40 deben (128). There is no proof that it

(122) LD II, 115 h; Erman, Life in Ancient Egypt, p.472.

(123) Ibid., p.472.

(124) Zeuner, A History of Domesticated Animals, pp.377-378.

(125) Gardiner, Egyptian Grammar, p.460, E.20; FCD, p.38; Janssen, Commodity, p.167.

(126) Helck, Materialien III, p.492 ff.

(127) Janssen, Commodity, p.167.

(128) Ibid., p.172; Kees, Ancient Egypt, p.89; Erman, op. cit., p.497; Both Erman and Kees mentioned that a donkey fetched about 40 deben.

became higher after the middle of the XX dynasty, nor does there seem to be any difference between the prices of a male and that of a female. So far as one can see the price is determined by the quality of animals (129).

The Camel

More than one author has suspected that the camel was unknown in ancient Egypt, but we have material and literary references for occasional presence of camels in the Nile Valley area (130) : On one Amratian pot, of Predynastic times, there appears a drawing of what may be intended as a dromedary (131). In the necropolis of Esbet el Walda, near Helwan. of first dynasty age, Saad, Z., has found what appears to part of a camel, possibly to be interpreted as the burial of an animal servant with its master (132). A vase for ointment having the shape of a sitting camel was found at Abusir el Malaq, south of Cairo; it is made of limestone, is 6 cm. high, its identification as a camel appears to be correct, the shape of the neck in particular

(129)Kees, op. cit., p.89; Janssen, Commodity, p.172.

(130)Zeuner, op. cit., p.350; H.S. Smith, in : op. cit., p.310.

(131)V.G. Childe, New Light on the Most Ancient East, London, 1952, p.51, fig.19; Zeuner, op. cit., p.350.

(132)Z. Saad, Royal Excavations at Helwan (1945-1947), (SASAE 14), Cairo, 1951, p.38; Zeuner, op. cit., p.350; Darby, et al., Food I, p.245.

suggests it (133). At Abydos, Petrie found a pottery head which seems certainly to be that of a camel of first dynasty (134). At Hieraconpolis, a fragment originally regarded as donkey, and also of early dynastic date, has in recent years been interpreted as a camel's head (135). Schweinfurth, a careful observer, described an engraving from Gezireh near Aswan which is combined with hieratic inscription both being heavily patinated and supposed to be of sixth dynasty (136). The camel engraved with texts of the Middle Kingdom, at Wadi Hammamat belongs to the XI dynasty (137). From the northern cemetery of Deir Rifeh, near Asyut comes the pottery figure of a camel laden with water-jars found in a tomb. Petrie stresses that there is no evidence of later re-use of the tomb that the rough-fingered ware is characteristic period, and the water-jars are of XVIII-XIX dynasties

(133)H.S. Smith, in : op. cit., p.310; Zeuner, op. cit., p.350; A. Scharff, Die Archaeologischen Ergebnisse des Vorgeschichtlichen Grabenfelder von Abusir el Meleq, nach den Aufzeichnungen, Leipzig, 1957, pl.24, no.209; Darby, et al., Food I, p.254, fig.5.20.

(134)Petrie, et al., Abydos II, 1903, p.64 ff; Zeuner, A History of Domesticated Animals, p.350, fig.13 : 17.

(135) Ibid., p.350, fig.13 : 16.

(136)Schweinfurth, Tierbilder und Felsinschriften bei Assuan, 1921, pp.627-658; Zeuner, op. cit., p.351, fig.13:18.

(137)Zeuner, op. cit., p.351, note 1.

type (138). Another find referred to the same dynasty was mentioned by Léfèbvre, a glazed dromedary figure with painted water-jars found at Benha; its black painting on blue glaze is regarded as suggestive of an age prior to the XXVI dynasty, and Von Bissing assigns it to the Ramesside Period (139). None of these proves use of the camel, but a terracotta plaque bought by Schiaparelli from a Luxor dealer in 1904 and believed to come from a Predynastic cemetery north of Qurna (which was being looted at that date) shows what is certainly a camel being led one man and ridden by a second (140).

The Horse

The horse is most intimately associated with man. The Egyptian art establishes the presence of the horse from the XVIII dynasty onwards (141), and it is commonly assumed that the Hyksos brought the horse to Egypt (142). While this may still turn out to be the correct answer, Hyksos graves were lacking both horse bones and horse equipment,

(138) Petrie, Gizeh and Rifeh, London, 1907, p.40 ff; Zeuner, op. cit., p.352, fig.13 : 19.

(139) Zeuner, op. cit., p.352.

(140) H.S. Smith, in : op. cit., p.310.

(141) Zeuner, op. cit., p.319; M.S. Drower, in : Ucko & Dimbleby, The Domestication and Exploitation of Plants and Animals, p.473.

(142) But note the skeleton of a horse at the Middle Kingdom fortress, at Buhen (13th dynasty); W.B. Emery, Kush 8, 1960, pp.8-9.

until finds were made at Tell el Daba^ca, in the East Delta (143). In Palestine the Middle Bronze Age Period (1650 B.C.) representing the Hyksos shows very scanty evidence of the horse, though it appears to have been present. Tell el Yahudiyah is a Hyksos town excavated by Petrie, who found horse sacrifices buried as foundation deposits under the walls. Immediately after the expulsion of the Hyksos, reports about horses and pictures become plentiful. In the reign of Ahmose the chariot is in evidence. A wooden statuette assigned to the XVII or early XVIII dynasty and preserved in the Metropolitan Museum, New York, shows an Egyptian groom riding a black horse. This is almost the earliest tangible evidence so far obtained and may take us back to the end of the Hyksos Period itself, though its exact date is not certain. The early XVIII dynasty was a period when plenty of horses were taken as booty from Syrians (144). The favourite horses of the King, the first great team of his Majesty, bear high-sounding names; thus, for instance, two belonging to Sethos I are called "Amun bestows strength", and "Amun entrusts him with victory", the latter bears also the additional name "Anat (the goddess of war) is content" (145). The colour of the horses was generally brown, - in a few instances however we meet with a team of fine white horses and black horses (146).

(143)M. Bietak, Tell el-Daba^ca, Wien, 1975.

(144)Zeuner, op. cit., pp.320, 321.

(145) LD III, 128 a, 153, 160, 165, 166.

(146)Erman, op. cit., p.492; Zeuner, op. cit., p.320, fig.12 : 12.

In Sallier I, it is mentioned that the horses were fed by grooms, the right amount food was measured out and they given the best fodder. The horses were rubbed down with ointment every month, and were taken for exercise every ten days (147). In the same Papyrus, land for producing fodder for Pharaoh's horses was assigned to the Stable-master of the capital (Residence); in this case one plot of 30 arouras. It seems that even if such land was disputed over by high officials, priority was given to the fields of fodder for Pharaoh's horses as was the case between Amenemuia, the stable-master of the Residence and Nodjme, the steward master of the Ramesseum (148). In Pap. Lansing, 2, 6, 7, 8 (149), we find young horses were brought in for harvest work. In Pap. Anastasi IV (150), references occur to horse teams taking part in a foreign parade before the Pharaoh.

The Herdsmen

The cattle were kept by men who were scarcely regarded by the true Egyptian as his equals. The manner in which the sculptors designated the marshmen shows that they considered them rather as pariahs. Such a man might be indispensable as a good herdsman, an excellent fisherman, an expert bird-catcher; he might make good mats and boats from the papyrus reed, his masters might enjoy his dry

(147) CLEM, pp.370-8, Sallier I, par.4.

(148) CLEM, p.326, Sallier I, par.11.

(149) Ibid., p.377, lansing, par.3.

(150) Ibid., p.201.

wit and homely wisdom, but he was all too dirty (151). He never thought of shaving off his hair cleanly, but contented himself with cutting it short on the forehead; many indeed went so far as to wear a beard and even whiskers and moustache as well. His clothing was of a very primitive kind, it must have looked intensely comical even to the Egyptians, when the herdsman tried to beautify himself and put on a short skirt. His skirt was not a soft white linen, but of stiff yellow matting, which would in no way bend to the right shape, and the artists enjoyed depicting the wonderful folds of the front flap of this skirt over the shepherd's legs. His skirt would take every shape except the right one (152). These herdsmen lived in the marshes with the cattle; they had no settled home, for their reed huts could be moved from place to place when needful.

On the scenes, we see some of them squatting round the low hearth roasting their geese on wooden spits at the fire. Others are occupying themselves either with plaiting papyrus reeds or making dough for the cattle. The Egyptian herdsmen seem to have had no delight in the romance of his life in the marshes; doubtless they longed for the comforts of their houses at home. It was a joyful day when they went out of the north country and drove their cattle southwards, however troublesome it might be to cross the many branches of the river on their way from the north. If the water were shallow enough it was

(151)Erman, Life in Ancient Egypt, p.439.

(152)Tylor & Griffith, Paheri, pl.III; id, Renni, pl.IV; Klebs, Reliefs,

not much trouble to wade through it with the oxen, at most the herdsman had only to carry the little calf through on his back. It was worse when a deeper stream had to be crossed. Then, we see a few herdsman cross first in a boat, and encourage the tired animals by their cries; they drag the calves through the water by force. Another boat follows the animals so as to keep the herd together. After they arrived, they would present to the master a couple of young gazelles or pretty birds as a present (153); and the cattle also have to be led before the master; an endless succession of oxen, goats, donkeys and sheep (154).

Slaughtering Animals and Ritual of the Slaughtering

The slaughter of cattle for sacrifice or for food is depicted on monuments (155). The animal is led to the place of slaughter, and two practised slaughterers throw him with ease. The hind and fore legs are bound together, a string is tied round the tongue, and when this is pulled the animal falls at once helpless to the ground. A powerful animal sometime rebels against his tormentors in a very fighting manner, and rushes madly upon them. While some avoid his thrusts

(153)Erman, op. cit., pp.440-441.

(154)Tylor & Griffith, Paheri, pl.III; id, Renni, pls.IV, V; Davies, Rekh-mi-Re^c, pls.V, VI; Davies & Gardiner, Huy, pl.VIII; Klebs, Reliefs, p.66, fig.47.

(155)Darby, et al., Food I, pp.143-154, figs.3.33, 3.34a, 3.34b, 3.35, 3.36, 3.37, 3.41, 3.42.

in front, others boldly seize him from behind; they hold on to his legs, they hang on to his tail, two of the most courageous even spring madly on his back and wring his horns with might. The bull is unable to withstand their united efforts; he falls down, and the men succeed in binding his fore and hind legs together. They then fearlessly give him his death stroke; they cut his jugular vein (156). When the blood has been carefully collected they begin the chief business, the scientific cutting up of the animal. The slaughterers use flint knives for this purpose, but as these knives would become blunt, the men wear a metal sharpener (like our modern steel or whetstone) tied to the corner of the apron, with which they sharpen the knife, striking off splinters of the stone (157). The legs which the Egyptians considered the best part of the animal are cut off first, one man holds up the hoof of the animal, and with his arm round it draws it back as firmly he can, the other cuts it off at the joint. The belly is then slit up, and the heart of the animal taken out, this being also esteemed as a choice piece for sacrificial purposes (158). The disjointed pieces however cannot yet be made use of for the offering, for the most important personage has not yet appeared on the scene of action; at length the priest comes, he must declare the sacrifice to be pure. He gravely smells the blood of the animal and examines the flesh carefully, he then declares all to be good and pure. Now the legs can

(156)N.de G. Davies, Puyemrē, p.16, pl.LII; The Tomb of the Vizier Ramose, New York, 1941, pl.XIII; Zeuner, op. cit., p.225.

(157)Wilkinson, op. cit., II, p.26; Erman, op. cit., pp.322-323.

(158)Davies, Puyemrē, p.16, note 3.

be laid upon the table of offerings (159). The temples needed a large number of sacrificial animals (160), such as oxen, bovides, as well as of different kinds such as antelopes, ibexes, gazelles, goats and geese (161). We can calculate the colossal endowments that Ramesses III, made for the temples of Thebes : 421,362 head of oxen and small cattle and in addition as a special gift, perhaps for breeding purposes, 297 bulls. He further donated 45,544 head of cattle of various kinds to the Heliopolitan temples 10,047 to those at Memphis and 13,433 to other temples (162).

There exist a ritual for slaughtering animals. The most important representations of this ritual are found in the Re^c Temple of Neuserre \bar{c} , V dynasty; also we have the dramatic texts of the Ramesseum Papyrus of the Middle Kingdom, and the Opening the Mouth of the New Kingdom. In the Book of Opening the Mouth this subject is preserved in different copies; the oldest of these is found in the tomb of Rekh-mi-Re \bar{c} (163). the next occurs in the tomb of the King Sethos I (164), on the sarcophogus of Butehiamun (without illus-

 (159)Erman, op. cit., p.323; Davies, Puyemre, p.16, note 3 and p.17.

(160)Kees, Ancient Egypt, p.89.

(161)E. Otto, JNES 9, 1950, p.177.

(162) Pap. Harris, 14; Kees, op. cit., p.89.

(163)Davies, Rekh-mi-Re \bar{c} , II, pl.CVII

(164)W. Budge, The Book of the Opening the Mouth I, London, 1909, p.48; text II, 84-86.

trations) (165), another in the temple of Amenardais at Medinet Habu (166), in the papyrus of Hathor-Sais from the Graeco-Roman Period, now in the Louvre (also without illustrations) (167). The pictorial representations of the scene are mostly uniform : the victim - a bull - lies fettered on the ground while the butcher stands over it cutting off its foreleg. Behind the butcher or on the other side of the animal, a standing woman is depicted. At one side of this group appears a sm (smt) priest with raised hrp-sceptre, followed by hry-hb the lector priest; the latter, however, is missing in the tomb of Sethos I. In the Re^c temple, the figure of the woman is missing; behind the butcher stands the imy-is, who according to this gesture of the raised arm without hrp-sceptre, corresponds to the sm priest of the scenes in the Book of Opening the Mouth. He is followed by the lector priest. In the Dramatic Papyrus at the bull's side is standing a figure bearing the title spr-wdpw (168), we find in the tomb of Rekhmire^c only the butcher and the woman (169). The names given to them in the texts the butcher is called imnhw (mnhw), the woman figures only in the Book of Opening the Mouth and in the tomb of Rekhmire^c : drt wrt "great kite". In the papyrus of Sais, she is called drt ndst "small kite"; in the Dramatic papyrus, this title has been replaced by the

 (165) Ibid., II, p.19.

(166)G. Daressy, RT 23, 1901, 14.

(167)E. Schiaparelli, Ii Libro dei Funerali degli antichi Egiziani, I, Roma, Torino, 1882-90, p.85 ff (text c).

(168) Wb IV, p.101, 18; Butcher and master-cook.

(169)Davies, Rekh-mi-Re^c, pl.CVII.

name of Isis. As for the sm priest in the Book of Opening the Mouth, his task is to give the signal for the slaughter either with his raised hrp-sceptre or with his up-lifted hand; he has assumed the role of the imy-hnt, the courtier. The clearest and most complete text has been preserved in the Book of Opening of the Mouth. It consists of a description of the action, a speech of the great kite or the small kite and a speech of the imy-hnt (170). The animal is here uniformly called male Upper Egyptian ng3. In the duplicate scene it has been replaced by the male Upper Egyptian šsr (171).

(170) Ibid., II, pl.CVII.

(171) Ibid., II, pl.LXXXII. The word ng3 is a species of cattle from which an individual is taken for sacrifice. šsr seems to have a different significance the most evident meaning of šsr would be "to kill with an arrow" thus šsr seems by no means to denote a species of cattle, but is derived from a special way of killing "cattle of the arrow".

VOLUME II

PART IV

ECONOMIC OBLIGATIONS AND AGRICULTURAL POSTS

CHAPTER I

CHAPTER I

Taxes on Lands and Crops

As usually, in most periods of the agriculture of Egypt, the flood changed boundaries of the land and directions of the water-channels. Islands and riparian lands were frequently exposed to what is called erosion and deposition by the river. The fields appear to have been surveyed anew each year to mark-out their boundaries with the stelae which were put on their bounds, and to prove the state ownership of what the river deposited on it and also in order to give income of the treasury from the agricultural lands (1). The state mostly estimated the taxes of the crops before the harvest; then the surveyors and scribes were measuring the crops with measuring cords of which the unit length was 100 cubits, when the crops grow to a suitable height, in order to give or check estimates of yield, as well as for the income for landowners and institutions and taxes for the state etc. (2).

The process of land-measurement was carried out at the moment when the crops were ripe, which would have been in April or at least

(1) A.A. Saleh, "Land and Farmer in Ancient Egypt" in Arabic, in BEHS 1974, pp.47-48; Strabo, Geography, XVII, 3; Herodotus, II, 109.

(2) Saleh, BEHS p.48.

in the days of May (3). An interesting twelfth dynasty record of field-measurement published by Smither (4), refers to a date somewhere about the 19th of January, which, ~~while~~ disagreeing with the Theban scenes, indicates a season not unsuitable for the operation. As is well known, Pap. Wilbour A, is the record of a survey made of lands belonging to temples and various other public institutions, in a stretch of the Nile Valley from el Minya to Fayum. The survey was made in the 4th year of Ramesses V, began on the 15th day of the second month of Akhet and continued until the 1st of the third month. This corresponds approximately to July/August, just before the start of the showing of rising water (5). On the tomb walls, we meet with representations of land measurers at work. Their methods of land-measurement are represented on the walls of the tombs of Kha^cemhēt (no.57), Menna (no.69), Zeserkara^csonb (no.38), Amenhotep-si-se (no.75) and a fragment of a tomb-painting which exists in the British Museum (no.37982). We see in these scenes that a man walks in front of the surveyors and places a w3s¹-sceptre over a stela. His appearance does not differ from that of his companions except that he wears no wig. The top of his head is shaven. Wrinkles at the back of the neck

 (3)Gardiner, Wilbour II, p.10.

(4)P.C. Smither, JEA 27, 1941, pp.74, 76, pl.IX A; S. Gohary, op. cit., p.124.

(5)Gardiner, Wilbour II, p.10; K. Baer, JARCE 1, p.39; S. Gohary, Egyptian Society in the New Kingdom as Illustrated by the Late Egyptian Miscellanies, p.125.

seem to indicate that he is an old man (6). In the tomb of Menna, we find him represented as an old man leaning with one hand on the head of a young child (7). In neither of these tombs does an inscription give any explanation of the scene. It is to the British Museum fragment that we must look for enlightenment (8). Here we see on the edge of a cornfield, a man with partly shaven head is bending; in his left hand he holds the w3s-sceptre, and his right hand is raised towards his face. He speaks as with divine authority, swears that the boundary-stela before him stands on the spot, where it has always stood : w3h p3 ntr-^c3 nty m t3 pt iw p3 wd mtrw ^ch ^cp3y (.i) it

"as endures the great god who is in the heaven, the stela is correct as it stands, O (my) father". These words were probably addressed to the chief of the measurers of the granary who walks behind him. Such stelae bore the names of the owners of the domain and of the King, a record of the extent of the land. We have evidence of this in a stela now in the Cairo Museum given by Tuthmosis IV, to a priest of Amūn (9). These stelae were sealed and registered at the survey

(6)Wreszinski, Atlas, 191; S. Berger, JEA 20, 1934, p.45, pl.X, 1;

See Figure 59, 60. "

(7)L. Borchartdt, ZAS 42, 1905, p.70, Abb.1; S. Berger, JEA 20, p.54, pl.X, 4.

(8)Budge, Wall Decorations of Egyptian Tombs Illustrated from Examples in the British Museum, London, 1914, pl.7; Davies & Gardiner, Paintings II, pl.LXVIII, p.130; S. Berger, JEA 20, p.54, pl.X, 2; S.K. Doll, in : Egypt's Golden Age, p.44, fig.18; See Figure 61.

(9)A. Mariette, Monuments Divers Recueillis en Egypte et en Nubie, Paris, 1889, 14, and pl.47.

department, as the Vizier Rekhmirē^c informs us in his account of the numerous duties which occupied his day : "He it is who divides all the land into fields, when a petitioner comes and says : "our boundary stelae have been removed, He must see what is recorded under the seal of the responsible official, and so cause to be given back what has been taken away by the committee which has had the stelae removed" (10). Registration was necessary to meet cases of dispute, whether the removal was due to the inundation or whether there had been an abuse of authority, or whether again it was a case of malicious interference by an interested neighbour; Amenhotpe the son of Kanakht mentions it at the beginning of chapter VI of his teaching : "remove not the boundary stones of the cornland and change not the position of the measuring-tape" (11). We see also in the land-survey scenes (12), the surveyors measuring a field of corn with a long cord which has knots or marks at intervals which seem to be about four or five cubits in length, and that the measuring-cord was adorned with the ram's head of Amūn. Each one of the surveyors carries a spare cord coiled upon his arm. Beside them walk scribes who carry

(10)Breasted, AR II, 689; Berger, JEA 20, p.55; Saleh, BEHS p.36.

(11)F.Ll. Griffith, JEA 11, p.204; Berger, JEA 20, p.55.

(12)N.de G. Davies, Nina de G. Davies, The Tombs of Menkheperasonb, Amenmose, and Others, pls.XVII-XVIII; id, Two Officials, pl.X; Nina de G. Davies, Scenes from Some Theban Tombs, pl.II; Säve-Söderburgh, Four Eighteenth Dynasty Tombs, p.42, pl.XLII; Wreszinski, Atlas, 11a, 206, 232; Borchardt, ZAS 42, Abb.1; Berger, JEA 20, pl.X, 1-4; See **Figure 62**.

writing materials and who are accompanied by small boys carrying writing materials and bags in which are probably documents and plans referring to the property. We see in the tomb of Menna, a old man and two boys who also accompany the surveyors, and a peasant brings a loaf of bread and a bunch of green corn (13).

As for the agricultural measurements, the principal measure of area was the st3t, of which the Ramesside pronunciation may have been sōte. This, like its Greek equivalent ἄρουρα, was conceived of as a square having 100 cubits as the length of each of the sides. Thus the sōte or aroura was 10,000 square cubits or 2,735 square metres, equivalent to rather more than two-thirds of an acre and rather less than two-thirds of the modern Egyptian feddān (14). The divisions of the st3t or aroura in ancient Egypt were the half, the quarter, and the eighth after which the cubit became the unit (15), but in Late Ptolemaic times the subdivisions were continued to the thirty-second part, and the Greeks carried them further to the sixty-fourth (16). The rmn was a measure of five palms in length, while the royal cubit is seven palms (17). There was also a larger unit of area "the 1,000

(13) Borchardt, ZAS 42, p.70, Abb.1; Berger, JEA 20, pl.X, 4.

(14) Gardiner, Wilbour II, pp.60, 91; id, Egyptian Grammar, p.200.

(15) Ibid., p.200.

(16) H.G. Lyons, The Cadastral Survey of Egypt, (1892-1907) Cairo, 1908, p.35.

(17) F.Ll. Griffith, PSBA 14, 1892, pp.410, 417; H.G. Lyons, op. cit., p.35.

of land", which consisted of ten arouras, each of which included 100 "cubits of land". This unit was the one which was mostly employed in describing property of any size, and being equal to 6-5 feddans, was in fertile districts a valuable piece of land (18). The lower unit of measurement was the $\frac{mh-t3}{100}$ "land-cubit". This was the one-hundredth part of the aroura, equal to 27.53 square metres, thus representing a square measuring a little more than 5 metres in each direction (19). And also among the units which were employed in the measurement of area was the linear cubit $\frac{mh}{100}$, Coptic $M\Delta Z E$, reckoned by Egyptologists at 0.523 metres, a fraction over 20.6 inches (20). A unit of measurement which equal 100 royal cubits is shown in representations of land measurers at work on wall of tombs, and it is also portrayed in the statues of officials entrusted with the supervision of lands. This is shown on the statue of the priest P-en-Anhor from Abydos, which is now in the Cairo Museum (cat. no. 4875). He is represented in a kneeling position and is holding a rolled-up measuring cord, at each end of which is a ram's head (21).

The Egyptian documents rarely mentioned anything about the amount of yield from land. The opinions of Egyptologists vary concerning the figures which are mentioned in the documents : whether

 (18) Lyons, op. cit., p.36; Griffith, PSBA 14, pp.411, 413, 415;

Gardiner, op. cit., p.200.

(19) Gardiner, Wilbour II, pp.60, 91.

(20) Ibid., II. p.60.

(21) Borchardt, ZAS 42, p.72, Abb.3.

was represented the yield, rent or the amount of tax (22). It is assumed that the yield of the land was the same in the ancient as in modern times before using the modern agricultural methods (23). In Pap. Wilbour, we find 5 h3r-sacks (10 bushels) per aroura (2/3 acre) of ordinary arable land, 7 1/2 h3r per aroura of tired or decrepit land, 10 h3r per aroura of fresh land, while it was reduced to 1 3/4 h3r per aroura of poor land. Concerning these amounts, Gardiner and Kees hesitated whether these amounts represent yields or taxes (24). Pap. Valencay I (25), indicates that 10 h3r = 40 oipš = 160 hekat was an ordinary yield for an aroura of land under grain, a figure that is supported by modern statistics for basin land, which indicate in terms of the ancient units, a yield ranging from 22 to 58 oipš per aroura and averaging around 36 (26). It is noteworthy, that 5 measures to one aroura agrees with remarkable exactness with the modern yields for wheat and barley : one feddan being about the size of an acre and the ardeb about 5 1/2 bushels (27). And Gardiner mentioned that for wheat, Lower Egypt, good land yield 6 ardebs, poor land 3 ardebs per feddān, with a maximum of 8 ardebs from one feddan of converted

 (22) Saleh, BEHS 1974, p.48.

(23) Gardiner, Wilbour II, p.71; Saleh, BEHS p.48.

(24) Gardiner, Wilbour II, pp.29, 71, 178 ff, 199 ff; Kees, Ancient Egypt, p.75; Saleh, BEHS p.49, and p.75, note 57.

(25) Gardiner, RdE 6, 1951, p.117.

(26) Gardiner, Wilbour II, p.71; Baer, JARCE 1, 1962, pp.30, 35, 36; Janssen, SAK 3, 1975, p.143.

(27) Kees, Ancient Egypt, p.75.

basin land, but the average is 6 ardebs. For barley, the average yield for the provinces of Middle Egypt was 6 ardebs to the feddān with a minimum of 2-3 ardebs (28). Now, eight ardebs of wheat are still considered the maximum produce of a feddān, while four and one are the minimum.

As in the other periods, the government of Egypt during the New Kingdom, depended for the major portions of its revenues on the taxes. Among the more important were the taxes on the cattle and the grain (29). In assessing annual taxes of the agriculture, the state took into consideration the varying productivity of arable land and also the estimated yield of the harvest (30). The state imposed the taxes in order to fulfil its obligations (31). Most of the agricultural taxes were grain, rarely monetary payment for its easy storing and to insure supplying the nation with the grain. It is not known to what extent this has caused state interference in determining the areas which cultivated the grain food; and if the state retained its right of buying a certain part of the land-yields in order to trade in it for itself, or it used just to collect the taxation, and to give the farmer the freedom in trading in the remains of his land yields as he wished. In other words, we do not know if the state adopted the controlled economic system or allowed the economic activity freedom in agriculture

(28)Gardiner, Wilbour II, p.71.

(29)W. Hayes, CAH II, part II, pp.20-21.

(30)Kees, op. cit., p.53.

(31)Janssen, SAK 3, p.174.

(32). The harvest-tax (šmw), which was collected in emmer and barley, was the general term for taxes or dues paid in kind by cultivators to their institutional landlords, and to the state treasury alike (33).

Part of an eighteenth dynasty tax register (Pap. Louvre 3171) (34), records how out of an assessed harvest-tax of 1000 h3r-sacks of emmer "the cultivator Maḥu of the village of Meh (?) paid 714 sacks, which were delivered by ship to the granary at Memphis"; he had another 200 sacks requisitioned by an army quarter-master, and was left with a deficit of 86 sacks charged against him. Another cultivator, Amenmose, appears to have delivered only 821 3/4 sacks out of an assessed 1421, and 600 left behind, either for further collection or as the cultivator's share. Out of the amount collected, 80 h3r, about 1/8 or 1/10 were given to the cultivator for seed for the next year. From the Saite land leases Pap. Louvre E.7833 A and 7837 (35), two contracts between Udjahor and Pedemont, we had indirect evidence where, in one, Pedemont promises to pay 1/3 of the crop for the land and 1/9 for the use of an ox; in the other, 1/3 for the land and the 1/2 for two oxen and seed. From the Saite leases published

(32) Saleh, BEHS p.49.

(33) S. Gohary, op. cit., p.154.

(34) Gardiner, JEA 27, pp.56-58; Hayes, CAH II, part II, p.22; Baer, JARCE 1, pp.30, 31; Janssen, SAK 3, p.149.

(35) G.R. Hughes, Saite Demotic Land Leases, pp.51-70; M. Malinine, RdE 8, 1951, pp.142-150; id, Choix I, pp.89-94.

by Hughes, we find the rates for grain land between 1/3 and 1/2 of the crops (36). In two leases dealing with flax-land the rent was 1/4 of the crops (37). Certain of the documents published by Gardiner, in Ramesside Administrative Documents, deal with assessments on grain which may be taxes. The Louvre leather fragments (38) present a long list of assessments of small plots of land ranging in size from 1/8 to 3 arouras at a rate of 1 2/4 sacks of corn per aroura. The rate 1 2/4 sacks per aroura is identical with the 1 2/4 measures of corn per aroura in Pap. Wilbour. In both cases the figure is presented as a rate payable on privately occupied fields of small area. The Griffith fragments (39), it may be that these, which contain a list of temple domains with their separate plots, actually record tax assessments. There a number of h3r of grain is recorded for each domain, which for the k3yt-land is equal to the number of arouras and for the nhb-land twice as much. In col.3, that nhb-land was assessed at 2 h3r per aroura and ordinary k3yt (basin-land) at 1, a fifth of the rate in Pap. Wilbour; the rates in the Griffith fragments are much smaller than those of Pap. Wilbour - it would be 20 % of the gross

(36) Hughes, op. cit., pp.51-67, Pap. Louvre E.7833 A; pp.45-50, E.7836, E.7837 (= 7833 b); pp.18-44, E.7844, E.7860.

(37) Hughes, op. cit., pp.9-10, Pap. British Museum 10432; pp.28-29, Pap. Louvre E.7845 A.

(38) Gardiner, JEA 27, pp.70-71; id, RAD, 60-63; id, Wilbour II, p.208; Baer, JARCE 1, 32; Janssen, SAK 3, p.149.

(39) Gardiner, JEA 27, pp.64-70; id, RAD 68-71; Janssen, SAK 3, p.147; id, BiOr 43, no.3/4, 1986, p.360; Baer, JARCE 1, p.32.

revenues of the temple; we have here not a record by a cultivator but rather an assessment on a temple's domain as a whole. In interpreting the Griffith fragments, we take for granted that temples did pay taxes to the state. There is evidence for this from the Turin taxation papyrus and Pap. Amiens (40). Thus from the papyrus of Turin 1895+2006, 3, 10-11; it appears that the temple of Khnum at Esna and his consort Nebu (Mistress of the region) was assessed with a tax of 402 sacks of corn, out of which 337 sacks were immediately paid (41), and Baer mentioned that this amount is eventually delivered to Thebes and part of this grain comes from the šmw of one the cultivators on the domain of this temple; the text does not permit us to decide whether this refers to taxes which the cultivator might eventually owe the state or the rent he owed to the temple, a source of income which the temple could, of course transmit directly to Thebes in payment of any taxes incumbent upon it (42). According to the study of the Louvre and Griffith fragments; a tax, perhaps of the order of 1/10 of the crop was usually paid by the owner of the land and a similar amount for seed (43). Such Saite contracts as Pap. Louvre E.7833 A and 7844 (44), indicate that the seed was normally provided by the tenant, and the statement found in other leases that the landlord would be responsible for taxes might be taken to imply

(40)Gardiner, Wilbour II, 207; Baer, JARCE 1, p.33.

(41)Gardiner, RAD 39; id, JEA 27, p.30; id, Wilbour II, p.203.

(42)Baer, JARCE 1, p.33.

(43) Ibid., 1, p.33.

(44)Hughes, op. cit., pp.51-69; 18-27.

that the tenant would be liable for the other expenses of cultivation. For earlier periods, we have the evidence of Hekanakht, who apparently also provided his own seed (45). Further evidence can be found in Pap. Berlin 3047 (46); the document is in rather poor condition. From the 46th year of Ramesses II, this papyrus indicates that 1/2 of the crop was rent. This papyrus indicates that Nefer^cabu had a number of arouras of field, presumably from an inheritance. He rented it to the prophet Wenennefer. Nefer^cabu stated the terms of the lease : 1/2 of the crop. To this Wenennefer agreed. Nefer^cabu mentioned in the contract : "now as for my field [.....] shall give me half of its harvest in grain and vegetables". The prophet Wenennefer of the temple of Mut said : "I will do it. I will do it". Nefer^cabu rents the fields to Wenennefer for 1/2 the crops. In Pap. British Museum, 10447 (47), dating from Ramesses II, the assessment of two cultivators was 200 sacks each. From the time of King Ramesses V, in Pap. Wilbour, reference is made to surveys being done on the 15th day of the inundation. Gardiner mentioned that k3yt-land was assessed at 5 measures of corn for the aroura, which was the lowest assessment basis for taxes (48). As for nhb-land, its assessment-base in the fiscal documents was higher than the others, 10 measures of corn for the aroura (49). Tni-land was assessed at a rate more than the or-

(45)T.G.H. James, The Hekanakhte Papers, p.13, (document 1, 2).

(46)Erman, ZÄS 17, 1879, pp.71-76, pl.1; Baer, JARCE 1, pp.36, 39.

(47)Gardiner, JEA 27, pp.58-60; S. Glanville, JRAS 1929, pp.19-26.

(48)Gardiner, Wilbour II, pp.29, 62, 71, 72; Menu, Wilbour p.81.

(49)Gardiner, Wilbour II, pp.29, 62, 180 ff.

dinary land and less than the fresh land in the fiscal documents : 7 1/2 measures of corn to the aroura (50). Gardiner mentioned if then we take the figures given in the rate of assessment as reckoned in oipě, the assessment at 5 oipě will have been roughly 1/7 of the yield, but 1/11 when the return was very great and 1/4 when it was very poor (51). He added, if the figures in the assessments are to be taken as referring to sacks, the ordinary rate of 5 sacks would mean an assessment at more than half the yield (52). Baer stated that average basin lands would yield around 9 or 10 per aroura. Of this about 1 h3r had to be put aside for seed. If the 5 h3r assessment of Pap. Wilbour were taxes as Gardiner mentioned, then the landlord and the tenant would have to share the remaining 3 to 4 h3r, and if the landlord took anything like the 1/3 of the crop that we find in Saite times, the amount remaining to the cultivator would be of the order of 1 h3r per aroura (53). So, Baer deduced that Pap. Wilbour is not a record of tax assessments, but rather of income accruing to the landowing institutions from their lands, and he added that the rates are fixed and determined solely by the category of land. Exceptions are only made for the land that is not being cultivated at all. The rate is approximately 1/2 of the usual crop. In certain cases 3/4 of the assessment is subtracted in favor of another institution and appears under the apportioning domain of the second in any entry of different

(50) Ibid., II, pp.28, 29, 62, 182 ff.

(51) Ibid., II, pp.71, 72.

(52) Ibid., II, p.72.

(53) Baer, JARCE 1, p.42.

type (54). Concerning the general rate of assessment, Stuchevsky, I.A., suggests the actual cultivators had to pay 30 % of the yield of their plots to the state, of which in some instances, 1/4 went to an administrative service and 3/4 to the owner of the land, mostly a temple. More proof that state cultivators indeed paid 1/3 or 30 % of their harvest to the state is derived from the Louvre leather fragments, and the Griffith fragments; where Louvre leather fragments A, a 4-5, states : 13 arouras n_hb, hence at a rate of 10 h₃r. Moreover, the ihwty Khonsu paid 1/5 of the harvest of 10 arouras, which means 20 %. He added that the state had taken their 30 % from the threshing-floors, the remaining part of the harvest was divided amongst the actual cultivators; perhaps the division was based on the size of the plots, but there is no evidence to prove this (55). The preceding argument permits us to include the assessment rates in Pap. Wilbour among the evidence for rents, of the order of 1/2 of a crop; in this case, however, a fixed sum rather than a share. The landlord's share of the crop in ancient Egypt was then in all probability likely to have been between 1/3 and 1/2 of a crop.

We understand from some texts that the individuals directly paid some taxes to the state tax-collectors, while the others were paid to the temples and endowment institutions, to pay it to the state treasures. The demotic documents of the Late Period added there were people responsible (i.e. provincial tax-collectors) for collecting the

 (54) Ibid., 1, p.41.

(55) Janssen, BiOr 43, no.3/4, p.360.

taxes from their villages (56). In Saite demotic land leases, the lessor usually was pledged to pay the taxes (57), but there were a few exceptions; taxes shared (58), and lessee paid the taxes (59), which is an unusual case since the lessee keeps none of the crop. If the tax-collector was one of the officials of the state, he issued a receipt with the tax due, and indicated its region (area), its collection time from the tax-payer, the time which he collected the taxation on it and then, he signed his name and he may add that he signed instead of his companions, then date it and his assistant may sign with him (60). And if the tax-collectors were provincials and delivered the taxation to the state official, then he issued a receipt with their names and signed with his name instead of them and absolved that "they did not know the writing". If the temple official issued the receipt with his name, then he mentioned that he is agent of the god (temple owner), and a high priest may sign with him instead of the priestly staff. And if the landlord paid his taxes in portions, it is mentioned in the receipt the following expression (statement), to second time or third time, etc. This matter may require issuing a copy from the previous receipt, the scribe indicating that : "this is a copy of receipt which I had issued at date", or "He is satisfied by writing a summary of it"

(56) Saleh, BEHS 1974, p.50.

(57) Hughes, op. cit., pp.51-67, Pap. Louvre E.7833 A; pp.68-70,
Pap. Louvre E.7837; pp. 28-44, Pap. Louvre E.7845 A.

(58) Hughes, op. cit., pp.45-50, Pap. Louvre E.7836.

(59) Hughes, op. cit., pp.71-73, Pap. Louvre E.7839.

(60) Saleh, BEHS p.50.

(61). The demotic documents indicated that the tax-collectors kept a certain percentage on the taxes in return of collection of taxes due to the state treasures and granaries. This percentage was estimated in some cases at 6 1/4 %; it is mentioned in the tax receipt "the additional amount", it was paid as grain or money (after knowledge of the money) (62).

As the individuals rented and leased the land from each other and they made leases for sharing its cultivation and breeding its cattle, the state, temples, royal palace rented portions (shares) of the lands; its areas varied with difference in the groups of the tenants (63). From the Old Kingdom texts and decrees, the lawyers saw that the tenant may lease the land for a certain time, after which the rent finishes. But if this relationship of the tenant continued with the landlord a long time and he became his man, the rent lease continued all his lifetime; and the tenant may bequeath the land to his son. This is the rent lease for two lives or the lease of the two rents. If the rent lease was determined for a certain time, any one of the contractors may cancel the rent lease; in this case, it must be reported to a state office. From some cases perhaps, the rent was paid month after month (64).

(61) Ibid., p.51.

(62) Ibid., p.51.

(63) Ibid., p.52.

(64) Ibid., p.52.

The agreements and principles which are mentioned in the demotic land leases of the Late Period onwards are substitute for the rarity of the known detailed rent leases until now from Pharaonic Egypt (65). These leases demonstrate that the lease of land usually was for one year, from the inundation of a certain year to the inundation of the next (66). In the rent lease, there is mentioned the following aspects : The rented land area; in all probability the plots were small, amounting to one to five arouras (67). The rental is fixed either by money or in kind (68). The stipulation is usually associated with the oath by the lessee (69). The penalty in case of breach of the contract (70). In the rent lease, there is also mentioned the kind of the land, the popular name of the plot or the area in which it was located, its general location in the temple domain or endowments etc. (71). The normal arrangement in demotic leases of all periods was for the lessee to supply everything required for farming the land : the oxen for ploughing and harvesting, the seed, the labourers and implements of

(65) Ibid., pp.52-53.

(66) Hughes, Saite Demotic Land Leases, pp.4, 74; M. El-Amir, BIFAO 68, 1969, p.93; Saleh, BEHS p.53.

(67) Hughes, op. cit., p.4.

(68) M. El-Amir, BIFAO 68, p.110; Saleh, BEHS p.53.

(69) Ibid., p.53.

(70) M. El-Amir, BIFAO 68, p.109; Saleh, BEHS p.53.

(71) Hughes, op. cit., pp.3, 4; Saleh, BEHS p.53.

agriculture for sowing and harvesting (72). The Ptolemaic leases commonly specify these requirements (73). Saleh (74) added that the lessors imposed charges on these loans, the charges were very high; the average was 50 % or may be to 100 %, and sometimes, this was connected with mortgaging suitable things equal to the value of the loan. This mortgage was to be conveyed to the creditor, if the debtor did not pay the debt.

These leases referred to agreements, and obligations were exchanged between the lessor and and lessee or landlord and cultivator : If the one who cultivated the fields brings complaint against the landowner a quarter of the harvest produced by the seed-corn in question is taken from the landlord and given to the one who cultivated the fields in compensation for his work (75). If the landlord keeps back the field, and the one who cultivated the fields brings complaint against the landowner, a quarter of the harvest produced by the seed-corn in question is taken from the landlord and given to the one who cultivated the fields in compensation for his work plus his seed-corn (76). If a man takes the fields on lease, and the landlord gives

(72)Hughes, op. cit., p.5; M. El-Amir, BIFAO 68, p.109; Saleh, BEHS p.53.

(73)Hughes, op. cit., p.5.

(74)Saleh, BEHS p.53.

(75)G. Mattha, The Demotic legal code of Hermopolis West, Cairo, 1975, pp.20-21, column II, 6; Saleh, BEHS p.53.

(76)G. Mattha, op. cit., p.21, column II, 8; Saleh, BEHS p.53.

him seed-corn, and if the man who has taken the fields on lease does not cultivate the fields, and takes away the seed-corn after the fields have been irrigated, then if he be summoned he is made to give the rent plus the seed-corn according to the lease he made (77). If a man takes a field on lease to cultivate it, and if the landlord gives him seed-corn, and if the fields be not irrigated, the year in question being without inundation, he is not made to give rent, but he is made to give the seed-corn only (78).

In the rent lease, the crop with which the land was to be sown is specified, sometimes barley, emmer, flax, beans, clover, etc. (79). Presumably in the other instances, and also frequently in the Ptolemaic leases, the lessee was free to choose the crop or it was determined by circumstances such as the rotation of the crops (80). The Saite leases are all share-crop agreements, these leases give data on the customary scale of rental. In three cases, the lessor received one-

(77)Mattha, op. cit., p.21, column II, 10, 11; Saleh, BEHS p.54.

(78)Mattha, op. cit., p.21, column II, 10, 11; Saleh, BEHS p.54;
Shore, "Land and Land tenure in Ancient Egypt", unpublished,
p.30.

(79)Hughes, op. cit., pp.9-10, Pap. British Museum 10432; pp.28-29,
Pap. Louvre E.7845 A; M. El-Amir, BIFAO 68, p.110; Saleh, BEHS
p.54.

(80)Hughes, op. cit., p.4; M. El-Amir, BIFAO 68, p.110.

third on the grain and fodder for the land (81). In the two leases in which the crop was to be flax, the lessor received but one-fourth for the land (82). In one instance, each party received half of the produce and each paid half of the harvest-tax (83). This was a very favorable arrangement for the lessor, for in other cases he paid all the domain's tax out of his third or fourth. While the lessor pledged non-exposure the lessee pledged to pay the rental in kind at a certain time to a certain place (mostly the house of the lessor in the village) to the lessor when the harvest has occurred (84). The payment of the harvest tax is the responsibility of either the lessor or the lessee according to their agreement (85). If the landowner received his dues completely, from the lessee, a receipt (document) was written (contracted) that the landowner had received the complete rent and rent of his land cultivation for a year, then the landlord was pledged to pay the land tax for the King and the god (i.e. to the state and temple) in order to insure the lessee his work and what he paid for it (86). This receipt (document) was written by a scribe or either one of the two contractors, and it was connected with the oath by the

(81)Hughes, op. cit., pp.18-19, Pap. Louvre E.7844; pp.51-52, Pap.

Louvre E.7833; pp.68-69, Pap. Louvre E.7833 B.

(82)Hughes, op. cit., pp.9-10, Pap. British Museum 10432; pp.28-29,

Pap. Louvre E.7845 A.

(83)Hughes, op. cit., p.45, Pap. Louvre E.7836.

(84)M. El-Amir, BIFAO 68, p.110; Saleh, BEHS p.54.

(85)M. El-Amir, BIFAO 68, p.110; Saleh, BEHS p.54.

(86)Hughes, op. cit., p.75; Saleh, BEHS p.54.

name of the god (87). And if the lessee broke the engagement, then the lessor or his agent could judge him; the penalty in case of breach of contract was, in most of the leases, 600 silver pieces (88). It was assumed that these pieces were conveyed to the god's offerings and the King, and the immensity of this amount means that its payment was nominal (89). Finally, the Saite leases are all for a term of one year only, and this is the general rule for all later demotic leases of land. In only two of the Saite leases was the lessee specifically pledged to depart from the land in the year following that in which the lease was written (90), and in only one of those was he pledged to leave and give up all claim to the land as of a specific month (91). Only one contains the guarantee of the lessor under penalty of a fine to provide undisturbed usufruct for the term of the lease (92). The guarantees are always to be found in the Ptolemaic leases.

(87) Ibid., p.54.

(88) M. El-Amir, BIFAO 68, p.110; Saleh, BEHS p.54.

(89) Ibid., p.54.

(90) Hughes, op. cit., p.18, Pap. Louvre E.7844; P.71, Pap. Louvre E.7839.

(91) Hughes, op. cit., p.71, Pap. Louvre E.7839.

(92) Hughes, op. cit., p.69, Pap. Louvre E.7833 B.

CHAPTER II

CHAPTER II

Posts Related to Agricultural Economy in the State and Temples

The land and its crops and animals were the physical basis of Egyptian life. Therefore, there was an elaborate administration from early times onwards. So, this chapter gives an outline survey of the grades of the administration for agriculture. This covers a wide range of officialdom; the known titles relate to the fields, to crops (especially grain) to the cultivators and separate series of offices related to cattle. The products of the soil had to be stored to insure supplying the nation with the grain. Hence, granary-officials were responsible for the collection and distribution of grain within the land. The highest ranks of officials included the overseers of cattle and the (High) stewards who ran the great estates. All these officials were under the Vizier who was responsible to the King for all departments of natural life.

The Vizier

At the head of the pyramid of authority was the vizier, and he was supported in all his duties by officials who mostly bore scribal titles. The vizierate was occupied by men of highest rank and (in the Old Kingdom) usually relatives of the King. The duties of the vizier

were very wide (1). Among duties of the vizier, there were duties attached to the affairs and agricultural properties concerning regulations regarding rights in land; "as regards anyone who makes petition to the vizier concerning lands, he (the vizier) is to take him under his own jurisdiction in addition to the hearing of the case by the superintendent of lands and the council of sections, and he is to allow him a delay of two months in respect of his lands which are in Upper and Lower Egypt. But in regard to his lands which are near either the southern city, or the Residence, he is to allow him a delay of (only) three days as a thing prescribed by law. It is he who makes distribution of land in the form of plots of land. In the case of any petitioner who says, "our boundary has been shifted", then it should be seen that it has happened under the seal of an official. If it has happened, then the vizier should take away the plots of lands from assessors who had shifted them" (i.e. the boundaries).*

Concerning management of the royal estate, "it is he who dispatches to cut down sycamores according to what has been said in the palace. It is he who dispatches the councillors of the district to construct the channels in the entire land. It is he who dispatches the mayors and the settlement-leaders to arrange the cultivation in the

(1) Helck, Zur Verwaltung des Mittleren und Neuen Reiches, Leiden, 1958, p.51 ff; T.G.H. James, Pharaoh's People Scenes from Life in Imperial Egypt, p.51 ff; N. Strudwick, The Administration of Egypt in the Old Kingdom, London, 1985, p.300 ff.

* A. Saleh, BEHS, p. 36.

summer" (2). The vizier dispatches his local officials to take care of special agricultural tasks in the summer season, viz. the cultivation of gardens and plantations under perennial irrigation producing small crops, and possibly the cultivation of special categories of height lands. Both types of cultivation would require special care in view of their specific irrigational aspects, viz. the use of shadufs, the increased need for dung and the danger of salination (3). And concerning finance and food supply; "it is he who assesses any assessment in kind for anyone who has to pay one to him. It is he who makes inventories of all cattle of which inventories have to be made. It is he who inspects water supplies on the first of every ten-day period" (4).

Rwdw "Controller"

The title rwdw "controller" is frequently used in connexion with the royal Harims and apparently refers to officials of high rank who exercised a certain tutelage over Harim ladies (5). They administered the Queen's lands (6). This title is common in Pap. Wilbour and

(2) N. de G. Davies, Rekh-mi-Re^c, p.92, pls. XXVII, 24-25, CXXI, 24-25; Urk IV, 1113, 3-5.

(3) van den Boorn, The Duties of the Vizier, pp.246-247.

(4) Davies, Rekh-mi-Re^c, I, p.93; James, op. cit., pp.65-67.

(5) Gardiner, Wilbour II, p.18; Menu, Wilbour pp.52-53, note 90.

(6) Gardiner, Wilbour II, p.18.

elsewhere in connexion with agricultural matters (7). In this papyrus, the rwdw appears to manage estates on behalf of far distant temples that owned them (8). Among controllers' duties; they guarded the granaries of the temples and examined the quality and quantity of corn (9). In Pap. Harris I, some more officials of cattle were mentioned as controllers (rwdw) of cattle (10).

Imy-r pr "Steward"

This title was common in the New Kingdom, it was frequently followed by the adjective wr "high or great" (11). It was held by the highest officials (12). The high steward was the foremost official after the vizier (13). He was responsible for administering great estates

(7)Gardiner, JEA 27, p.48; Menu, Wilbour pp.52-53.

(8)Gardiner, AEO I, 32 *

(9)Gardiner, JEA 27, pp.60-62, Pap. Turin 1887, vs.1, 4; CLEM, p.155, Pap. Anastasi IV, par.11, 7, 7; p.355, Pap. Sallier IV, vs.9, 5; S. Gohary, Egyptian Society in the New Kingdom as Illustrated by the Late Egyptian Miscellanies, p.135.

(10) Pap. Harris I, 7, 9.

(11) Wb I, 514, 14; Helck, LÄ II, p.155; imy-r pr is literally "Overseer of the house", where house has its wide sense of estate, See Gardiner, AEO I, 46 *.

(12)Gardiner, AEO I, 45 *.

(13)A. Scharff, ZAS 57, 1922, p.51 ff.

(14) held by the officials attached to Khato-lands of Pharaoh; where in Pap. Wilbour, we find that Usima^cre^cnakhte held the title "the royal scribe, steward of Khato-land of the Pharaoh" (15). There were officials attached to lands of Queens, among them stewards. They were responsible for administering the estates of Queens, where we find that Senmut, under Hatshepsut, held the following titles (16) : imy-r pr n s3t-nsw (Nfrw-R^c) "Steward of the royal daughter (Neferu-Re^c)", imy-r pr n hmt-nsw "Steward of the royal wife", imy-r pr n hmt-ntr "Steward of the divine wife". Nebamūn, in the time of Tuthmosis III, held the title imy-r pr n hmt-nsw (Nbtw) (17) "Steward of the royal wife (Nebt-u)". Hety, from the reign of Tuthmosis IV, held the title imy-r pr n hmt-ntr (18), "Steward of the divine wife". Also Hory, XVIII dynasty, held the title imy-r pr n hmt-nsw (19) "Steward of the royal wife". We find also Yuy from reign of Ramesses II, held the title imy-r pr wr n t3-hwt hmt-nsw-wrt (Nfirt-iry-mry-Mwt) (20). "High steward of the temple of the great royal wife, Nefertari".

(14)F. Vogelsang, in : K. Sethe, UGAA VI, 1913, p.36 ff.

(15)Gardiner, Wilbour II, text B, 1 (B 1, 2).

(16) Urk IV, 398; Helck, Verwaltung, p.475.

(17)Gardiner & A. Weigall, A Topographical Catalogue of the Private Tombs of Thebes, London, 1913, p.18, (no.24).

(18) Ibid., p.30 (no.151).

(19) Ibid., p.38, (no.245).

(20)Kitchen, Ramesside Inscriptions III, fascicle 6, 186.

The gods' temples had also officials among this group; there were high stewards whose principal office was administering the estates of the temples. In Pap. Wilbour, we find that Usima^Cre^Cnakhte held the title imy-r pr n Imn (21) "Steward of Amūn", and in the same papyrus, we find that Ra^Cemuia held the title "steward of the house of Ptah" (22). From the titles of owners of private tombs of Thebes of the New Kingdom, we find some of them belonged to the administration of the temple estates; where we find that Senmut held the title imy-r pr n Imn "Steward of Amūn", and imy-r pr wr n Imn (23) "High steward of Amūn". Maanakhtf, under reign of Amenophis II, held the title imy-r pr n Mntw nb W3st (24) "Steward of Monthu lord of Thebes". Senemi^Coh held the title imy-r pr n Mntw m Iwnw (25) "Steward of Monthu in Iwnw". In the time of Amenophis IV, we find Ra^Cmosi, held the title imy-r pr m t3-hwt p3 Itn (26) "Steward of the temple of Aten". Amenemopet (also called Ipy) from reign of Ramesses II, held the title imy-r pr wr n Imn m niwt rsy (27) "High steward of Amun in the southern city (i.e. Thebes)".

 (21)Gardiner Wilbour IV, index, by Faulkner, Oxford 1952, pp.34, 40.

(22)Gardiner, Wilbour III, text B 24.

(23) Urk IV, 400, 405; Gardiner & Weigall, op. cit., p.22, (no.71); Helck, Verwaltung, p.476.

(24) Urk IV, 1482/4; Helck, Verwaltung, p.481.

(25) Ibid., p.509.

(26) Ibid., p.500.

(27)Gardiner & Weigall, op. cit., p.18, (no.41).

The Kings' temples had stewards who were responsible for administering the estates of the temples, where we find some temples whose officials held the following titles imy-r pr wr m hwt-nsw (28) "High steward in the King's temple", imy-r pr hwt-nsw (Dsr-k3-R^c) (29) "Steward of the King's temple (Amenophis I), imy-r pr m hwt (Dsr-k3-R^c) hr Imntt W3st (30) "Steward of the temple of Amenophis I in West Thebes". There were also stewards attached to the private estates, they were also responsible for administering their estates. Thus we find that Amenemhēt from the reign of Tuthmosis III, held the title imy-r pr n t3ty (31) "Steward of the vizier", and Dhout, under reign of Amenophis II, held the title imy-r pr n hm-ntr tpy n Imn Mry (32) "Steward of the first prophet of Amūn Mery".

There were also stewards attached to provincial and local administration; where we find Kenamūn, reign of Amenophis II held the title imy-r pr nsw m Prw-nfr (33) "Steward of the King in Peru-nufer". Ipy, reign of Amenophis III/IV, held the title imy-r pr m Mn-nfr "Steward of Memphis" and imy-r pr wr m Mn-nfr (34) "High steward

 (28) Helck, Verwaltung, p.493.

(29) Ibid., p.528.

(27) Ibid., p.527.

(31) Nina de G. Davies & Gardiner, Amenemhēt, pp.2, 6; Gardiner & Weigall, op. cit., p.24, (no.82).

(32) Gardiner & Weigall, op. cit., p.20, (no.45).

(33) Davies, Ken-Amūn, p.12; Helck, Verwaltung, pp.104, 480.

(34) Ibid., p.485.

of Memphis". Also, we find Paser, in the time of Ramesses II, held the title imy-r pr wr n nb-t3wy m niwt rsy (35) "High steward of the Lord of Upper and Lower Egypt in the southern city". We find also Nebsumenu (36), from reign of Ramesses II, held the title imy-r pr wr n W3st "High steward of Thebes", and imy-r pr wr n nb-t3wy m niwt rsy "High steward of the Lord of Upper and Lower Egypt in the southern city". The magnificence of the Theban tombs of personages bearing the title "High steward" - only once with following n nsu of the King - bears testimony to their wealth and importance (37).

Imy-r ihwtyw "Overseer of cultivators"

The essential base of the Egyptian as of any agriculture, was the actual cultivator, the tiller of the fields. The Egyptian term ihwty is used, usually of the actual people who worked the soil, tended the crops etc., but also of people credited with cultivating a certain amount of land, producing certain quantities of grain (38). The miscellanies pictured the misfortune of the ordinary peasant farmer; examples of this are found in the following papyri : Anastasi V (39),

 (35) Ibid., p.528.

(36) Kitchen, op. cit., III, fascicle 6, 182, 183, 184, 185.

(37) Helck, Verwaltung, pp.472, 475, 479, 481, 484, 487, 488, 500, 504.

(38) Gardiner, JEA 27, pp.21-22; id, Wilbour II, p.82; Helck, Verwaltung, p.132, note 2.

(39) CLEM, p.24, Anastasi IV, 15, 7 ff.

Sallier I (40), Lansing (41) and especially Turin A (42). There were cultivators attached to temples and state lands; where we find Senmut (43), Amenemhēt (44), and Sennūfer (45) held the title imy-r ihwtyw n Imn "Overseer of the cultivators of Amūn", while we find Maanakhtf held the title imy-r ihwtyw n nb-t3wy (46) "Overseer of the cultivators of the Lord of Upper and Lower Egypt". We find Nu, under reign of Tuthmosis III (?) held the title hry ihwtyw (47) "Head of the cultivators", and Kenamūn in the time of Amenophis II held also the title imy-r ihwtyw (48) "Overseer of the cultivators". There was also an office overseer of peasants; where we find Dḥutemḥab in the time of XIX dynasty, held the title imy-r shty n pr-Imn (49) "Overseer of peasants (i.e. poulterers and purveyors of farm produce) of the estate of Amūn", and we find also Maanakhtf held the title imy-r shty (50) "Overseer of the peasants".

 (40) Ibid., pp.389-390, Sallier I, 5, 8 ff.

(41) Ibid., pp.389-390.

(42) Ibid., pp.452-453, Turin A, vs.2, 2-9; Gardiner, JEA 27, pp.20 ff.

(43) Helck, Verwaltung, p.476.

(44) Ibid., p.483.

(45) Ibid., p.526.

(46) Ibid., p.481.

(47) Gardiner & Weigall, op. cit., p.28, (no.144).

(48) Helck, Verwaltung, p.480.

(49) Gardiner & Weigall, op. cit., p.34, (no.194).

(50) Helck, Verwaltung, p.481.

Imy-r hnt-š "Overseer of the garden"

To the Egyptian the garden was an essential in life. He was happy when he could afford one laid out in front of his house or tomb chapel. He thought that the gods also liked gardens around their temples and he did not fail to provide each temple with a garden. Texts and representations of the New Kingdom mention the important role played by the garden in the agricultural economy (51). The garden was a considerable source of food to the Egyptian, both from fruits and vegetables. It was a very important charge. There was an office of the palace garden (52), and intendants of the gardens (53). Senmut in the time of Hatshepsut managed the garden of Amūn at Thebes; where we find him holding the title imy-r hnt-š n Imn (54). "Overseer of the garden of Amūn". We find also that Sennūfer held the title imy-r hnt-š n Imn (55) "Overseer of the garden of Amūn", Nezemger, under reign of Ramesses II occupied the post of imy-r hnt-š m t3-hwt (Wsr-M3^ct-R^c stp-n-R^c) n pr-Imn (56) "Overseer of the garden in the Ramesseum in the estate of Amūn". There were gardeners attached

(51) See Part II, Chapter V.

(52) LD II, 71, 72; Petrie, AE 1925, p.16, (no.475).

(43) Petrie, AE 1925, p.16, (no.476-478).

(54) Urk IV, 405, 407; Petrie, AE 1925, p.16, (no.479); Helck, Verwaltung, p.476.

(55) Ibid., p.526.

(56) Gardiner & Weigall, op. cit., p.28, (no.139); Kitchen, Ramesside Inscriptions III, pp.383-387 (tomb 138).

to the state and temple gardens. They were responsible for the vegetables, fruits and flowers of the gardens, where gardens were a considerable source of food in ancient Egypt. There was an office k3ry n t3-hwt (57) "gardener of the temple", s3wty š mhty n Imn (58) "guardian of the northern garden of Amūn", k3ry htp-ntr n Imn (59) "gardener of the divine offering(s) of Amūn".

Imy-r 3hwt "Overseer of the fields"

According to the study of the documents in ancient Egypt and particularly the Ramesside administrative documents, we find the kinds of agricultural properties enumerated in ancient Egypt. There were state lands, temple estates and private and also shared family properties. There were departments for the superintendence of agriculture of these various estates. There were officials attached to these departments, their principal function was superintendence of the fields; where we find in the time of Amenophis II, Maanakhtf held the title imy-r 3hwt n nb-t3wy (60) "Overseer of the fields of the Lord of the Two Lands". We find also Kenamūn held the title imy-r 3hwt (61)

 (57) Pap. Amherst, no.VII, 3, 13; Lefebvre, Histoire des Grands Prêtres d' Amon de Karnak jusqu' à la XXI Dynastie, Paris, 1929, p.51.

(58) Ibid., p.51.

(59) Ibid., p.51; PM I/I, p.274.

(60) Urk IV, 1482/4; Helck, Verwaltung, p.481.

(61) Davies, Ken-Amūn, p.13; Helck, Verwaltung, p.480.

"Overseer of the fields", while we find Puyemrē, under the reign of Tuthmosis III, held the title imy-r 3hwt n Imn (62) "Overseer of the fields of Amūn", and Sennufer held the same title (63). Mahu, in the time of Ramesses II, held the title imy-r 3hwt n Mntw (64). "Overseer of the fields of Monthu", while we find P-en-Anhor, under reign of Amenophis II, held the title imy-r 3hwt n ntrw nbw (65) "Overseer of the fields of all gods". We find User in the time of Tuthmosis III (?) held the title imy-r hbsw n Imn (66) "Overseer of the ploughed lands of Amūn", and we find also Amenemhēt held the title imy-r hbsw (67) "Overseer of ploughed lands". We find Menna, in the time of Tuthmosis IV, held the following agricultural titles : imy-r 3ht n Imn (68) "Overseer of field(s) of Amūn", and imy-r hbsw n Imn (69) "Overseer of the ploughed lands of Amūn". On a stela, Teta, XVIII dynasty held the title imy-r hbsw n Mntw nb W3st (70) "Superintendent of the ploughed lands of Monthu lord of Thebes". There was also

(62) Urk IV, 522; Davies, Puyemrē I, p.31.

(63) Urk IV, 541-542; Helck, Verwaltung, p.526.

(64) Kitchen, Ramesside Inscriptions III, fascicle 5, 150.

(65) Borchardt, ZAS 42, p.72.

(66) Léfèvre, op. cit., p.51; PM I/I, p.343.

(67) Davies & Gardiner, Amenemhēt, p.7, pls.VII, XI.

(68) Borchardt, ZAS 42, p.70.

(69) Davies & Gardiner, Amenemhēt, p.7, note 1; Borchardt, ZAS 42, p.70.

(70) Newberry, PSBA 24, 1902, p.246; Davies & Gardiner, Amenemhēt, p.7, note 1.

a title attached to the fields hsb 3hwt (71) "who reckons the fields", this was held by Amenemhēt.

Scribal Titles

The scribes were a large class. There were scribes attached to the departments of the state and temple estates, their functions were registration of whatever was attached to agricultural affairs. There was sš 3hwt "Scribe of the fields", we find Menna held the title sš 3hwt n nb t3wy n šm^cw T3-Mhw (72) "Scribe of the fields of the Lord of the Two Lands of Upper and Lower Egypt". The measurement of fields perhaps was performed by the sš 3ht "Scribe of the field" under supervision of a sš n tm3 "Scribe of the mat (?)", at least in the Middle Kingdom (73). There was sš it n Imn (74) "Scribe of the grain of Amūn". There was sš n šnwt pr-Imn (75) "Scribe of the granary of the temple of Amūn". There was also sš n šn^c "Scribe of the magazine", we find Piay in the time of Ramesses II, held the title sš n šn^c n Imn (76) "Scribe of magazine of Amūn".

(71) Davies & Gardiner, Amenemhēt, p.7, pl.XXVII, 4.

(72) Ibid., p.7, pl.XXVII, 4.

(73) P. Smither, JEA 27, p.74 ff; Gardiner, AEO I, 91 *.

(74) Lefebvre, Histoire de Grand Prêtres d' Amon de Karnak, p.53.

(75) Ibid., p.53.

(76) Ibid., p.50.

Hsb it "Who reckon the corn"

This title varied and contracted in many different ways : hsb it šm^cw "Who reckons the corn of Upper Egypt" (77), hsb it šm^cw T3-Mhw (78) "Who reckons the corn of Upper and Lower Egypt", hsb 'ssr n šm^cw T3-Mhw (79) "Who reckons the corn of Upper and Lower Egypt", hsb it n šnwt pr-^c3 (80) "Who reckons the corn of the granary of Great House (i.e. Pharaoh), hsb it n Imn (81) "who reckons the corn of Amūn", hsb it m šnwt htpw-ntr n Imn (82) "who reckons the corn in the granary of divine offerings of Amūn". The official who occupies the office "Reckoner of the corn in the granary of divine offerings of Amun" must have been connected with the registration of the amounts of corn delivered to and withdrawn from the particular granary which supplied the grain for the loaves and cakes used in the ritual of divine offerings (83). This title seems never

(77) Davies & Gardiner, Amenemhēt, p.2.

(78) Helck, Verwaltung, p.498.

(79) Ibid., p.509.

(80) Ibid., p.500.

(81) Gardiner & Weigall, A Topographical Catalogue of the Private Tombs of Thebes, p.25, (no.82); Davies & Gardiner, Amenemhēt, p.7, pl.XXXVIII; Lefebvre, op. cit., p.53.

(82) Gardiner & Weigall, op. cit., p.18, (no.38), p.32 (no.179), p.36 (no.231); Davies & Gardiner, Amenemhēt, p.7, pl.XXXVII; Lefebvre, op. cit., p.53.

(83) Davies & Gardiner, Amenemhēt, p.8.

to occur alone, but frequently follows either the word sš "scribe" (84) or the expression imy-r pr "Steward" (85).

Imy-r šnwty "Overseer of the granaries"

The granary was one of the principal institutions in the organisation of the Egyptian state, as it was responsible for the grain - and hence food - supply. As such it was also an important element in the financial administration of the land, contributing to the revenue of the treasuries. It is very likely that these two institutions were closely linked. An examination of the titularies of viziers shows that the titles imy-r šnwty and imy-r prwy-hd there appear together with regularity (86).

The titles imy-r šnwt and imy-r šnwty are common in the administration of the granaries (87). However, there are found several apparently related forms; where we find the title imy-r šnwty m t3 r-dr-f (88) "Overseer of the granaries in the entire land", imy-r šnwty n

(84) Léfèvre, op. cit., p.53; Gardiner & Weigall, op. cit., p.18 (no.38), p.32 (no.179), p.36 (no.231); Davies & Gardiner, Amenemhēt, pp.2, 6; Helck, Verwaltung, pp.500, 527; Urk IV, 1046-1051.

(85) Davies & Gardiner, Amenemhēt, pp.6, 7, pls.XXII (1), XXVII (3).

(86) N. Strudwick, op. cit., p.275.

(87) Helck, Verwaltung, pp.484, 487, 497, 501, 503, 506, 507.

(88) Ibid., p.484.

šm^cw T3-Mhw (89) "Overseer of the granaries of Upper and Lower Egypt", imy-r šnwt šm^cw T3-Mhw (90) "Overseer of the granary of Upper and Lower Egypt", imy-r šnwt n nb-t3wy (91) "Overseer of the granary of the Lord of Upper and Lower Egypt", imy-r šnwt n nb-t3wy m Iwnw T3-Mhw (92) "Overseer of the granary of the Lord of Upper and Lower Egypt in Iwnw of Lower Egypt", imy-r šnwt wr n nsw m šm^cw T3-Mhw (93) "Overseer of the great granaries of the King in Upper and Lower Egypt".

Scribal titles were associated with the granary itself; where we find Amenhotep held the title sš nsw imy-r šnwt m šm^cw T3-Mhw (94) "Royal scribe, overseer of the granaries of Upper and Lower Egypt". Wepmosi held the title sš n šnwt n nb-t3wy (95) "Scribe of the granary of the Lord of the Two Lands". Neferronpet, in the time of Merenptah held the title sš nsw imy-r šnwt (96) "Royal scribe, overseer of the granaries", and also Ra^cmosi, under reign of Ramesses IV, held the

 (89) Urk IV, 1178, 1181; Kitchen, Ramesside Inscriptions III, fascicle 5, 150, 152, 153; Helck, Verwaltung, pp.497, 498, 501, 502.

(90) Urk IV, 1204; Helck, Verwaltung, pp.496, 499.

(91) Urk IV, 1196; Helck, Verwaltung, p.502.

(92) Urk IV, 1200; Helck, Verwaltung, p.499.

(93) Urk IV, 1189; Helck, Verwaltung, p.497.

(94) Ibid., p.501.

(95) Ibid., p.502.

(96) Gardiner, JEA 27, p.63; id, LEM, 93-94, verso 8/5, 9/3; Helck, Verwaltung, p.507.

title sš nsw imy-r šnwty (97) "Royal scribe, overseer of the granaries". On the other hand, the the temples had granaries and scribes of their own so called, often of Amūn; where we find Ineni under reign of Amenophis I/Tuthmosis III, held the title imy-r šnwty n Imn (98) "Overseer of the granaries of Amūn" . Senmut in the time of Hatshepsut held the title imy-r šnwt n Imn "Overseer of the granary of Amūn", and imy-r šnwt n Imn m niwt rsy "Overseer of the granary of Amūn in the southern town" (99). Nebamūn also held the title imy-r šnwty n Imn "Overseer of the granaries of Amūn" (100). We find another title attached to the granary, this title was imy-r s3w n šnwty n Imn "Overseer of the doorkeepers of the granaries of Amūn". This title was held by Kenamūn (101). The office of overseer of the granaries was especially important, for the real wealth of Egypt lay in the produce of corn. The principal management of the granary was in the hands of imy-r šnwty were certainly the more important people.

 (97)Gardiner, JEA 27, p.54, id, RAD 12, vs.4 x+9; Helck, Verwaltung, p.507.

(98)Gardiner & Weigall, op. cit., p.22, (no.80); Helck, Verwaltung, p.525.

(99) Ibid., p.476.

(100)Gardiner & Weigall, op. cit., p.28, (no.146).

(101)Davies, Ken-Amūn, p.13, pl.XXV B; Helck, Verwaltung, p.480;
 In the Middle Kingdom, there is a title s3w n šnwt n htp-ntr
 "Gatekeeper of the granary of the divine offerings". See Petrie,
AE 1925, part I, p.18, (no.559).

The overseers of the granaries were doubtless responsible for the collection and distribution of grain within the land (102).

Imy-r šn^c "Overseer of the magazine"

This title has sometimes the name of the god or of the King; where we find in the New Kingdom, officials held the title imy-r šn^c n Imn (103). "Overseer of the magazine of Amūn, and imy-r šn^c n nb t3wy (104) "Overseer of the magazine of the Lord of the Two Lands. There were also officials who held the title hry šn^c n Imn m Ipt-Swt (105) "Head of the magazine of Amūn in Karnak", with the advent of the New Kingdom šn^c not pr-šn^c was exclusively used to cover the two meanings : "magazine" and "ergastulum". It contained all good things such as provisions. In the Middle Kingdom, šn^c is also found (106), it is a storehouse only. In the Old Kingdom, pr-šn^c is common in titles as well as elsewhere, while šn^c is found only in the title imy-r šn^c



(102) See Part III, Chapter III.

(103) Gardiner & Weigall, op. cit., p.26 (no.122), p.38 (no.251);
Léfebvre, op. cit., p.50; Helck, Verwaltung, pp.480, 498.

(104) Gardiner & Weigall, op. cit., p.26, (no.124).

(105) Gardiner & Weigall, op. cit., p.34, (no.198).

(106) Griffith, et al., Beni Hasan I, pl.XXIX; Griffith, The Inscriptions of Siut and Der Rifeh, London, 1889, pl.VII.

(107), and there were two pr-šn^c   prwy-šn^c (108), apparently one for Upper and one for Lower Egypt.

Imy-r ihw "Overseer of the cattle"

Cattle were owned by private estates as well as temples and royal institutions. Cattle and matters pertaining to them occur frequently in the Late Egyptian Miscellanies (109). Cattle were looked after by a series of agricultural officials, the highest of which was imy-r ihw "Overseer of cattle" (110). This title was held by the officials attached to the state administration; where we find Kenamūn held the title imy-r ihw Šm^cw T3-Mhw "Overseer of the cattle of Upper and Lower Egypt" (111).

There were officials attached to the great temples; they were responsible for the cattle, they held the titles : imy-r ihw n Imn "Overseer of the cattle of Amun" (112), imy-r ihw n Imn m Ipt Swt

 (107)G. Maspero, MMAF 1, 199; G. Firth & B. Gunn, Teti Pyramid Cemeteries, (text), pp.185, 222.

(108) Urk I, 247, 11.

(109)See Part III, Chapter IV.

(110) Wb I, 119, 12.

(111)Helck, Verwaltung, p.480.

(112)Gardiner & Weigall, op. cit., p.38 (no.251); Léfèbvre, op. cit., p.50; Helck, Verwaltung, pp.476, 479, 480, 481, 482, 483, 490, 492, 498, 504, 508, 526; Urk IV, 403.

"Overseer of the cattle of Amun in the temple of Karnak" (113), imy-r nfrt nt Imn "Overseer of the cattle of Amūn" (114). As herds constituted a chief part of the revenues of the temple and the state, there were other very important offices attached to the superintendence of cattle and occupied by the officials : "Overseer of cows of Amūn" (115), "Overseer of horned cattle" (116), "Overseer of hoofed animals" (117). Scribal titles were associated with the title overseer of the cattle; here, we find some of officials attached to the temples held the titles : sš imy-r ihw n Imn "Scribe, overseer of the cattle of Amūn" (118), sš hsb ihw n Imn "Scribe, who reckons cattle of Amūn" (119), sš-nsw hsb ihw "Royal scribe, who reckons the cattle" (120). Another official involved with cattle was the chief record keeper (121), and the blind men (122); who were employed in fattening up the cattle. Herdsmen appeared very little in the Miscellanies, but were depicted

 (113) Helck, Verwaltung, p.476.

(114) Urk IV, 407; Lefebvre, op. cit., p.50; Helck, Verwaltung, pp.476, 526.

(115) Davies, Ken-Amūn, p.11, pls.IX, LII, LXV A.

(116) Ibid., p.13.

(117) Ibid., p.13.

(118) Lefebvre, op. cit., p.50.

(119) Gardiner & Weigall, op. cit., p.38, (no.247); Lefebvre, op. cit., p.50; Helck, Verwaltung, p.509.

(120) Ibid., p.496.

(121) Gardiner, LEM, 80, 3; CLEM, p.305.

(122) Ibid., p.51; Gardiner, LEM, 16, 7, 5.

frequently in the marshes and agricultural scenes. They commonly had also charge of herds of animals belonging to large institutions, such as major temples cf. the great herds of Amun founded by Ramesses III in Pap. Harris (123). This situation is implied in Pap. Turin A, vs.2, 7-9, par.3 (124) where the luckless cultivator is imagined as unable to return a hired yoke of oxen to the herdsman and has to confess the fact to the appropriate overseer of cattle (125). The care of the herdsman for his flock is clearly reflected in Pap. Anastasi V, par.10, 15, 3-4 (126). The herdsman drove the herds to their pasture and the cattle which they kept thrived excellently and calved very often. They watched over every phase of their life.

(123) Erichsen, Pap. Harris I, p.9, line 5; p.12, line 15; Breasted, AR IV, 212, 224.

(124) CLEM, p.453.

(125) Gardiner, Wilbour II, p.24.

(126) CLEM, p.245; Gardiner, Late Egyptian Stories, 1932, pp.33-35, for a literary reflection of the herdsman's responsibility for animals left in his care.

CHAPTER III

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Industries Related to Agriculture

During periods of Pharaonic Egypt, industries related to agriculture are represented on the walls of tombs and illustrated by a number of tomb models. These scenes and models are invaluable for our reconstruction of the techniques employed by the ancient craftsmen. Among the many industries depicted is the manufacture of rope, which is recorded in nine different tombs and on one loose block in the Cairo Museum (1). nwh was a common word for rope (2). The earliest specimens of rope, which are of reed, are of the Badarian Period (3). Fibre from the date-palm was commonly used in Egypt for rope-making. Recent botanical studies of the samples of rope in the collection of the British Museum have identified dom palm, halfa, and papyrus. Other studies cite camel hair, flax and leather rope (4). Each of the steps involved in the manufacture of rope can be documented in the ancient

(1)E. Teeter, JEA 73, 1987, p.71.

(2)Gardiner, Egyptian Grammar, pp.521, 573, sign-list, V 1; FCD, p.128; Janssen, Commodity, p.438.

(3)K.R. Gilbert, in : A History of Technology, Oxford, 1958, p.451; Lucas & Harris, Ancient Egyptian Materials and Industries, p.134; G. Brunton, Mostagedda and the Tasian Culture, p.63.

(4)K.R. Gilbert, in : op. cit., pp.451-452; Lucas & Harris, op. cit., p.135; E. Greiss, Some Ancient Egyptian Plant Materials, pp.31, 146.

Egyptian reliefs. The variety of materials employed is reflected in scenes depicting the first step, the collection of fibres. The representations in the tomb of Ptah-hotep, Kha^cemwēset, Akhtihotep, Iymery, and Nyankhnesut, as well as the scenes on Cairo CG.1697, show rope-workers near swamps, and presumably gathering papyrus. In the tombs of Kahif and Nefer, agricultural settings suggest a different type of fibre. One example, from the tomb of Rekhmirē^c, shows the manufacture of rope adjacent to leather-workers and it has been suggested that this scene shows the manufacture of leather cordage (5).

The first stage in making rope is preparing (sorting) the fibres sšš sm^c. The phrase is used to narrate the first stage, shown in the tomb of Kaemnofret, where two men sit facing each other, placing the fibres in a bundle. The result is shown in the tombs of Ptah-hotp and Kha^cemwēset, where a neat stack of fibres awaits the ropemakers' attention (6). We see the actual twisting of the rope fibres n^ct sm^c (7), the clearest representation of rope-makers and their tools in the tomb of Kha^cemwēset, dynasty XVIII (8). There, three men are seen at work beside a papyrus swamp, making a rope. The man on the right of the group of rope-makers is twisting two separate strands of the

 (5)E. Teeter, JEA 73, p.72.

(6) Ibid., 73, pp.72, 75.

(7) Ibid., 73, p.75.

(8)E. Mackay, JEA 3, 1916, pp.125-126, pl.XV, 1; Gilbert, in : op. cit., p.454, fig.285; Teeter, JEA 73, pp.72-73.

rope, holding in either hand a tool of the kind used for this purpose. The man in the middle, who is seated on a rush box or stool, should be holding an upright bar of wood or metal between the strands which are being twisted together and one end of this bar should be fixed in the ground. His role is to control the forming of the rope by ensuring that the strands are laid tightly together. Meanwhile, the man on the left is closing the strands by twisting the tool, to which both strands are attached in the anti-clockwise sense and walking backwards as the rope is formed. Above the rope-makers are to be seen four coils of finished rope neatly tied up, and also a bundle of papyrus stems cut ready to be made into rope, and bound together in two places. There is also a group of the tools used in rope-making including a knife for cutting the papyrus stems, a mallet for beating them, two whirling-tools and two marlinspikes. The ancient and the modern methods of rope-making are almost identical. Present-day Egyptian fellahin use a bar of iron stuck vertically in the ground and use a piece of wood passed horizontally between the two strands that are in process of being twisted together. This additional piece of wood is only used when the rope is thick, not for finer strands which require the vertical bar only. It will be noticed in the scene from the tomb that the man twisting the strands is doing this with a tool held in each hand. In so doing, he had to whirl his tools in opposite directions, which a personal trial shows to require considerably more skill than is at first apparent. The modern Egyptians always employed two men for this purpose. The production of cordage is most commonly shown adjacent to scenes of boat-building or in conjunction with swamps, presumably in reference to the source of the fibre (Ptah-

hotep, Kha^cemw̄set, Akhtihotep, Iymery, Nyankhnesut, and Cairo CG.1697). It is also found with scenes of agricultural activity or adjacent to fields where the cord was employed to bind sheaves (Kahif and Nefer). Less common contexts include manufacture in a workshop alongside other specialized crafts, such as leather-working (Rekhirē^c). As most of these scenes appear alongside agricultural or boat-building scenes, one might assume that rope-making was considered to be more of a practical function than one of craft or art status. This is evident also in the absence of rope-making scenes among the crafts shown in certain XVIII, XIX dynasty tombs (9).

Basketry

The making of baskets, or plaiting was one of the first arts practised by primitive man, being earlier than weaving (10). Baskets have been imitated in stucco, pottery, gold and faience (11). The earliest known specimens of basketry are from Neolithic sites in Egypt, the two most productive Egyptian sites are first, Fayum A, and second, Badari (12). The oldest representation of a basket is on the great scorpion mace head from Hierakonpolis (13). Both date palm leaf

(9)Teeter, JEA 73, pp.74-75.

(10)Lucas & Harris, op. cit., p.128.

(11)McDonald, in : Egypt's Golden Age, p.134.

(12)G.M. Crowfoot, in : A History of Technology, p.418.

(13)Quibell, Hierakonpolis, pl.26 c, no.4; McDonald, in : op. cit., p.134.

and dom palm leaf were the principal materials which the ancient Egyptians employed for making the basketry; these materials are still employed for basketry at the present-day (14). Less frequent materials were grasses and other plant stems (15). The use of halfa grasses in basketry has been discussed by Greiss, who stated that grasses or halfa were used by the ancient Egyptians for making baskets from the Neolithic Period, Badarian civilization (16). Papyrus, though it was extensively utilized for other purposes, was rarely used in basketry (17). And rushes were also occasionally employed in basketry (18). The word indicating the manufacture of baskets, which is used for all different kinds of these, is nb. Usually is translated with "to plait" (19). The principal techniques used in ancient basketry described by Crowfoot, Lucas and Harris (20), are as follows

(A) Coiled Basketry

This earliest, and by far the most important, form has been continued to the present day in most parts of the world. Coiled work

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- (14) Lucas & Harris, Ancient Egyptian Materials and Industries, p.129; A. Saleh, The Civilization, p. 91.
(15) Ibid., p.129; Saleh, Op. cit., p. 91.
(16) Greiss, Some Ancient Egyptian Plant Materials, p.5; A. Saleh, Op. cit., p. 91.
(17) Ibid., p.78; Lucas & Harris, op. Cit., p.130; A. Saleh, Op. Cit., p. 91.
(18) Greiss, op. cit., p.152; Lucas & Harris, op. cit., p.131; A. Saleh, Op. Cit., p. 91.
(19) Wb II, 246, 4, and 9; Janssen, Commodity, p.136.
(20) Crowfoot, in : op. cit., pp.415-418; Lucas & Harris, op. cit., p.132; McDonald, in : op. cit., pp.133-134.

requires two elements, the coil or core and the wrapping or sewing-strip. The core, usually consisting of a bundle of grass, rushes or fibres, is coiled spirally in the shape required, the different layers being fastened together by a sewing-strip of similar material. The holes through which the sewing-strip is passed were probably pierced with pointed bones or sticks. The work always begins at the base, and there are three chief varieties of centre found : a simple coil or snail; a rosette, with radiating stitches; and the four-cross, with centre of four pieces of palm or reed laid crosswise, with the free ends split and drawn into the coil.

(B) Wickerwork

In which strands are woven in and out of a stake-frame. Fine coiled basketry was used for every purpose. It is often decorated with coloured patterns in the coil. Colours used for pattern work include purple, red and blue-green (21). While specimens of ancient Egyptian basketry have survived from the Predynastic Period and the eleventh dynasty, the preponderance of finds is from XVIII dynasty Theban tombs of Meryetamun, Tutankhamun and the workmen's tombs at Deir el Medina. These finds comprehend a great variety of shapes, including such exotic forms as the basketwork bottle from the tomb of Tutankhamun (22) Four baskets and a tray decorated with designs in red and black of XVIII dynasty date were found, at Thebes and a

(21) Crowfoot, in : op. cit., pp.422-423.

(22) McDonald, in : op. cit., p.134; See Figure 63, 64.

coloured grass basket of the XI dynasty (23). The same techniques of basketry are in use to this day, even to details of ornamentation, favourite colours and local variations.

In the Ramesside Period documents, there are mentioned numerous kinds of baskets which varied in purpose, capacity and price.

(A) kbs "grain basket" : The word kbs occurs almost exclusively in ostraca, the capacity of kbs was always 2 oipš. The exact shape of the object is uncertain, possibly the well-known grain basket, which is seen in so many pictures of agricultural scenes is meant, but Keimer, thought that this was ihy. It appears that the value of a kbs-basket was 1 deben, which is equal to 1/2 khar or 1/4 sinw (24).

(B) dnit : The second type of basket for which we have a large number of prices. It was used as a container for incense, fruit and suchlike. Several times, it is referred to as nbđ "coiled" or as sm^c, which may mean either that it was made of sedge, or more probably, that it was of "thin" or "fine" material. A special kind of this basket was described as ht or ht.ti; ht is also used with reference to other baskets. The prices of a dnit ht.ti seem to be lower than the usual price. The shape of the dnit is unknown. From the prices which are sometimes quite high as compared to those of the kbs, though in other instances equally low, it seems to have been of various sizes, possibly also of varying quality (25).

(23) Lucas & Harris, op. cit., p.132.

(24) Janssen, Commodity, pp.133-135, table II.


(25) Ibid., pp.140-142, table III.

(C) krht : Another container for fruit is krht. The price of the krht fluctuates between 1 deben and 2 deben. The krht is somewhat more expensive than the kbs and less so than the dnit (26).

(D) mndm and nkr : These two quite common words are usually found together. The mndm alone occurs as a basket for fruit in the XVIII dynasty, the oldest occurrence in any context being apparently Eloquent peasant B 1, 133. The combination of mndm-nkr costs 1 oipš, i.e. 1/2 deben or 1/8 sinw (27).

(E) ^cnbr : An unknown type of basketry, the price of 4 deben proves that ^cnbr was a fairly expensive object, something like the dnit (28).

(F) kskst : Another rare word for some kind of basketry object is kskst. That is a container is shown by Pap. British Museum 10052, 3, 20 and 4, 4, where a kskst is said to be "full of gold". kskst was probably rather large since it was also expensive (29).

(G) htp : Another well-known article of basketry is the htp, which occurs frequently in Pap. Harris I. In this text it is clearly meant to indicate a container, hence a basket. However, the original meaning of the hieroglyph htp () is "a loaf on a reed mat" and it is probable that in the New Kingdom, the meaning "mat" was still retained (30). Therefore, Helck translates the word as "mat" rather than basket

(26) Ibid., pp.143-144, p.145, table IV.

(27) Ibid., pp.147-149, table IV.

(28) Ibid., pp.150-151.

(29) Ibid., p.151.

(30) Ibid., p.160.

(31). The htp whatever type of basket it may have been, was very cheap and so perhaps correspondingly small (32).

(H) škr : One kind of basketry is indicated by the word škr and determined with 𓆎, and occurs several times among other kinds of basketry (33). The word is not listed in the Berlin Dictionary, which does, however, mention a particular form of it, namely škr^c (34). This may be either a variant or even a more complete writing of škr, or it may mean "a large škr". It is apparent that škr (or škr^c) is a cheap object, its usual price being 1 deben (= 1/4 sniw), its exact nature remains obscure; it may be that škr was a basketry bag (35). The baskets were used for storage of linens, food offerings, toiletries and even embalming materials (36).

Matting

The making of mats is one of the important minor industries of Egypt. Mats have been found in graves from the Badarian and Pre-dynastic Periods onwards (37). Rushes were commonly used by the

(31) Helck, Materialien V, 920.

(32) Janssen, Commodity, p.161, table, IV.

(33) Ibid., p.161.

(34) Wb IV, 550, 8.

(35) Janssen, Commodity, pp.163-164.

(36) McDonald, in : Egypt, s Golden Age, p.134.

(37) Lucas & Harris, Ancient Egyptian Materials and Industries, p.136.

ancient Egyptians for making mats (38). Papyrus culms were also employed for making mats (39). The leaf lobes of the dom palm were also used in making mats (40). Some of the Badarian and Predynastic matting was made of halfa grass (41). The variations of matting technique and the system of twined work in matting have been described by Crowfoot and are as follows (42) :

(A) Twined work : This technique, sometimes called twined plait or twined weave, is half-way between a plait and a weave. It was most commonly used for matting. Single rushes or bundles of rushes or flax are laid side by side and interlaced by two threads which twine between each reed or bundle.

(B) Wrapped Work : This is usually classed as weaving, though it is always done with the fingers.

(C) Matting Work : These techniques are much akin to weaving. In some cases, they must have been made as on a loom, with one series of strings or rushes stretched and another woven through, as in a plain or twill weave. In this technique, we have what may have been the beginning of spinning, the cords of strands being twisted together, as in a two-ply thread.

(38) Greiss, op. cit., p.152; Täckholm & Drar, Flora II, pp.470-473; J. Grant, in : A History of Technology, p.450.

(39) Greiss, op. cit., p.78; J. Grant, in : op. cit., p.450; Erman, Life in Ancient Egypt, p.447.

(40) Lucas & Harris, op. cit., p.136; J. Grant, in : op. cit., p.450.

(41) Lucas & Harris, op. cit., p.136; Greiss, op. cit., p.5.

(42) Crowfoot, in : op. cit., pp.416-417; See Figure 65.

The ancient Egyptian word for mat was tm3 (43). The mat was a common object in every Egyptian house-hold and therefore frequently mentioned in the texts. In several instances it is said to be šm^c, which may mean either "fine" or "made of sedge" (44). In other instances mats are described as rdmt (45), this being a definite indication of the material, as rdmt probably is the *Cyperus esculentus* L. (46). There are further instances in which mats are stated to be of šwy. Helck (47) suggest that šwy means "hay". It is difficult to imagine a mat made of hay, in this case "dried grass" is a better rendering. However that may be, it is clear that šwy, like rdmt, indicates the material (48). A special kind of mat is called cⁿ. This word should be distinguished from cⁿb, which again indicates material (49), and is found in Pap. Harris I (50), and in Pap. Gurob, vs. 1 a, 2 (51). The word tm3 sometimes occurs together with other words for basketry, but frequently in combination with the word sdr, the

 (43)Gardiner, Egyptian Grammar, pp.524, 600, sign-list V 19;

Janssen, Commodity, p.154; FCD, p.299.

(44)Janssen, Commodity, p.154.

(45) Pap. Harris I, 53 a, 14.

(46)L. Keimer, OLZ 30, 1929, 145.

(47)Helck, Materialien V, 807.

(48)Janssen, Commodity, p.154; Lucas & Harris, op. cit., p.136 ff.

(49)Janssen, Commodity, p.155; For cⁿb, half-grass, See Keimer, OLZ 30, 1929, p.146 ff.

(50) Pap. Harris I, 65 b, 7; 72, 11.

(51)Gardiner, RAD 17, 3.

meaning of which is not completely clear. Of course it is derived from the verb sdr "to lie down", "to pass the night", but that does not explain what object is meant (52). The Berlin Dictionary (53) translates it as "bed". But for this piece of furniture the inhabitants of the village used the word h^cti (54). Černý¹ translates the combination tm3-sdr as "mat and blanket" (55). The price of the combination sdr-tm3 exceeds the average value of two tm3; it would seem that the quality of a sdr was better than of an ordinary mat (56). Mats were important household articles and were used for a variety of purposes. In the banqueting scenes of the New Kingdom hosts and guests are often shown resting comfortably on mats (57), and labelled representations of reed matting occur in Theban tombs (58). Mats were also used as hangings, some of them extraordinarily elaborate and colourful (59).

 (52) Janssen, Commodity, p.158.

(53) Wb IV, 392, 11.

(54) Janssen, Commodity, p.180.

(55) Černý¹, CHMJWH 1, 1954, p.913.

(56) Janssen, Commodity, p.159, table X.

(57) Davies, Paintings from the Tomb of Rekh-mi-Rē^c, pl.XIX.

(58) Davies, Rekh-mi-Rē^c, pls.XXX-XXXI.

(59) Ibid., pl.IX.

Spinning and Weaving

Spinning and weaving were among the oldest of the crafts practised in Egypt (60). The earliest textiles preserved come from the Egyptian sites, Fayum and Badari, as does the earliest basketry (61). The earliest representation of a loom comes from a pottery dish of this period found in a woman's tomb at Badari (62).

Various stages in the processes of spinning and weaving are represented on the walls of tombs of XII dynasty at Beni Hasan (63), and el Bersheh (64), respectively, and in XVIII dynasty tombs at Thebes (65), and are further illustrated by a number of tomb models of Middle Kingdom date (66), the most elaborate being one in the

(60)Lucas & Harris, op. cit., p.140.

(61)Crowfoot, in : A History of Technology, p.431.

(62)G. Caton-Thompson & E. Gardner, The Desert Fayum, London, 1934, pp.46, 49, 88, 90; Crowfoot, in : op. cit., p.432.

(63)Griffith, et al., Beni Hasan I, pls.XI, XXIX; II, pls.IV, XIII; IV, pl.XV.

(64)Newberry, et al., El-Bersheh I, pl.XXVI.

(65)N.de G. Davies, Five Theban Tombs, pl.XXXVII; id, Nefer-Hōtep, p.38, pl.LX.

(66)J. Garstang, The Burial Customs of Ancient Egypt, London, 1907, pp.132-133; H. Roth, Ancient Egyptian and Greek Looms, Halifax, 1913, p.11; Crowfoot, in : op. cit., p.436.

Metropolitan Museum (67), and that from the tomb of Meketre^c, now in Cairo Museum (68).

The linen-loom in the tomb of Khnemhetep at Beni Hasan is drawn as if vertical, while the mat-loom in the tomb of Khety is obviously horizontal, but models found, at Deir el Bahari and Beni Hasan make it clear that both were horizontal (69). The Meketre^c model illustrates each stage of spinning and weaving. Three women sitting prepare the flax, each has before her a semicircular platform with a rounded top, on which she forms flax into a rove and winds it into a ball ready for the spinners. These hold two spindles each and appear to be spinning or doubling threads drawn from a pot or basket. Two women warp on pegs on the wall from a spindle held in the hands, winding one thread at a time in a figure of eight. There are two ground looms fastened to pegs in the floor, with rod-heddle and shed-rods and sword-beaters, small wooden implements by the side of the looms which may have been used to raise the heddle (70). In the tomb scenes and models already mentioned, we see the various methods of spinning employed in ancient Egypt. The scene of preparation is shown in tombs

(67) Breasted, Egyptian Servants Statues, Washington, 1948, pp.54-55, pl.48 A.

(68) H. Winlock, Models of Daily Life in Ancient Egypt from the Tomb Meket-Rē at Thebes, Cambridge, 1955, pp.29-33; Breasted, op. cit., p.54, pl.48 B.

(69) Crowfoot, in : A History of Technology, p.437.

(70) Ibid., p.437.

at Beni Hasan and el Bersheh. In the tomb of Daga at Thebes, there seems to be an earlier stage, equivalent to combing or hackling the flax. The spinners must have been extremely skilful. Beside the ordinary spinning with one suspended spindle, there are spinners who spin with two spindles, and double four threads simultaneously on two spindles (71). In addition to simple hand spinning, three types of spindle spinning are shown in the tombs of Khety and Baqt, grasped spindle, supported spindle and suspended spindle, the last being the most common (72). Spindles in these scenes are spun whorl uppermost, no doubt twirled in the hand, and also given a roll on the thigh, a method still used in the Northern Sudan to get a strong twist (73). The preliminary process of warping and setting up the warp was already mentioned in describing the Meketre^c tomb-model, while we see the actual technique of weaving again in the scenes. The process of weaving was a very simple one under the Middle Kingdom, the warp of the texture was stretched horizontally between the two beams, which were fastened to pegs on the floor, so that the weaver had to squat on the ground. Two bars pushed in between the threads of the warp served to keep them apart, the woof-thread was passed through and pressed down firmly by means of a bent piece of wood (74), as done by Bedouin today. The method used in the weaving-shed model

(71) Davies, Five Theban Tombs, p.34, pl.XXXVII; H. Roth, Looms, p.9, fig.7; PM I/I, p.316 (tomb no.103).

(72) Lucas & Harris, op. cit., p.141.

(73) Crowfoot, in : op. cit., p.438.

(74) Erman, op. cit., p.449; Wreszinski, Atlas, 317.

appears in the tomb of Tehutihetep, as well as a much more advanced method, namely twelve threads at a time drawn off twelve bobbins held in a frame. A third method, warping round three posts set in the ground, is shown in the tomb of Daga (75). In the New Kingdom, the type of loom most frequently used to weave textiles was the ground loom, employed from Predynastic times and illustrated in the Middle Kingdom tomb paintings and models. A second type of loom, the vertical two-beamed loom, was introduced into Egypt from Syria or other areas of the Near East, and it appears in the New Kingdom paintings (76). The introduction of the vertical loom into Egypt during the New Kingdom Period made possible a much greater variety of decoration to the weavers, but they continued to produce mainly plain linen cloths for use as sheets, towels, tunics, and other garments (78). The vertical 2-beamed loom in a rectangular wooden frame, seen in three tombs at Thebes. In the tomb of Dhutnūfer (79), who was a royal scribe in the reign of Amenophis II, we see the owner of the tomb who sits in the hall, while inside some servants spin and weave. The larger loom is worked by two men, the smaller by one man only. The loom consists of an oblong frame set up on two stones. The warp is attached to the warp beam on top and the breast beam at the bottom. The weavers sit on benches with their backs to the spectator, they are holding a heavy looking rod which looks like a "beater-in" ; the

(75) Crowfoot, in : op. cit., p.438.

(76) L. Salmon, in : Egypt's Golden Age, pp.180-181.

(78) Ibid., p.181.

(79) H. Roth, Looms, p.16, fig.9; PM I/I, pp.217, 218, (tomb no.104).

man at the smaller loom holds an exaggerated shuttle in his right hand. On the left hand of the two looms the original shows a man spinning coarse thread into finer using two spindles at once; the threads pass through rings fixed in the ceiling. Behind him, two girls are breaking up the flax and two others are making coarse threads of the fibres, almost exactly like those in the tomb of Daga a couple of hundred yards away. In the tomb of Neferhotep (80), we see that the frame of the loom consists of two red uprights with two yellow cross-pieces at the top. The white cloth which is being woven is stretched on the lower of these cross-bars, this being apparently lashed to the fixed beam at the top. A red shed-stick crosses the warp a little way down. On the right of the loom is a woman, facing to the right, with tucked-up gown; there was probably another loom with a weaver, in a similar position to that of the former, attending to it. In the tomb of Neferronpet, the head of the weavers in the House of Ramesses II, in the estate of Amūn, i.e. in the Ramesseum, for which is sometimes substituted head of the weavers of the lord of the Two Lands, we see the janitor who sits near the door brandishing a stick, to his right two women are shown stretching the warp between two uprights shaped like a tuning-fork and planted in a block. Behind these, two other men or women are depicted cleaning or doubling the thread. Next seen are four upright looms, a type which appears to have superseded the horizontal loom in order to meet the finer requirements of the New Kingdom. These looms are of two sizes. The smaller size was operated

(80) Davies, Nefer-Hotep, p.38, pl.LX (c); H. Roth, Looms, p.14,
fig.13.

by a single weaver, a woman in one case, a man in the other two. A second and broader apparatus is remarkable in that it permitted the co-operation of two weavers seated side by side. The loom on the right carries a web a good deal broader than that of the woman, but narrower than that of the pair, and probably marks the very limit of a one-man loom. If the object which the worker is holding is the shuttle, it is the "sword" or "beater-in". The men sit on little stools with their backs to the observer and all appear to be lifting the upper "shed" to open the warp threads for the passage of the shuttle. The woman, though little hampered by clothes, sits sideways on her stool, as if by habit. The work was evidently done from the bottom upwards and the woven cloth rolled up on the lowest cross-beam (81). In the tomb of Neferronpet, the scenes which represent the preparation of the flax and the stretching of the warp are almost replicas of those in the tomb of Daga of the Middle Kingdom, while the pictures of the looms resemble closely those in the tombs of Dhutnufer and Neferhotep. The work is done by both men and women. Men prepare the flax while women stretch the warp. Men mostly work the loom, either singly or with a companion.

As this industry in Egypt consisted entirely of the weaving of linen, the cultivation and preparation of the flax were of considerable importance (82). We see in the scenes, the method of its preparation.

(81) Davies, Seven Private Tombs at Kurnah, pp.49-50, pl.XXXV; H.

Roth, Looms, p.17, fig.16; PM I/I, p.249, (tomb no.133).

(82) See Part II, Chapter III.

The flax stalks were first boiled in a large curiously - shaped vessel - a process which, evidently, like our roasting was intended to loosen their covering; they were then beaten (as at the present day) with hammers, till the outside was loosened. The flax thus obtained was still mixed with bits of the outside and with other impurities, and had to be separated from this rubbish before it could be used. The good fibres were carefully picked out and laid together to form a loose thread. This thread was then moistened and twisted together more firmly by means of the spindle (83).

Sieve

The sieve is made in two sections : a body composed of a coil oversewn with palm leaf and, a sewn to that, a gridwork formed of reed stalks loosely bound together with five twining strands. For added support two palm ribs were attached to the bottom. Presumably the sieve would have been used for sifting grain, flour, or any granular materials (84). Ancient Egyptian word m(t)rht means "strainer" or "sieve". Probably mtrht is the earlier form. It occurs exclusively in texts of XIX and early XX dynasties, while at least some of the occurrences of mrht belong to the mid XX dynasty. This agrees with the conclusion that mrht and not mtrht survived in demotic texts

(83)Erman, Life in Ancient Egypt, pp.449-450.

(84)Breasted, Egyptian Servants Statues, pl.26 a; McDonald, in :
Egypt's Golden Age, p.138; See Figure 64.

and probably also in the Coptic word $\text{Mpw}2\epsilon$. The price m(t)rht in the Ramesside Period was between 1 to 1/2 deben (85).

Bread

Bread-making held a high place in the housekeeping at all periods (86). Bread made of various cereals, wheat, barley and possibly, as well from lotus seeds and dom-palm dates was the most important food of the Egyptians (87). Since bread was so popular as food for the living Egyptian, it is not surprising that it was a common practice to place some in the tombs of the departed to support life during the hereafter. It has been found in the tombs of the common people, in the tombs of the nobles, and even in the tomb of the Pharaoh himself (88). The earliest finds of bread date to the Omarian horizon (89). Specimens found at El Badari were sufficiently porous to indicate that leavening was practiced even at that period (90). Several pieces of bread were found by Carter during his excavation of the tomb of Tutankhamun, placed there for the sustenance of the resurrected King

(85) Janssen, Commodity, pp.145-147.

(86) Erman, op. cit., p.189.

(87) A. Ruffer, MIE 1, 1919, pp.45-51; F. Leek, JEA 59, 1973, p.128.

(88) Ibid., 58, 1972, p.129

(89) Hayes, Most Ancient Egypt, p.119.

(90) Tackholm & Drar, Flora I, p.247; Darby, et al., Food II, p.502.

(91). The stages of bread-making were represented in the tomb scenes. First, the grain was withdrawn from the stores (92). Two men are pounding the grain with pestles in a solid cylindrical mortar (93). The man with uplifted pestle gives the word "down !" and receives the equally brief assent "right !" (" I do your pleasure ") (94), the same way as is done now in many parts of Africa (95). A woman passes the coarse flour thus obtained through a sieve into a tray to remove husks, and a companion grinds it still finer between a pestle and a stone slab set on a clay bench within a hollow in which it collects (96). One woman is piously mindful of the object of her labour saying, "O all ye gods of this land, bless my powerful master", but her companion's reply is "... this is for food" (97). After flour was thus

 (91)Carter, The Tomb of Tut-Ankh-Amen III, p.212; Leek, JEA 58, p.129.

(92)Wreszinski, ZÄS 61, 1926, p.1, Abb.1; H. Wild, BIFAO 46, 1966, pl.IX.

(93)Davies & Gardiner, Antefoker, p.15, pl.XI; Wreszinski, ZÄS 61, p.2, Abb.2; id, Atlas, 325; Klebs, Reliefs p.177; Wild, BIFAO 46, pls.IX-X.

(94)Wreszinski, ZÄS 61, p.2; Davies & Gardiner, Antefoker, p.15, pl.IX.

(95)Erman, op. cit., pp.189-190.

(96)Wreszinski, ZÄS 61, p.3, Abb.4, 5, 6; id, Atlas I, 325; Klebs, Reliefs p.177, Abb.110; Davies & Gardiner, Antefoker, p.15, pl.XI; Davies, Five Theban Tombs, p.35, pl.XXXVIII.

(97)Davies & Gardiner, Antefoker, p.15, pl.XI.

obtained by rubbing the corn between two stones of which the lower larger stone was fixed and sloped towards the front, so, the prepared flour ran into a little hollow in the front of the stone (98). We see in the tomb scenes, the workers kneading the dough whether with their hands (99) or in large households with their feet (100); in the latter, they are sometimes holding on by long sticks to enable them to jump with more strength. This confirms the statement of Strabo (101), and the astonished comment of Herodotus (102) "dough they knead with their feet, but they mix mud with their hands". One mixes flour with water in a jar with more vigour than deftness, for it slops over the rim at every point (103). The dough was then fashioned by the hand into various shapes (104), and these were baked on an oven. At first, baking was on an open fire or over ashes. A rudimentary oven was subsequently contrived by lighting a fire between a few vertically placed stones with an overlaying horizontal slab. Sometimes, the dough was baked in pre-heated moulds. Later, came

(98)Erman, op. cit., p.190.

(99)Wreszinski, ZÄS 61, pp.6, 7, Abb.14, 15, 17, 18; Klebs, Reliefs p.177, Abb.110; Wild, BIFAO 64, pl.IX.

(100)Davies & Gardiner, Antefoker, pl.VIII; Davies, Nefer-Hotep, p.38, pl.XLV; id, Ken-Amun, p.51, pl.LVIII.

(101)Strabo, Geography, 17, 2, 5.

(102)Herodotus, II, 36.

(103)Davies, Ken-Amun, p.51, pl.LVIII; id, Nefer-Hotep, pl.XLV; id, Antefoker, pl.VIII.

(104)Wreszinski, ZÄS 61, p.8, Abb.20.

cylindrical ovens inside of which a fire was lit. Some of these ovens were open at the top, when the oven was sufficiently hot, the dough loaf was pressed against the inside of the heated walls (105). Also, in a scene at tomb of Ramesses III, we see the oven is a blunted cone of Nile mud, open at the top and perhaps three feet high. The fire is burning in the inside, the flames burst out at the top and the cakes are stuck on the outside (106). Such ovens are still in use in rural North Africa.

As for bread shapes, a particular shape of bread, attested since the earliest times, had a special significance. This was a conical white bread t-hd that was used in offerings (107). In hieroglyphic writing, it was determined by a pointed pyramidal sign which represented the loaf and generally bread, either drawn alone or on the palm of the hand, which meant "to give" (108). Other loaves were roughly cir-

(105) Ibid., 61, pp.8-12, Abb.21-45; I. Rosellini, I Monumenti, pl.85; Borchardt, ZÄS 68, 1932, pp.73-78; Brovarski & Lacovara, in : Egypt's Golden Age, p.108.

(106) Wilkinson, op. cit., II, 34; Erman, op. cit., p.191; See **Figure 66**.

(107) Wb V, 210, 1 ff; FCD, p.292; Gardiner, Egyptian Grammar, p.598; id, AEO II, 228 *; Wreszinski, ZÄS 61, p.8; B. Kemp, JEA 65, 1979, p.11; J. Cooney, Amarna Reliefs from Hermopolis in American Collections, Brooklyn, 1965, pp.73-74, no.46; Brovarski & Lacovara, in : op. cit., p.108; Dokki Agricultural Museum, Cairo, No. 4272.

(108) Gardiner, Egyptian Grammar, pp.454, 533, sign-list D 37, X 8.

cular or ovoid and marked with slashes to allow the gases formed during rising and baking to escape. A triangular loaf was apparently much in favour, for it figures in most scenes and museums. A semi-circular loaf must have been very traditional, since the figure was used ever since writing was invented as a hieroglyph for bread and for the sound t that designated it. There was also a flat loaf that was often curved, having taken the shape of the inner wall of the cylindrical oven where it was baked. Especially under the New Kingdom, fancy loaves and cakes were rolled into spirals, or were given the shape of a goose, cow or female figure (109). And even a variety of bread that resembles an acacia pod in shape (110). There were also imitations of foreign bread, including Nubian bread and loaves of the Asiatics (111). There are over fifteen words for bread in the Old Kingdom offering lists (112). Under the New Kingdom, the variety

 (109) Wreszinski, ZÄS 61, p.8, Abb.20; Darby, et al., Food figs.12: 12, 13; 12 : 15, 16. About bread shapes of the Old Kingdom, see Werszinski, Atlas, 398, 109; Wild, BIFAO 64, pl.IX; Davies, Deir el Gebrawi I, 20; About bread shapes of the Middle Kingdom, see Griffith, et al., Beni Hasan I, 12, 29, 39; Wreszinski, Atlas, 221; About bread shapes of the New Kingdom, see Wreszinski, Atlas, 374, 125/6, 155, 278, 254, 301, 325, 325/6; Kelbs, Reliefs 110, 111, 112; See **Figure 67, 68.**

(110) Säve-Söderbergh, Four Eighteenth Dynasty Tombs, p.22; V. Täckholm, Student's Flora, pl.93 c; Brovarski, op. cit., p.108.

(111) CLEM, pp.205, 217; Brovarski & Lacovara, in : op. cit., p.108.

(112) Brovarski & Lacovara, in : op. cit., p.108.

of words for bread is enumerated in the records as a result of their distinctive differences in composition, quality, size or shape. We find that clearly in the offerings founded by Ramesses III, for Amūn-Rē^c (113) : fine bread : large oblation-loaves, large loaves (syd), large loaves (bh), loaves (ddmt-hr-t), loaves (by^ct), loaves (pr-sn), white loaves, large loaves (^ck), sweet loaves (s^cb), loaves (pws^c-^ck) of grain, white oblation-loaves, pyramidal loaves, kyllestis-loaves, kunek (kwnk)-bread, loaves (wdnw-nt), white loaves (t), loaves (p^ct). Prices of bread are rare, the reason is that the woman in the village baked the bread for their families themselves from the grain received by the workmen as rations (114).

Wine-Making (115)

Beer

The ancient word for beer was hnkt (116). Coptic 2NKE (S.) (B.) 2EMKI (117). Beer was the favourite drink of the Egyptian

 (113) Pap. Harris I, 17 a, 7-11; 17 b, 5-15; 18 a, 1-3; Breasted, AR IV, 238; Helck, Materialien IV, p.445 ff.

(114) Janssen, Commodity, p.344.

(115) See Part II, Chapter V, under Vines.

(116) Gardiner, Egyptian Grammar, pp.52, 530; id, AEO II, 233 *; FCD, p.173.

(117) Gardiner, AEO II, 233 *.

people. This drink was in favour at all times (118). The making of beer clearly dates back to a very early period; when Predynastic jars were examined by Petrie (119), they were found to contain residues of beer. Beer is frequently mentioned in ancient Egyptian texts as a divine or mortuary offering, as a beverage (120), and as a constituent of medicines (121). The earliest reference known is from the third dynasty (122), and the next in chronological order are from the fifth dynasty, when beer is named as a mortuary offering; where Hotepiryakhet, a priest of the sun-temple of Neuserre^c, at Abusir, tried to induce visitors to his tomb to make mortuary offerings of beer by promising to commend them to the god "Whosoever shall make offerings to me there, I shall do for them; I will commend them to the god for it very greatly; I will do this for them, for bread, for beer" (123). And it is mentioned in the Pyramid Texts (124). Several different kinds of beer are mentioned in the New Kingdom, as well as having been made in the country. Beer was also imported; the Papyrus Anastasi contains two references to an imported beer of Kedy. The first is in the letter which the scribe Pbes sent to his lord

(118) Erman, Life in Ancient Egypt, p.192.

(119) Petrie, Prehistoric Egypt, p.43.

(120) Wb III, 169, 11-20; Breasted, AR V, (index), p.108.

(121) Von Deines & Grapow, Drogennamen, pp.372-83.

(122) M. Murray, Saqqara Mestabas I, p.39.

(123) Breasted, AR I, 252.

(124) S. Mercer, The Pyramid Texts in Translation and Commentary, IV, London, 1952 (index), p.247.

Amenemope as a report on the Delta Residence : "The youth of Great-of-victories are in festal attire every day, beer of Kedy of the port and wine of the vineyards" (125). The second is when an official complains of the hardships of his post abroad : "if ever a flask full of beer of Kedy is opened and people go out to get a cup (of it) (126).

Egyptian beer is described by the classical writers; thus Diodorus (127) states that they made a drink from barley, which "for smell and sweetness of taste was not much inferior to wine". Strabo (128) says that barley beer was a preparation peculiar to the Egyptians and that it was common among many tribes, but the mode of preparing it differs in each, and that it was one of the principal beverages of Alexandria. This same writer (129), also states that the Ethiopian made a drink both from millet and from barley. An exception is Pliny (130) who merely mentioned that it was made in Egypt from corn .

The brewing of beer is represented on a number of tomb walls; for example, in a Vth dynasty tomb from Saqqara, now in the Leiden

(125) CLEM, p.75, Anastasi III, 3, 6.

(126) Ibid., p.189, Anastasi IV, 12, 11.

(127) Diodorus, Library of History I, 3.

(128) Strabo, Geography, XVII, II, 5; XVII, I, 14.

(129) Ibid., XVIII, II, 2.

(130) Pliny, Natural History, XIV, 29.

Museum (131), in another Vth dynasty tomb at Saqqara (132), in a VIth dynasty tomb at Deir el Gebrawi (133), in a Middle Kingdom tomb at Meir (134), in a Middle Kingdom tomb at Thebes (135), and in the New Kingdom, in the tomb of Suemnut (136), and the tomb of Kenamun (137), both these tombs are from the reign of Amenophis II (138). In the scenes of these tombs, we see respectively in each case bread-making and brewing being associated, the former being a preliminary step towards the latter. Among the processes shown are the making and baking of the bread and the mixing and the pouring of beer into jars. Baking and brewing are also illustrated by various tomb models and an XIth dynasty wooden model found at Deir el Bahari shows the operations of corn being ground, dough being kneaded, the mash being made, the solution being fermented and the finished beer being poured into jars (139). Similar models of about the same date

(131) Wild, BIFAO 64, pl. X.

(132) G. Steindorff, Grab de Ti, Leipzig, 1913, pls. LXXXIII-LXXXIV;
Wild, BIFAO 64, pl. IX.

(133) Davies, Deir El Gebrawi II, p. 26, pl. XX.

(134) A. Blackman, Meir IV, p. 35, pl. XIII.

(135) Davies & Gardiner, Antefoker, p. 15, pl. XI a.

(136) PM I/I, p. 188, (tomb no. 92); Wreszinski, Atlas, 296; Wild,
BIFAO 64, pl. 3.

(137) PM I/I, p. 192, (tomb no. 93); Wreszinski, Atlas, 301; Davies,
Ken-Amun, p. 51, pl. LVIII; Wild, BIFAO 64, pl. XI.

(138) PM I/I, pp. 187, 190.

(139) H. Winlock, Models of Daily Life, pp. 25-29.

are described by Garstang, (140) and Breasted (141). According to the previous scenes and models, beer-making stages were the following : grains was always pounded and freed from husk, sieved and made into a dough to which malt and aromatic substances were added. The dough was then baked into a beer-bread. This, either crushed hot from the oven or taken from storage and broken into four parts, was soaked; salt was added and the mash was mixed in the fermenting vat. This vat was a very large, one in which the workemen tread the mash with their feet holding on to the rim. After some fermentation, the liquid was transferred to a second vat, where fermentation continued. Sieves were used to separate solid and liquid. Sometimes a poor quality beer was made by kneading the solid matter with more water and pressing the liquid for fermentation as before. Finally, the liquid was filtered into jars. The jars were prepared in some way beforehand, for men are depicted with their arms inside them. They may be merely cleaning them, or perhaps applying a layer of resin to the interior, since Egyptian pottery was usually rather porous. The beer jars were then closed with clay stoppers, sealed and stored. This method of brewing is still practised by the Nubians in making their drink called Bouza.

Concerning the grain used in beer-making, in Ti's tomb two different cereals are used for this purpose. Bš(3) and zwt grain, but

(140)J. Garstang, The Burial Customs of Ancient Egypt, pp.63, 73-76, 86, 94, 126-128, figs.50, 61, 62, 74, 84, 124-125.

(141)Breasted, Egyptian Servants Statues, pp.30-35, 37-42.

mainly bš(3) mentioned as a source of beer, while zwt is identified in connection with a process that could be malting (142). In Suemnut's tomb at Thebes, Wild (143) surmised that the material contained in two baskets could well represent malt. Nims (144) stated that Helbaek, H., had examined malt from the Old Kingdom tombs, and suggested that this bš(3) was malt. The Moscow Mathematical Papyrus mentions bš(3) as a particular kind of grain prepared for beer making (145). Also, barley was used for brewing beer (146); a pottery vase from Deir el Medina filled with barley remains of beer strainings is kept in the Agricultural Museum, Cairo (147), and three of exhausted grain from Deir el Medina were examined by Lucas and found to be barley. Oliver, F. W., also examined them; he stated that the principal sample was a small form of 2-rowed barley (148). The ancient Egyptians used flavouring ingredients in brewing. Montet (149) thinks that sometimes at least a liquid made from crushed dates was added to the beer, and this is confirmed by several documents : The Moscow Mathematical

 (142)Wild, BIFAO 64, p.115, pl.IX.

(143) Ibid., 64, p.115, pl.3.

(144)Nims, JEA 44, 1958, p.63, no.6; id, JNES 9, 1950, pp.261-262.

(145)Gardiner, AEO II, 225 *; Nims, JNES 9, pp.261-262; id, JEA 44, pp.60-63.

(146)Erman, op. cit., p.193; Täckholm & Drar, Flora I, p.284; Janssen, Commodity, p.346.

(147)Darby, et al., Food II, p.537.

(148)Lucas & Harris, op. cit., p.16.

(149)P. Montet, Les Scènes de la Vie Privée, p.250.

Papyrus in which dates are the object of interesting calculations (150). The great Louvre Papyrus 3326, dating from the reign of Tuthmosis III : memorandum concerning the dates that were given to the brewers thw (151). We see in a brewing scene in Antefoker's tomb at Thebes, that a man stoops over a mass and works it with his hands. This scene is accompanied by the following text : "this mass of dates which is in the granary is old. If I could only see it come out, luck would have be fallen me" (152). A bas-relief in the Karlsruhe Museum indicates the preparation of date juice to enrich or flavour beer (153). Egyptian beer was flavoured with dates, this is attested also by the common sequence of dates and cereal in list of offering ever since the second dynasty (154), of daily supplies to brewers (155).

Prices of beer, hnkt, are rare. The reason will be that barley for brewing beer was paid to the workmen as part of their rations (156).

 (150)Gardiner, AEO II, 225-227 *; Nims, JEA 44, pp.60-63; id, JNES 9, pp.261-262; Wild, BIFAO 64, p.116.

(151)Gardiner, AEO II, 225, 226 *; Wild, BIFAO 64, p.98.

(152)Davies & Gardiner, Antefoker, p.15, pl.XI.

(153)A. Wiedemann & B. Portner, Aegyptische Grabreliefs aus der Grossherzoglichen Altertumer-Sammlung zur Karlsruhe, pl.VI; Montet, Les Scenes de la Vie Privée, p.250.

(154)Wild, BIFAO 64, p.99.

(155)M. Megally, BdE 53, Cairo, 1971, p.34 ff.

(156)Janssen, Commodity, p.346; Helck, Materialien IV, p.683 ff; see also Part II, Chapter I.

Hence, it seems that every household in the village brewed its own beer. In addition to it the workmen received small quantities of beer from the administration (157). Beer was delivered to the workmen either in ds- or in ps-jars, its quantity in the prices is always expressed in mdkt (158), a large and quite common container (159), of roughly 50 hin (160). Beer cost 1 to 2 deben per mdkt (of 50 hin) which is at any rate a low price compared with all other commodities (161).

(157) Helck, Materialien IV, p.683; Janssen, Commodity, p.347.

(158) Ibid., p.347.

(159) Helck, Das Bier im Alten Agyptien, Berlin, 1971, p.52.

(160) Janssen, Commodity, p.347.

(161) Ibid., p.348.

PART V

GODS AND FESTIVALS OF AGRICULTURE

CHAPTER I

CHAPTER I

Gods of Agriculture

Rennutet

In the Pyramid texts, we read the name of Rennutet. The name of the goddess is composed of two elements : rnn and wt.t. A later form is rm.t while the word rnn.t is found from XVIII dynasty onwards. Another way of writing Rennutet in the Greek Period is rr.t. These different designations are accompanied by the determinatives of a cobra, a woman suckling a child, or an egg. In demotic, the name of Rennutet became T-Rmwte. In the Berlin Dictionary, II, 435, the word rnn can mean "exult, praise". In the same dictionary, II, 436, the verb rnn appears with the meaning "to take upon one's lap, to fondle", used only in a religious context. Closely linked with this is the verb rnn (Wb, II, 436) "to nurse, to rear", with the determinative of a woman with a child. The name Rennutet is to be explained from the verbs "to fondle, to nurse or rear". The nursing and fondling of the Pharaoh commences in infancy and lasts till his death. In other words, Rennutet is the nurse (1).

The iconography of Rennutet is found on the walls, stelae and in statue form from the New Kingdom onwards. Some tombs on the West bank of Thebes show scenes of harvesting, winnowing and threshing

(1)J. Broekhuis, De Godin Renenwetet, Assen, 1971, pp.1-9.

where an emblem is displayed over the crop. This might be interpreted as the crescent of the new moon and symbolise the offering of the first fruits of the harvest to Rennutet at the beginning of the month in which the harvest festival fell. Rennutet is called "Mistress of the threshing floor", a practical role ascribed to her, in addition to the overall task of ensuring the continual fruitfulness of the Egyptian soil, and is drawn from the imagery of the snake eating mice and rats which threaten the crops (2). At the tomb of Kenamūn at Thebes on the fourth pillar, south side, we see the snake Rennutet is erect on an altar, wearing the disk, horns and high feathers; to her Kenamun offers two braziers with burnt offerings of a duck and a pigeon. Accompanying the scene this text (3) : Rnnwtt nbt htpt ^c3t df(3) di.s pr ... wdn ht nbt nfrt w^cbt in r^cpt h3ty-^c s^c3.n nsw hr mn(t) ib.f ... "Rennutet, lady of offerings, great of delicacies (abundant in sustenance), may she grant [all] that which comes forth offering of all kinds of things good and pure by the prince and count, whom the King has aggrandized because of his devotedness...". At the tomb of Nakht, at Thebes east wall, south side, a scene represents an offering laid before a deity. It is to be concluded from various pictures of the harvest field that the deity, when made visible, is the goddess Rennutet "Mistress of the threshing floor" under the form of a cobra

 (2)G. Hart, A Dictionary of Egyptian Gods and Goddesses, London, 1986, p.182.

(3)N.de G. Davies, Kenamūn, p.53, pl.LXIV; B. Cumming, Egyptian Historical Records of the Later 18 Dynasty, fascicule, II, London, 1984, p.106; PM I/I, p.193, (tomb no.93); See Figure 69.

(4). In the tomb of Ipuy at Deir el Medina, reign of Ramesses II, we see in the hall, a scene represents the ingathering of harvest, which has been celebrated by the sacrifice of a goat and by other offerings, the recipient being Rennutet, the snake goddess of nourishment and plenty (5). In the tomb of Hatiay, overseer of the prophets of all the gods, of Ramesside Period, we find in the hall a scene which represents offering laid before a simple figure of the divinity of harvest, represented by a winged face (6). In other tombs on the West bank at Thebes, from the New Kingdom, we see also Rennutet depicted as serpent before her offerings (7). In the temple of Medinet Habu, we see Ramesses III kneeling on a shrine and presenting to Hu and Rennutet who is depicted with human body and snake-head. She wears the headdress of Hathor composed of the sun-disk and two plumes between cow's horns. She touches the god Hu with her right hand, while she holds the sign $\overset{c}{n}h$ in her left hand. The text which accompanies Rennutet reads (8) : Dd-mdw in Rnnwtt

(4)N.de G. Davies, Nakht, pp.63-65, pl.XVII; PM I/I, p.99, (no.52).

(5)N.de G. Davies, Two Ramesside Tombs, p.57, pl.XXX; PM I/I, p.316, (no.217).

(6)N.de G. Davies, Seven Private Tombs at Thebes, p.35, pl.XXII.

(7)N.de G. Davies, & Nina,de G. Davies, Menkheperra^csonb, Amenmose and Others, p.26, pl.XIX G; Wreszinski, Atlas, 230, 355; Broekhuis, Renenwetet, pp.13-16; PM I/I, pp.105 (no.54), 133 (no.66), 175 (no.86), 229 (no.112), 255 (no.143); See **Figure 70**.

(8) Medinet Habu IV, pl.583; Broekhuis, Renenwetet, pp.40, 41; P. Derchain, CdE 47, 1972, pp.136-137.

nbt hnwt ntrw nbw di(.i) n.k snb nb im3ht ib nb "Words spoken by Rennutet, the lady, the mistress of all the gods. (I) give to you all health, all joy". In the same temple, we also see Ramesses III kneeling on a shrine presenting wine to Sia and Rennutet, who were depicted as in the previous scene; but here she stretches her right hand around Sia's back. A damaged text accompanies her figure (9) : Rnnwtt nb.t k3.w ... "Rennutet Mistress of the effectiveness...". In the Ramesseum temple, we see Rennutet represented with other gods on the Astronomical ceiling (10). In the scenes of plucking the grapes and treading out the juice in a trough, we see Rennutet represented with a serpent's body on a basket. She wears the headdress of Hathor composed of the sun-disk and two plumes between cow's horns. In front of her are offerings which include a basket of grapes. This shows that she still retained under the new influences her position of patroness of the fruits of the earth (11). In the tomb of Kha^cemwēset, reign of Amenophis I, under her figure the signs


 (9) Medinet Habu IV, pl.585 B; Broekhuis, Renenwetet, p.40;

Derchain, CdE 47, p.137; See **Figure 71**.

* A. Saleh, Bulletin of the Faculty of Arts, Cairo University, Vol. 22/2, 1960.

(10) R.A. Parker, The Calendars of Ancient Egypt, Chicago, 1950, 2-3; Broekhuis, Renenwetet, pp.43-44; LD III, 170.

(11) T. Säve-Söderbergh, Four Eighteenth Dynasty Tombs, p.17, pl.XV; Nina de G. Davies & Gardiner, Paintings, p.60, pl.XV; N.de G. Davies, JEA 9, 1923, p.144, pl.XXVI; Wreszinski, Atlas, 355, 256; Wegner, MDAIK 4, 1933, pls.7 a, 18 b; PM I/I, pp.263, 294, 344, 280, 152, 157, 189, 93; See **Figure 16, 17, 18**.

 meaning "Lady of the effectiveness" (12). In the Cairo Museum (J.E.27786), there is part of a limestone block, found at Thebes, from the New Kingdom. On this monument, we see a man kneeling and burning incense. He seen adoring the goddess Rennutet in the form of a snake; upon her head is the sun-disk. Above the goddess, there is the following inscription : Rnnwtt htp.w. Below this scene, we see another scene which represents a man and his wife who adore Rennutet in the form of a snake; she receives papyrus plants from them (13). In the British Museum (no.597), there is part of a limestone shrine-shaped stele, end of XVIII dynasty. On the lintel, Anhur-kha^cu is seen kneeling and adoring the goddess Rennutet in the form of a serpent upon a shrine. This scene is accompanied by the following inscription (14) : Rnnwtt nb.t k3.w "Rennutet, lady of provisions", sdm^c s^v m st M3^ct Inhr-h^cw "Servant in the place of truth, Anhur-kha^cu". Brunton found a small stela with Seth and Ptah seated facing each other and Tuēris standing between them, facing Seth, as the principal divinity. The snake with the plumes represents the harvest goddess Rennutet, as she is mentioned on several other objects from this site. The lines in front of her represent a small altar with offerings. The scene is quite natural; Tuēris holds the sign of

(12) A. Saleh, Bulletin of the Faculty of Arts, Cairo University, Vol. 22,

Part 2, 1960.

(13) Broekhuis, Renenwetet, pp.12, 13, pl.1.

(14) H.R. Hall, Hieroglyphic Texts from Egyptian Stelae, etc., in the British Museum VII, London, 1925, pl.XXVIII, (597); Broekhuis, Renenwetet, p.20, pl.IV; PM II, p.721; **See Figure 72.**

protection, for she protects the women giving birth and Rennutet is the goddess suckling the child Nepri. This stela was found at Matmar, XIX dynasty; now it is preserved in the Cairo Museum, (no.55887) (15). In Budapest Museum (no.51.2148), there is a stele found in Thebes, from the New Kingdom. On this stele, we see Simut burning the incense and pouring the libation before Rennutet, who is depicted as a serpent; she bears upon her head two plumes. In front of her is an inscription, it reads Nhb.t Rnnwtt Ht-hr (16). In Stockholm Museum (MM 18565), there is a stele, which was found at Deir el-Medina, XIX dynasty. We see in the upper part, Rennutet depicted in the form of serpent. She bears the sun-disk between cow's horns, she faces the moon god. Above her figure, there is the following inscription : t3 Rnnwtt. On the lower part, we see Ra^cmosi kneeling and adoring the cartouche of Ramesses II (17). In Den Haag-Museum-Meermanno-Westreenianum, there is a stele of the XIX-XX dynasties. On the lower part of the stele, we see Rennutet with snake-body and human-head upon a basket. A man and his wife adore her and present offerings for her (18). In Cairo Museum (no.6306), there is a stele, found in Giza, XVIII dynasty. We see Rennutet de-

 (15)G. Brunton, Matmar, London, 1948, pl.L; J. Leibovitch, JNES 12, 1953, pp.76-77, fig.12; Broekhuis, Renenwetet, pp.22-23.

(16)Broekhuis, Renenwetet, pp.20-21, pl.V; PM II, 799.

(17)Broekhuis, Renenwetet, p.25, pl.VI; PM II, p.734.

(18)Broekhuis, Renenwetet, pp.31, 32, pl.VIII; Spiegelberg, Die Aegyptische Sammlung des Museum-Meermanno Westreenianum im Haag. Strassburg, 1896, Bl.2 a.

picted with human-body and snake-head; she holds in her right hand the sign $\overset{c}{nh}$, while she holds with her left hand a $\underline{w3s'}$ -sceptre. She receives papyrus plants from Tuthmosis IV (19). In Khartum Museum (no.2482), there is a stele, which was found in Semna-Kumma, from the New Kingdom. On this stele, we see a man called Huy \overline{Re}^c who burns incense and pours a libation before Rennutet, who is depicted sitting enthroned. She is represented with human body and snake-head, she is suckling a child on her lap. Before her there is an offering-table. Above the goddess, there is the following inscription (20) : $\underline{Rnnwtt nb.t k3.w}$ "Rennutet, lady of provisions". The Cairo Museum has in the Tutankhamun collection a famous necklace which is unique of its kind. A goddess with human head, torso, and arms, but a serpent's body is suckling the King in the form of a child. He is wearing his ceremonial dress. The goddess can only be Rennutet, who is here assimilated to Isis following a principle of early syncretism; she wears the headdress of Hathor, as Isis often does and as at Medinet Madi, her body ends in the form of a snake. The inscription at the bottom of the group reads : "Live the King of Upper and Lower Egypt, Neb-khepru- \overline{Re}^c , given life, beloved of the great one in magic" (21). In Bologna Civic Museum (no.1912), there is a monument from the New Kingdom. On this monument, we see two men measuring the corn by the measures before Rennutet, who is depicted

(19)Broekhuis, Renenwetet, p.39, pl.X.

(20)J.M.A. Janssen, Semna Kumma, Boston, 1960, pp.124-125, pl.92;
Broekhuis, Renenwetet, p.52, pl.XII; PM VII, p.152.

(21)J. Leibovitch, JNES 12, pp.105-106, fig.15.

as a serpent. She wears the headdress of Hathor composed of the sun-disk and two plumes between cow's horns. There is an offering-table between the harvest-goddess and the heap of the corn. Accompanying the goddess is the following inscription : Rnnwtt nb.t k3.w š3.w hw.t m pr sš. Above this scene, we see a scene representing the butchering of cattle and presenting offerings for the harvest-goddess (22). On a lintel in the tomb of Neferhotep, at Deir el-Medina, reign Ramesses II to Sethos II, we see a scene which represents the deceased and his wife kneeling and adoring Rennutet, the harvest-goddess (23). In the British Museum, there is a painting of the goddess Rennutet represented as a cobra with offerings and an offering-text on a table top, XVIII dynasty (24).

There are many statues of Rennutet preserved in the museums; in this case the goddess is either imagined altogether as a woman, or as a woman with a serpent's head. She suckles a child on her knees and it is very likely that this child is Nepri (25). In other statues, we see Rennutet represented as a serpent; there is a small statue

(22)Klebs, Reliefs III, p.14, Abb.9

(23)Broekhuis, Renenwetet, pp.21, 22; PM I/I, p.315.

(24)H.S. Baker, Furniture in the Ancient World, London, 1966, fig.239; Broekhuis, Renenwetet, p.12; PM II, p.842.

(25)G. Daressy, Statues de Divinites I, II, Le Caire, 1905-1906, no.39376; JE no.36090, 39377; A. Hermann, MDAIK 8, 1939, pl.29; Leibovitch, JNES 12, pp.74-75, fig.2; Broekhuis, Renenwetet, pp.50-52, pl.XIII.

dated by the cartouche of Amenophis II cut on both the right breast and the right arm of the figure; the cartouche is surmounted by the disk and plumes. The provenance of the statue is not definitely known, but from the mention of Thoth and of "Shepsy who dwells in Khemennu" in the funerary formulae, it seems probable that it was set up originally in Ashmunen. It represents the kneeling figure of a man holding before him a serpent which is shown by the inscription on the front of the base to represent the harvest-goddess Rennutet. The general type, that of a kneeling worshipper holding either an image of his deity or a tablet bearing a hymn to the same, is common from XVIII dynasty onwards, but statues of serpent-worshippers are rare. The front of the base, below the image of the serpent, is occupied by an inscription in inverse direction and flanked on either side by the figure of a man in the attitude of worship; it reads "Adoration of Rennutet by the standard-bearer of the lord of the Two Lands, Nakht" (26). In the Cairo Museum (CG.935), there is a statue which represents Kenamun kneeling and holding a small naos containing a serpent; the deity whom Kenamun is represented as worshipping is the serpent-goddess Rennutet (27).

(26)R.O. Faulkner, JEA 20, 1934, pp.154-156, pl.XIX; Broekhuis, Renenwetet, p.11.

(27)Borchardt, Statuen und Statuetten von Königen und Privatleuten im Museum von Kairo, III, Berlin, 1930, no.935; H. Wild, BIFAO 56, 1957, pp.211-214, pl.1; Vandier, Manuel III, pl.CLVII; Broekhuis, Renenwetet, pp.11-12.

The cult of Rennutet is mentioned in the Pyramid Texts; her tutelary nature is referred to when the King ascends to the sky in the hereafter to claim his heritage as a powerful monarch : Rennutet coalesces with his uraeus to provide the invincible flame that leaps from the cobra's mouth (28). The cult of Rennutet is found in places spread all over ancient Egypt, the Fayum seeming to have been of an important cult area of the goddess. We may suppose Rennutet to have been the protective genius of many villages, a little chapel being built for her at Medinet Madi by Amenemhat III that the goddess might see to it that everything prospered. An inscription in this chapel reads "The King (Amenemhat III) is introduced into the sanctuary of Rennutet, the living one of Dja" (29). Various dates were devoted to the cult of Rennutet. These feast-days were distributed over all the three seasons of the Egyptian year, especially the months Pharmuthi and Pakhons being festive seasons for the worship of Rennutet (30).

Concerning the character of the goddess. The earliest data indicate that the task of Rennutet was to nurse and bring up the Pharaoh. The uraeus-snake and the Rennutet-snake are linked in their protective service of the King. Rennutet was goddess of the riches of the earth. In the fruitfulness of the earth a certain facet of divine cosmic

(28)Faulkner, Pyramid Texts, Oxford, 1969, Utterance 256 { 302;

Broekhuis, p.67; G. Hart, op. cit., p.182.

(29)Leibovitch, JNES 12, p.105; Broekhuis, Renenwetet, p.57 ff.

(30) Ibid., pp.63-66.

life became visible to the Egyptians (31). Rennutet is garbed in linen and the eye of Horus is repeatedly identified with the garment of Rennutet, even with the Rennutet-snake (32). Rennutet is supervisor of woven materials. In Denderah, she provides the dead with mummy bandages; and in Edfu, she is represented with garments in her hands (33). Rennutet is also a goddess of the dead : as goddess of vegetation she provides the dead with food and as "Mistress of the robes", she wraps the mummies in their bandages (34).

Concerning the relation between Rennutet and other deities. We find that Rennutet and Meskhenet are both goddesses who give life, which they impel forward from the moment of the birth (35). The s3y (destiny) which a man receives at birth grows up under the care of Rennutet. There cannot have been a separate word Rennutet signifying "luck", "wealth", but in a secondary sense Shay and Rennutet may take the meaning of "luck" and "prosperity", thus reflecting the experiences of life (36). That Rennutet and Nepri are both concerned with the felicitous functioning of Rennutet is hardly acceptable; at

(31) Ibid., p.105.

(32) Faulkner, Pyramid Texts, Utterance 622 { 1755, Utterance 635
{ 1794.

(33) Broekhuis, Renenwetet, p.151; G. Hart, op. cit., p.183.

(34) Broekhuis, Renenwetet, p.151.

(35) Ibid., pp.88-90; Hart, op. cit., p.183.

(36) Broekhuis, Renenwetet, pp.90-95; Hart, op. cit., pp.183-184.

most, the Kamutef idea is expressed in Nepri (37). Another side to Rennutet is her identification with Ma^cet, the goddess of cosmic order and truth - for example, in the Litany of Rē^c found on the walls of some tombs in the Valley of the Kings a mummiform Rennutet with a cobra head is labelled the "Lady of justification" (38). Rennutet and Uto are in close harmony : the goddesses are matched in iconography and together they carry out their activity of rnn (39). There is evidence of a cult to Rennutet existing from the Middle Kingdom onwards in the Fayum - a region of immense fertility which could fittingly be associated with this goddess. Here she is closely allied to the Fayum's divine protector, the crocodile-god Sobk. Village chapels in the Fayum illustrate the point that the worship of Rennutet had taken hold in the hearts of agricultural workers who were for the most part excluded from the ceremonies in the temples (40). In the Graeco-Roman Period the name Rennutet is modified in Egyptian giving rise to the name of the goddess rendered in Greek texts as Thermouthis or Hermouthis. It is now that Rennutet assimilates to Isis (41). Hermouthis-Isis is described in the hymns of Medinet Madi as goddess of fertility, as Panthea, as Bona Fortuna, as bearer of Ma^cet, and as the unique one (42). The months Pharmuthi and

 (37)Broekhuis, Renenwetet, pp.96-98.

(38)Hart, A Dictionary of Egyptian Gods and Goddesses, p.184.

(39)Broekhuis, Renenwetet, pp.98-100.

(40)Hart, op. cit., 184.

(41)Hart, op. cit., p.184.

(42)Broekhuis, Renenwetet, p.110 ff; Hart, op. cit., p.185.

Pakhons, particularly associated with the festivals of Rennutet, were also in the Graeco-Roman Period the months besides Thoth for the celebration of the Hermouthis festival. This accorded easily with the important Isis festivals held in these months (43). Finally, the epithets of Rennutet are numerous, but they are all connected with the idea of grain, harvest, food and nursing, etc. (44).

Nepri

God of grain and a form of Osiris (45). The god Nepri is not only known as a child, we find him since V dynasty represented in the shape of a person similar to what is generally admitted to be a Nile god. In fact, we find him in a procession of deities and allegorical figures represented on a limestone fragment which once belonged to the causeway of Sahurē^c. This procession was composed of two sections turned in opposite directions, each of them being headed by what is commonly called a Nile god bearing upon his head the symbolical plants of his country of origin, one symbolizing Upper Egypt and the other Lower Egypt. In the procession of Abusir each of the two gods is followed by five persons on either side. They are arranged in the following order : Grain is here represented by Nepri himself and he has his body dotted with wheat grains. The so-called Nile gods are the same we often meet with on many reliefs of ancient Egypt. They

(43) Broekhuis, Renenwetet, p.133.

(44) Ibid., pp.142-148.

(45) M-Th. Derchain, LA IV, 1982, p.454.

are fat, a breast hangs down on one side from under their arm and they are accompanied by women standing for the idea expressed by the hieroglyphs inscribed above their head (46). We see the same representations on the wall paintings of the temple of Amenophis III at Wadi Sebu^ca. Here Nepri holds two sheaves of wheat and ears of grain are stuck in his hair (47).

Nepri represents the prosperity of the barley and emmer wheat crops which the Egyptians cultivated. The King Amenemhat I, XII dynasty, is described as responsible for the ripening of the grain and called "beloved of Nepri". Being dependent, however, on the silt brought by the Nile flooded he is subordinated to Ha^cpi who is proclaimed "Lord of Nepri" (48). In the tomb of Kha^cemhēt, who was overseer of the granaries of Upper and Lower Egypt under the reign of Amenophis III, we see a scene illustrating the god Nepri as well as the date of his birthday and anniversary. This scene shows Rennutet seated like a mother-goddess with a serpent's head, in a chapel decorated with garlands. She is suckling a child, this is Nepri. Accompanying the scene is the following text (49) : wdn ht nbt nfrt

(46)Leibovitch, JNES 12, p.106, fig.16 a, b.

(47)C. Firth, The Archaeological Survey of Nubia, Report for 1918-1911, Cairo, 1927, pp.236-237, pls.31-32; Leibovitch, JNES 12, p.107, fig.17 a, b.

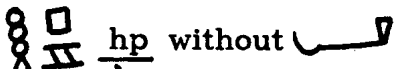

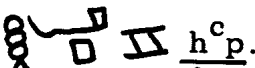

(48)Hart, op. cit., p.135.

(49)Capart, Thèbes, p.248, fig.162; E. Prisse d' Avennes, Monuments Egyptiens, Paris, 1847, pl.XLII; Wreszinski, Atlas, 198; S.

w^cbt n Rnnwtt nbt šnwt m 3bd 1 šmw 1, hrw pn mswt Npri "Offering of all good and pure things to Rennutet, lady of the granary, in the first month of the summer season, day 1, this day of the birth of Nepri". On that day of the first of Pakhons offerings were brought in honour of both divinities and corn was threshed. This was also done for another god called Hermouthis, who had also his feast on the first of Pakhons, concerning whom an inscription from the calendar of the temple of Edfu says : "Hermouthis, thou smitest thine enemies who have fallen under thy feet, thou threshest them like grain" (50). Beside the previous scene, we find Rennutet in her statues, seated like a mother-goddess with a human body and serpent's head. She suckles a child on her knees from her breast, this child is Nepri (51). The association of Nepri with agriculture is as early as, if not pre-dating that aspect of Osiris. He also resembles that god in as much as the coffin texts characterise Nepri as a god living after he has died (52).

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- Schott, in : Work in Western Thebes (1931-1933), fig.45; H. Brugsch, Recueil de Monuments Egyptiens Dessinés sur Lieux, pl.LXVII; M-Th. Derchain, LÄ V, p.454; PM I/I, p.114 (no.57).
- (50)Leibovitch, JNES 12, p.105; Brugsch, Thesaurus Inscriptionum Aegyptiacarum, Leipzig, 1883-1891, p.370, 16; Leibovitch, JNES 12, p.105.
- (51)A. Hermann, MDAIK 8, pl.29; Broekhuis, Renenwetet, pp.52-53, pl.13; Leibovitch, JNES 12, pp.74-75, fig.2.
- (52)Hart, op. cit., p.135.


Ha^cpi

The original form of the name of the Nile in the Pyramid Texts was  hp without . In the Middle Kingdom this form is for the most part superseded by  h^cp. The ordinary writing in the New Kingdom is  H^cpy (53). Ha^cpi was god of the annual Nile inundation, he lived in the caverns of the cataract of the Nile, presided over by Khnum. He personifies the yearly flood rather than the Nile itself. He is always depicted in human form with aquatic plants on his head, his body has emphasised pendulous breasts and a prominent paunch : an iconography whose message is abundance and fertility. The god holds before him an offering tray full of produce resulting from the Nile silt left by the receding waters of the river after the inundation (54).

As the Egyptians divided their country into two parts, the south and north, so, they divided the river and thus there came into being the god of the Nile of the south and the god of the Nile of the north. The god of the south Nile bears upon his head a cluster of lotus plants, while the god of the north Nile has a cluster of papyrus plants; the former is called H^cpy rsy and the latter H^cpy mḥty. When the two forms of Ha^cpi are indicated in a single figure, the god holds in his hands the two plants papyrus and lotus or two vases from which

(53)Gardiner, ZÄS 45, 1908-1909, p.141.

(54)Hart, A Dictionary of Egyptian Gods and Goddesses, pp.75-76.

he was believed to pour out the two Niles (55). By a pretty device, in which the two Nile-gods are seen tying in a knot the stems of the lotus and papyrus round , the emblem of union, the Egyptians symbolized the union of the south and north, and a design consisting of both plants tied together formed a favourite subject for the decoration of the royal throne, as typifying the King's rule over Upper and Lower Egypt (56). The Egyptians believed that the Nile rose out of the ground between two mountains which lay between the Island of Elephantine and the Island of Philae, but they had no exact idea where and how the inundation took place and the rise and the fall of the river were undoubtedly a genuine mystery to them (57). Pliny (58) tell us : "When the rise reaches twelve cubits, there is hunger; at thirteen there is still scarcity; fourteen bring joy, fifteen security and sixteen abundance and delights or pleasure". The sixteen cubits of the normal rise of the Nile are represented by small cupids accompanying the Nile god which is exhibited in the Vatican Museum and there, he is represented as an old man lying down while the cupids play about. In his left hand he holds a cornucopia. The same representation exists on coins of the Graeco-Roman Period (59). We know that the festival of the annual rise of the Nile was celebrated

(55)W. Budge, The Gods of Egyptians II, London, 1904, p.43.

(56)Budge, The Gods II, pp.43-44; A. Wiedemann, Religion of the Ancient Egyptians, London, 1897, pp.145-146.

(57)Budge, The Gods II, pp.44-45.

(58)Pliny, Natural History, V, X, 8.

(59)Leibovitch, JNES 12, p.108, fig.19.

throughout Egypt with very great solemnity and statues of the Nile-god were carried about through the towns and villages that men might honour him and pray to him. When the inundation was abundant the rejoicings which took place after the performance of the religious ceremonies connected with it were carried out on a scale of great magnificence. The ancient Egyptian festival was equivalent to about June 17, and is called Lelet el-Nukta (i.e. night of the drop), because it is believed that on that night a drop falls from heaven into the Nile and makes it to rise (60). There are many hymns in praise of the Nile god and all his benefactions to Egypt and more especially of his inundation. The texts are found on papyri, on stelae and on walls, and their contents are often supposed to be spoken by the King. In the papyri, we read in the hymn to the Nile the following sentences : "praise to thee, O Ḥa^cpi, thou appearest in this land, thou comest in peace to make Egypt to live. Thou art the waterer of the fields which Rē^c had created. Thou makest to increase and be strong Nepri. Thou art the creator of barley. When thou risest, then all the earth is in jubilation, every man receives food. Thou are the creator of all good things, thou makest the herb to grow for the cattle, thou fillest the storehouses, thou heapest high with corn the granaries" (61). On a statue fragment representing the Nile god from Tanis, now in the Cairo Museum, we find a text which reads : "live the goodly god (the Nile) who keeps Egypt in festival and who fills the dwelling of

(60) Budge, The Gods II, p.47.

(61) Ibid., II, p.45; Wiedemann, op. cit., p.147.

his father with food (temple of Amūn)" (62). On the temple of Amenophis III at Wadi Sebu^ca, we see in the procession, the two gods preceded by the goddess of the fields called Sekhet. She wears her emblem above her head and holds an offering table containing eggs and two young ducks. Fish and geese hang down from her hand. She says : "I bring thee food for thy dwelling, Amūn". In front of her walks Nepri, he holds two sheaves of wheat and ears of grain are stuck in his hair. In this procession, the two Ḥa^cpi gods wear, as usual, their symbolical flowers upon their heads and they hold the traditional offering table containing fruit, lotus, flowers, pomegranates and also two loaves of bread. Accompanying each god in this scene, is an inscription : the Nile god of Upper Egypt says "I bring thee flowers that Ḥa^cpi causes to grow, Amūn". The Nile god of Lower Egypt says" I bring thee all good and sweet things and flowers that are in the Delta". While Sekhet, the goddess of the fields, says : "I [bring thee] all good and pure [things] that are in the heaven and are produced by Ḥa^cpi" (63).

There is a group of statues made to the model of the so-called Nile-gods found by Mariette, at Tanis, and now on exhibit at the Cairo Museum. Of these two Nile gods, one is for Upper Egypt and other for Lower Egypt, exactly as in the processions where they have upon their head the symbolical plants of their region. It will now be proved

 (62) Leibvotich, JNES 12, p.108.

(63) Ibid., 12, pp.108-109, and p.79, fig.B, { 16, 17, 18, and p.93, fig.17 a, b.

that the fundamental idea which ruled this conception is "food of the country", as we find it in the title inscribed at Karnak, under the reign of Ramesses IV : "... the beautiful lord of food of Egypt and Rennutet who maintains everybody" (64). In the British Museum, there is a statue representing the King Sheshenq in association with the statue of a Nile god. There is an inscription, which reads : "... words of Ḥa^cpi, father of all the gods, of food, who produces the meals, who heaps up the grain, who inundates Egypt with foods, who always gives life, who causes the rise to come forth between the two mountains by his sweat, and makes it to come according to his wish, who causes the granaries of both lands to be (so full) as to overflow for the High priest of Amun-Rē^c, lord of the gods, Sheshenq, beloved of Amūn" (65).

Ḥa^cpi was identified with Osiris and this being so, Isis became his female counterpart and it is probable that when offerings were made to Osiris in late dynastic times, when every sanctuary of this double god was called a "Serapeum", Ḥa^cpi was held to be included among the forms of the god (66). Ḥa^cpi was also identified with Nu, the great primeval watery abyss from which all things sprang and as such his female counterpart was Nut, or one of her many forms (67). The

 (64) Ibid., 12, p.110.

(65)R. Lepsius, Auswahl der Wichtigsten Urkunden des Ägyptischen Altertums, Leipzig, 1842, taf.XV; Leibovitch, JNES 12, p.113.

(66)Budge, The Gods II, pp.46, 47.

(67) Ibid., p.47.

deceased King is identified with Ha^cpi, the Nile god and he thus became master of the Nile-goddesses of the south and north (68).

Osiris

The god whose domain is Duat-the Egyptian underworld. He is depicted in human form, as in his earliest appearance yet attested on a block from the reign of King Isesi, dynasty V, which shows the head and part of the upper torso of a god, above whom are the hieroglyphic symbols of Osiris's name. In fuller iconography his body is portrayed as wrapped in mummy bandages of Kingship - with the crook and the flail. His distinctive crown, as the "Atef", comprises a ram's horns at its base, and a tall conical centrepiece sporting a plume on each side (69). The earliest forms of his name show the sign for a throne followed by the sign for an eye. The sign of a god is often added to the writing as a determinative, but this addition is not found in early writing such as the Pyramid Texts (70). Various attempts have been made by modern scholars to explain the etymology of the name. Some thought that from the symbols of the eye and the throne, Osiris has been given roots both east and west of the Nile, i.e. in Mesopotamia as the god Marduk, and in Libya as an alleged corn-god bearing a Berber name which means the "old man", "the old one", or "the old

(68) Ibid., p.47.

(69)Hart, op. cit., p.151.

(70)J.G. Griffiths, The Origins of Osiris and his Cult, Leiden, 1980, p.87; id, LÄ IV, 1982, p.623.

woman". His name has been split by others to mean "he who makes a seat", "he who occupies the throne", "he who cohabits with Isis". It has even been suggested that behind Osiris there lurks an original mother-goddess whose name might be interpreted as "she who belongs to the womb". However, the most likely explanation seems to be the simplest : Osiris's name is connected with the word "Woser", which would give the sense of the "mighty one" (71).

The role of the god in agriculture is not a primal one, but comes naturally through the association of the motif of the murdered Osiris emerging as the dominant divine force in the underworld and the cycle of seedtime and harvest (72). In the earliest sources Osiris is frequently associated with the idea of fertility, particularly with water and vegetation. It is through his links with Orion, Sothis and the year, that the association usually arises; for the Nile and its inundation have their blessing; and it is in a funerary setting that Osiris is equated with fresh water, or regarded as its supplier, as when the King is told to wash his hands "in this fresh water which thy father Osiris has given thee" (73). The earliest association of Osiris with corn seems to occur in the Dramatic Ramessum Papyrus in a scene where Seth is represented by an ass and Osiris by barley

(71) J.G. Griffiths, Osiris, pp.87-99; id, LÄ IV, p.624; Hart, op. cit., pp.151-152.

(72) Hart, op. cit., p.158.

(73) J.G. Griffiths, LÄ IV, p.628.

(74). The earliest representations are from the XIX dynasty, but it was almost certainly depicted in the V dynasty, for a part of the inscription and relief appears in the temple of Sahurē^c. The ceremony took place on the presiding god's threshing-floor, where calves were made to thresh corn as a means of securing plentiful harvest (75). Gardiner (76) mentioned that Osiris was identical with the grain and that he is none other than Nepri, the grain-god. He mentioned that according to two texts; the first Coffin Texts : "I am Osiris. I have come forth and entered into thee, I have flourished in thee, I have grown in thee, I have fallen into thee, I have fallen on my side. The gods live by me. I live and grow as Nepri" (77). The second text is Lepsius, Todtenbuch, Chapter 142, line 7; the name of Osiris is followed by hnty Npr-foremost one, Nepri (78). Budge (79) mentioned that Osiris was identified with Nepri even by a statement in those texts where, it is said that Osiris makes Pepi "to plough corn and to reap barley".

(74) J.G. Griffiths, Osiris, p.163.

(75) Ibid., p.164.

(76) Gardiner, The Library Chester Beatty, No.I, London, 1931, 25, no.1.

(77) De Buck, The Egyptian Coffin Texts IV, Chicago, 1951, 168c - 170b

(78) Wb III, 308, 7.

(79) Budge, Osiris and the Egyptian Resurrection I, London, 1911, p.80.

The most explicit evidence of Osiris as grain-god is archaeological. In the New Kingdom wooden frame with a papyrus mat over it was placed in the burial chamber; on the top of the mat was stretched a cover of cloth on which a bed or mould was laid, modelled in the shape of the Osiris effigy. The barley was planted here with a similar motive and result (80). Scharff (81) has attempted to refer to a celebrated example in the tomb of Tutankhamun. Carter (82) describes it as comprising a wooden frame moulded in the form of that god (Osiris), hollowed out, lined with linen, filled with silt from the Nile bed and planted with corn. This life-sized effigy, he adds, was completely wrapped in linen winding sheets and bandaged in the like manner as a mummy. The earliest example from the New Kingdom, according to Scharff, is one which was found by Daressy (83), in the tomb of Mai-her-peri in the Valley of the Kings. Here the corn-Osiris was placed on a wooden stand in the shape of a bier which was covered with a reed mat; this in turn bore the linen cloth whereon the "Osiris-figure" of the earth was laid. The same symbolism is found in one of the late New Kingdom mythological papyri : Osiris he who is in the grain of the gods lies ithyphallic on desert sand, indicating his coming to life in the barren terrain which surrounds his tomb. The motif of the continual cycle of crops and vegetation accounts for the colour of the pigments used to represent the flesh of Osiris. His

(80) Nina de G. Davies & Gardiner, Amenemhēt, p.115.


(81) A. Scharff, Forschungen und Fortschritte, Berlin, 1947, 38-39.

(82) H. Carter, The Tomb of Tut-Ankh-Amen III, p.61, pl.64 A.

(83) G. Daressy, Fouilles de la Vallée des Rois, no.24061.

face and hands can be painted black to evoke the Nile silt from which the barley and emmer emerge; his flesh can appear green, the colour of living vegetation and of the fields before the summer ripening of the crop (84). Ramesside and Ptolemaic texts describe Osiris as the maker of barley or corn (85).

Isis

Goddess of immense magical power, symbolic mother of the King (86). She is one of the goddesses most frequently mentioned in the texts (87). The goddess's name is written in hieroglyphs with a sign that represents a throne, indicating transmission of the kingship of Egypt (88). Isis is usually depicted in the form of a woman who holds in her hand a papyrus sceptre, while the usual ornament or crown on her head consists of a pair of horns and sun-disk; and this is sometimes surmounted by , the symbol of the sound of her name. Sometimes she wears the pair of horns and sun-disk with two plumes, but occasionally, she wears a pair of ram's horns under her double crown (89). The symbol of Isis in the heaven was the star Sepdet, which was greatly beloved because its appearance marked not only the

(84)Hart, A Dictionary of Egyptian Gods and Goddesses, p.159.

(85)J.G. Griffiths, LÄ IV, p.628.

(86)Hart, op. cit., p.101.

(87)Budge, The Gods II, p.202.

(88)Hart, op. cit., p.101.

(89)Budge, The Gods II, pp.202-203.

beginning of a new year, but also announced the advance of the inundation of the Nile, which betokened renewed wealth and prosperity of the country (90). As the power which shot forth the Nile, she was Stt, as the goddess of cultivated lands and fields she was Sekhet, and as the goddess of the harvest, she was Rennutet (91).

Min

Ithyphallic god (92). Min, the god who causes the soil to be fertile (93). He is shown standing with his legs closely linked and his arm raised, he is represented as a man standing holding a huge phallus in his left hand, in his right hand is a whip or royal flagellum. Two high plumes rise from a low crown from which hangs a ribbon (94). The most distinctive feature of Min is his phallus projecting out a right angle to his body, the symbol par excellence of the fertility god (95). On rare occasions Min can be depicted with a lion's head as in a chapel in the temple of Khons at Karnak (96). Min's role as an ancient agricultural deity ensuring the fecundity of the crops is brought to the

(90) Ibid., p.215.

(91) Ibid., p.216.

(92) Gardiner, Egyptian Grammar, p.449; id, AEO II, 40 *.

(93) Erman, Life in Ancient Egypt, p.65.

(94) Hart, op. cit., p.121; Budge, From Fetish to God in Ancient Egypt, Oxford, 1934, p.62.

(95) Hart, op. cit., p.121.

(96) Hart, op. cit., p.121.

fore by the ritual of the King cutting a sheath of emmer wheat. This is shown in the festival of Min on the second pylon of the Ramessum, and the second court of the temple at Medinet Habu, built by Ramesses III (97). From a much later date in the Ptolemaic temple of Edfu the idea of Min as the bringer of prolific harvest lies behind the ritual of driving the calves over the threshing-floor (98).

(97)Hart, op. cit., p.124.

(98) Ibid., p.125; For details about association of god Min with agriculture, See Part II, Chapter IV.

CHAPTER II

CHAPTER II

Inundation and Harvest Festivals

The Nile was both the source of life and a manifestation of cosmic order for the Egyptians (1). The river was identified with Ḥa^cpi, representing its spirit and inherent forces; Ḥa^cpi was the water of Nun and so linked to the primeval ocean, where the Nile had its inexhaustible source (2). Flood waters filled the natural or artificial flood basins of the Nile and Delta with an average depth of 1.5 m water for 6-16 weeks during a normal year (3). This soaking of the soil allows a single winter-crop season, even without irrigation, while persistent low-water Nile flow allows additional spring or summer cropping, provided that lift irrigation was available (4). Natural flooding from the Nile channel into the flood basins, through low points in the natural levees and multiple divergent streams, was increasingly controlled by sluice-gates, canals and transverse dykes since late Predynastic times (5).

(1) Butzer, LÄ IV, 1982, p.480.

(2) D. Kurth, LÄ IV, pp.485-487.

(3) W. Willcocks & K.I. Craig, Egyptian Irrigation, London, 1913, 305;
Butzer, LÄ IV, p.481.

(4) Butzer, Early Hydraulic Civilization in Egypt, p.41 ff.

(5) Ibid., p.45 ff; Butzer, LÄ IV, p.481.

There is evidence for the ceremony of opening the dykes, performed when the inundation had reached its limit and the new land was about to emerge. A much earlier celebration of this rite is seen in the votive macehead of the Predynastic King, Scorpion, found at Hierakonpolis. Here the King is opening a branch in a dyke that will allow floodwater to flow into an irrigation basin. A high official bends to receive the first sod in a basket. Below, the prow of the state barge may be seen that will carry the King into the new basin he is inaugurating (6). The best known reference to it in Pharaonic times is on the large commemorative scarabs which Amenophis III issued in his eleventh regnal year. The text relates how on the first day of the first month of the inundation, the King decreed that a basin should be made for Queen Tiye in her township near modern Tahta. It was to be 3700 cubits long and 700 cubits wide. The King celebrated the feast of the opening of the dykes fifteen days later, when the ground had been thoroughly soaked and silt deposited, by sailing in his state barge through a breach in the dykes into the new basin (7).

The seasonal inundations introduced an annual increment of silt, so maintaining soil fertility (8). Natural or artificial fertilizers were not required for the single winter-crop normal in Pharaonic times except on horticultural plots (9). In the annals from the Thinite Period

(6)C. Aldred, The Egyptians, London, 1961, p.70, fig.37; A. Saleh, The Civilization, pp. 216-217.

(7) Ibid., p.70, fig.36.

(8)Butzer, LÄ IV, p.481.

(9)Butzer, Early Hydraulic, p.89 ff; id, LÄ IV, p.481.

up to V dynasty, the rise of the Nile, probably measured in the neighbourhood of Old Cairo, was on an average about 4 cubits; therefore a recorded high Nile of 8 cubits and 3 fingers caused in the following year "flooding of all the western and eastern (?) nomes" in the Delta (10). Lists compiled in the reign of Sesostris I give the following, far higher, figures for the desirable height of the flooded-waters at various places on the Nile : Elephantine 21 cubits, 3 1/3 palms; the House of the inundation near Old Cairo, 12 cubits, 3 palms and 3 digits; for Diospolis, 6 cubits, 3 palms, 3 digits (11). The many measurements recorded up to Roman times reveal a further rise of about 20-30 per cent with the result that the figure for Elephantine reaches 24 cubits, 4 palms and as an idealized figure, 28 cubits; for the House of the inundation at Old Cairo the figure become 14-16 cubits, while for the northern Delta it remains unchanged at 6-7 cubits (12). That the ancient Egyptians were fully conscious of their dependency upon the river and its annual inundation for their existence and wellbeing is shown by abundant textual evidence in addition to material remains such as Nilometers and, even more significant, countless representations of $\text{H}\overset{\text{C}}{\text{a}}\text{pi}$, the divine incarnation of the river in the flood, bearing gifts of food and drink along with the symbols of life and welfare (13). One would then think that the making of ritual offerings to the river for the purposes of thanks-

(10)Kees, Ancient Egypt, p.50.

(11) Ibid., p.50; Gardiner, JEA 30, 1944, 34, fig.1.

(12)Kees, op. cit., pp.50-51.

(13)Camino's, LÄ IV, p.498.

giving and propitiation should have been a not uncommon practice at every period of the country's history. Surprisingly enough, however, explicit references to it are scanty in the extreme. The earliest of them dates back to the twentieth century B.C. or thereabout : it occurs in the so-called Hymn to the Nile and tells, in very general terms, of a great oblation of cattle, fowl and burnt offerings made to the river when it flooded the land (14). The Hymn to the inundation was written by Khety during the first two reigns of the twelfth dynasty; and there are numerous copies, mostly fragmentary, surviving from the scribal schools of XIX-XX dynasties, and especially from Deir el Medina (15). There have been three scholarly editions of the Hymns. The first was Maspero (16), based upon the papyri Sallier II and Anastasi VII, the Golénischeff ostrakon and the final fragment of the Turin papyrus. The second was Bacchi (17), she was able to include several additional texts - among them the crucial Turin papyrus, significantly augmented - she merely subsumed this material in an eclectic text without publishing the papyrus itself or a transcription. The third edition of the hymn, by far the fullest and most accurate

(14)D. Bonneau, La Crue du Nil, Divinité Egyptienne, Paris, 1964, p.405 ff; Caminos, LÄ IV, p.498.

(15)J.L. Foster, JNES 32, 1973, pp.301-310 , figs.1-7; id, JNES 34, 1975, pp.21-29, figs.1-10.

(16)Maspero, Hymne au Nil, (BdE 5), Le Caire, 1912.

(17)E. Bacchi, L' Inno al Nilo in Pubblicazione Egittologiche del R. Museo di Torino no.4, Turin, 1942.

to date, is by Helck (18), Helck's edition presents parallel transcriptions of copies known to him, and to these he adds a "Wahrscheinlicher Urtext", a translation and some commentary. This hymn which is designated "Adoration of the Nile" is different in character from the old hymns to divinities; it thanks the god for all the blessings which he bestows on men. It must have been composed for an inundation festival. Title : Dw3 H^cpi "Praising of H^cpi".

ind-hr.k H^cpi Hail to thee, O H^cpi.

pr m t3 ii r s^cnh Kmt who emerges from the ground, who comes to make the Black Land.

imnw s^vsm kkw m hrw One hidden of nature, a darkness in daytime.....

iwhw s3 km3.n R^c who waters (inundates/floods) the countryside which R^c created.

r s^cnh c^vwt nbt ^{to live} to nourish all cattle.

ss3w dw r-w3w r-mw who satisfies the desert upland, the pathway and water's edge (alike).

i3dt r.f pw h3i.s m pt The very rain, it falls from the heaven on account of him.

mry Gb hrp Npri who loves Geb, who governs Nepri.

sw3d hmwt nt Pth who makes flourish the crafts of Pth.

nb rmw shnt kbhw Lord of the fish, who makes wildfowl fly south

iri it shpr bdt who creates barley, who produces emmer,

shb rw-prw who makes festive the temples.....

(18)Helck, Der Text des Nilhymnus, Wiesbaden, 1972.

iriw ^cwn-ib r mnt t3 r-d3-f and the greedy man is reduced to suffering throughout the land

wbn.f hr t3 m ^{cc}wt when he rises, then the land is jubilation.

hr ht nbt m rsw Then, every belly is in rejoicing

ini k3w wr df3w km3 nfrwt.f nbwt who brings food, who abounds in provisions, who creates every kind of his good things

shpr.w smw n mmnwt who produces the pastures for the cattle,

rdi sftw n ntr nb who provides sacrifices for every god

mh wd3w swsh šnwt who fills the storerooms, who makes the granaries bulge.

rdi ht n nmhw who gives goods (things) for the poor

bši 3ht skdy sht.f who spits out the fields, who sails over his marshland.

sdf3w n t3-tmw.... who provides for all men

wbn.f m niwtyw hkr(w) when he rises among the hungry citizens.

hr ss33.sn m inw š3w.f Then, with the produce of his fields are they satisfied.

hn imy-r sšny r šryt.f The overseer of lotuses provides for his little ones.

3ht nbt ttf hr tp t3 All that is beneficial of goods (overflows) upon the earth.

smw nb m^c hrdw Every kind of vegetable is in the possession of the children.

smh.n.sn wnm And (therefore) they have forgotten to eat

hwi H^cpi wdn.tw n.f when Ha^cpi surges up, offering is made to him.

sft.tw n.f iw3w cattle are sacrificed to him.

iry.tw n.f ^cbwt ^c3wt Great festivals are held for him.

wš3y.tw n.f 3pdw Fowl are fattened for him.

grg.tw n.f m3i.w hr dw Lions are snared for him on the desert.

db3.tw n.f nfrw Kindnesses are repaid for him.

wdn.tw n ntr nb And they (people) make offering to every god.

mi ir.tw n H^cpi Just as has been done for Ha^cpi :-

sntr tpy iw3w wndw 3pdw m sbt Finest incense, small and large cattle and birds in thanks giving (as a present);

H^cpi m tpht.f wsr (now), Ha^cpi in his cavern grows powerful.

n(n) rh.tw rn.f m dw3t Yet, his name cannot be known in the underworld.

n(n) pr ntrw hry.f Nor can the (very) gods bring it out.

tmw wts psdt All mankind extols the Ennead.

snd.w n šfšft.f who stood in awe of his majesty.

ir n s3.f nb r-dr who aids his divine son, the lord of all,

sw3d idbwy who makes green the Two Banks.

w3d k3 ii.k w3d k3 ii.k O thrive, so, you will come !. O thrive so, you will come.

H^cpi w3d k3 ii.k O, Ha^cpi thrive ! then, you will come !.

mi r Kmt shpr.w htp.w.f Come to the Black Land, you who creates its felicity.

sw3d idbwy O one who makes green the Two Banks !.

s^cnh rmt.w mmnt Give life to mankind and beasts.

m inw.k n š3 Through your gifts of the countryside !.

w3d k3 ii.k w3d k3 ii.k O thrive, then you will come ! O thrive, then you will come !.

H^cpi w3d k3 ii.k O Ha^cpi, thrive ! Then, you will come.

Far more specific is the information contained in three royal decrees, which were successively issued by Sethos I, Ramesses II and Merenptah between 1300 and 1225 B.C., and are preserved in the form of hieroglyphic stelae at the rear of three huge porch-like structures cut in the living rock at Gebel el Silsila. Sethos I set the pattern : his decree was reproduced almost verbatim by Ramesses II and Merenptah. These decrees established and endowed festivals in honour principally, though not exclusively, of the god Ḥa^cpi, to be held at Gebel el Silsila twice a year, at high Nile and then at the time of the lowest Nile. The decrees also prescribed the offerings to be presented to the river during the celebrations : the offerings are itemized by name and quantity and in tabular form. They include a large number of miscellaneous foodstuffs, both animal and vegetable, loaves of bread and cakes, drinks of many kinds, flowers and fruits, incense and "statues" probably figurines of the Nile-god himself. The decrees also refer, rather cryptically, to the "Throwing of the Book of Ḥa^cpi" - perhaps the dropping into an altar-fire or into the Nile of a papyrus roll containing a list of the offerings (19). On Ramesses III's stela, dated in Phamenoth of the sixth year at Gebel el Silsila, there is a decree which duplicates Ramesses II's stela carved beside it. It mentions endowing the festivals and prescribing the offerings to be made to the Nile-god during the celebrations, but does not give the list

(19)P. Barguet, BIFAO 50, 1952, pp.49-63; Kitchen, Ramesside Inscriptions I, fascicle 3, 84-96; D. Bonneau, La crue du Nil, p.377, note 2, p.399 ff.

(20). Papyrus Harris I (21) has preserved two lengthy lists of offerings to the Nile-god : one in the Heliopolitan section of the papyrus, the other in the Memphite section; these lists contain a variety and quantity of offerings : fine bread of the divine offerings, cakes, different kinds of cattle, drinks, incense, oils, fruits, flowers and the lists include statues, which are here specifically named "images (twt) of Ḥa^cpi" as well as bracelets and seals. The papyrus also mentions the Book of Ḥa^cpi, and although it does not explicitly say so, it transpires from the context that this book was in essence a list of offerings. The dream-stela of King Tanutamun, lines 1, 11, may very well contain another reference to offerings made to the Nile; unfortunately the god's name is damaged and it is uncertain whether it reads Ḥa^cpi or Nun (22). The Hungersnotstele (lines 11, 14 and 18), thought to be 185 B.C., mentions Ḥa^cpi (not by himself, but along with nine other deities in the entourage of the cataract god Khnum at Elephantine), as recipient of offerings from the King, probably Ptolemy V (23). Lastly, a hieroglyphic text, A.D.125, on

 (20)L.Stern, ZÄS 11, 1878, pp.129-135; Bonneau, op. cit., p.374, note 2, p.399 ff.

(21) Pap. Harris I, 73 b - 41 b, 54 a - 56 a; Breasted, AR IV, 296-303, 347-350; Bonneau, op. cit., 399.

(22)W.Von Bissing, RT 32, 1910, 45 (17); Caminos, LÄ IV, p.499; PM VII, 217 ff; The reading of the god's damaged name is discussed by Akmar, in Sphinx 21, 1924, p.96 ff.

(23)P.Barguet, BdE 24, 1953, 23, 26 and pl.4, 11.14, 17-8; Caminos, LÄ IV, p.499.

one of the columns of the Esna temple refers to the feast of "Throwing the Book of Ha^cpi", and lists the various articles which made up "Ha^cpi's oblation" (C3bt H^cpi) (24). Further references to offerings to the Nile are to be found in Greek non-literary papyri and a few classical authors (25).

As in every traditional culture in which agricultural has an important part, we may suppose that the work of harvesting was accompanied by ceremonies and festivals. In various Theban tombs, we see scenes representing figures bearing an offering of ears of corn and fruit; these are interpreted as offering first-fruits, especially since we know the institution existed from the use of the term "first-fruits of the harvest" (tpw n šmw) in the texts (26). The crescent-shaped bundles of corn depicted above winnowing scenes in the tombs of Nakht, Zeserkara^csonb and Kha^cemhēt have been convincingly identified with the so-called corn-bride that the present-day fellahin make from ears of corn and hang by the door of their house as guardian of the crops before they begin cutting the corn; these might indeed also be interpreted as first-fruit offerings (27). The ceremony of 3zh it, the cutting of a sheaf of corn by the Pharaoh, often shown in the temple reliefs as part of festivals that

 (24)S. Sauneron, Le Temple d' Esna III, Le Caire, 1968, p.289 (346, 15), V, 54 ff; Caminos, LÄ IV, 499.

(25)Bonneau, op. cit., p.398 ff.

(26)H. te Velde, LÄ II, 1977, p.1.

(27)W.S. Blackman, JEA 8, 1922, pp.235-240, pls.XXVII-XXIX.

are not only harvest ceremonies, also leads us to think that there were rites associated with the actual reaping (28). There is a well-known remark by the Greek author Diodorus (29) : "..... at harvest time the people make a dedication of the first heads of the grain to be cut and standing beside the sheaf beat themselves and call upon Isis". The Ptolemaic temple of Edfu celebrated the ritual of the first-fruits of the field according to the prescripts of Amenemh̄et (30).

The festival of Rennutet that was held in Thebes on the first day of the first month of summer (31), is a harvest festival that in the New Kingdom was celebrated at the time of harvesting grain and grapes, as is evident from several Theban tombs. Also in various

(28) Medinet Habu IV, pl.196; E. Chassinat, Le Temple d' Edfu I, Paris, 1897, pp.384, 393; IV, Le Caire, 1929, p.280; XII, Le Caire, 1934, pls.330-332; id, Le Temple de Dendara IV, Le Caire, 1935, 69 and pl.272; C. Bleeker, Die Geburt eines Gottes, Leiden, 1956, 82-87; H. te Velde, LÄ II, p.2.

(29) Diodorus I, 14; H. te Velde, LÄ II, p.1.

(30) M. Alliot, Le Culte d' Horus à Edfou au temps des Ptolémées I, Cairo, 1949, 234; H. te Velde, LA II, p.1.

(31) Medinet Habu, 1402; Wreszinski, Atlas, 198; Klebs, Reliefs III, pp.15-16, Abb.10; Brugsch, Recueil de Monuments, p.76, pl.LXVII; Capart, Thebes, p.248, fig.162; S. Schott, Altägyptische Festdaten, Wiesbaden, 1955, p.103; Leibovitch, JNES 12, pp.74, 78; Broekhuis, Renenwetet, p.53; R.A. Parker, Calendars of Ancient Egypt, p.39, 49.

Theban tombs, the harvest festival was not exclusively in honour of Rennutet, but also for Amun, so that it must be assumed that when the time of harvest was about 1 Pakhons, everywhere in Egypt the first-fruits were offered to the local gods and the festival was afterwards maintained by tradition (32).

At the tomb of Zeserkara^csonb (33), on the east wall of the transverse hall, the middle register shows a lavish meal spread before the seated figure of Zeserkara^csonb. The meal includes bread, cakes, onions, a generous supply of various fruits and a fish - a ideal repast for a hot day in the fields. Men bring forward other gifts; each of the men carries the fruits of the harvest : a sheaf of corn or specimens of the yield of a particular field. Two quail caught among the corn make a welcome addition. The kid is well drawn. The conical loaves of bread, the cakes and jugs of liquid are all kept cool by sprays of leaves. At the extreme left Zeserkara^csonb is making offerings to Amun and to Rennutet, the goddess of plenty. The figure of Amun has been completely erased, a meat-offering on an altar is depicted before him. Rennutet, the noble mistress of the double granary (Rnnwtt šps nbt šnwty) is shown in the form of a cobra upon

(32)H. te Velde, LÄ II, p.3



(33)Wreszinski, Atlas, 143; Davies, Scenes from Some Theban Tombs, p.4, II; S. Schott, in : Work in Western Thebes (1931-1933), p.88, fig.44; Broekhuis, Renewet, p.14; V. Scheil, MMAF 5/2, 1893, pp.577-578, pl.4; Ch. Kuentz, BIFAO 21, 1923, p.124; PM I/I, p.69 (no.38); See Figure 73.

a basket, for it is such a guise that she inhabits the fields. Here she is brought corn, cakes, and fruit. Accompanying the scene, is the following text : wdn ht nb nfr w^cb [n.Imn] m st.f nbt in sš hsb it n.Imn Dsr-k3-R^c m hrw pn n h3t shk n 3bd 4 prt hrw 27 m t3 m3wt hr.s hr k3yt (?) "Offering everything good and pure [to Amūn] in all his places (or shrines), by the scribe who reckons the grain [of Amūn], Zeserkara^csonb on this day of measuring flour for the 4th month of Peret (winter), day 27, on the new land in front of her (Rennutet), upon the arable land (?) [hr k3yt ?, - written as hr khw].

At the tomb of Amenemhēt (34), first hall, south end wall, we see a scene representing two figures of Amenophis III back to back, with the text : "The King being Neb-Ma^cet-Re^c who appears on the throne of Horus of the living like father Re^c every day". The figure facing the right has also the text : "..... on the 27th day of the third month of the second season, this day [to Amūn], that he may make a gift of life like Re^c forever and ever". The King in this case is making offerings including sheaves of corn, to thirteen specimens of the coil of cord used for measuring the harvest field; they are surmounted, as usual, by the ram's head of Amūn-Re^c and are labelled with various epithets referring to his creative beneficence. Beyond this and within a shrine with a Hathor column are two snake-goddesses : one,

(34)T. Säve-Söderbergh, Four Eighteenth Dynasty Tombs, pp.41-43, pl.XLI-XLII; N.de G. Davies, BMMA 24, 1929, pp.46-49, fig.10; Broekhuis, Renenwetet, pp.53, 54; PM I/I, p.88, (no.48);

See Figure 74, 75.

Rennutet, lady of the granary, human-bodied and nursing the young King on her lap; the other a crowned snake on the  sign within  the arms, with a figure of the grown-up King standing under her chin, as if in her care. Presumably this shows both in similar role. This picture of Rennutet with the child in her arms we know from tomb of Kha^cemhēt (no.57), to represent the birth of Nepri, the corn god, which was celebrated on the first of the ninth month, four days later. Here the child bears the name of the reigning King, so that an identification of the King with the corn-god seems to result, while the association of the figure with the harvest implements sacred to Amūn-Rē^c implies that he is the father of the King in this aspect also. The explanatory text appended to the figure of the King facing left is destroyed. In front of him a granary is shown, preceded by a gate forecourt. Both spaces are filled with piles of grain, seen one behind the other; two trees are among the heaps in the court. The King has ascended as high as possible and offers incense to the god. Behind the King, but still some distance up is a fan-bearer, the owner of the tomb and on the ground level perhaps another official now erased. Davies (35), assumed that the third month which is mentioned in text of the harvest scene in the tomb of Amenemhēt (no.48), is an error for fourth, since this is the date of the measuring of corn in the tomb of Zeserkara^csonb (no.38), and is succeeded, four days later, by the birthday of Nepri (tomb of Kha^cemhēt no.57). On the first of them the standing corn was measured by the officials that the yield might

(35) Davies, BMMA 24, 1929, p.48, note 1; T. Säve-Söderbergh, op. cit., p.42, note 2.

be estimated and the tithes assessed. Then, the corn was cut and trodden out; at the winnowing on the first of the new month offerings were made to the divinities concerned (36).

At the tomb of Kha^cemhēt (37), royal scribe, overseer of the granaries of Upper and Lower Egypt, we find a scene which represented harvest festival, where we see the tomb owner with two offering-bringers - one holding a sheaf with quail - who offers on braziers to Rennutet, "Mistress of the granary" (Rnnwtt nbt šnwt). She is depicted seated like a mother-goddess, with a serpent's head in a chapel decorated with garlands under a canopy resting on slender columns bearing Hathor capitals. She bears upon her head two plumes. She is suckling a child on her lap, this child is Nepri. In front of her, there is an offering-table and drinks. Below the chapel, there are two granaries. The name of the goddess is inscribed in a rectangle with the words "Rennutet, lady of the granary". Accompanying the scene, is the following text : wdn ht nbt nfrt w^cbt n. Rnnwtt nbt šnwt
m 3bd 1 šmw 1 hrw pn mswt Nepri in mh-ib mnh n nb t3wy imy-r šnwt
šm^cw T3-Mhw sš nsw H^c-m-h3t whm c^cnh ms (mz3) rnpwt nb nfrt

(36)W.S. Blackman, JEA 8, p.236.

(37)Wreszinski, Atlas, 198; S. Schott, in : op. cit., p.89, fig.45; Capart, Thebes, p.248, fig.162; E. Prisse d; Avennes, Monuments Egyptiens, Paris, 1847, pl.XLII; Klebs, Reliefs, III, pp.15, 16, Abb.10; Broekhuis, Renenwetet, p.53; Brugsch, Recueil de Monuments, p.76, pl.LXVII; Leibovitch, JNES 12, pp.74, 78; PM I/I, p.114, (no.57); **See Figure 76.**

w^cbt n.k3t Rnnwtt nbt šnwt rdit wnn p3 imy-r šnwt m hst r^c nb in
sš hsb [it n] nb t3wy m šm^cw T3-Mhw P3 w3h sš hsb it n šnwt
Pr-^c3 nh w3d snb R^c "Offering everything good and pure to
Rennutet, lady of the granary. In the first month of the summer
season, this first day of the birth of Nepri, by the confidant of the
lord of the Two Lands, the overseer of the granary of Upper and
Lower Egypt, the royal scribe Kha^cemhēt, may he be resuscitated.
Supply of all good and pure vegetables for your Ka, O Rennutet, lady
of the granary. Mayest thou cause that the overseer of the granary
be every day in thy favour, by the scribe and registrar [of grain for]
the lord of the Two Lands of Upper and Lower Egypt, P3-w3h; the
scribe and registrar of the corn in the granary of Pharaoh, may he
live, be prosperous and be healthy, Re^c".

At the tomb of ^cAnen, second prophet of Amun, reign of Amenophis
III (38), we see in the hall a scene which represents a heap of grain
and the King Amenophis III celebrating harvest festival with a stela
in a kiosk, all within a granary. The King is standing within an in-
closure with a crenellated wall, making an offering of flowers to a stela
set within a kiosk. It is on an eminence of some sort; for an attendant
bringing incense is obviously on a lower level. Behind him is a great
pile of grain and traces of similar piles are visible to the left and lower
down.

(38) Davies, BMMA 24, 1929, p.41, fig.7; PM I/I, p.234, (no.120).

At the tomb of Sennūfer, mayor of the southern city and overseer of the granaries of Egypt under Amenophis II (39), we see in the hall a scene which represents a granary of Amun with Amenophis II celebrating harvest-festival with palm-trees. The granary or open store-space here depicted has a main division, surrounded on three sides by a double white wall, the space between being filled with grain, and on the left side by a single wall in the middle of which a great gateway is set, inscribed with the titulary of Amenophis II. Outside this, to the left, is a forecourt, in which trees are planted and grain is strewn. We may imagine that still farther to left Sennūfer was shown, facing left and presenting to the enthroned King his report on the grain supply of Egypt. The main store yard is divided into four strips by a central granary and two similar walls or paths parallel to it. On each side of the central path are four great pyramids of corn. One side strip (at the top) contains lower and rounded piles of grain. The lower side strip is actually filled with the accompaniments of the royal offering - namely, a booth of wreathed water jars and two butchers slaughtering sacrificial animals. The granary is depicted here in the first place as the record of an official's sphere of duty, but is also utilized as a reminder of the great day of the year when the King appeared in the granary to celebrate the harvest thanksgiving. The designer has ingeniously brought this rite into the very centre of the picture and has made room for it on the apex of a specially large heap of grain, which accommodates the monarch and an openwork altar and/or burnt offerings as well. This "high-place" is reached by a solid

(39) Davies, BMMA 24, 1929, p.42, fig.8; PM I/I, p.198, (no.96).

flight of steps up which three attendants are ascending, bringing supplies to the altar.

At the tomb of Khnemmosi, scribe, counter of the grain (a) in the granary of Amūn, (b) of the granary of divine offerings of Tuthmosis IV or Amenophis III (40), we see a scene that represents the granary of the grain of the god Amūn. The building forms an oblong, divided each way into four parts. the third space holds a little temple; it consists of three rooms : an antechamber holding two columns with Hathor heads for capitals; a side room for furniture and supplies; and a place of worship in which one sees an altar and, before it, four stands holding vases of libation, crowned with flowers. A dark red mass on the right may possibly be the door. The deity venerated here was probably Rennutet, the snake-goddess of harvest since the columns suit her and the altar also. We see in this scene the King celebrating harvest-festival; he is represented standing up, burning the incense and presenting offerings on an altar before a stela. Possibly Khnemmosi, the owner of the tomb was shown behind the King. So, his figure has been erased. The grain in this division is not marked as a pile, but only as filling the entire space.

At the tomb of Pahemner, scribe of the offerings of all the gods, Ramesside (41), we see a scene which represents a granary with heaps

(40) Davies, BMMA 24, 1929, p.46, fig.9; PM I/I, p.337, (no.253).

(41) Nina de G. Davies, & N. de G. Davies, JEA 25, 1939, p.155, pl.XIX; Broekhuis, Renenwetet, p.23; PM I/I, p.366, (no.284).

of corn and boys scaring birds, and a harvest-festival at the shrine of Rennutet as serpent attended by both [King] and Queen all in an enclosure. The Queen stands holding a sistrum in one extended hand and a tray of food in the other. The podium on her head indicates royal rank. Two officials stands before her in a respectful attitude and a stand of food indicates that she is the recipient of offerings. The presence of the King is a matter of a little doubt, but a tiny image of him is almost certainly to be seen high up near the door with a ceremonial bouquet in front of it. Two figures bend before it, and there is a heap of grain in front of them over which a libation is just possibly being made. The presence of the King and Queen seems to prove that it is more than an inspection of the yearly income of grain by the gods of Thebes and amounts to an acknowledgement that the blessing of the harvest, although the annual gift of the gods to Egypt, was mediated by royalty. Adjoining this scene on the left, a further scene shows Pahemneter and his wife adoring a female deity crowned with disk, tall feathers and long horns. The end of a tail betrays the fact that she had a serpent's body, probably in the same form as in the granary scene. Behind her are two trees and a bouquet.

PART VI

THE COUNTRYSIDE LIFE AND THE ANCIENT EGYPTIAN PEASANTS

CHAPTER I

CHAPTER I

The Peasant's Dresses and Ornaments in Scenes and Models

The ancient Egyptians wore simple dresses admirably suited to their way of life. Men at first wore nothing, but a girdle round the waist with some kind of flap hanging in front. This developed into the skirt, which was originally made from plant fibres other than linen. The later form became a piece of linen wrapped round the lower part of the body and reaching above the knee. It was fastened by a girdle knotted in front (1). In the Old Kingdom, the peasants wore three types of clothing : the skirt with three strips, the short skirt, and the opened skirt, which may be the short skirt reversed or tucked in various ways for greater freedom of movement (2). On the other hand, overseers are clearly identified by their distinctive overseers' skirt and a staff, cloth or looped rope which they often hold in one hand. A few overseers also wore a band of linen draped over the shoulder so that it crosses the body in front and behind, almost as far as the things (3). In the Middle Kingdom, the short skirt or kilt continued to be the main item of clothing wore by the peasants; in addition to

(1) Centre of Documentation and Studies on Ancient Egypt "Dress in Ancient Egypt", Cairo, 1962.

(2) B. Cartland, BMMA 11, 1916, p.166 ff; R.E. Freed, in : Egypt's Golden Age, p.170; Y. Harpur, Decoration in Egyptian Tombs of the Old Kingdom, p.170.

(3) Ibid., p.170.

the skirt with three strips and the opened skirt (4). The overseers wore long skirt of transparent linen, they were obliged to wear the short skirt under it to conceal the middle part of the body; they added a short cape (5).

According to the study of the agricultural scenes, which are depicted on the walls of the private tombs of the New Kingdom, we find the peasants at work wore a simple white short skirt or a loincloth, it was wrapped rather loosely round the hips and reaching above the knee (6). The peasants wore a kind of leather network with a patch at the back to protect their linen loin-cloths (7), and also they wore over their white waist-cloths a leather net, with a square patch left in the middle to meet the wear of sitting (8). The labourers of the New Kingdom also wore rough skirts of matting, which they were wont

(4)Vandier, Manuel VI, figs.91, 103, 104, 105, 107, 108, 111, 114; LD II, 127, 130; Cartland, BMMA 11, p.166; R.E. Freed, in : op. cit., p.171;

(5)Vandier, Manuel VI, figs.104, 105, 117, 118; Freed, in : op. cit., p.171.

(6)N.de G. Davies, Nakht, pl.XVIII; Rekh-mi-Rē^c, pl.XXXIX; Puyemre, pl.XXVIII; JEA 11, pl.IV; Nina de G. Davies & Gardiner, Paintings I, pl.LI; Wreszinski, Atlas, 19, 20, 58, 61, 63, 112, 142, 176, 188, 198, 231, 233, 234, 279; Boussac, Le Tombeau d'Anna, (MMAF 18), pls.IX-XI.

(7)Davies & Gardiner, Paintings I, pl.LI; Wreszinski, Atlas, 231.

(8)A.W. Shorter, JEA 16, 1930, p.55, pl.XV.

to seat with a piece of leather (9). People who had to move about much or to work on the water, wore nothing but a fringed girdle of the most simple form like that still worn by many of the African tribes, a narrow strip of stuff with a few ribbons or the end of the strip itself hanging down in front. A girdle of this kind could not, of course cover the body much, the ribbons were displaced with every movement and the boatmen, fishermen, shepherds and butchers often gave it up and worked in nature's costume alone (10).

The ancient Egyptian peasants like peasants today, shaved their hair. So, in the agricultural scenes of the New Kingdom, we see most of the peasants represented with short hair cut round on the forehead (11). Also, we see some of the peasants represented the top of their heads shaven (12), and baldheaded (13). In some scenes, we see that

(9) LD III, 40; Wilkinson, The Manners and Customs of Ancient Egyptians II, 100; Erman, Life in Ancient Egypt, p.212; LD III, 40.

(10) Ibid., p.212.

(11) Davies, Nakht, pl.XVIII; Rekh-mi-Rē^c, pl.XXXIX; Shorter, JEA 16, pl.XV; Davies & Gardiner, Paintings, pl.LI; Wreszinski, Atlas, 20, 58, 176, 177, 189, 231, 279, 343.

(12) Davies, Nakht, pl.XVIII; Puymerē, pl.XXVIII; Davies & Gardiner, Paintings, LXV; Wreszinski, Atlas, 176.

(13) Davies, Seven Private Tombs at Kurnah, pl.XXXI.

the peasants covered their heads with a white kerchief to protect their hair from the fine dust and the burning sun's rays (14).

Women from the earliest times wore a form of tunic, a dress which covered the body from shoulders to above the ankles (15). In the Old Kingdom, women wore a simple close-fitting one-piece dress of white linen, suspended from the shoulders by a pair of braces; it covered the body from the breast to shin (16). In the Middle Kingdom, the women at work wore a short kilt reaching at the knee (17).

According to the study of the agricultural scenes of the New Kingdom, we find peasant women wore different types of dresses. In the sowing scenes, they wore a wide, long and smooth dress made of white linen (long malas), it covered her body to the ankles, it had two wide and short sleeves which reached up to the elbow (18). In the harvesting and gleaning scenes, they wore a simple dress without

(14) Davies & Gardiner, Paintings I, pl.LI; Wreszinski, Atlas, 231, 189.

(15) Centre of Documentation and Studies on Ancient Egypt "Dress in Ancient Egypt", Cairo, 1962.

(16) Vandier, Manuel figs.50, 52, 57, 83, 84; Freed, in : Egypt's Golden Age, pp.170-171.

(17) Vandier, Manuel VI, figs.111, 114; Cartland, BMMA 11, p.166 ff.

(18) Davies, Seven Private Tombs at Kurnah, pl.XXXI; Baud & Drioton, MIFAO 57/2, 1932, figs.22-23; MIFAO 57/1, 1928, fig.3.

folds of white linen, it reached from below the breasts to the ankles; two braces passed over the shoulders and held it up firmly. The dress and braces are always of the same colour white, red or yellow (19). They wore a long skirt or tunic of white linen without shoulder straps. This skirt is wrapped loosely around the body to allow movement (20). They wore also a dress of white linen, covering the breasts and cut down in a V between them; it reached to the ankles, it has long sleeves. Under this dress, they wore a short skirt which reached below the knee to conceal the middle part of the body (21). In the winnowing and sifting scenes, peasant women wore a short skirt of white linen, wrapped round the lower part of the body and reaching above the knee. It was fastened by a girdle knotted in front (22).

The women of ancient Egypt took care of their hair. One of the most important coiffures of the Old Kingdom women consisted of wearing the hair short and straight. This was customary among members of the royal family, the nobility and among the lower classes. And coiffures made up of medium-long or long strands of hair were also common. In the Middle Kingdom, short hair and the medium-long strand wigs were seldom worn, whereas the coiffure of long strands

(19) Davies, Nakht, pl. XVIII; Wreszinski, Atlas, 58.

(20) Davies, Nakht, pl. XVIII; Wreszinski, Atlas, 189; Virey, MMAF 5/2, fig. 5.

(21) Davies & Gardiner, Paintings I, pl. LI; Wreszinski, Atlas, 231.

(22) Davies, Nakht, pl. XVIII; Davies & Gardiner, Paintings, pl. LI; Wreszinski, Atlas, 189, 343; Virey, MMAF 5/2, 1891, fig. 6

became very popular throughout the different social classes (23). In view of the new style of living and the expansion of luxury during the New Kingdom, it is not surprising to learn that the coiffures became exaggerated and sometimes too elaborate (24). According to the agricultural scenes of the New Kingdom, the coiffures of peasant women's hair were as follows. In the sowing scenes, we see the peasant women's hair was long, falling straight down on the right side (25); and also could be short (26). In the harvest and gleaning scenes, coiffures of peasant women were varied; medium-long strand hair with end rolled, hanging down on the right breast and sometimes on the left breast (27). Or long hair falling straight down on the back and the right breast (28); long hair falling straight down only on the back (29); and also short strand hair (30). In the winnowing scenes, we

(23)S. Wenig, The Woman in Egyptian Art, Leipzig, 1969, p.41; Freed, in : op. cit., pp.196, 197.

(24)S. Wenig, op. cit., p.41.

(25)Davies, Seven Private Tombs at Kurnah, pl.XXXI; Baud & Drioton, MIFAO 57/1, fig.3.

(26)Wreszinski, Atlas, 112; Baud & Drioton, MIFAO 57/2, figs.22, 23.

(27)Wreszinski, Atlas, 189.

(28) Ibid., 189.

(29)Davies & Gardiner, Paintings I, pl.LI; Wreszinski, Atlas, 231.

(30)Davies & Gardiner, Paintings I, pl.LI; Wreszinski, Atlas, 231.

see the peasant women's hair was short (31). They also protected their head with a white linen kerchief against the fine dust and the burning sun's rays.

As for the peasant women's ornaments, we can see in the agricultural scenes which were depicted on the walls of the private tombs of the New Kingdom that the feet, arms, and necks of the peasant women at work were bare. But they seemed to be wearing on the festival days a pair of sandals made of papyrus-leaves or leather, glass bracelets on the wrists and ankles, a large collar of beads or of tubes of enamelled faience, a fillet and a flower on the forehead. As for the peasant children in the agricultural scenes, we see the boys went naked or wore a loin-cloth (32), while the girls wore a belt or a simple tunic (33). Their hair was short and sometimes strand hair hanging over one ear (34). Boys and girls of the peasants seem to have worn on the festival days a bracelet on the wrist, an earring on the ear, or an amulet round the neck.

(31)N.de G. Davies, Nakht, pl.XVIII; JEA 11, pl.IV; Davies & Gardiner, Paintings, pl.LI; Wreszinski, Atlas, 189, 343; Virey, MMAF 5/2, fig.6.

(32)Davies, Nakht, pl.XVIII; Davies & Gardiner, Paintings I, pl.LI; Wreszinski, Atlas, 189; Baud & Drioton, MIFAO 57/2, fig.23.

(33)Davies & Gardiner, Paintings, I, pl.LI.

(34) Ibid., pl.LI; Wreszinski, Atlas, 189.

CHAPTER II

CHAPTER II

Country Life

(House, Family Members on Work in the Farm and at Home)

The nature of the building materials employed in any country depends upon many factors, the principal of which are the climate, the degree of civilization of people and the kind of materials available (1). Diodorus (2) stated that "They say the Egyptians in ancient times made their houses of reeds, of which there are some marks amongst the shepherds at this day, who care for no other houses, but such like, which they say serves their turn well enough". In Egypt, therefore, one may look back in imagination to a period when primitive shelters of dried reeds were erected as a protection from the sun and wind and one can imagine also the next stage of development when the reeds were plastered with clay in order to keep out the heat and cold more effectually. At a later period, the need of something more substantial than clay-plastered reeds or twigs manifestly was felt. The available suitable materials with which to make a more solid habitation were clay and stone. The clay was made into bricks, which were dried in the sun (3).

(1) Lucas & Harris, Ancient Egyptian Materials and Industries, p.48.

(2) Diodorus, Library of History I, 4.

(3) Lucas & Harris, op. cit., p.48; A. Saleh, The Civilization, pp. 93-95, 101-102, 151-154.

Rich and poor alike seem to have built their houses almost exclusively of sun-dried mud brick (4). Palm logs served for the columns, the staircase supports and the ceiling beams; and upper floors and roofs were merely deep layers of puddled mud or mud bricks spread over mats that were stretched across the palm rafters (5), and it is for this reason that the houses have perished (6). A rich source of information regarding early dwellings exists in the pottery model houses, known as "Soul-houses", placed in the tombs of the Middle Kingdom. These "Soul-houses", coming mostly from the tombs of middle-class rather than noble owners, are crudely constructed with no attempt at refinement, but they incorporate a great variety of architectural detail (7). The simplest are merely a shelter open on one side; others have a room at the back of the shelter, which becomes a portico. Then steps give access to the roof; shelters are added on the top, and a complete upper storey appears, with granaries on the top of that, and two storeys of stairway to reach them. We see the brick arching of the floors to the upper rooms, the details of palm-columns, the traingular battlements on the top of the walls, the

(4)For details about the brick architecture, See A.J. Spencer, Brick Architecture in Ancient Egypt, Warminster, 1979.

(5)T. Kendall, in : Egypt's Golden Age, p.25; See Figure 77.

(6)Lucas & Harris, op. cit., p.50.

(7)H.S.Baker, Furniture in the Ancient World, Origins and Evolution (3100-475 B.C.), London, 1966, p.111, fig.149.

ventilators in the roof to catch the breeze (8). Some idea of the exterior details of the house of a well-to-do Egyptian before the New Kingdom can also be derived from the two models of the residence of Meket-Re^c, who lived during the late eleventh dynasty. These models, which are practically identical, were found in his tomb in Thebes; one is now in the Cairo Museum and one in the Metropolitan Museum. His house was built of mud brick with a columned portico facing the garden, and was set in a walled enclosure in which was a pool surrounded by trees (9).

Apart from the very substantial archaeological data, particularly that recovered from el Amarna, that enable us to restore the ground plans and to some extent the interior decoration of late XVIII dynasty houses, there exist many drawings and paintings on ostraca, in papyri, and on tomb walls, providing vivid views of houses' exteriors and interiors. Several models of houses that may be contemporary afford three-dimensional impressions of modest homes, while a number of texts furnish literary descriptions of ideal country estates that seems to codify the characteristics most desired by an Egyptian in the

(8)E. B. Smith, Egyptian Architecture as Cultural Expression, London, 1938, pp.198-199, pls.LXIV, LXV; Petrie, Gizeh and Rifeh, London, 1907, pp.14-20, pls.XV-XXII; id, Social Life in Ancient Egypt, p.171.

(9)Winlock, Models of Daily Life in Ancient Egypt, pp.17-19, pls.IX-XII, LVI, LVII; H.S. Baker, Furniture, p.111, fig.150.

house of his dreams (10). Although at Thebes proper there are no excavated remains of houses datable to the New Kingdom, illustrations of houses belonging to members of the Theban aristocracy appear occasionally on the walls of their tombs. These fall essentially into two categories : the town house - which was built "downtown", possessed little or no yard, and often shared walls with neighboring houses; and the suburban villa - which was built on the outskirts of the settled area or in the country amid substantial surrounding fields and had its own walled enclosure for a yard and garden (11).

On the walls of the private tombs during the New Kingdom, paintings represent country houses of various sizes and degrees of elaborateness differentiated into land houses, where the master lived and rest houses, which were used on occasional visits to the estate : The view of the domicile of the gentleman farmer, architect and overseer of the granaries of Amun, Ineni, in his Theban tomb depicts just such an estate. Here house and grounds are entirely surrounded by a serpentine enclosure wall with front and rear gates. That the wall was indeed sinuous and not straight with scalloped top is proved by the discovery of similar walls surrounding private houses at both el Amarna and Medinet Habu, where they were so constructed apparently to give added strength. Such walls may have had the added advantages of reducing street noise and serving as a better windbreak

(10) T. Kendall, in : Egypt's Golden Age, p.25.

(11) Ibid., pp.25-26.

(12). The facade of the house is entirely divided into courses of large blocks as if built of dressed ashlar stone. Two rows of simple type of window indicate at least two stories, but no room is left for the parapet of the terrace. Two huge domed silos and a magazine roofed over with a flat vault rise nearby. The garden, with rows of shrubs and trees and an artificial pond, extends for behind the house. Dependencies are erected separately and were very likely enclosed within a separate court, as in the villas at el Amarna (13). Hatiay had a house near a chapel with three shrines in a formal garden. The painting shows for once a true plan, rectangular with two doors on the long frontage. The larger door opens onto a court or reception hall, communicating with a living room backed with a bedroom. The other smaller door seems to open onto a service court (14). In Nebamūn's tomb (no.90), that of the standard-bearer of "Beloved of Amūn", captain of troops of the police on the west of Thebes, a quite different type of country house appears. Here, we see what might be described as an Egyptian cottage; its unusually small appearance has even led to the supposition that it was not Nebamūn's main residence at all but simply a "Rest house" - or what might call a "Summer house", - built on his lands in the country. The house is coloured pink, suggesting that it was faced with painted stucco, since it can

(12) Ibid., p.27.

(13) N.E.Scott, The Home Life of the Ancient Egyptians, New York, 1947, p.3, fig.3; A. Badawy, Architecture III, pp.21, 22, fig.6; Kendall, in : op. cit., pp.27, 28; PM I/I, p.161.

(14) Badawy, Architecture III, p.22, fig.7.

scarcely have been of burnt brick. Above the roof two mulkafs (ventilators) are set back to back, possibly actually side by side, as shown in the Middle Kingdom houses and in other paintings, one to catch the north wind, the other to catch the south. The door-framing is picked out in dark-red. Above the doorway is a window, of which the lower part is divided by two mullions, and the upper by a little column. Two other windows lie higher up near the roof, richly decorated with vertical rows of circles, to light the interior. This seems to indicate that there could have been two stories. Two date-palms, which are allowed to appear from behind the house, tower above the roof in decorative symmetry, to suggest that the house is set in a shady garden (15). In the papyrus of Nakht, preserved in the British Museum (no.10471), there is a country house drawing which represents a rest house. The small house is erected upon a platform with a stairway ascending to an entrance door, shown rabatted. A row of simple windows opens just below the terrace, and two mulkafs, directed towards the front facade, probably north, ensure adequate ventilation (16). House of Nakht; this other small house, similar to those of Nebamun and Nakht, stands in the middle of the fields, a setting that provides a natural frame for this type of rest house (17).

(15)N. de G. Davies & Nina de G. Davies, Two Officials, pp.30-31, pl.XXXIV; E.B. Smith, Egyptian Architecture, p.201, pl.LXV; Kendall, in : op. cit., p.28; PM I/I, p.183.

(16)Badawy, Architecture III, p.22, fig.9; T.G.H. James, Pharaoh's People, p.224, fig.13 above.

(17)Badawy, Architecture III, p.22, fig.10.

Among the many standard compositions that Egyptian schoolboys of the New Kingdom were made to copy in order to perfect their handwriting and improve their vocabulary, two texts have survived in multiple copies that describe ideal country estates (18).

The typical country house in the New Kingdom was the following: it stands behind an enclosure wall, is two or three stories high, and is built of dressed stone or rather of brick painted to imitate it. The dependencies consist of the silos and magazines and are set nearby in a separate court. A large garden with an artificial pond and kiosk or chapel extends behind the buildings. Compared to this, the rest house is but a small structure of one or two stories, with one door to the north, an upper row of windows, and a pair of ventilators on the terrace. The structure is erected in the fields or orchards of the rich landowner who uses it during inspections of his property (19).

The furniture of Egyptian homes varied greatly according to the economic and social status of their owners. The principal furnishings were chairs, stools, beds, head-rests, and tables. These pieces have been preserved in Egyptian tombs mainly of the XVIII and XIX dynasties and depicted on the wall-reliefs and paintings (20). Among the archaeological discoveries that yielded furniture of the New

(18)Badawy, Architecture III, p.13 ff; CLEM, p.164 ff.

(19)Badawy, Architecture III, pp.22, 24.

(20)Baker, Furniture, pp.110, 127-155; L. Cottrell, Life under the Pharaohs, London, 1955, p.23.

Kingdom are the tomb of Yuia and Thuia (21), the tomb of architect Kha^c (22), the well-known tomb of Tutankhamun (23) and the excavation at the workmen's village of Deir el Medina (24). Obviously, the simple houses of the common people contained a little simple furniture (25); at the most perhaps, a chair that consists of rough, undecorated boards fastened together with mortise-and-tenon joints. The front legs are rounded at the top and reinforced at the bottom by stretchers shaped with draw knives or scrapers. The rear legs which also serve as the back posts of the chair are topped by a crest rail. The rest of the back is composed of a vertical slat inserted into a stay rail below and the crest rail above (26). This chair resembles what today would be called a kitchen chair (27). Similar chairs are shown in the pieces which have been discovered in the workmen's village and cemetery at Deir el Medina, the New Kingdom (28). A similar example is in Berlin; the Berlin chair was painted white, and

(21)T. Davies, et al., The Tomb of Iouiya and Touiya, London, 1907;

J. Quibell, The Tomb of Yuua and Thuiu, Cairo, 1908.

(22)E. Schiaparelli, Tomba Intatta dell' Architetto Cha, Turin, 1927.

(23)Carter, The Tomb of Tut-Ankh-Amen 3 vols., London, 1923-1933.

(24)Bruyère, Rapport sur les Fouilles de Deir el Médineh, Cairo, 1929 and 1937.

(25)Baker, Furniture, p.110.

(26)P.D. Manuelian, in : Egypt's Golden Age, p.68.

(27)Baker, Furniture, p.132.

(28)Bruyère, op. cit., 1937, p.48.

contains a square back frame with a vertical bisecting rail (29). The Egyptian language as used by the necropolis workmen included two words for seat, namely kniw and isbwt, the latter indicating a folding-stool (30). Gardiner (31) translated kinw by palanquin, and that it could also be an arm-chair. Janssen (32) mentioned that Gardiner's translation of kniw as arm-chair does not seem to him quite correct. It was prompted by its relation to the verb kni "to embrace", but as far as I know no arm-chair is ever found to have been used by Egyptian commoners of the New Kingdom, either in pictures or as an actual object, although chairs with a back but without arms are very numerous. Chairs with arms seems to have been used exclusively as royal seats. Concerning the prices of seats, Janssen (33) mentioned that the price of seats varies from 11 to 30 deben, but is usually 15 deben or 20 deben that is about the same as the price of a bed.

In the houses of the common people the stools with woven rush seats and square or rectangular legs were common. Sometimes the rectangular legs have a crude shaping, as in the Metropolitan example of the XVII-XVIII dynasties, of which the coarse rush seat is almost

(29) Baker, Furniture, p.132, fig.185.

(30) Janssen, Commodity, p.187.

(31) Gardiner, AEO I, pp.67, 68; id, Egyptian Grammar, p.478, and p.596.

(32) Janssen, Commodity, pp.187, 188.

(33) Ibid., p.191, table XX.

intact (34). The excavation at Deir el Medina produced numerous examples of the low stools in varying heights, rush patterns, and leg designs. The rush seats seem to be a sign of domestic use; seats of hard wood, and occasionally leather were probably the type used in workshops. It has been suggested that the height of the stool is related to the status of the man of the house, his wife may have sat lower than him, possibly on a floor mat (35). The tomb of the architect Kha^c, who lived in a comfortable house, yielded four stools with lattice work design (36). One contains two vertical struts, along with its double-cove, woven rush seat (37), while two have concave seat of woven rush (38), and the last a double-cove seat with wooden slats (39). The word hdmw, which occurs frequently on ostraca, is usually translated as footstool, it is derived from the Hebrew דָּבָר , which has the same meaning (40). However, Černý¹ (41) pointed out that in fact hdmw is a box. The value of hdmw fluctuates between 2 and 3 deben with some exceptions (42).

(34) Baker, Furniture, p.139, fig.215.

(35) Bruyère, Rapport sur les Fouilles de Deir el Médineh, 1937, p.49;

Baker, Furniture, p.139; Manuelian, in : op. cit., p.73.

(36) Schiaparelli, op. cit., fig.97.

(37) Baker, Furniture, fig.154 b.

(38) Ibid., fig.154 a-b.

(39) Ibid., fig.154 c.

(40) Janssen, Commodity, p.185.

(41) Černý¹, JEA 31, 1945, note 1.

(42) Janssen, Commodity, p.187, table XIX.

Tables were probably the most common piece of furniture after the stools and chairs. There were many different types of the tables in ancient Egypt, among them the table with splayed legs, often surmounted by a cavetto cornice, the straight-legged rectangular table and the latticework table (43). The type of Egyptian table which has straight legs and an unornamented, flat top was popular. Several examples of this type were found in the tomb of Kha^c at Deir el Medina (44).

The ordinary person was content to squat on a mat after a hard day's digging in the field or working at his craft, but a crude box or table was no doubt used in quite simple homes for holding clay pots and other household utensils (45). And Manuelian (46) mentioned that less important people kept their plates beside them on the floor. Other articles of furniture in Egyptian homes were storage chests for linen and clothes and other articles (47). The simple houses of the common people may have contained a storage chest (48).

(43) Manuelian, in : Egypt's Golden Age, p.65; Baker, Furniture, pp.150-155; G. Killen, Ancient Egyptian Furniture, Warminster, 1980, pp.64-68.

(44) Manuelian, in : op. ct., p.74; Baker, Furniture, p.150, figs.161, 233.

(45) Ibid., p.150.

(46) Manuelian, in : Egypt's Golden Age, p.65.

(47) Ibid., pp.118-119, 144-150.

(48) Ibid., p.110.

The Egyptians took pride in their beds as a mark of refinement and civilization (49). They are made much higher off the ground than the beds of today, and sometimes the mattress sloped slightly from head to foot (50). Several types of the beds were found in the tombs of different periods (51). The bed was by nature a common object in the workmen's houses. The excavations have yielded several original objects of this kind. They are all of the angareb type, which is the usual type of bed in modern Egypt, made of a straight wooden frame with four straight legs and provided with matting for springs (52). The ancient Egyptian word for bed was h^cti (53). Prices of beds fluctuate between 12 and 25 deben, with only one instance of 10 deben (54). While the price of a couch krk(r), was 2 deben this price shows that a couch was a simpler object than the h^cti (55). Baker (56) mentions that the simple houses of the common people contained low benches of mud brick which could in most cases serve the purpose of wooden furniture; spread with a woven mat, a bench of this kind made a bed, raising the sleeping person above the floor.

 (49) Ibid., p.65.

(50) Cottrell, Life under the Pharaoh, p.55.

(51) Killen, Furniture, p.23-36.

(52) Bruyère, Rapport sur les Fouilles de Deir el Médineh (1934-1935)

II, 45 ff, figs.81, 92; Janssen, Commodity, p.180.

(53) Gardiner, AEO I, p.67; Janssen, Commodity, p.180.

(54) Ibid., p.184, table XVIII.

(55) Ibid., p.185.

(56) Baker, Furniture, p.110.

The Egyptian family was a closely-knit unit in ancient times as it is to today (57). As a rule, one woman is the legitimate wife and the mistress of the house; at the same time if the man is rich he could keep other women (58). The ideal relationship between husband and wife appears to us at all times to have been faithful and affectionate. When they are represented together, we frequently see the wife with her arm tenderly round her husband's neck, the children standing by the side of their parents, or the youngest daughter crouching under her mother's chair. The wife helps her husband to superintend the household (59). She helps her husband in the farm (60). She and the children look on while he is hunting birds and spearing fish. She accompanies him in his boating expeditions for sport through the swamps (61). Wise Ani gives the following advice to his sons : "Take to thyself a wife while thou art (still) a youth that she may produce a son for thee. Beget (him) for thyself while thou art still young" But : "Do not marry a goodless wife, lest she brings up your children badly" (62). Also, Onchsheshonqy addresses his speech to his son, saying : "Take to yourself a wife when you are twenty years old, that

 (57) Scott, The Home Life of the Ancient Egyptians, p.2.

(58) Erman, Life in Ancient Egypt, p.150; Glanville, Daily Life, p.16.

(59) Erman, op. cit., p.151; S. Wenig, op. cit., p.17.

(60) N. de G. Davies, Seven Private Tombs at Kurnah, pl.XXXI; id, Two Ramesside Tombs at Thebes, pl.XXX; O.R. Rostem, ASAE 48, 1948, fig.8; Baud & Drioton, MIFAO 57/1, p.24, fig.3.

(61) Davies, Nakht, pp.66, 69, pl.XXIII.

(62) S. Wenig, The Woman in Egyptian Art, Leipzig, 1969, p.22;
 A. Saleh, Education and Instruction in Ancient Egypt, (in Arabic), Cairo, 1966, p. 12.

you may have a son, while you are (still) young" (63). While the man was the master of the house, the wife was treated with love and respect, and every consideration was shown her by her husband and the children who were themselves adored by their parents "Love your wife", counsels the sage "Fill her belly clothe her back; unguent is the remedy for her limbs. Gladden her heart as long as she lives; she is a goodly field for her lord" (64). In the instructions of Ani the following advice is given : "Thou shouldst not supervise (too closely) thy wife in her (own) house, when thou knowest that she is efficient. Do not say to her : "Where is it (?) fetch (it) for us !" when she has put (it) in the most useful place" (65).

The scenes of daily life show the peasant's wife helping her husband in the processes of farming in addition to housekeeping. So, we see in some scenes from the New Kingdom, the wife is broadcasting the seed behind the plough, she was holding the basket in her left

(63)Glanville, Catalogue of Demotic Papyri in the British Museum II, London, 1955, 11, 1.7; P.W. Pestman, Marriage and Matrimonial Property in Ancient Egypt, Lieden, 1961, p.3; Saleh, Op.Cit., p. 12.

(64)Glanville, Daily Life, pp.16, 17; S. Wenig, op. cit., p.23; B. Sewell, Egypt under the Pharaohs, London, 1968, p.86; Cottrell, op. cit., p.78.

(65)S. Wenig, op. cit., p.23.

hand, while she was scattering the seed with her right hand (66). Children go gleaning behind the reapers, they are carrying a basket in one hand, while they are gleaning with the other hand (67). We see in the reaping scene in the tomb of Menna at Thebes, one of the gleaners is the wife of one of the reapers, for she has come with a bag slung over her shoulder in which to put the spare ears of corn and a bottle of water for her man (68). We see also in the scenes, the peasant's wife performing the processes of winnowing and sifting to separate the corn from the chaff, by tossing the threshed grain quickly into the air with the pairs of shovels. She always dresses in a loin-cloth with a white kerchief on the head to protect the hair from the fine dust (69).

In the house, the wife would be bread-making, she was grinding the grain with a grindstone, she obtained the finer flour by rubbing

(66)N.de G. Davies, Two Ramesside Tombs at Thebes, pl.XXX; Nina de G. Davies, Scenes from Some Theban Tombs, p.44, pl.XXIV, XXXI; Wreszinski, Atlas, 112.

(67)Tylor & Griffith, Paheri, p.8, pl.IV; Davies, Scenes from Some Theban Tombs, pp.4-5, pl.II; Davies & Gardiner, Paintings, p.100, pl.LI; Davies, Nakht, pl.XVIII; id, JEA 11, p.16; Wreszinski, Atlas, 58, 177, 188, 279; Hartmann, L' Agriculture, p.130.

(68)Davies & Gardiner, Paintings, p.100, pl.LI; Klebs, Reliefs, pp.8, 9, Abb.6; Wreszinski, Atlas, 231; Glanville, Daily Life, pp.25-27.

(69)Tylor & Griffith, Paheri, pl.IV; Davies, Nakht, pl.XVIII.

the grain between two stones. After kneading the dough, she would fashion the dough by hand into various shapes, then she would be baking at the oven; it is a blunted cone of Nile mud, open at the top (70). In her spare time, the peasant wife was weaving and spinning clothes for the family. So, she was spinning the fibres with a spindle and sometimes with two spindles. Spinning is the forming of the threads by drawing out and twisting fibres. Twisting is the important factor in spinning. It is the twisting that gives elasticity and strength to the spun yarn. The twist may be in either direction to the right or to the left, while she employed the loom in the weaving (71).

After the cattle returned from the field at the night, she was milking the cows, we see her sitting beneath the cow, milking with her right hand; with the other hand, she holds in her lap a jar which to catch the milk. This position for milking is very different from that of the early Mesopotamian culture. In Mesopotamia the task was performed by a man seated immediately behind the cow on a milking stool (72). The peasant's wife prepared the foods; the main foods were bread, onions, some cheese and fish (73). The fish was a common food among the poor classes (74).

(70)B. Sewell, Egypt under the Pharaohs, p.88.

(71)Crowfoot, in : A History of Technology, p.424 ff; Sewell, op. cit., p.89; Wenig, op. cit., p.14.

(72)Breasted, Egyptian Servant Statues, p.8; Klebs, Reliefs, p.90.

(73)M. Murray, The Splendour that was Egypt, p.119.

(74)Sewell, Egypt under the Pharaohs, p.91.

The common beverages of the peasants were water, milk and beer. The peasant's wife made the popular drink of beer from wheat or emmer, which seems to have been very similar to Bouza; a beer drunk in Egypt today, and brewed by a method used in Nubia and Sudan (75). At meals the family members were sitting together on mats (76). She would go to the market to sell the wares such as birds, eggs, butter and the linen she has woven (77).

The Egyptian farmers were extremely fond and proud of the children, so they were like their right hand in the agricultural works, plowing, sowing, reaping, threshing and they were leading the cattle to the pasture and driving to the place of good herbs (78). The rule of wife as mother concentrated on rearing the children. She had the charge of the child during his infancy, she nursed him for three years, and carried it on her neck; this corresponds exactly to the custom of the modern Egyptians. During the first years of their childhood, the boys and girls also went nude (79). Each child was named at birth, frequently in honour of a god or the King. Often names refer to qualities; some recall flowers, trees or animals; some express the

(75) Ibid., p.88; N.E. Scott, op. cit., p.6.

(76) Petrie, Social Life in Ancient Egypt, p.99.

(77) Maspero, Life in Ancient Egypt and Assyria, p.14; M. Murray, op. cit., p.104.

(78) Davies, Nakht, pl.XVIII; Prisse d' Avennes, Monuments Egyptiens, pls.XL, XLI; Wreszinski, Atlas, 189.

(79) Erman, Life in Ancient Egypt, p.163.

parents' joy over the child (80). The love of son for mother was strong in ancient Egyptian families as it today (81). The esteem of a son for his mother is presented by a passage from the instructions of Ani : "Double the food that thou givest to thy mother, and carry her as she carried (thee). She had a heavy load in thee. Thou wert born after thy months, but she was still yoked, her breast was in thy mouth for three years, continuously. She was not disgusted at thy dung, she was not disgusted, and said not "What do I (?)", she put thee into school, when thou wert taught to write, and she continued on thy behalf every day, with bread and beer in her house. When thou art a young man and takest to thyself a wife and art settled in thy house, set thy eye on how thy mother gave birth to thee and (all) her bringing thee up as well. Do not let her blame thee, nor may she have to raise her hands to the god nor may she have to raise her cries" (82). The peasant's wife let her children wear a bracelet on the wrist or an amulet round the neck, as well as a thick tress of hair falling over one ear, but they remain unconsciously nude until puberty. As soon as they can walk, the mother employs them in little ways, sends them out to gather dry branches and herbs, or to collect in baskets the materials for the fuel; she entrusts them with the care of driving the geese to feed and finally allows them to take the cattle

(80) Ibid., pp.158, 159; N.E. Scott, op. cit., p.2; Saleh, Op. Cit., p. 20.

(81)W.S. Blackman, The Fellāhīn of Upper Egypt, London, 1927, p.283.

(82)W.S. Blackman, Fellāhīn, p.283; Erman, op. cit., p.155; Cottrell, op. cit., pp.77, 78; Wenig, op. cit., p.26.

to pasture and drink. As soon as they are six or eight years old she sends them to school or makes them learn a trade, usually that of the father.

CHAPTER III

CHAPTER III

Manners and Customs and their Probable Reflections on the Present Country

The study of this chapter concentrated on manners and customs anciently and their probable reflections in the present country. So, there were manners and customs for ancient Egyptian peasants in the building of houses, celebration of marriage, birth ceremonies, dress and ornaments, family ties, farming and irrigation tools, harvest festivals, countryside industries and of death, which are still practised by peasants today.

The ancient Egyptian peasant house presented much the same appearance as the peasant house today. The house of the peasant today is made of crude bricks, sometimes covered over with mud plastering. In the better houses, there is generally a flight of steps leading to an upper story (1). The ancient Egyptian peasant house was of the same design; the better sort of house had one or more upper stories, and was doubtless often whitewashed or colour-washed and a staircase probably of brick, leading from floor to floor (2). On the roof of an

(1)W. Blackman, Fellāhin, p.27.

(2)N.de G. Davies & Nina de G. Davies, Two Officials, p.30,
pl.XXXIV.

ancient as of a modern house were erected the mud granaries (3). On the roof of an ancient as of a modern house were often placed two malakif (4). The poorer classes lived in tumbledown dwellings similar to those in which they live at the present time (5). The portico, so marked a feature of the better type of modern house, especially the country house or house enclosed in a garden (6), was no less a feature of the ancient mansions also, as can be seen from numerous representations of such belonging to different periods (7). The mastabeh outside the house-door was probably no less frequent in an ancient as it is in a modern Egyptian village (8).

The manners and customs of marriage anciently are still practised in modern Egypt, such as early marriage; there are numerous passages in the wisdom-instructions which extol the value of marriage at an early age (9). Modern Egyptian girls of the peasant class are often married at an early age (10). Charms to win love and also to separate

(3) Blackman, Fellāhīn, p.173; A.M. Blackman, Louxor and its Temples, London, 1923, p.3, fig.1.

(4) N. de G. Davies & Nina de G. Davies, Two Officials, pl. XXXIV.

(5) Blackman, Fellāhīn, p.281.

(6) Ibid., p.228, fig.134.

(7) J. Capart, L' Art Egyptien, I, Bruxelles, 1922, pl.110.

(8) Blackman, Fellāhīn, p.32; A.M. Blackman, Louxor, p.4.

(9) P.W. Pestman, Marriage and Matrimonial Property in Ancient Egypt, p.4.

(10) Blackman, Fellāhīn, pp.43, 47, 90; A. Saleh, Family Life in Ancient Egyptian Society, (in Arabic), The Cultural Library Series, Vol. 44, Cairo, 1961, p. 3.

a man from his wife were employed in ancient Egypt and examples of such are preserved in magical papyri dating from the Roman age (11). A modern peasant woman who wants to catch a man, either for themselves or for their daughters, went to a magician and begged him to write a charm, which she buried under the threshold of her house (12). In modern Egypt, the bride is usually taken to her husband's house at sunset (13). Such, too, was the custom in ancient Egypt, certainly at the time when the first tale of Khamuas was written, for in the account of the marriage of Ahure, we read how Pharaoh said to his steward : "Let Ahure be taken to the house of Nenefer-kaptah to-night, and let all beautiful things be taken with her". We are also told that Pharaoh likewise had a present of silver and gold taken to Ahure and that "All the household of Pharaoh caused themselves to be brought unto me [Ahure is speaking]; and Nenefer-kaptah made me merry, and he entertained all the household of Pharaoh" (14). This account suggests that in ancient as in modern times the bride's furniture was conveyed with some ceremony from her parent's house to that of her husband (15). We also see that the ancient like the modern bridegroom used to entertain his male friends on the night of


 (11)F. Lexa, La Magie dans l'Égypte Antique de l'Ancien Empire jusqu'à la Époque Copte, II, Paris, 1925, p.139 ff.

(12)Blackman, Fellāhin, p.90.

(13) Ibid., p.92.

(14)F.Ll. Griffith, Stories of the High Priests of Memphis, Oxford, 1900, p.18; Blackman, Fellāhin, pp.292-293.

(15) Ibid., p.293.

his marriage (16). It is interesting to observe, in connexion with the modern practice of a mother's attaching a small piece of fox's skin to the head of her last-born living child to ensure her bearing again (17), that the sign  (ms) used in writing the verb msy "give birth" and its derivatives, consists in well-formed examples of three foxskins tied together (18). This suggests that there may have been some association of foxes with fertility in ancient Egypt.

There are several ceremonies connected with birth in ancient Egypt; these ceremonies are still practised in modern Egypt. In earliest times the Egyptian women squatted to give birth with either foot planted on a brick (19). From these two bricks was developed a structure resembling in outline the modern confinement chair. If a midwife is called in to assist at a birth, she brings with her this customary chair; for women in Egypt give birth in a squatting attitude (20). The midwife or female attendant in ancient times cut the umbilical cord (21). as she does today (22). The umbilical cord seems

(16) Ibid., p.93.

(17) Ibid., p.107.

(18) Gardiner, Egyptian Grammar, pp.465, 448, 570.

(19) Spiegelberg, Aegyptologisches Randglossar zum Alten Testament, Strassburg, 1904, p.19 ff; W. Blackman, Fellāhīn, pp.286-287.

(20) Ibid., p.63.

(21) Erman, The Ancient Egyptians : a Sourcebook of their Writings, p.45; Blackman, Fellāhīn, p.287.

(22) Ibid., p.63.

also to have been preserved as it is today (23), for in the Myth of Horus, we find that this god set out to obtain the umbilical cord of his father Osiris, which had fallen into the hands of Seth, the murderer of Osiris, and how, having won it from Seth, Horus buried it in the place sacred to Osiris in Heracleopolis Magna (24). It is to be observed that the sieve played a part in ancient as in modern birth ceremonies. On the seventh night (i.e. the evening preceding the seventh day) two or three large baskets, each containing salt, beans, seed of Helbeh, lentils, wheat and clover are placed in the room occupied by the mother and child. Sometimes one of the baskets may be filled with bread, this being often in the form of rings. On one of the baskets is placed a large winnowing sieve, in which the child sleeps all night. When the midwife comes on the following morning, and both mother and child have been washed, some of the grains from one of the baskets are put in the sieve, the baby also being placed in it. The midwife then tosses and shakes the baby in the sieve (25). It is to be observed that in ancient Egypt, Anubis is shown trundling a sieve in the scene in the temple of Hatshepsut at Deir el Bahari which represents the gods determining the duration of the new-born royal infant's life (26). This determining of the duration of the royal child's life may be compared, perhaps with the modern naming cere-

(23) Ibid., pp.64, 79.

(24)A.M. Blackman, JEA 3, 1916, p.243 ff.

(25)Blackman, Fellāhīn, pp.78-79.

(26)G.A. Gaballa, Narrative in Egyptian Art, Mainz, 1976, p.57, and p.150, note 58.

mony on the seventh day after birth (27). In modern Egypt a child is suckled for two years (28); in ancient Egypt, according to Ani's instructions, it was not weaned till it was three years old (29).

The love of son for mother was evidently as strong in ancient Egyptian families as it is today. A man's love and respect for his mother is a marked characteristic among Egyptians, and even after marriage the mother retains the highest place in her son's love and respect (30). Ani's instructions indicated the same love and respect of the son to his mother (31).

The modern Egyptian women closely resemble their ancestors in their love of personal adornment. The earrings, bracelets, and bead collars worn by many of the modern women (32) are very much like those that the women are depicted as wearing in paintings and reliefs of all periods (33). Tattooing is another form of personal decoration. It is popular with both sexes among the peasants. The operation of

(27)Blackman, Fellāhīn, p.78 ff, p.287.

(28) Ibid., p.81.

(29)See Part VI, Chapter II.

(30) Blackman, Fellāhīn, p.45.

(31)Erman, The Ancient Egyptians, p.239; Blackman, Fellāhīn, p.25.

(32) Ibid., pp.47-50.

(33)P. Hamlyn, Egyptian Jewellery, London, 1969; C. Aldred, Jewels of the Pharaohs, London, 1971; A. Wilkinson, Ancient Egyptian Jewellery, London, 1971.

tattooing is very painful. Sometimes a woman tattoos women and girls and a man tattoos men and boys (34). Tattooing was practised in ancient Egypt; it may have been practised in the Predynastic age (35). But this method of personal adornment was in vogue in Egypt during the Middle Kingdom, as is definitely proved by a blue faience figure of a girl dating from XI-XIII dynasties and by the mummies of two girls dating from XI dynasty. Both the mummies and the faience figure have tattoo marks on the body and the limbs (36). The painting of the eyes with Kohl was practised by both men and women, as much in ancient times (37), as it is at the present day (38). The constant references to perfumes in the ancient religious and literary texts make it evident that the modern love of scent is not a recently acquired taste (39).

Either locks of artificial hair fastened on, or whole wigs, were commonly used by the ancient Egyptian women. The long plaits of hair

(34)Blackman, Fellāhīn, pp.50-45.

(35)J. Capart, Primitive Art in Egypt, London, 1905, pp.23, 30;

Blackman, Fellāhīn, p.283.

(36)Winlock, MMA 2, 1923, pp.22, 26, 28; Blackman, Fellāhīn, pp.283-284.

(37)E. Brovarski, in : Egypt's Golden Age, pp.216-217.

(38)Blackman, Fellāhīn, p.59.

(39)Erman, op. cit., pp.28, 33, 61, 133, 209, 244, 247, 249, 252;

Blackman, Fellāhīn, p.59.

worn by the modern peasant women (40) can certainly be matched in ancient times (41). And it is to be observed that the wooden combs used today in dressing the hair (42) are very like the ancient ones (43). The men's custom of cutting the hair short or shaving their heads entirely in modern Egypt (44) is a very ancient custom. Paintings of barbers shaving or cropping men's heads occur in the Middle Kingdom (45), and in the tombs of the New Kingdom (46). In the New Kingdom paintings, the barbers are quite clearly plying their trade out of doors, as they so often do at the present day. The well-known instruction of Duauf speaks of the barber shaving "late into the evening , he betaketh him from street to street, in order to seek (?) whom he may shave" (47).

In modern Egypt, there are two types of clothing, the veil for women and the Gallabiyeh which may be quite ancient. There is possibly a reference to the former in an inscription of Ramesses III at

(40) Ibid., p.56.

(41) See Part VI, Chapter I.

(42) Blackman, Fellāhīn, p.56, fig.26.

(43) R.E. Freed, in : Egypt's Golden Age, p.197.

(44) Blackman, Fellāhīn, p.57.

(45) Klebs, Reliefs, p.41; Erman, The Ancient Egyptians, p.28.

(46) Wreszinski, Atlas, 44; Capart, Thebes, p.288, fig.204; W.V.

Davies, in : Egypt's Golden Age, pp.189-190, fig.49; See **Figure 78**.

(47) Erman, op. cit., p.69.

Medinet Habu (48), and the Egyptian peasants seem to have been wearing a garment very like the latter. The Gallabiyeh may date back even to the VI dynasty (49).

In modern Egypt, the fields are divided into small squares separated from each other by ridges of earth and narrow trenches. The small plots are marked off one from the other by boundary stones stuck into the ground. Many a village quarrel has arisen over these stones (50). The dividing of the fields into small squares separated from each other by ridges of earth and narrow trenches is an ancient practice, as we find both from reliefs and paintings (51), and from the excavations at el Amarna. The shifting of the boundary-stone is condemned in the teaching of Amenophis, the son of Kanakht (52).

The plough which is used in ploughing today is almost exactly like the ancient plough. It is made entirely of wood, with the exception of the share which is tipped with iron from Roman into modern times. It is generally drawn by oxen, the peasant follows on foot, guiding

(48) Breasted, AR IV, 47.

(49) Petrie, et al., Deshasheh, London, 1898, p.31 ff.

(50) Blackman, Fellāhīn, p.169.

(51) Newberry, et al., El-Bersheh, part II, pl.XXVI.

(52) F.Ll. Griffith, JEA 12, 1926, p.204.

the plough and usually singing as he works (53). Nowadays, the Shādūf is still in use; it consists of two uprights, connected by a horizontal bar, and a stout branch of a tree, weighted at one end with mud and stones, while from the other end is suspended a leather or basket-work bucket. The man working the Shādūf pulls down this bucket into the water and when it is full allows the weighted end to raise it to the level of the land. He then pours the water into a prepared channel, through which it flows in the required direction. If the land to be irrigated is much above water-level two or three of these Shawadif are worked one above the other. The men thus engaged usually sing at their work (54). This modern Shādūf and the method of its use, we find in paintings dating from the New Kingdom (55). Also much the same sort of iron sickle as the modern one was already in use in the Roman Period. At an earlier date the sickle consisted of a wooden body, in shape closely resembling the lower jawbone of an ox, in which flint teeth were inserted (56). The wooden fork used

(53) Davies, Nakht, pl. XVIII; id, Seven Private Tombs at Kurnah, pl. XXXI; Wreszinski, Atlas, 189; Baud & Drioton, MIFAO 57/1; Tylor & Griffith, Paheri, pl. III.

(54) Blackman, Fellāhin, pp. 170-171.

(55) Davies, Two Ramesside Tombs, pl. XXVIII; id, Nefer-Hōtep, pls. XLVI-XLVII.

(56) Blackman, Fellāhin, p. 311.

nowadays on the threshing-floor and for winnowing (57) is exactly like that used in ancient Egypt (58).

In modern Egypt, the object known as ^carūset el-Qamh, "The bride of corn", is depicted in Theban tombs of the New Kingdom (59). Before any of the corn is cut some of the villagers go into the fields and pluck the finest ears by hand. These are plaited into a special form, and this object called "Bride of the corn", is used as a charm. One may be suspended over the house-door as an antidote to the evil eye; another may be hung up in the room containing the stores of food, as a charm to ensure abundance. Many tradesmen hang such objects in their shop-windows, believing that this will bring them plenty of customers. Again, in some parts of Egypt the bride of the corn is temporarily placed on the heaps of the grain after the winnowing is completed, as a charm to ensure a good harvest the following year. Sometimes, the grain from these heads of corn is extracted and mixed with the next year's sowing. The bride may be left hanging till it is replaced at the next harvest, or, again it may be allowed to remain in its place until it falls to pieces (60). According to winnowing scenes, this object was placed on the winnowing-floor while the winnowers at work, and an offering was laid before it con-

(57) Ibid., p.173, fig.105.

(58) Davies & Gardiner, Paintings, pl.LI; Wreszinski, Atlas, 189, 234;
Baud & Drioton, MIFAO 57/2, fig.22; Virey, MMAF 5/2, fig.6.

(59) Blackman, JEA 8, 1922, pp.235-240, pls.XXVI-XXIX.

(60) Blackman, Fellāhīn, pp.171-172; id, JEA 8, p.237.

sisting either of a vessel of water and dishes containing cakes, or of a bowl of water only (61). In modern Egypt, the winnowing is always done out of doors, and when the process is completed the heaps of grain are left on the winnowing floor for one night. The owner of the grain will then take some of the usual flat, round loaves of bread and stick them at intervals in among the grain, where they are left till the morning when they became the perquisite of the man who carries the grain to the owner's granaries. The custom of putting loaves of bread in the heaps of corn may be a survival of the offerings originally made to the corn ^carūseh, or may be a survival of the presentation to Rennutet. Such offerings to Rennutet are often depicted in the tombs of the New Kingdom (62). In modern Egypt, a certain number of people are given presents of corn by the owner. These gifts of first-fruits are bestowed on some of the poorest people in the village, as well as on the barber, the Mueddin, - the man who call to the prayer from the mosque - the Zummarah- player, the Fukaha- the last - mentioned being poor men who recite the Koran in mosques, in private houses at funeral ceremonies and at the periodical visits to the grave (63). This custom finds a parallel in ancient Egypt.

In the second of the famous contracts of Hepzefi engraved on the walls

(61) Davies, Nakht, pl. XVIII; Wreszinski, Atlas, 177; W. Blackman, JEA 8, XXVII a; id, Fellāhīn, p.308, figs.181, 182, 183.

(62) W. Blackman, JEA 8, p.238; id, Fellāhīn, pp.309, 310; See Part V, Chapter III.

(63) Breasted, AR I, 546; W. Blackman, Fellāhīn, pp.308-309; id, JEA 8, p.238; G. Reisner, JEA 5, p.83.

of his tomb at Asyut the following passage occurs : "that which he (Hepzefi) gave to them [the staff of the temple of Upwawet at Asyut] in return [i.e. for bread presented to his statue] was one hekat measure of northern barley for every field of the endowment [pr-dt] from the first-fruits of the harvest of the nomarch's estate, just as [or in the measure which] every commoner of Asyut gives of the first-fruits of his harvest, for he was the first to cause every one of his peasants to give it to this temple from the first-fruits of his field". It is the custom to pay all the harvesters in kind, and strings of women and children can be seen coming from the fields carrying their wages on their heads (64).

The custom of paying in kind finds many a parallel in ancient Egyptian records (65). The open-air market was evidently as distinctive a feature of ancient as it is of modern Egyptian life (66). Most of the villages have a weekly market, where a great variety of goods are for sale. The market-place is usually situated outside the village. The part played by sales women in the markets was noticed by Herodotus (67).

(64)Blackman, Fellāhin, pp.173-174.

(65)Erman & Ranke, Aegypten and Aegyptisches Leben in Altertum, Tübingen, 1923, p.591; T.E. Peet, Annals of Archaeology and Anthropology 7, p.82.

(66)Erman & Ranke, op. cit., p.508 ff; Blackman, Fellāhin, p.305.

(67)Herodotus, Book II, 35.

The shape and technique of ancient Egyptian baskets (68) are still practised in modern Egypt (69). They are made of palm-leaf with a foundation of split mid-ribs and built up spirally with over-sewing. The Kwfa was much employed anciently and frequently shown in the ancient reliefs and paintings (70). The same shape and technique of Kafas is still practised in modern Egypt (71). They are made of mid-ribs of palm branches, men are more usually employed than women in the manufacture of these Akfas; they are used for fowls, pigeon and rabbits. Palm-fibre rope like that in the use at the present day (72) has been found in tombs of all periods (73). Ancient Egyptian looms (74) were like those used by peasant women today (75). They consists of four pegs driven into the ground, on which the wrap is extended and two stones on which the heddle is balanced. The modern and ancient spindles are hardly to be distinguished from one another (76). The ancient and modern methods of brick-making are similar

(68) Petrie, et al., Sedment, part II, pl. LV.

(69) W. Blackman, Fellāhīn, p. 159.

(70) Newberry, et al., El-Bersheh, part I, pl. XXII.

(71) Blackman, Fellāhīn, p. 160.

(72) Ibid., p. 161.

(73) Petrie, et al., Deshasheh, p. 33, pl. XXXIV; See, Part IV, Chapter III.

(74) See Part IV, Chapter III.

(75) Blackman, Fellāhīn, p. 162, fig. 93.

(76) Ibid., p. 305, fig. 173.

(77). The twelfth dynasty brick-mould found by Petrie (78), at el Lahun is exactly like that used at the present day. The peasant women put loaves of bread to rise in the sun before being baked in the oven (79). This seems also to have been done in ancient Egypt (80).

There are manners and customs practised in the present country as in ancient Egypt when a death occurs. The peasant women today displayed their grief before and at a funeral by exactly the same gestures and conduct as did their ancestors - by dishevelled the hair, tearing the clothes, exposing the breast, gathering up mud and with it plastering the head, breasts, and arms and by wildly waving the arms and beating the head and breasts - as is to be found in numbers of ancient paintings and reliefs (81). The modern custom of smearing the hands, arms, and face with blue dye may also be ancient (82). The perambulation of the town or village by the female relatives and

(77) Newberry, The Life of Rekhmara, London, 1900, pl. XXI;
Blackman, Fellahin, p. 154.

(78) Petrie, Kahun, Gurob and Hawara, pl. IX; Blackman, Fellāhīn,
p. 303, fig. 173.

(79) Ibid., p. 163, fig. 94.

(80) Peet & Woolley, The City of Akhenaten, part I, p. 64.

(81) N. de G. Davies, The Tomb of the Two Sculptors at Thebes, New
York, 1925, pls. XIX, XXI; Davies & Gardiner, Amenemhēt,
pl. XXIV; Wreszinski, Atlas, 120, 166, 167, 209, 210.

(82) W. Blackman, Fellāhīn, p. 295.

friends immediately after a death has taken place (83) is described by Herodotus (84) in the following words : "When a member of any distinction dies in a household, all the female members of that family besmear their beads and faces with mud and then, leaving the corpse in the house, they parade the town and smite themselves, having their garments girt up and their breasts exposed; and all their female kin accompany them". The viewing of the corpse by the relatives as it lies extended on a bed, was evidently an ancient practice, for in a relief at el Amarna, King Amenophis IV and his wife Nefertiti are depicted taking a farewell look at the corpse of one of their daughters which lies on a bed (85). Palm-branches were carried in ancient as they are in modern funeral processions (86), as can be seen from the picture of the funeral procession of Kynebu in his tomb at Kurnah (87). On returning to the house of the deceased the men seat themselves outside the doorway, where they are joined by friends; this is to be compared with a passage in a letter written to his dead wife by an official of the Late New Kingdom : "I bewailed thee exceedingly along with my house in front of my dwelling" (88).

(83) Ibid., p.109.

(84) Herodotus, II, 85.

(85) Erman & Ranke, op. cit., p.365, fig.164; Blackman, Fellāhīn, p.296.

(86) Ibid., p.116.

(87) J.G. Wilkinson, The Manners and Customs of Ancient Egyptians, III, London, 1878, pl.LXIX.

(88) A.M. Blackman, Louxor and its Temples, p.25.

CHAPTER IV

CHAPTER IV

Social and Legal Status of the Ancient Egyptian Peasant

(According to Scenes, Instructions, Model Letters and Real Life)

According to the conclusions attained by Prof. A. Saleh, in his former study on "Land and farmer in Ancient Egypt", the freedom was not completely available to the peasants in ancient Egypt with its present meaning, but also indigenous slavery was not found. The peasant had the same rights as the other citizens theoretically; he shared with his country's rulers race, language, religion, customs and types of names. There was no law confining him to his class or preventing him from rising to a higher class. He had legal rights which allowed him to act as a witness, to hold property and also taking servants like other citizens if his economic status allowed. There was no law that prevented him from leaving his countryside and there was no use of marks to tattoo his body to prove his attachment to another. If he was a worker, he worked for wages and might work for definite hours during the day. If he was a tenant, he contracted with the land owner definite rent. All these things raised him above the slave and slavery level. But, the peasant was supposed to be submissive under the behaviour of landowners or overseers and had to pay the taxes to them and also submit to their judgement and receive his punishment. The state (government) employed the peasants in building works, irrigation projects, digging the canals and forced them to labour in the mines and quarries in addition to military service (1).

(1) A. Saleh, "Land and Farmer in Ancient Egypt", (in Arabic), in BEHS, 1974, pp. 55-56.

Many Egyptian texts talked about landed property being conveyed with people and cattle from one owner to another (2). This indicates that the land labourers were a part of the land: some scholars supported this opinion, but other scholars observed that these texts were concerned with the inheritance and will from the individuals and the donation from the Kings and did not concern normal sales; this means that the peasant did not convey his property from seller to buyer. So, the land labourers were not mentioned in the inheritance document, or endowment or the donation with their number of their names, but they were only mentioned with the term "People". On the contrary, in conveying slaves as property to others, their numbers and names were mentioned (3). In Prof. A. Saleh's words, the connection of the peasant with his work in the land on which he gained his living, it was the base of his connection with the landowner. Thus, the great landowners had their men who were living freely in their estates, but the nature of agricultural work tied them to their agriculture, which their loyalty and satisfaction induced them not to leave their lands and not to serve any except their landlord. At the same time, their loyalty and the landowner's selfishness led them to keep a hold over their peasants; so, they did not expel them outside their lands, except if there were special circumstances that affected the loyalty and separated between the peasants and the landowners (4).

(2) Breasted, AR I, 173, 175, 203, etc.; Saleh, BEHS, p. 56.

(3) Ibid., pp. 56-57.

(4) Ibid., pp. 57-58.

Prof. A. Saleh, referred to the fact that the economic situation of the Egyptian peasants did not allow them to leave written monuments about themselves. Our knowledge about them depends on the texts and scenes of nomarchs and landowners which include opposite sides of the countryside people's life; and in addition to a small number of literary texts which pictured the poor people's life. Sometimes, those contained the principles of mortality which should be followed in treatment of the ordinary people (5). Most nomarchs speak of concentrating on improvements to agriculture and the peasants' situation; we of course accept that there is some exaggeration in their texts and we have to be satisfied only with what is said. Henku, governor of the Cerastes-Mountain nome mentioned that: "I have given bread to all the hungry of the Cerastes-Mountain; I clothed him who was naked therein. I filled its shores with large cattle and its lowlands with small cattle. I settled the [feeble] towns in this nome with the people of other nomes, those who had been peasant-serfs therein. I never oppressed any one in possession of his property, so that he complained of me because of it, to the god of my city" (6). This text indicates that Henku, reclaimed the land and

(5) Ibid., p. 58.

(6) Breasted, AR I, 281; Davies, Deir El-Gebrawi II, p. 42, pls. XXIV-XXV; Saleh, BEHS, p. 59.

distributed it to the poverty-stricken, whether with the possession, rent, or benefit right, and he increased the wealth of cattle in the region to benefit his peasants (7). Pepinefer, V dynasty, mentioned that he changed the status of him who had no grain for himself and provided him with grain (8). Khety, governor of the Lycopolite nome, mentioned : "I dug a much-needed irrigation canal, conducting the water to land unreached by the inundation, I was rich in grain. When the land was in need, I maintained the city with Kha and with Heket. I allowed the citizen to carry away for himself grain, and so also his wife, the widow and her son. I remitted all imposts which I found counted by my father and I filled the pastures with cattle" (9). At the beginning of the twentieth century B.C., Amenemhet I concentrated on agriculture and irrigation affairs, so, he mentioned that "none was hungry in my years, none thirsted, I established the boundaries of the land and distributed the water between the countries by justice" (10). Ameni, governor of the Oryx nome, XII dynasty, mentioned that : "There was no citizen's daughter whom I misused, there was no widow whom I oppressed, there was no peasant whom I repulsed, there was no shepherd whom I repelled, there was no overseer of serf-labourers whose people I took for (unpaid) imposts,

(7) Ibid., p.59.

(8)A. Moret, Le Nile et la Civilisation Egyptienne, Paris, 1926, p.211;
Saleh, BEHS p.59.

(9)Breasted, AR I, 407, 408; F.Ll. Griffith, The Inscriptions of Siut and Der Rifeh, London, 1889, pl.XV; Saleh, BEHS p.59.

(10)Breasted, AR I, 483; Saleh, BEHS p.60.

there was none wretched in my community, there was none hungry in my time. When years of famine came, I plowed all the fields of the Oryx nome, as far as its southern and northern boundary, preserving its people alive and furnishing its food so that there was none hungry therein. I gave to the widow as (to) her who had a husband. I did not exalt the great above the small in all that I gave. Then, came great Nile, possessors of grain and things (but) I did not collect the arrears of the field" (11). And some middle-class people spoke like their lords, but they were more faithful than they; where a man from the twenty-fourth century B.C. took charge of things for his brother in his estate for the period of 20 years; he says : "Never did I beat any man there, so that he fell through my action. Never did I enslave any people there : as to all people there with whom I used to negotiate, it was I who used to pacify them. Never did I go to rest for a night there, being angry with people. It was I who used to give clothing, bread and beer to every naked man and hungry man there" (12).

The good citizens did not observe the differences which ancient societies supposed between the lords and slaves. So, the scribe Amenmose sent to his father, the captain of troops Bekenptah saying "You do not write to me good or bad, and no person amongst them that you send passes by me, that he may tell me about your condition. Write to me about your condition and the condition of your servants

(11)Breasted, AR I, 523; Gardiner, Egypt of the Pharaohs, Oxford, 1961, p.129; Saleh, BEHS p.60.

(12)D. Dunham, JEA 24, 1938, p.5, pl.1; Saleh, BEHS p.60.

and all that they are engaged in, because I am anxious about them exceedingly" (13). Also, we find Mahu, the scribe of the armoury of Pharaoh, speaks to the priest Kha'emtir saying: "... Further, your house is well and your servants are well. Do not be anxious about them" (14). Undoubtedly, as Prof. A. Saleh, commented, some other landowners ignored such generous concern; where we see in the tax-collecting scenes, the peasants frequently pictured bent before the landowners in humility. We see also when the scribe lands on the bank to receive the harvest, his followers carry sticks, and negroes carry palm rods, they say: "give up the corn" - there is none there - then, they beat him as he lies stretched out and bound on the ground, they throw him into the canal and he sinks head down under the water. His wife is bound before his eyes and his children are put in fetters. His neighbours run away to escape and to save their corn (15). We suppose in the submission and punishment scenes some exaggeration in the pictured pride of the landowners, by showing the complete submission of slaves to them and another exaggeration in strength of sincerity shown by the agents for their lords, by showing their severity in collecting the taxes from the cultivators and tenants before

(13) Gardiner, LEM, 67-68, Anastasi V, 21, 3-5; CLEM, pp. 258-259, Anastasi V, 21, 3-5; Saleh, BEHS, p. 60.

(14) Gardiner, LEM, 7-8, Bologna 1094, 8, 4-5; CLEM, pp. 22-23, Bologna, 1904, 8, 4-5.

(15) Erman, Life in Ancient Egypt, p. 445; Maspero, The Dawn of Civilization, pp. 331-332; J. Champollion, Monuments de l'Egypte et de la Nubie pl. CCCXC, 4; N. de G. Davies & Nina de G. Davies, Two Officials, pl. IX; Saleh, BEHS, p. 61; See Figure 79.

of the owner of the estate (16).

Model letters used by students in training for the civil service in the New Kingdom paint a graphic picture of how miserably the peasants fared when the harvest was poor and the royal scribe landed on the quay with his Nubian policemen to assess the harvest; where in Anastasi V (17) and Sallier I (18) papyri, we find the chief of the record-keepers of the treasury of Pharaoh, Amenemone, speaks to the scribe Pentwere saying : "I am told that you have abandoned writing and whirl around in pleasures, that you have applied yourself to working in the field and have turned your back upon the god's words. Do you not recall the condition of the cultivator forced with the registration of the harvest-tax after the snake has carried off half of the corn and the hippopotamus has eaten up the rest (?); the mice abound in the field, the locust descends, the cattle devour. The sparrows bring want upon the cultivator. The remainder that is on the threshing-platform is almost at an end, and is for the thieves. The value of the hired cattle is thus lost, and the yoke of oxen is dead on account of too much threshing and ploughing. Now, the scribe has landed at the river-bank. He registers the harvest-tax; the apparitors carrying staffs and the Nehsyu rods of palm. They say : "give corn !". There is none. They beat him furiously. He is bound and thrown

(16) Ibid., p.61.

(17)Gardiner, LEM, 64-65; CLEM, p.247.

(18)Gardiner, LEM, 83-84; CLEM, pp.315-316.

into the well; they fling him in a headlong dipping, his wife having being bound in his presence. His children are in fetters. His neighbours abandon them and are fled. Thus their corn is gathered. But a scribe, he is at the head of everybody's work. There is no reckoning of taxes for him who works in writing. He has no dues to pay. Take note of this".

We find another such portrayal for the misfortunes of the peasant in Lansing papyrus (19) : "Let me explain to you the condition of the cultivator, (whilst) the water is in flood, and he is soaked [in the river], he attends to his equipment. He spends the day cutting implements for cultivating corn. He spends the night twisting rope. He equips himself to go out to the field even as any warrior. He goes forth to secure his team. Many days after this, whilst he has been after the herdsman, he secures the team. He comes with it and makes for it a track in the field. At dawn, he goes out in order to tend the team and does not find it in its place. He spends three days seeking it, and finds it in the mire. He finds no hides on them, for the jackals have chewed them. He comes out of the mire, his loin-cloth in his hand, to beg for himself a team. He spends time cultivating corn regularly, but the snake is after him and finishes off the seed-corn when cast to the ground. He sees not a green blade. He does it with three sowings of borrowed barley. His wife has fallen to the lot of merchants, and found no advantage in exchange".

(19)Gardiner, LEM, 104-105; A.M. Blackman & T.E. Peet, JEA 11, p.289 ff; CLEM, pp.389-390.

A similar picture about the misfortunes of the small farmer is given in Turin A (20) : "Be a scribe, place that profession in your heart and do not shirk, or I will put you to be a cultivator, tied down to (pay) 300 sacks of corn and set in charge of too many fields, two-thirds of them full of weeds, these more abundant than the corn-seed. You are too down-hearted to scatter the seed, you let it fall on the ground and nod complaine saying : "I will do it". Then you come at the time of..... to see what you have done and find it red sticking to the ground, it has fastened on the stone, the yoke of oxen that you took to plough has fallen in the mire. The herdsman is come to take it back, and you stand confounded. The overseer of cattle is come to take his round of inspection and you are placed in the position of saying : "They are not here". You find the two cows, their calves being removed. Take note of this".

In spite of an exaggerated picture which is drawn by the tomb-artists and literary writers, the peasant life was of course hard, - the heavy harvest taxes inflicted upon him, and the peasant condemned for some misdeed or other. From pictures of corvee, we see the gathering of the labourers in gangs under supervisors for sharing in processes of harvest onwards. They were starting their journeys from the south to the north where the crops were ripening in Upper earlier than Lower Egypt. It seems that every gang had a fore-man (overseer), his work was distributing the work to the labourers. The gist of his words to his men is "Hurry up, my hearties, the one who

(20)Gardiner, LEM, 122-123; id, JEA 27, pp.20-21; CLEM, pp.452-453.

reaps most gets most; it's the corn of the day". From this last phrase it is clear that the method of paying these men for their labour was to give them, every so many days one day's reaping. The payment in kind was the rule (21). The state employed the peasants in irrigation projects, digging and cleaning water channels, and great building works in return for low wages, while the other classes were exempted from this corvee on account of their social situation or in return for presenting a substitute (22). But, the peasant was frequently obliged to use cunning and dodge or resist the corvee, oppression and demands of the government. And in a letter about agricultural matters, from the reign of Merenptah, of dynasty XIX, the scribe of royal estate mentioned to his lord saying : "The cultivators of the minē-land of Pharaoh (L.P.H.) which is under my lord's authority have fled before the face of the stable-master, as he beat them. Now look, the fields of minē-land of Pharaoh (L.P.H.) which is under the authority of my lord are abandoned and there is no one to till them. This letter is for my lord's information" (23). It seems that the cultivators fled on account of the kind of misuse on which the regent Horemheb had already taken action. In the Ramesside Period the government sought to protect itself against this flight from the land by granting estates to men of all classes - priests, retired

(21)S. Glanville, Daily Life, p.27; Saleh, BEHS p.62.

(22) Ibid., p.62.

(23)Gardiner, LEM, 3; id, Wilbour II, pp.78-79; id, JEA 27, p.22;
A. El M. Bakir, Slavery in Pharaonic Egypt, (SASAE no.18),
Cairo, 1952, p.3; Saleh, BEHS p.63.

army-officers, soldiers (including foreigners) or artisans - who had to cultivate the land at their own expense (24). And among the contradictory conditions in which the ancient Egyptian peasants lived, between deprivation and slavery from one side and what appeared to be landlords of righteous character on the other side. Peasants did not vary from their lords in the inner consciousness. Most of the peasants were godly, believed in fate and lived a wearisome life; his today does not differ from his yesterday, he likes his land and is attached to it, and is satisfied with but little; he had loyalty to the landowner who controlled his means of living. Besides that, he was also cheerful and patient. Besides the godliness and restraint which motivated some of the governor and landlords to treat their slaves well in order to satisfy their gods, there was also customary restraint, the wise frequently mentioned it and they wanted to decrease the spite and deprivation in the spirits of the poor (25). So, we find the wise Amenophis the son of Kanakht says to his son, who was one of the countryside youths and an official there (26) : "Remove not the landmark on the boundaries of the sown, nor shift the position of the measuring-cord; covet not a cubit of land, nor throw down the boundaries of the widow, mark well him who hath done this on earth, his house is an enemy to the town, (but) his barns are destroyed, his goods are taken out of the hand of his children, and his property is given to another. Beware of throwing down the boundaries of the

(24)Kees, Ancient Egypt, p.74.

(25)Saleh, BEHS p.64.

(26)Griffith, JEA 12, pp.204-215; Saleh, BEHS p.65.

sown, lest a terror carry thee away. Cultivate the fields that thou mayest find what thou needest; and receive the bread of thine own threshing-floor; better is a bushel that god giveth thee than five thousand (obtained) by force; they stay not a day in store and barn, they make no food in the beer-jar; a moment is their duration in the granary, when morning cometh they have gone below. Better is poverty at the hand of god than riches in the storehouse; better is bread with happy heart than riches with vexation. Covet not the property of a dependent, nor hunger for his bread. Verily the property of a dependent, it is a choking (?) for the throat Do not pervert a pen-man (?) in regard to a papyrus, the abomination of god. Do not make assessment (?) (of) one who hath nought, nor falsify thy pen. Do not receive harvest-dues from a farmer and then (?) tie up (?) a document against him, that he may be injured. If thou find a large debt against a poor man, make it into three parts; forgive two, let one remain; thou wilt find it a path of life; thou wilt lie down at night and sleep soundly. One the morrow, thou wilt find it like good news".

The tale of the Two Brothers (27), pictured the life of the small owners in the countryside. So, we see the owner looking after his land himself and working on it himself with his brother every day. This tale also indicates that the elder brother was considered as a father; and the younger brother served him like a lord in the house and when in the field tended the cattle to pasture it, and did all tasks that are

(27) Preserved in the so-called Papyrus d' Orbiney in the British Museum; See Erman, The Ancient Egyptians, pp.150-161.

in the fields for him (28). Among many examples mentioned by A. Saleh, one can refer to the following: the wise Onchsheshonqy addressed some instructions to his son saying (29): "When you work on the land do not pamper your body. Do not say "look! my brother's acre" but look for your own. Do not say "I have ploughed the field" unless it has been (?) ... plough again; it is good to plough. Do not say "It is summer", there is the winter (to come). He who does not gather wood in summer will not be warm in winter. Do not put your wealth into a house only (?). Do not leave your wealth in a village; send for it (?). The owner of a cow is he who is fit to (?) run after (?) (it). Do not build a house on agricultural land. End by planting any tree, begin by planting a sycamore. Oh may I have (plenty) and my brother have (plenty), that I may eat my own without having struggled for it. Oh may the floor-water not fail to arrive; Oh may the fields not fail to be green; Oh may the poor plot of land be the one which grows fodder in abundance!".

It may be noticed as Prof. A. Saleh, mentioned that in spite of the generally peaceable spirit which facilitated life's problems and decreased the strengths which surrounded the peasant, the Egyptian tongue was not shorter than its length now in criticism of the life situation and the governor's misbehaviour (30). In some of the little countryside songs which are inscribed in the

(28) Saleh, BEHS, p. 66.

(29) S. Glanville, Catalogue of Demotic Papyri in the British Museum II, pp. 23, 25, 27, 35, 47; Saleh, BEHS, pp. 66-67.

(30) Ibid., p. 67.

tombs, there is breath to complain, in addition to joy (31). And the ancient Egyptian literature pictured the spirit of dignity and strength of criticism, of the countryside people in the tale of the Eloquent Peasant (Khunanup), who lived in the twenty-first century B.C. He was a merchant peasant traveller, harmed by some officials. Then, he raised his voice in nine petitions, graduated in it from the propitiation to complaining the violence and turned from soft speech to violence and real criticism. The writer of this tale took the speech from the peasant and wrote the petitions with cultured method and he kept the spirit of its purely peasant originator and his sharp tongue. He pictured in this tale that the power of rule corrupts and mentioned in it the principles of social and political justice which the reformers of his period wanted to prevail (32).

(31) Ibid., p.67.

(32) Erman, op. cit., pp.116-131; Gardiner, JEA 9, 1923, pp.5-25;
Saleh, BEHS pp.67-68.

CONCLUSION

CONCLUSION

The thesis is divided into six parts: The first part consists of two chapters. The first chapter deals with kinds of agricultural lands. According to the study of Ramesside documents, it is indicated that there were six kinds of agricultural lands: K3yt, nhb, tni, m3wt, idb and p^ct - lands. The detailed analysis of the kinds of lands reveals that the Nhb-land was the best one among them its assessment in the fiscal documents was higher than the others, 10 measures of corn for aroura.

The second chapter is concerned with a detailed study of agricultural properties. According to the study of documents of the New Kingdom, it is indicated that there were three kinds of agricultural properties: State land, private properties and temple estates. State land included, Khato-Land of Pharaoh, Mint-Land of Pharaoh and land of royal Harem. Khato-lands were situated in the fields of different temples and placed in the care of temples to be cultivated. Khato-lands included three kinds of agricultural lands: K3yt, nhb and tni. The lands of royal Harem were situated in the new land, riparian land and p^ct- land. The estates held by warriors as an expression of gratitude for services rendered to the King were frequent from the New Kingdom; these donated lands were inherited and sometimes exempted from the taxes. The private property and tradition of giving lands to the high officials continued in the New Kingdom. The Kings assigned a lot of the agricultural lands for the temples; these lands were situated in the k3yt and nhb-lands. As Prof. A. Saleh and Others noted, the temple lands were not near to the temples; donations to the Lower Egyptian temples occur in the Upper Egyptian lands and vice

versa where the state desired to prevent a concentration of the temple lands in one and the same region.

The second part consists of five chapters. The first chapter being concerned with a detailed study of main food cereals. According to the study of main cereals, it is indicated that in Ramesside Period, the word it in addition of its meaning barley also acquired the more general meaning of corn. When the word it was desired to specify barley, as opposed to corn in general, the term it-m-it was employed which meant barley as barley. The ancient Egyptians knew four kinds of barley: Naked barley, two-rowed barley, four-rowed and six rowed barley; the latter kind was the most cultivated cereal of ancient times. Emmer was second cereal in the Old and Middle Kingdoms, judging from the common expression it. bdt barley and emmer, this expression occurs still in the New Kingdom, but in the Late Period, it was the main cereal. There is considerable difference in opinion between archaeologists about the date of the first cultivation of durah, but most probably durah was not cultivated as a cereal by the ancient Egyptians, where its grain was not found in the tombs and the monuments, as most probably the durah cultivation did not start before the Roman Period.

The second chapter is devoted to Legumes and fodders. Beans, lentils, peas, shelled lúbyah-beans and falcon-face beans were the main legumes in Pharaonic Egypt. They are mentioned frequently in the texts of the New Kingdom and they does not seem to appear in tomb-scenes.

The third chapter deals with oil seeds. The main oil plants were castor, olive, safflower, sesame, flax, ben-tree, thorn tree, almond and radish. According

to the study of Castor-oil plant, it is indicated that it was carried out on extensive scale from XXVI dynasty onwards as the demotic and Greek documents show. The word k3k3 does not mean castor-oil as thought, where there is no possible etymological connection between the Greek kiki and the Egyptian word dgm or tkm which means castor-oil plant and the word k3k3 never occurs in the lists of useful plants in the Harris Papyrus I. There is considerable difference in opinion between archaeologists about the date of the first cultivation of the olive, but according to the study of the olive tree, it is indicated that the cultivation of the olive tree was introduced into Egypt in the New Kingdom, where the evidence from the tombs for cultivation of this plant is not before the XVIII dynasty. In addition to this, the Egyptian word dt name of the olive tree, its fruit and its oil probably appeared in the texts from the New Kingdom onwards. The plant safflower was cultivated in ancient Egypt from the New Kingdom and not from the Old Kingdom as some archaeologists thought; where the Egyptian word kt which means safflower is mentioned in the miscellanies of the New Kingdom onwards. There is also difference in opinion between arahaologists about the date of the first cultivation of sesame in Egypt, but cultivation of sesame was started at least from the New Kingdom; where in that time numerous Asian plants were introduced into Egypt. In addition to this, its oil is frequently mentioned in the texts of the New Kingdom onwards. Scenes of cultivation and harvesting of the flax, which were depicted on the walls of the tombs appear less often than those which represented cultivation and harvesting of the main crops. The thorn tree was cultivated in ancient Egypt, no ancient Egyptian name for this tree is known, but the Egyptian word išd may be the name of this tree.

Almond tree was known in ancient Egypt, since it has been discovered in the tombs; the earliest known being of XVIII dynasty date. Radish was known in ancient Egypt at least from the Old Kingdom onwards, no ancient Egyptian name for it is known, but the Egyptian word nn.t may be the name of radish.

The fourth chapter is devoted to vegetables. The main vegetables which the ancient Egyptians cultivated in their gardens: Lettuce, onion, leek, garlic, coriander, dill, celery parsley, purslane and cucumber. Lettuce was cultivated widely in ancient Egypt from the prehistoric times. It was one of the main plants in the gardens. It was associated with the god Min. Onion was cultivated in ancient Egypt from the Old Kingdom; where the Egyptian word hdw is mentioned in the Pyramid Texts. The Egyptian word htn/hdn which is mentioned in Papyrus Harris I may be garlic. Cultivation of the coriander was known in ancient Egypt from the New Kingdom onwards; where remains of coriander were found in the tombs of the New Kingdom. In addition to this, it is mentioned in the papyri of the New Kingdom. There are four kinds of the celery: m3tt cultivated, marsh m3tt, northern m3tt and desert m3tt. Celery, too does not seem to appear in tomb-paintings. There is difference in opinion about the date of the first cultivation of cabbage, some archaeologists mentioned that it was cultivated in ancient Egypt; where they translated the Egyptian word š3w.t as cabbage, but this translation is not accepted, as the word š3w.t means coriander and the cabbage was not cultivated in Egypt before the Graeco-Roman Period.

The fifth chapter is concerned with a detailed study of the gardens. According to the study of gardens represented abundantly in the scenes of the New King-

dom more than the Old and Middle Kingdoms, there are four kinds of gardens: Garden of houses; necropolis gardens, gardens of royal chapels and mortuary temples and gardens of the god's temples. According to the study of the vineyards scenes, it is indicated that the vineyards were cultivated from the prehistoric times; where seeds of varieties of wild vine have been found in prehistoric sites and the wine-press hieroglyph was used in the first dynasty. According to the study of fruits trees scenes, it is indicated that the date palm was one of the principal fruit trees in the garden. it has been cultivated from prehistoric times and frequently planted in the New Kingdom gardens. Its juice was added to some kinds of beer: this is attested by several documents. The dom palm was known to the ancient Egyptians from prehistoric times; where fruits of dom palm were found in the tombs as early as the Predynastic Period. The sycamore tree was appreciated; where its wood was used for religious status, coffins, furniture, doors and ships. It was a sacred tree and abode of the tree-goddess. The pomegranate was cultivated in ancient Egypt from the New Kingdom onwards; where it was introduced into Egypt from Western Asia from the first half of the XVIII dynasty. It was appreciated in ancient Egypt for its red, fragrant flowers and its sweet fruit. The apple was cultivated in ancient Egypt from the New Kingdom onwards, it was introduced into Egypt from Asia. It was frequently cultivated in the Delta during XIX-XX dynasties. Persea tree was cultivated in Egypt at least from the third dynasty onwards; where the earliest specimens of persea fruits have been found in the Zoser pyramid at Saqqara. Water melon was known in ancient Egypt from the Old Kingdom, where a large green striped water melon is depicted with other offerings in the Old Kingdom tomb of Imery at Giza.

The third part of this thesis consists of four chapters. The first one deals with farming and irrigation tools. The ancient Egyptian peasants employed various agricultural equipment and tools in the processes of farming and irrigation still in use, nowadays, these tools were: the hoe, plough, rake, mallet, shādūf, sickle, fork and scoop. The hoe was known in Pre-dynastic times, where it was represented on the cylindrical seals which decorated the pottery of Naqada. The plough was developed from the hoe. The handles of the plough were longer in the New Kingdom than the Old and Middle Kingdoms, and they were put on more perpendicularly and provided with places for the hands. The ancient Egyptians faced the problem of irrigation of the height lands which did not reach the Nile flood, they overcame this problem by using these tools: buckets on a yoke, shādūf and the water-wheel (Sakiye) which was used in Egypt from the Ptolemaic Period. As for the shaduf, it does not appear before the New Kingdom, it is first represented in the tomb of the high priest Mery-Re^c, at el Amarna. As for the harvest tools, the sickle was more elaborate in the New Kingdom than in the Old and Middle Kingdoms.

The second chapter covers processes of ploughing and sowing in scenes. According to the study of agricultural scenes, it is indicated that the process of ploughing needed one man in the New Kingdom, while in the Old and Middle Kingdoms two men were needed for the ploughing. In the process of ploughing, there are two ploughs or more in one field, the one behind the other or the opposite the other. After the land had been prepared, the sowing of the seed followed. Men and women are scattering the seed behind the plough. The ploughs were used to cover seed. A flock of pigs was used as another method of covering

seed, probably on a soft ground.

The third chapter is devoted to methods of harvesting, threshing and winnowing. The harvest and its attendant activities are depicted much more frequently in the tombs and mentioned in the miscellanies. In the New Kingdom, threshing was performed by oxen, while this process was performed by donkeys and oxen in the Old Kingdom. In all periods, winnowing was performed by teams of women.

The last chapter of the third part is concerned with a detailed study of domestic and field animals. It is indicated that domestic and field animals divided into two categories: Large cattle: Bulls and cows, small cattle such as goats, sheep and pigs etc. The large cattle were looked after by a series of agricultural officials ; the overseer of cattle, the chief record keeper and the scribes. Large cattle were employed in many purposes for the ploughing, threshing, pulling, stone blocks and funeral sarcophagi, for milk and sacrifices. Great care was bestowed on pigs-breeding in the New Kingdom; they were employed in the agricultural purposes. Pigs were also sacrificed to the moon-god, Osiris and to Set. The donkey was known as a domesticated beast from at least Protodynastic times onwards. It was employed in the agricultural purposes such as transport and threshing the crops. There is suspect that the camel was unknown in ancient Egypt, but we have material and literary reference for the presence of camel in the Nile Valley area. It is commonly assumed that the Hyksos brought the horse to Egypt, this may still turn out to the correct answer; where Hyksos graves were lacking both horse bones and horse equipment, until finds were made at Tell el Daba^C and in Palestine

the Middle Bronze Age Period, representing the Hyksos shows very scanty evidence of the horse. Great care was bestowed on the horses-breeding, where lands were assigned for producing fodder for the horses.

The fourth part of this thesis consists of three chapters. The first chapter deals with taxes on lands and crops. According to the agricultural scenes, it is indicated that when the crops were ripe, landowners or agents, agriculture scribes and the surveyors were measuring the crops with measuring cords of which the unit length was 100 cubits, in order to give or check estimates of yield, as well as for the income for landowners and institutions and taxes for the state. As formerly cited by A. Saleh, the Egyptian documents rarely mentioned anything about percentage of the agricultural taxes, but it seems that the tax was mostly around 1/10 of the crops. This percentage was not common, where the Wilbour Papyrus mentioned fields paid taxes between 1/5, 1/7, 1/11 from the yield according to the degree of the fertility. As Prof. A. Saleh, summed up, it is indicated that some individuals directly paid some taxes to the state tax-collectors, while others were paid to the temples and endowment institutions to pay it to the state treasures. And also there were people responsible for collecting the taxes from their villages. As for leases of agricultural lands, there were agreements and principles in the lease of land, usually for one year, from the inundation of a certain year to the inundation of the next year.

The second chapter of this part covers posts related to agricultural economy in the state and temples. In ancient Egypt, there was an elaborate administration

of the land, its crops and animals from early times onwards. The duties of the Vizier were wide including duties attached to the affairs and agricultural properties. The title imy-r pr was held by the highest officials. The steward was responsible for administering great estates, the gods' temples, the Kings' temples and private estates. The principal management of the granary was in the hands of imy-r šnwty, who were the more important people; they were responsible for the collection and distribution of grain within the land. The title of overseer of the cattle was held by the officials attached to the state administration, to the great temples.

The third chapter is devoted to industries related to agriculture. The scenes of cordage are most commonly shown adjacent to scenes of swamps and processes of the agriculture, where the source of fibre and the cord was employed to bind sheaves. Bread-making and brewing are frequently shown together in tomb scenes from the Old Kingdom onwards. A tall and conical bread was a popular bread in ancient Egypt, but in the New Kingdom special loaves and cakes were given the shape of geese, cows or female figures. Industries related to agriculture in ancient Egypt are almost identical with the modern in the following: materials employed, techniques and purposes.

The fifth part of this thesis consists of two chapters. The first chapter deals with gods of agriculture. According to the study, it is indicated that the goddess Renmutet is frequently represented on the stelae, in statue and in the scenes of harvesting, threshing, winnowing and gathering of the grapes

from the New Kingdom onwards. The epithes of Rennutet are numerous, but they are connected with the idea of grain, harvest, food and nursing. The god Osiris is associated with corn and frequently with fertility, particularly with water and vegetation. The god Min is associated with the agriculture as bringer of prolific harvests.

The second chapter of the fifth part is devoted to inundation and harvest festivals. According to the scenes, it is indicated that the work of harvesting was accompanied by ceremonies and festivals. Harvest festival was celebrated at the time of harvesting grain and grapes on the first day of the first month of summer. The harvest festival was not exclusively in honour of Rennutet, but also for Amūn and Nepri.

The sixth part consists of four chapters. The first one deals with the Peasant's dress and ornaments in scenes and models. According to the agricultural scenes, it is indicated that the peasants at work wore a simple white short skirt, it was wrapped rather loosely round the hips and reaching above the knee. They shaved, their hair, where we see most of peasants in the scenes with short hair cut round on the forehead and some of them with the top of their heads shaven and baldheaded. peasant women wore different types of dresses: a wide, long and smooth dress; it covered her body to the ankles, it had a wide and short sleeves. They wore a simple dress without folds of white linen, they wore a long skirt of white linen, they wore also a short skirt which reached below the knee and they wore also a dress, covering the breasts and cut down in a V between them. The peasant women's hair was long, falling straight down

the right side, on the back and on the right breast and on the back. The peasant women's hair was also short. They at work were bare, they were wearing on the festival days.

The second chapter of this part is concerned with a detailed study of the country life. The houses of the ordinary peasants have perished. So, the study of this chapter is concentrated on the houses of the middle-class, and noble owners. The study depended on the pottery model houses, known as "Soul-houses", the two models of the residence of Meket-Rē^c, el Amarna houses, drawings and paintings on ostraca, in Papyri and on the walls of the private tombs of the New Kingdom. The furniture of the common peasant house was few and simple; it contained a mat, a crude box and a storage chest. The Egyptian family was a closely knit unit in ancient times as it is today. The peasant's wife was helping her husband in the processes of farming and house-keeping. The Egyptian farmers were extremely fond and proud of the children as today; so, they were like their right hand in the agricultural works; ploughing, sowing, reaping, threshing and cattle breeding.

The third chapter deals with manners and customs. There were manners and customs for the ancient Egyptian peasants that are still practised by peasants today in the building of houses, celebration of marriage, birth ceremonies, dress and ornaments, family ties, farming and irrigation tools, harvest festivals, countryside industries and also in death ceremonies.

The final chapter of the sixth part is devoted to social and legal status of the ancient Egyptian peasant. According to the conclusions attained by

Prof. A. Saleh, in his former study on "Land and Farmer in Ancient Egypt", the freedom was not completely available to the peasants in ancient Egypt with its present meaning, but also indigenous slavery was not found. The peasant had the same rights as the other citizens theoretically; he shared with his country's rulers race , language, religion, customs and types of names. He had legal rights which allowed him to act as a witness, to hold property and also taking servants like other citizens if his economic status allowed. In Prof. A. Saleh's words the connection of the peasant with his work in the land on which he gained his living, it was the base of his connection with the landowner. Peasants did not vary from their lords in the inner consciousness. Most of the peasants were godly, believed in fate and lived a wearisome life; he likes his land and is attached to it, and is satisfied with but little; he had loyalty to the landowner who controlled his means of living. Besides that he was also cheerful and patient.

FIGURES

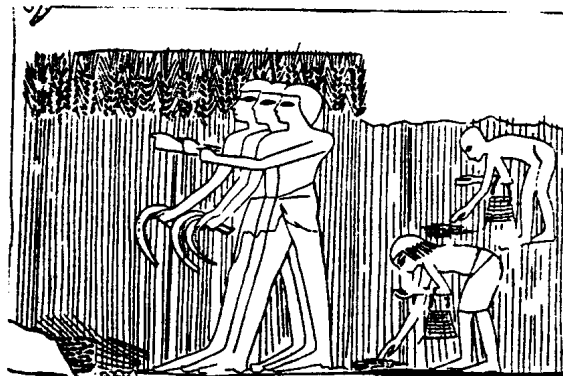


Figure (1): Emmer-reaping scene: the reapers cut the stalks high above the ground by a short toothed sickle. Gleaners are gleaning behind the reapers.

(Tomb of Zeserkere^csonb).

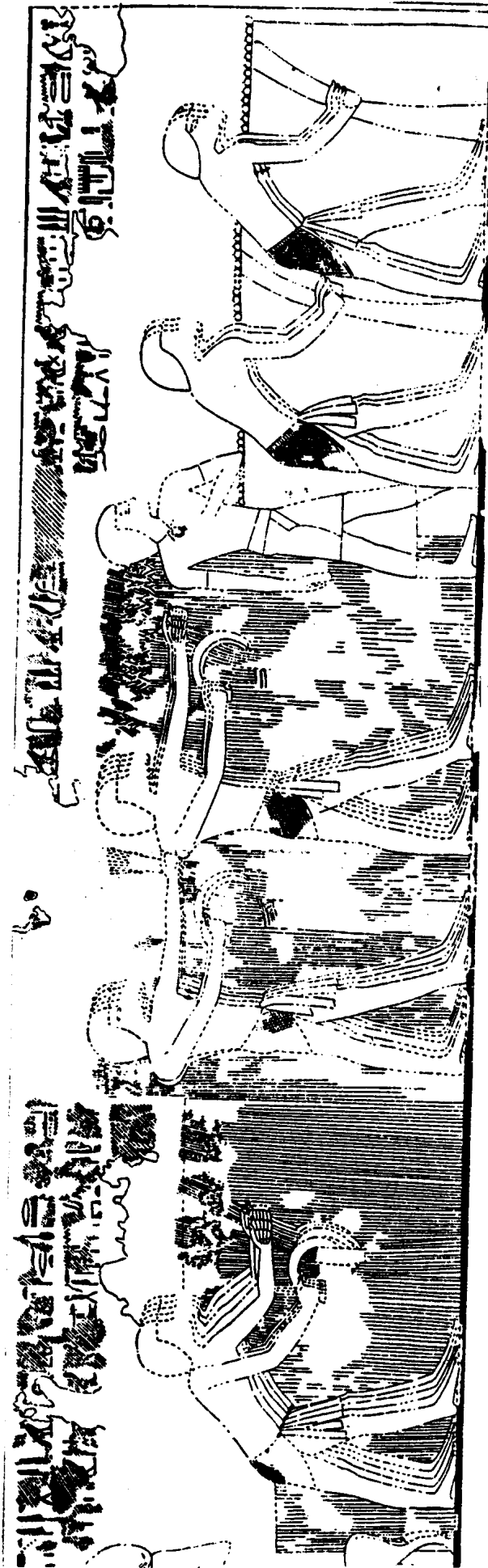


Figure (2): Emmer and flax-reaping scene: the reapers work in gangs. In emmer-reaping scene, the reapers holding emmer in their left hands, while they cut it high up with the right. In flax-reaping scene, both arms of the reapers had to be in front of the body, and both feet flat on the ground.
(Tomb of Rekhimrē^c).



Figure (3): Olive tree.

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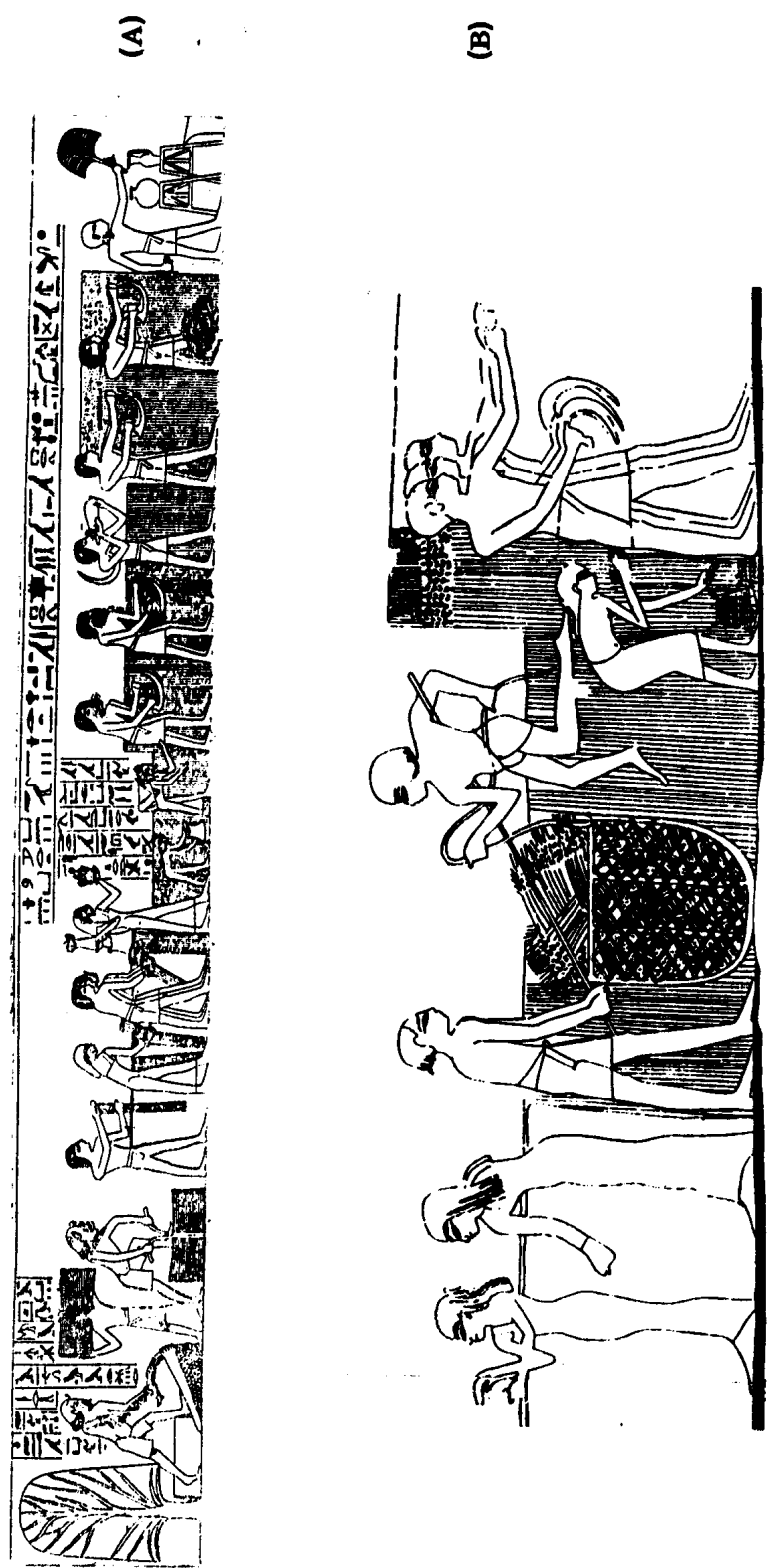
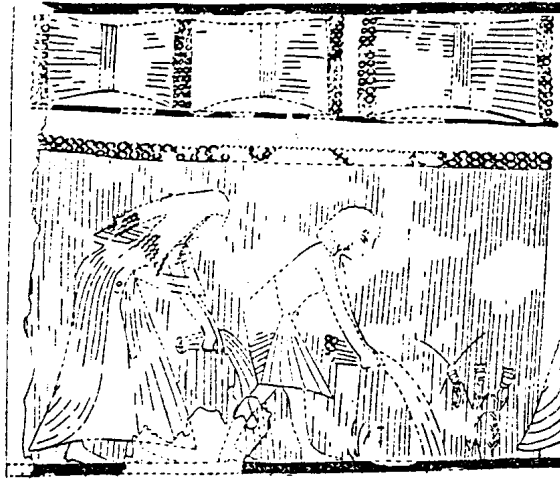


Figure (4): Flax and emmer-reaping scene: both men and women were employed to pluck the flax up.

(A) Tomb of Paheri - (B) Tomb of Nakht).



(A)



(B)

Figure (5): Flax-reaping scene. Women were employed to pluck it up.

((A) Tomb of Sennezem - (B) Tomb of Khaemhet.)

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Figure (6): Ben-oil tree.

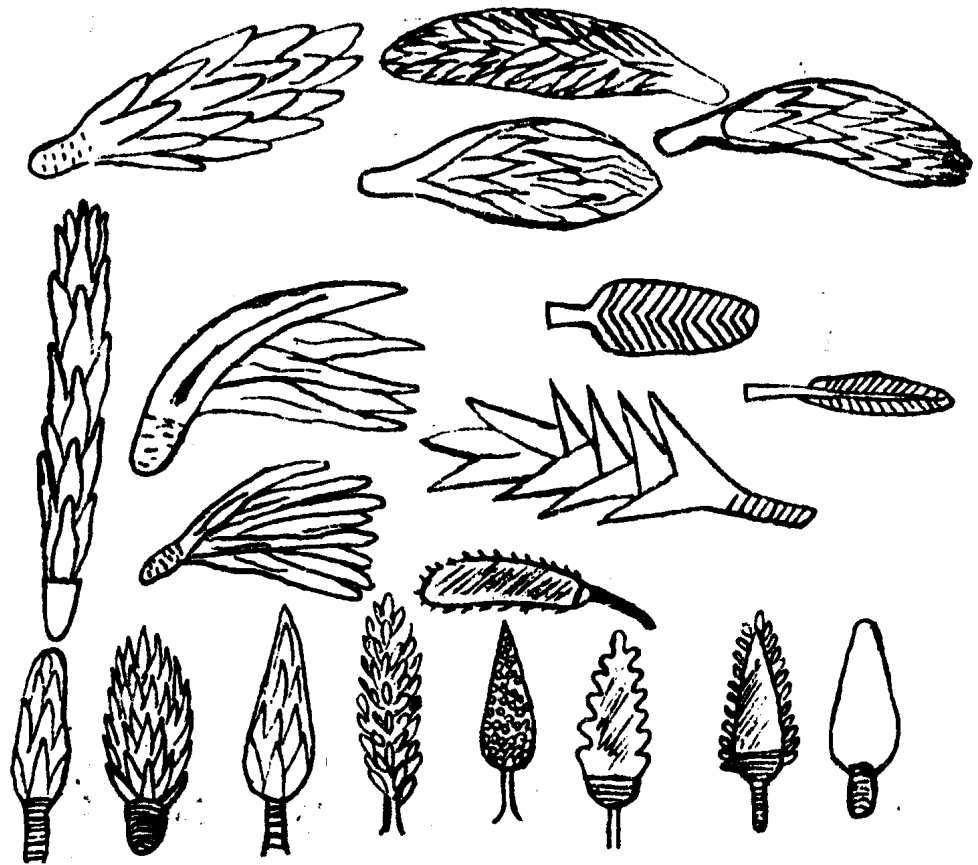


Figure (7): Lettuce plant.

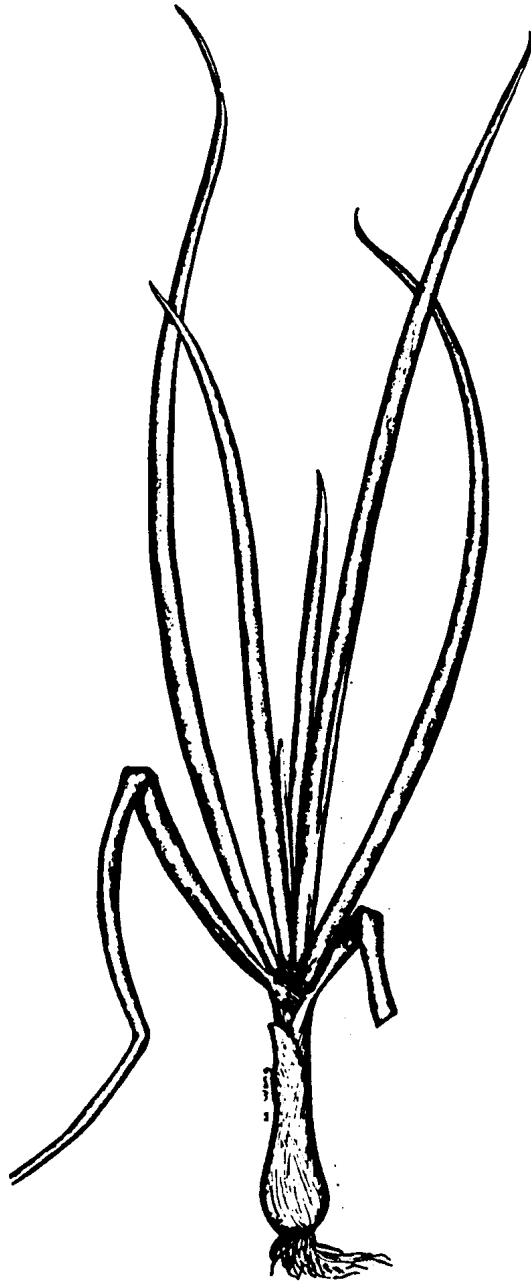


Figure (8): Onion.



Figure (9): Garlic.

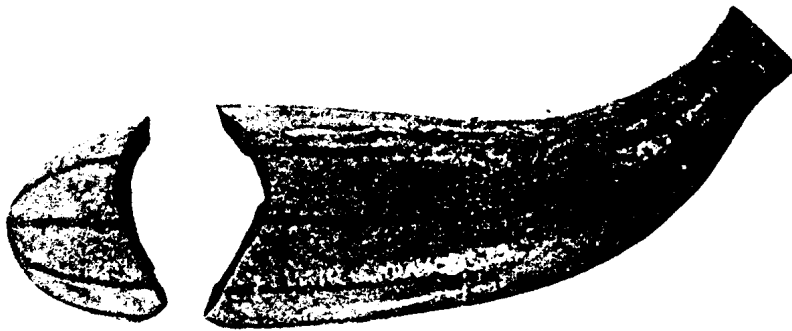


Figure (10): Cucumber-shape bottle.

((From Sedment tomb 2010 - Dynasty 19-20).)

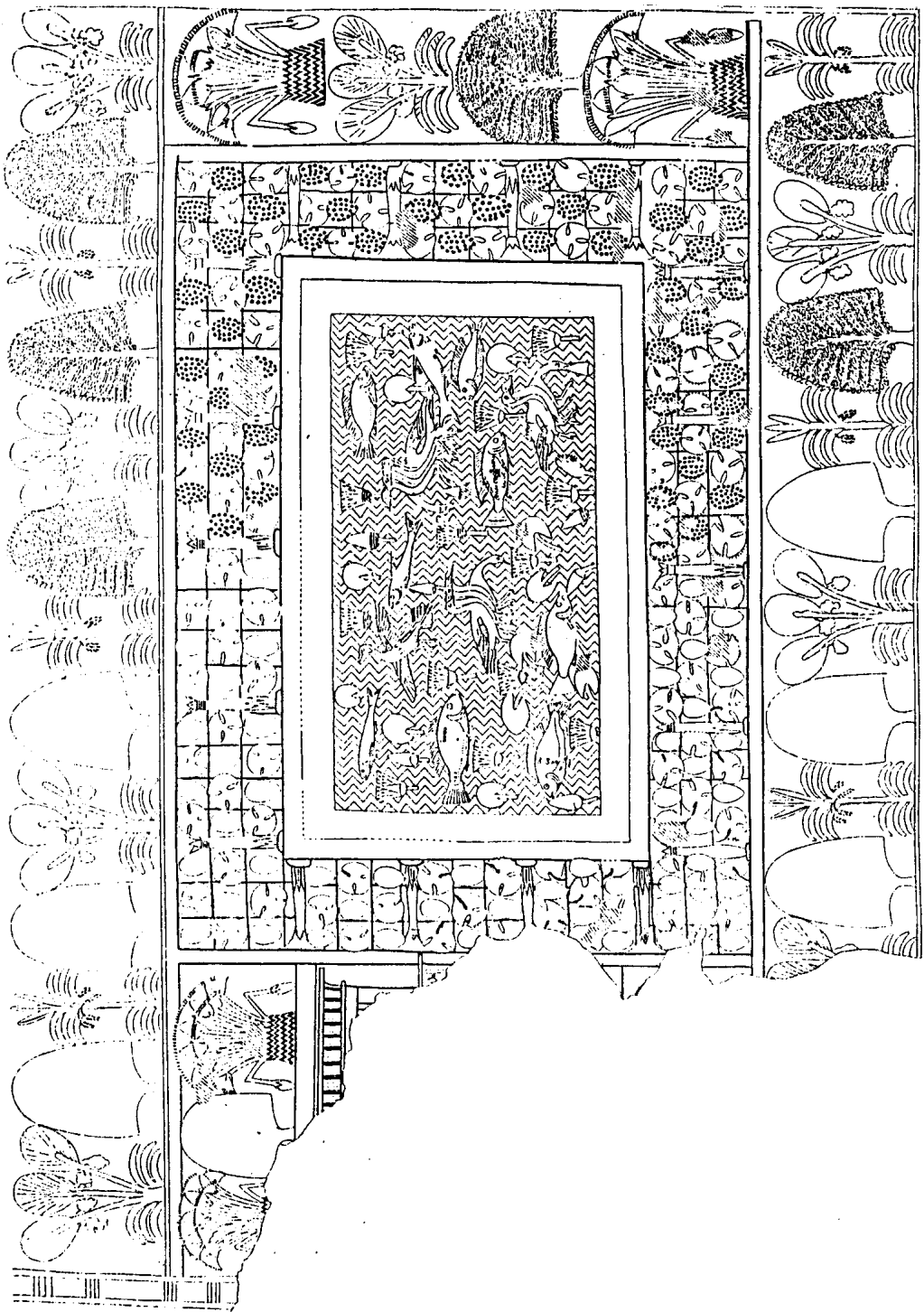


Figure (11): A garden has a rectangular pond with border and wall around it. The pond is surrounded by a vineyard and fruit trees. The vines bearing bunches of ripe grapes, grow upon a trelliswork, which is supported by open papyriform columns. The upper and lower register contain sycamores alternating with date palms or dom palm m_g. On the right side of the vineyard, there are a dom palm and a sycamore between two papyrus clumps".
 (Tomb of Kenamün).

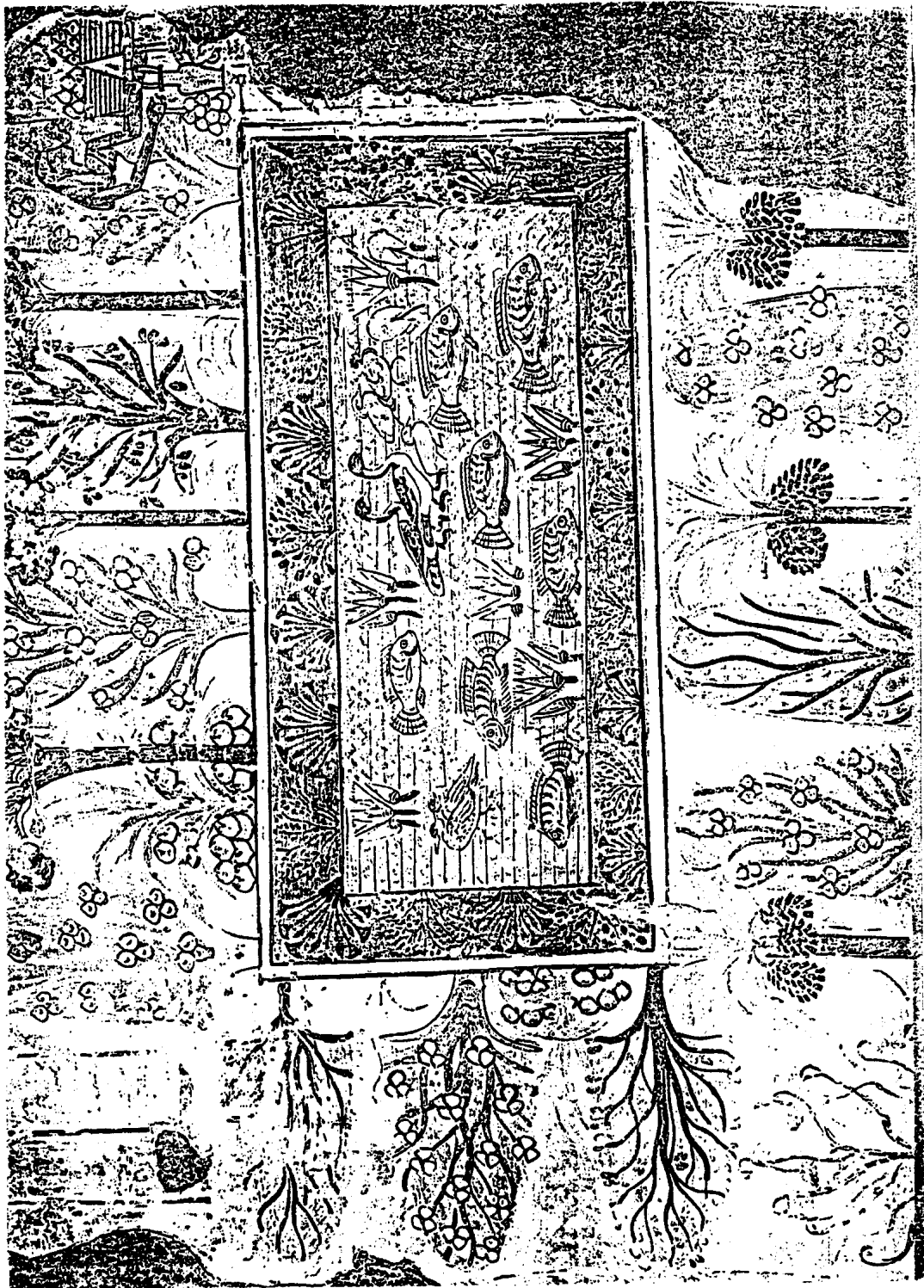


Figure (12): A central rectangular pond, enclosed by a flower border and a wall, is surrounded by shrubs and trees. The flower border contains papyrus, poppies. Among the trees, there are date, dom and argun palms with some mandrakes growing in between. There are two varieties of sycamore, the one with the yellow and the other with the roseate fruit. (British Museum No. 37983 - Tuthmosis IV or Amenophis III).

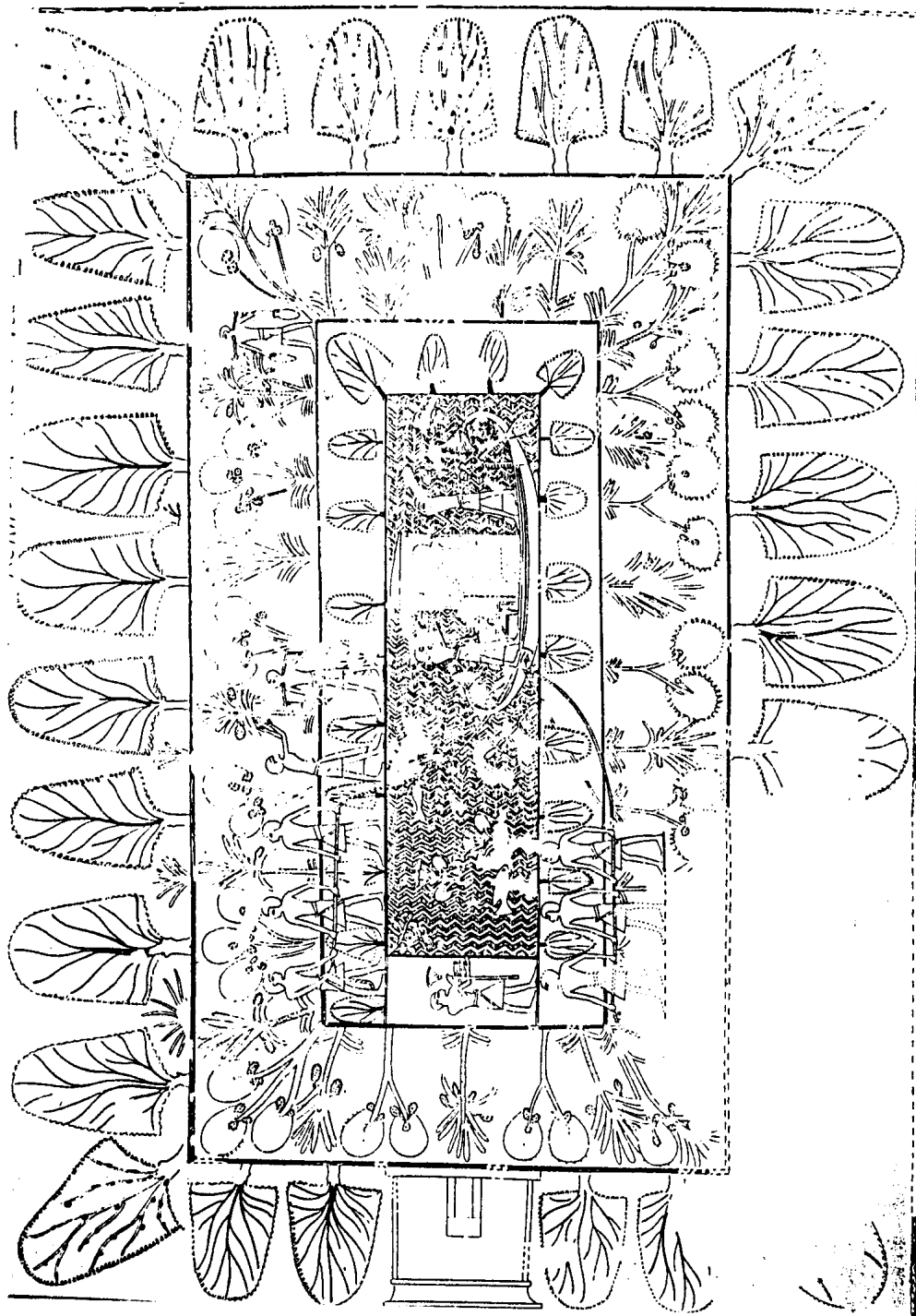


Figure (13): A garden contains rows of trees surround a rectangular pond. The outer trees being larger than the inner ones. The trees which planted in this garden are sycamores, date and dom palms. On the pond white lotus flowers and some pondweed plants are planted. A man is picking dates, while two others are irrigating the garden.
 (Tomb of Rehimrē^c).

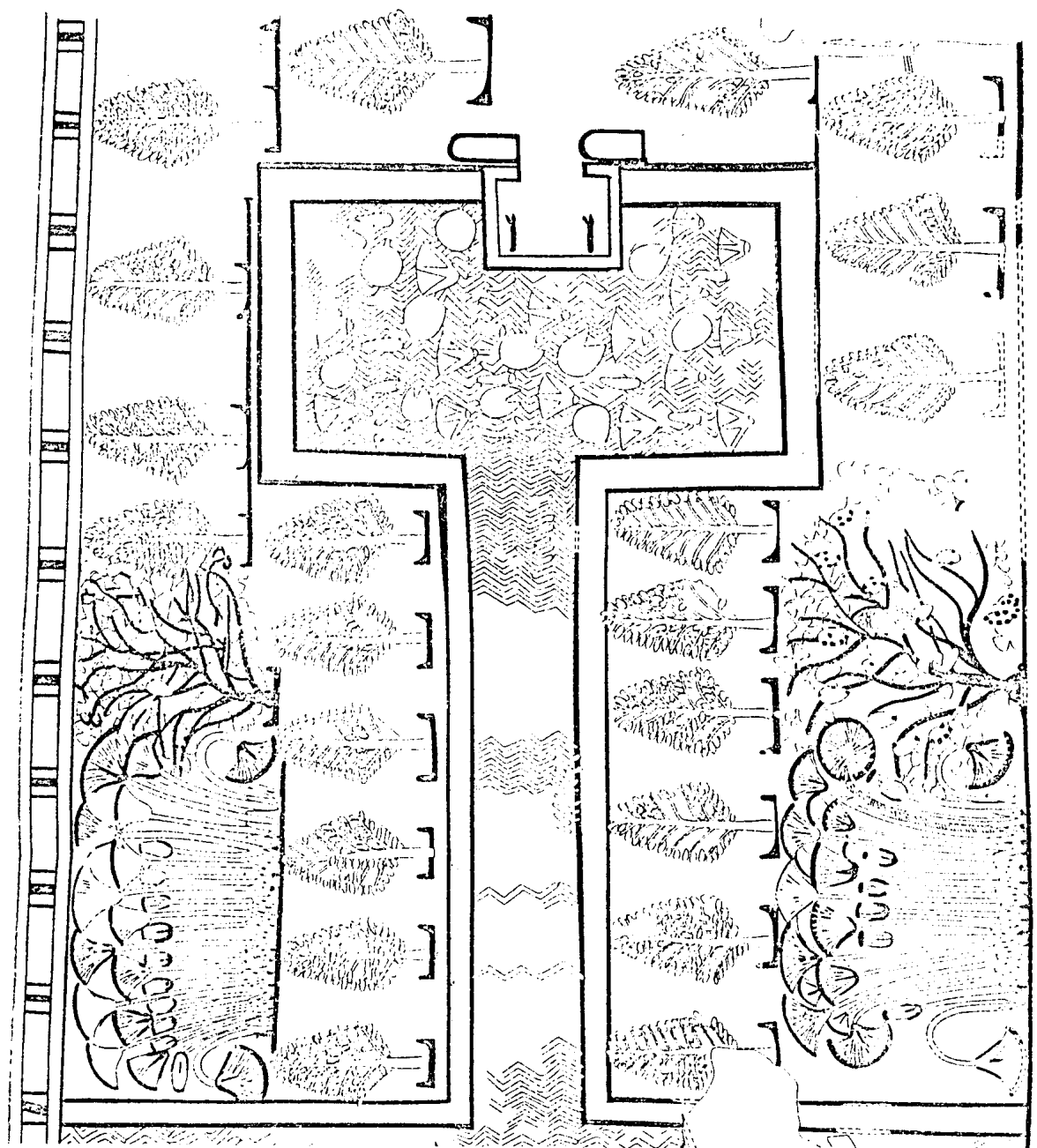


Figure (14): A garden with a T-shaped pond, contains a fig tree, a pomegranate and a vine plantation. All the trees are planted in pits filled with Nile mud.

(Tomb of Neferhōtep).

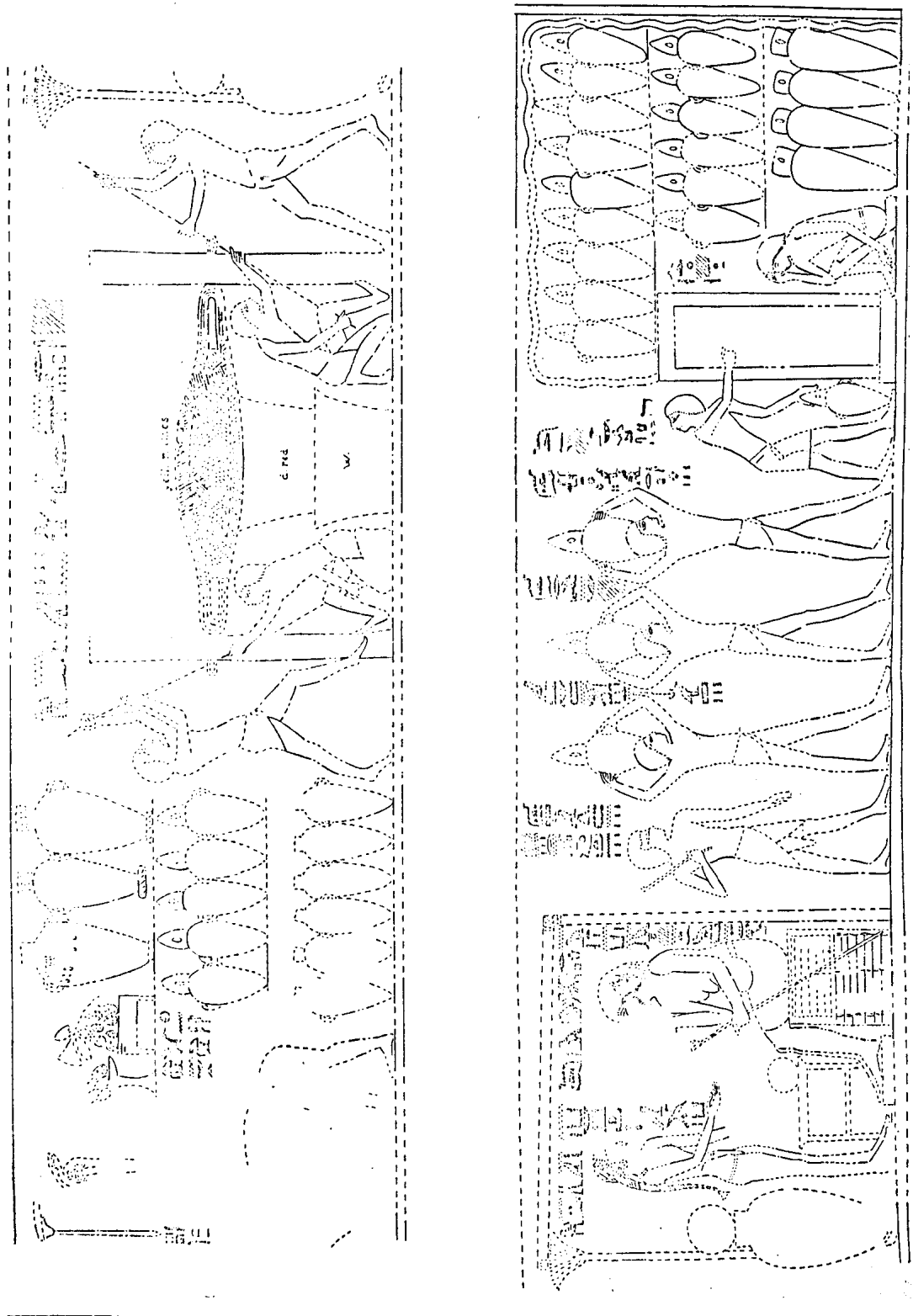


Figure (15): Vintage scene: Four men are treading out the grapes in a large trough. A man bends down and filling the jars with the juice. The filled jars are carried off to the cellar by a procession of four men supervised by an overseer with a stick.

(Tomb of Antef).



Figure (16): Vintage scene: men gathering the grapes in baskets, treading out the grapes. A man presenting offering to Rennutet. Men are filling the jars.

(Tomb of Kha^cemēset).

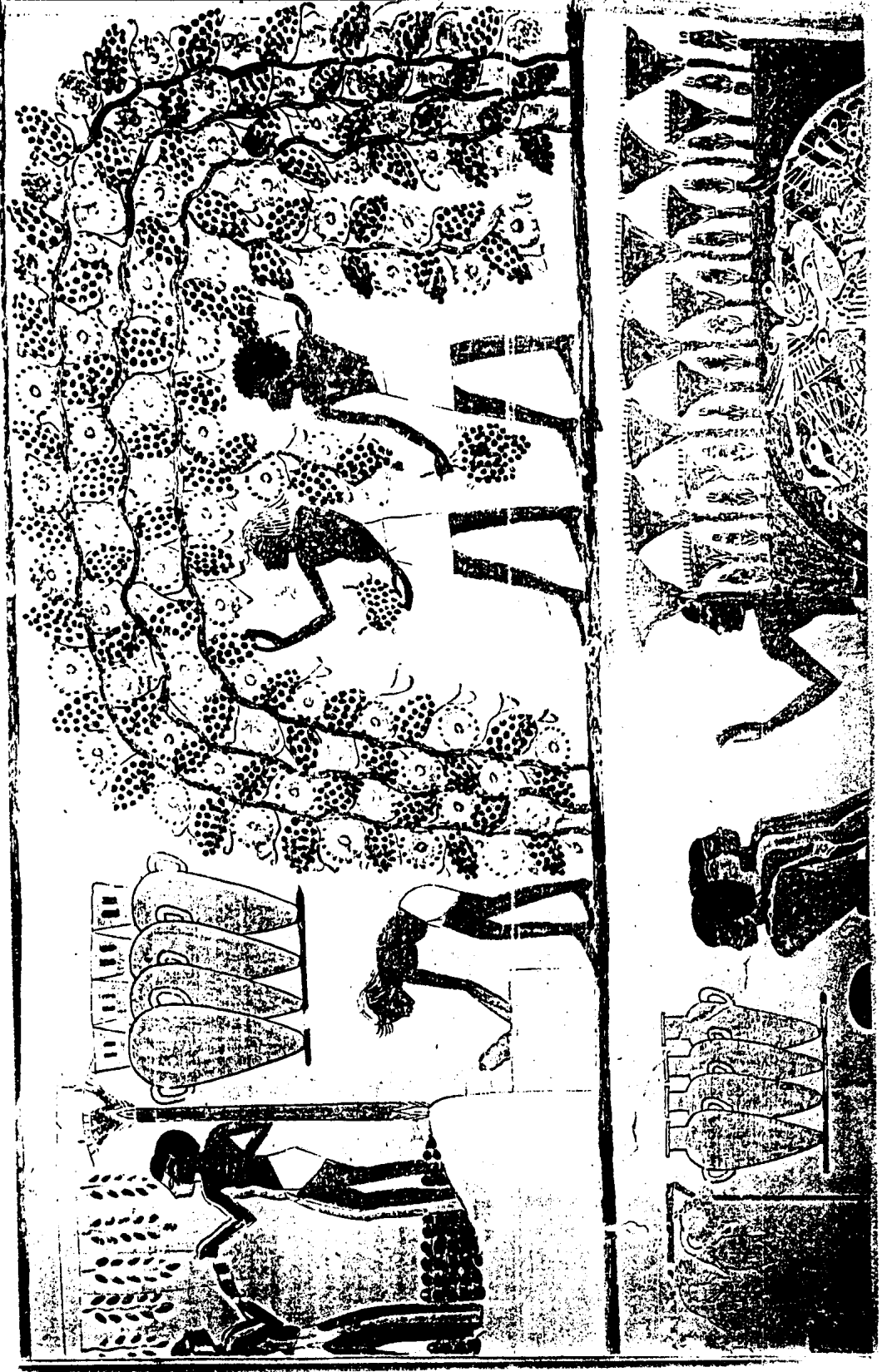


Figure (17): Vintage scene: two men gathering grapes from the vine. Five men treading out the grapes. A man filling the jars with the juice when it pours out from the press.

(Tomb of Nakht).

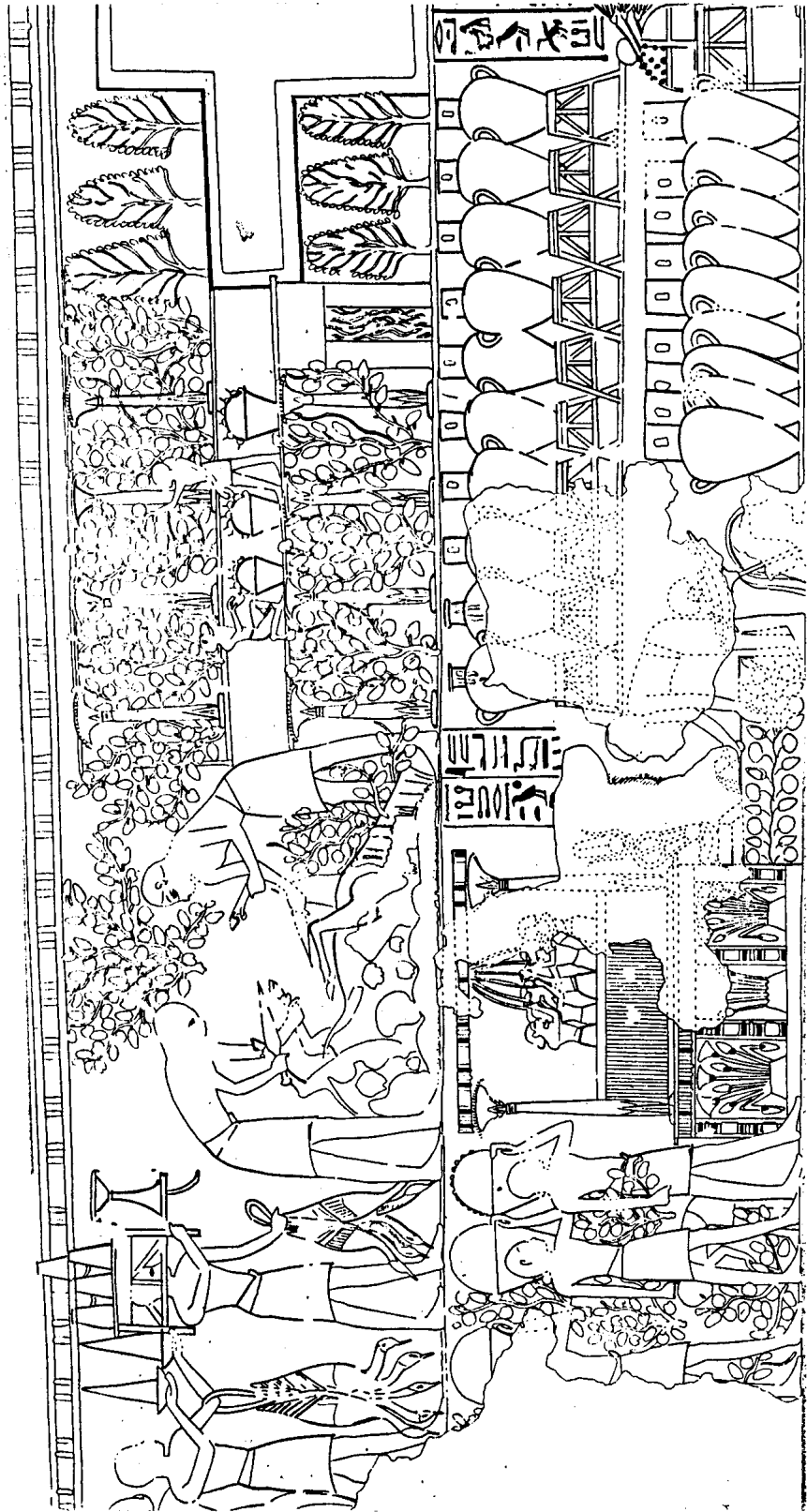
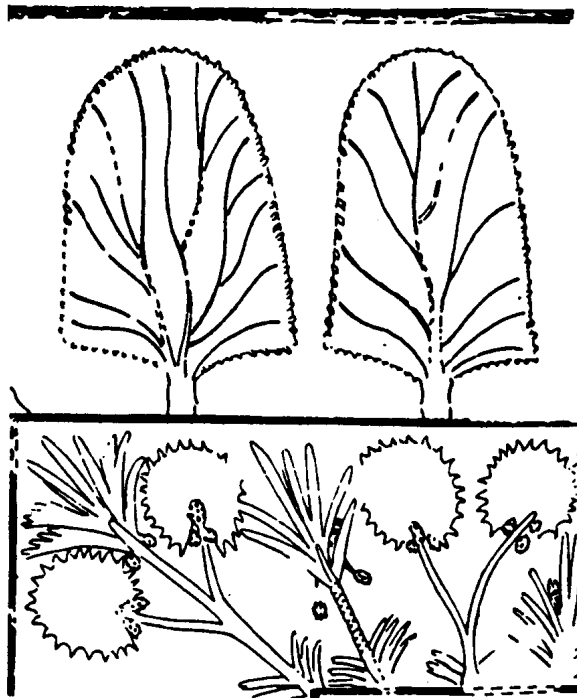


Figure (18): Vintage scene: wine-press among the vines, men tread out the grapes. A man is dipping a jar in the juice as first-fruits to the goddess Rennutet. Seventeen large jars have been filled, have fermented and the cover has been sealed with a cap of mud. Two others are not yet ready for the final act.

(Tomb of Nebamūn).



Figure (19): Vintage scene: two men are plucking the grapes into baskets.
Men are treading out the grapes in a large trough. There
are seven jars already filled and sealed.
(Tomb of Iupy).



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Figure (20): Date and dom palms trees.

(Tomb of Rekhmirē^c).

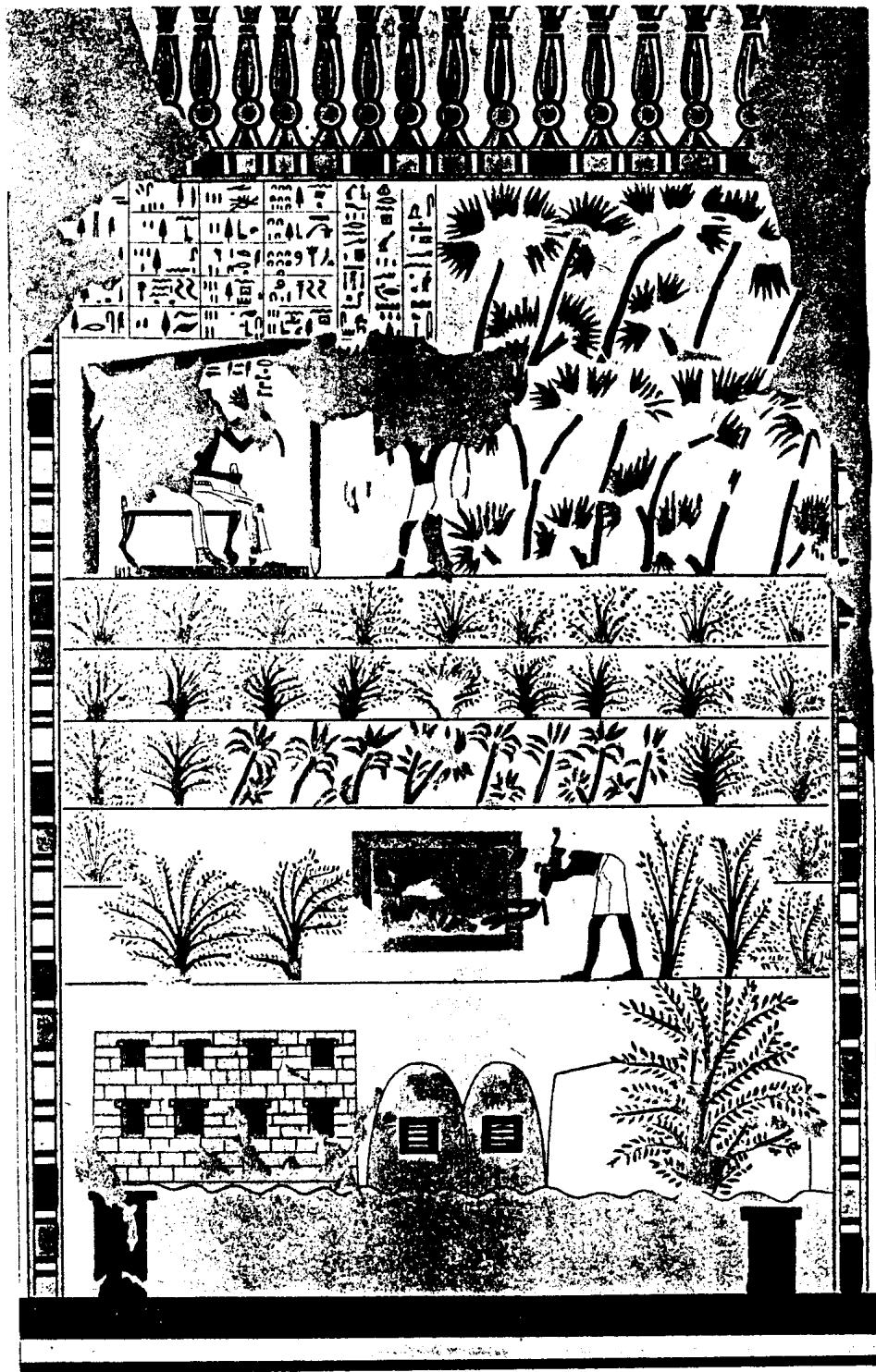


Figure (21): The garden and the house of Ineni. The garden contains rows of trees and a rectangular pond. The two upper rows consist of dom palms and a argun palm. In the register below and at both sides of the garden represent sycamores. A row of date palm is planted behind the pond.

(Tomb of Ineni).

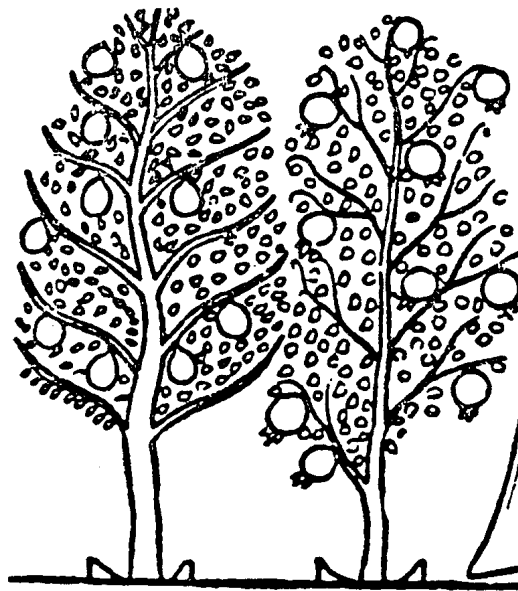


Figure (22): Sycamore and pomegranate tree.
(New Kingdom).

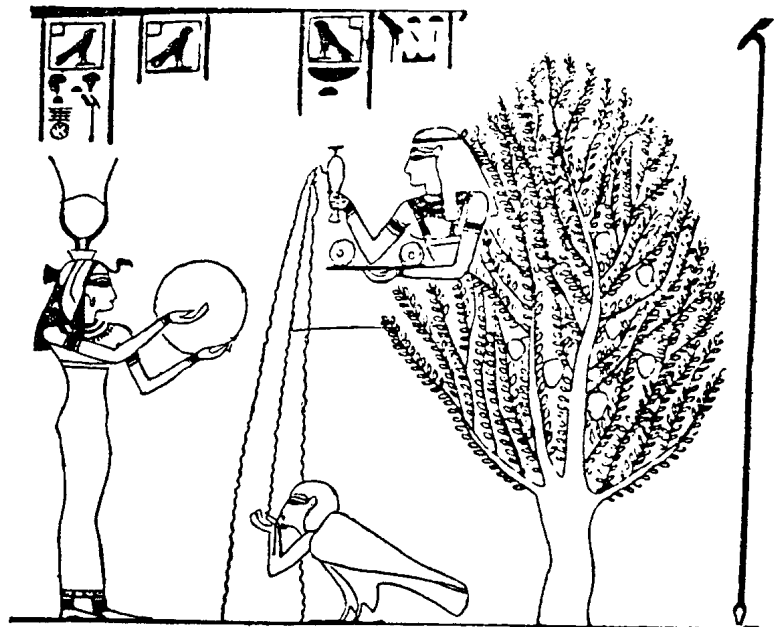


Figure (23): The tree goddess standing among the branches of the sycamore tree offering food and drink to the Ba-birds of the deceased under the tree.
(Tomb of Amenmosi).



Figure (24): A scene represents Sennezem and his wife kneeling at the tomb. In front of them the goddess Nut is shown standing in sycamore. Nut offers water jar and tray of bread to them.
(Tomb of Sennezem).

a

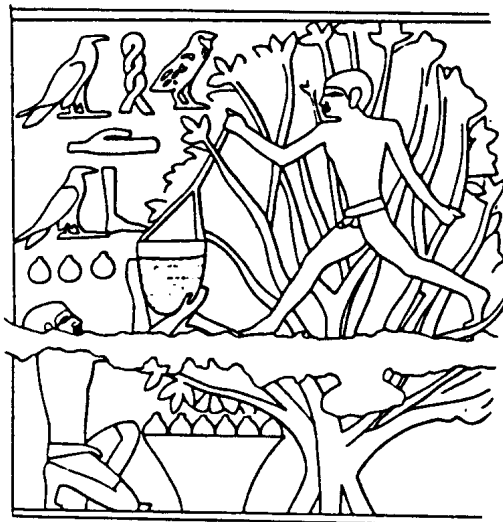


Figure (25): Fig tree.

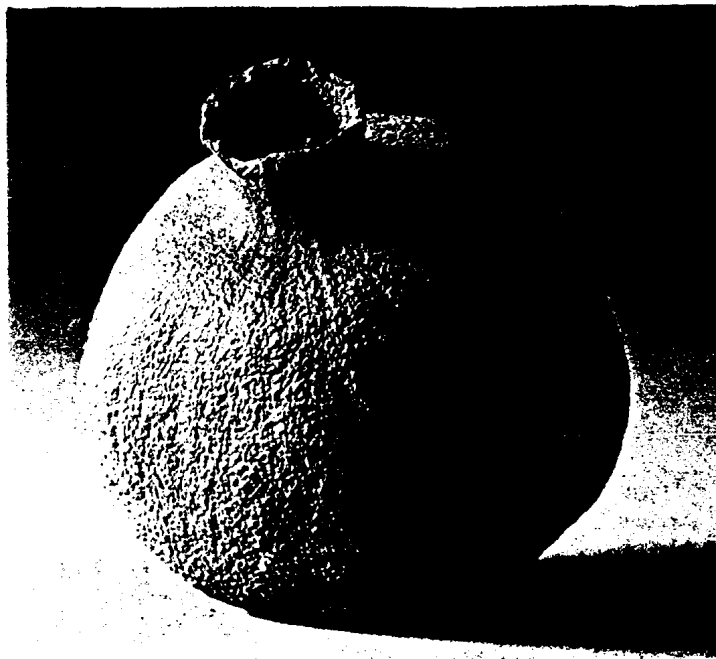


Figure (26): Pomegranate imitated in pottery.
(From Deir el-Medina tomb pit Dx3 - New Kingdom).

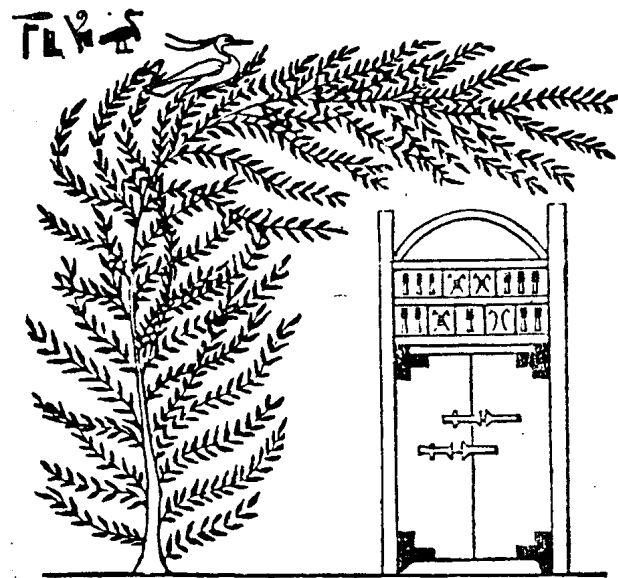


Figure (27): Egyptian plum tree (iṣd - tree), over the bird is written "Sout of Osiris".

(Tomb of Hau).



Figure (28): Christ's thorn tree or jujube.



Figure (29): Raisins.

(Egyptian Museum, Berlin No. 7004).



Figure (30): Papyrus and lotus flowers.

(Tell el-Amarna, Cairo Museum).

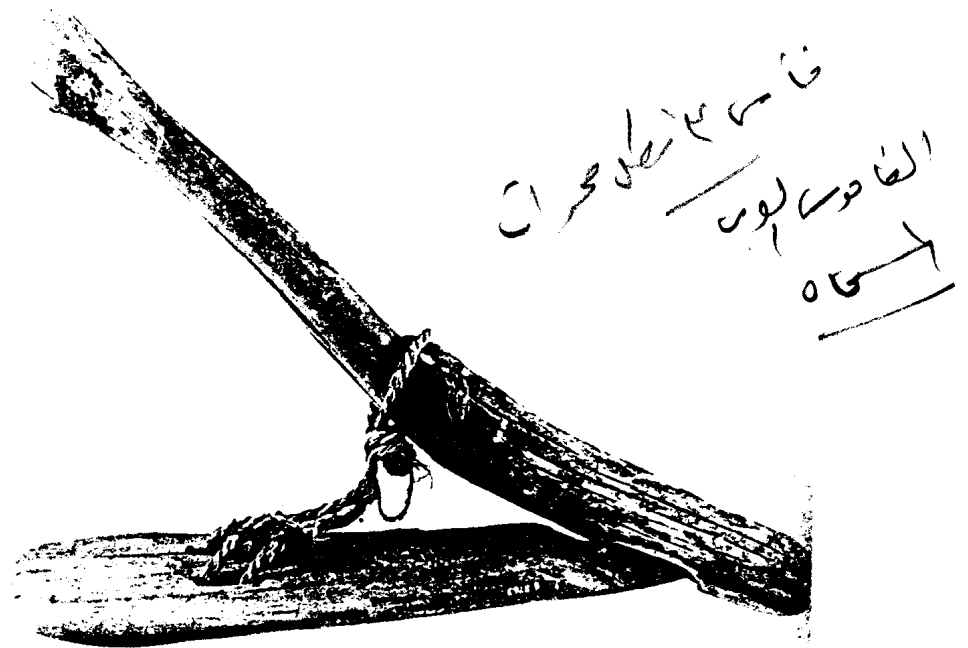


Figure (31): Wooden hoe with a broad blunt blade with two rectangular holes and a curved handle.

(Deir el-Bahari - Dynasty 18-20).

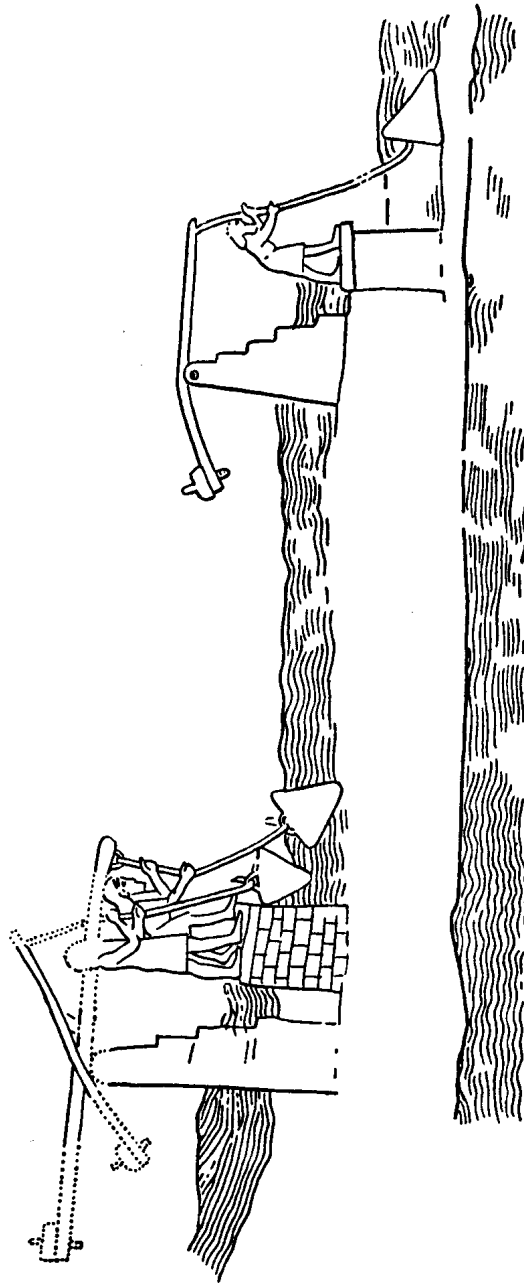


Figure (32): Irrigation by Shādūf.
(Tomb of Neferhōtep - Dynasty 18).

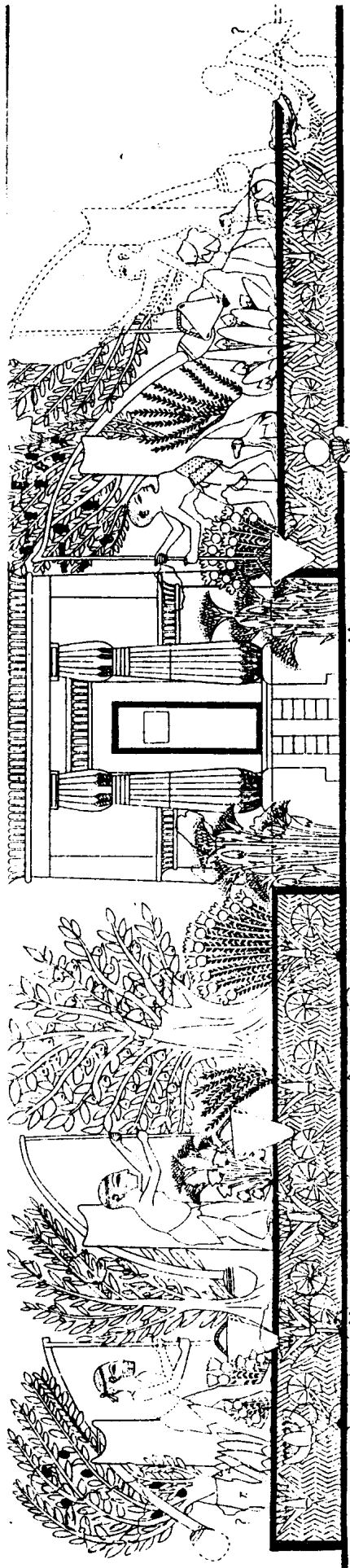


Figure (33): Four men are irrigating the garden by Shawadif. At the shore of the ponds, there are the following trees and plants: a persea, mandragora, centaurea, poppies, a willow, a sycamore and pomegranate.
(Tomb of Ipuy).

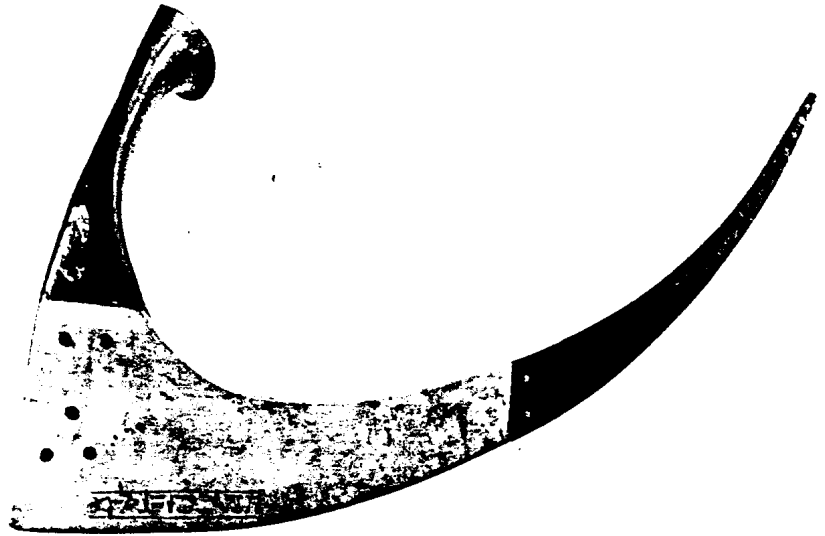


Figure (34): Above: Wooden sickle, the handle, body and tip the sickle were made in separate pieces and pegged together.
(Tomb of Amenemhēt - Dynasty 18).

Below: Wooden winnowing scoop.

(From the Valley of the Kings - probably Dynasty 18).



Figure (35): Processes of ploughing and sowing: we see teams of men hoeing the land with the hoes. Four men harnessed to the bar, while an old ploughman is pressing down the handles and guiding the plough with both hands. The sowers are broadcasting the seed behind the ploughs.

(Tomb of Paheri El-Kab).



Figure (36): Processes of ploughing and sowing: we see team of men are breaking up the clods with hammers. Team of men are hoeing the land with the hoes. Team of men are cutting the herbs and trees. The poughs are ploughing the land. Behind each team, there is a sower broadcasting the seed.
(Tomb of Nakht).

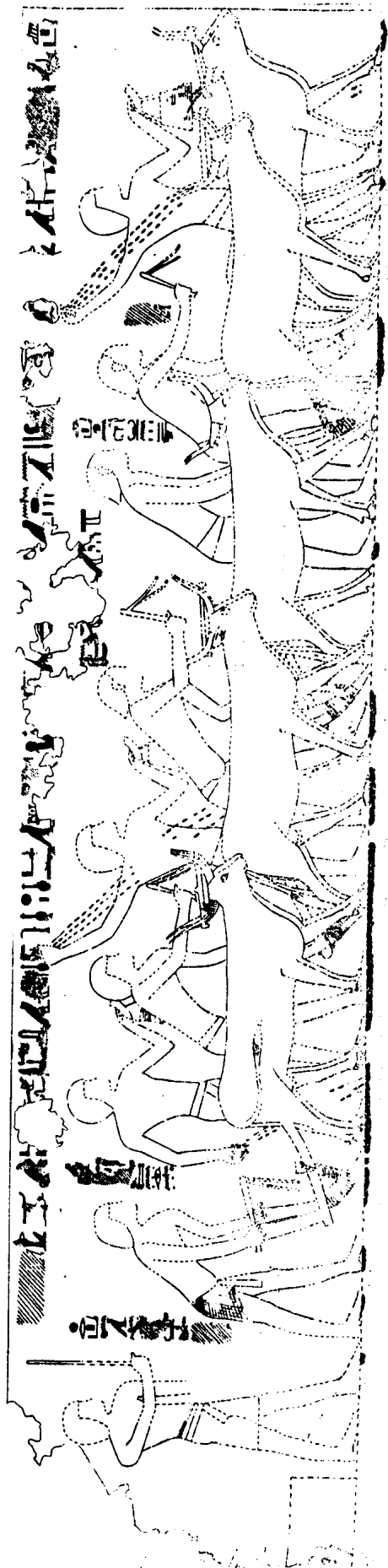


Figure (37): Processes of ploughing and sowing: there are more plough in one field, the one behind the other. Men are scattering the seed behind the ploughs. (Tomb of Rekhimrēc).

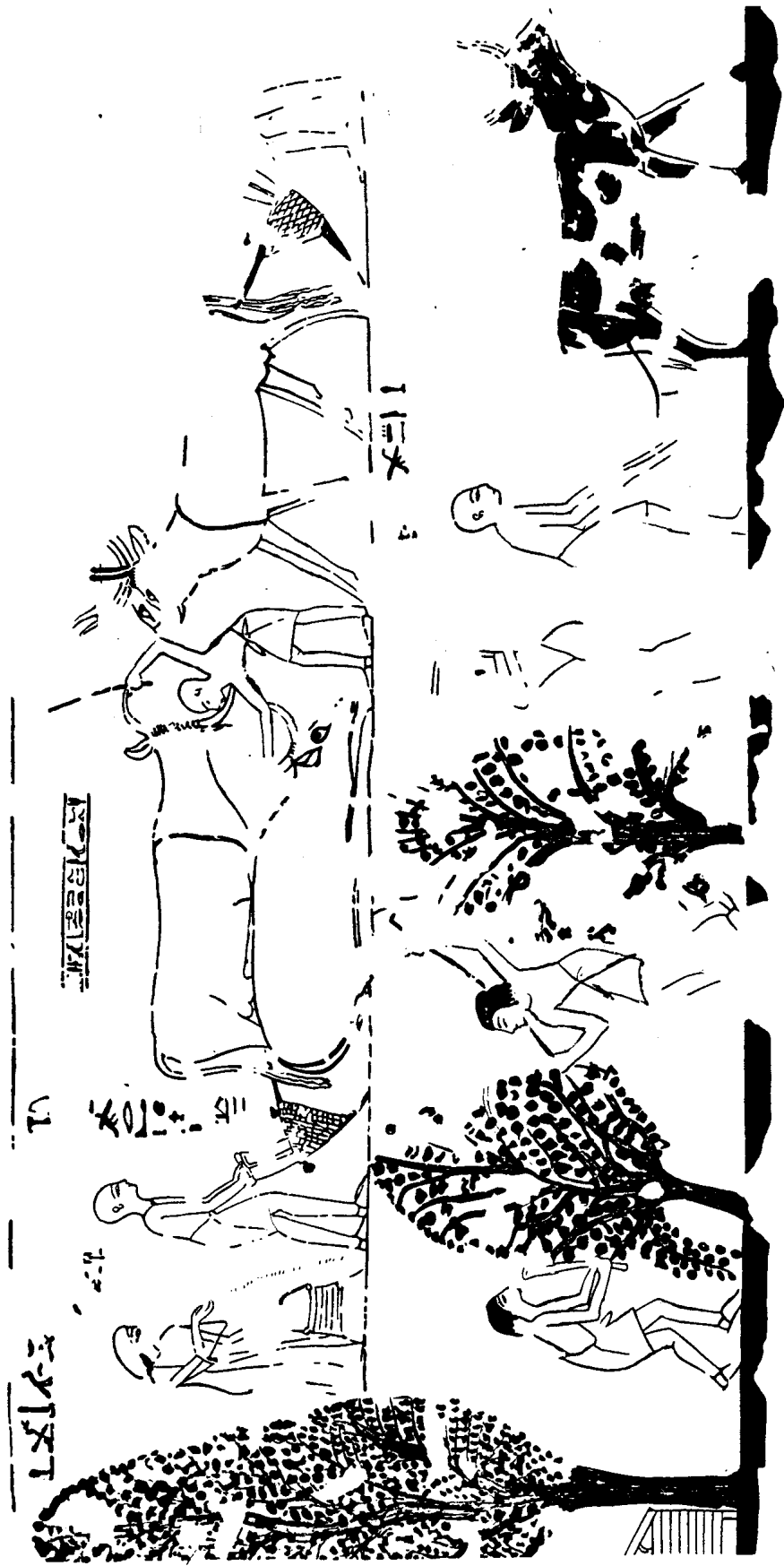


Figure (38): Processes of ploughing and sowing: we see a scene represents an ox squatting on the ground and refusing to raise and draw the plough.

(Tomb of Panehesi).

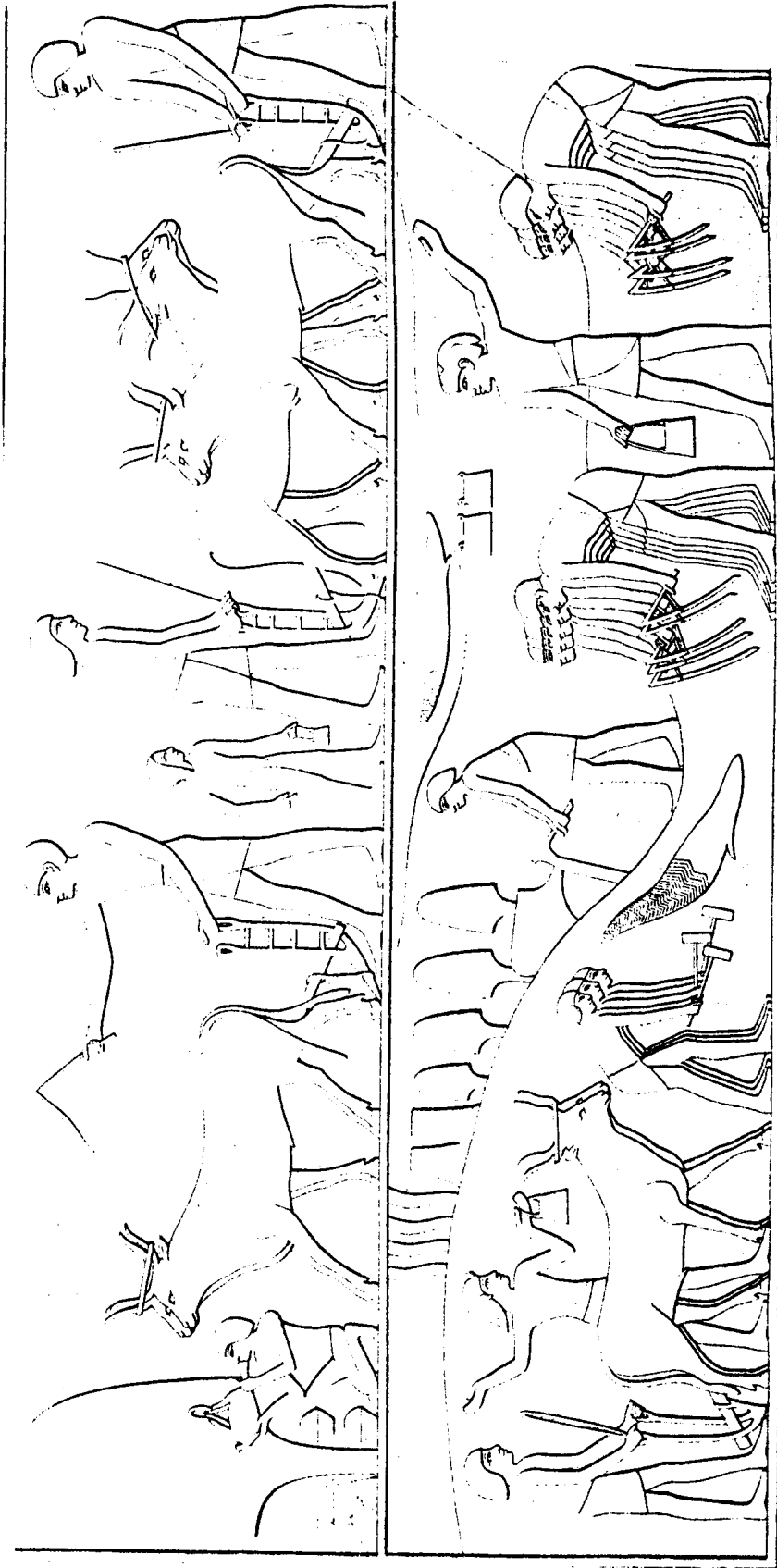


Figure (39): Processes of ploughing and sowing: teams of men are breaking up the clods with the hoes and hammers. The sowers walking behind the ploughs.

(Tomb of Kha^cemhêt).

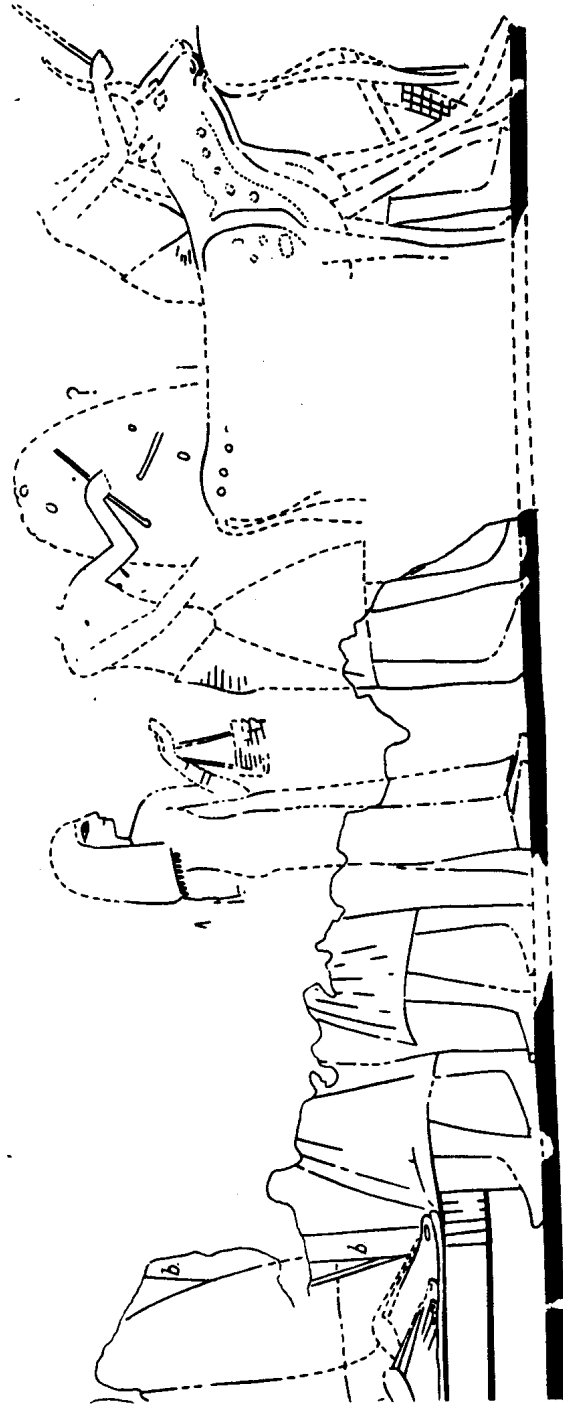


Figure (40): A scene represents plough the land and a woman scattering the seed behind the ploughs.

(Tomb of Hatiay).



Figure (41): Above register: Harvesting, threshing and winnowing the crop corn.
Below register: Scene represents a boy broadcasting the seed behind the plough.
(Tomb of Zeserkere Csonb).



Figure (42): A scene represents a man going along throwing the seed and behind him the pigs are shown driven by a man with a whip to cover the seed.

(Tomb of Nebamūn).

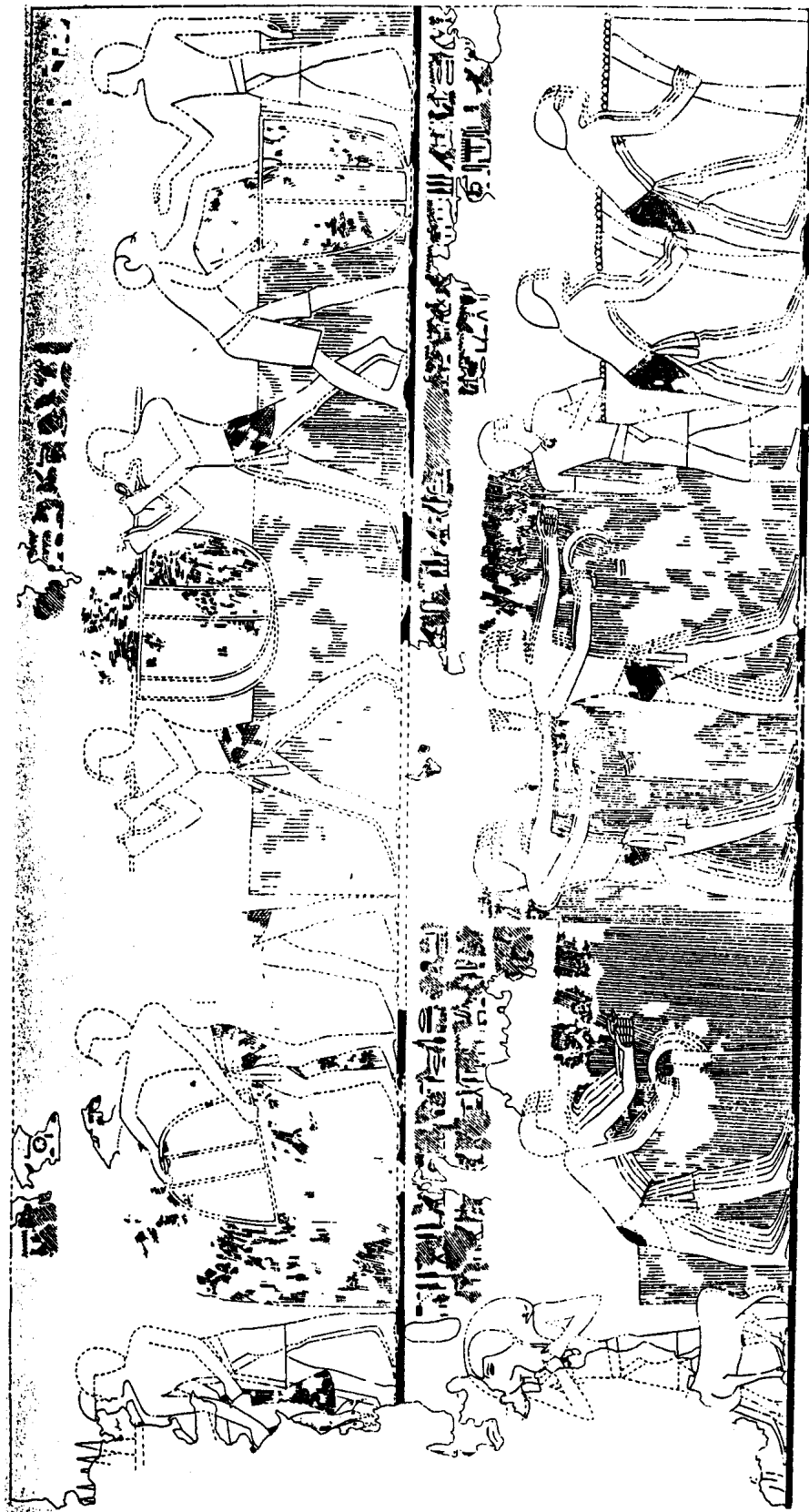


Figure (43): Below register: corn and flax-reaping scene, the reapers work in gangs.
Above register: transport the corn to the threshing-floor.

(Tomb of Rekhimre^c).

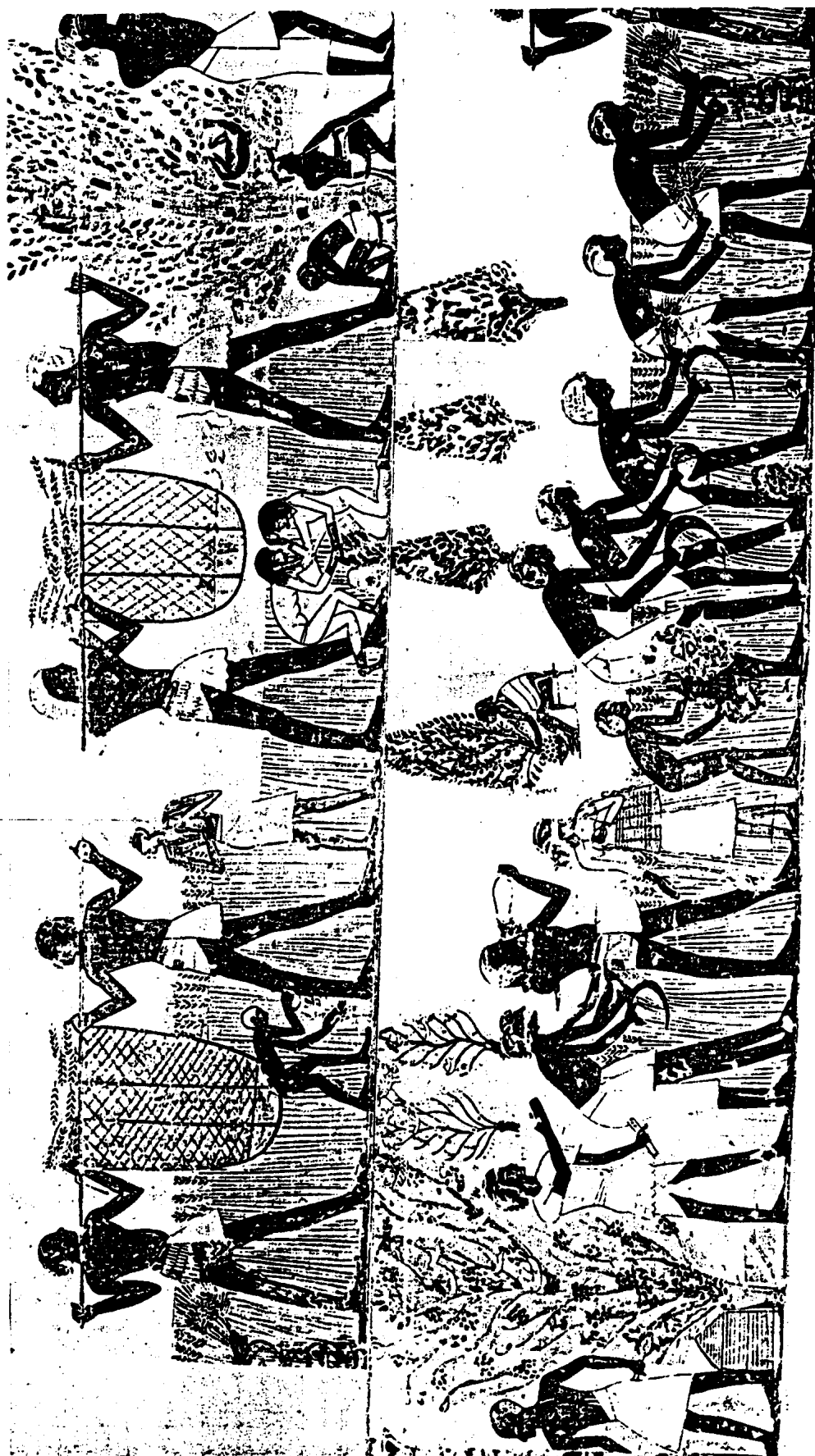


Figure (44): Below register: Corn-reaping scene.

Above register: Men are carrying the pannier on a pole between them upon their shoulders to the threshing-floor.

(Tomb of Menna).

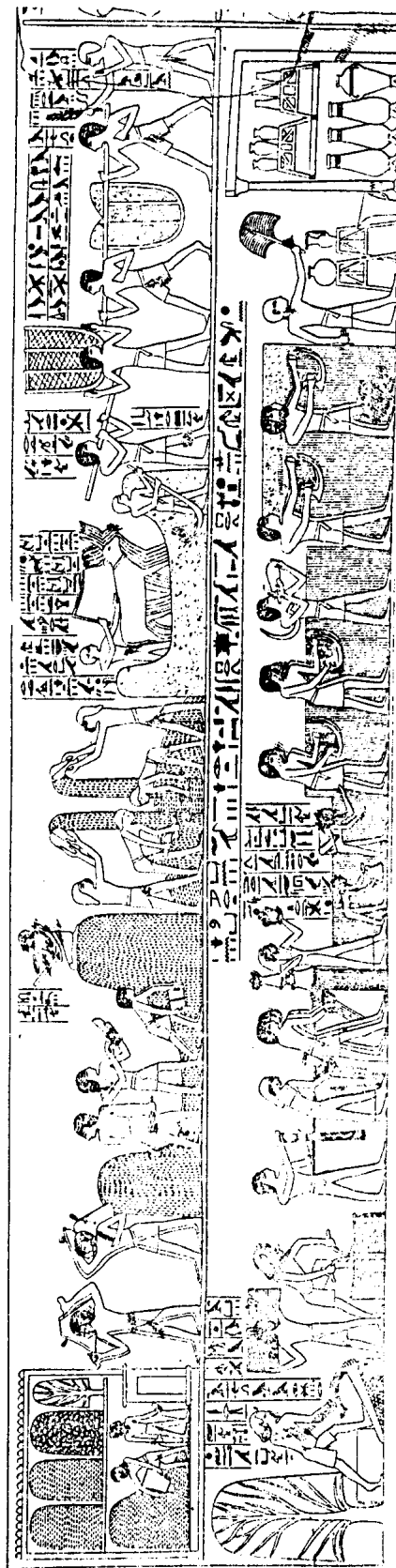


Figure (45): Processes of harvesting, threshing, winnowing and storing the corn. During the work of the harvest, the reapers are singing.

(Tomb of Paheri El-Kab).

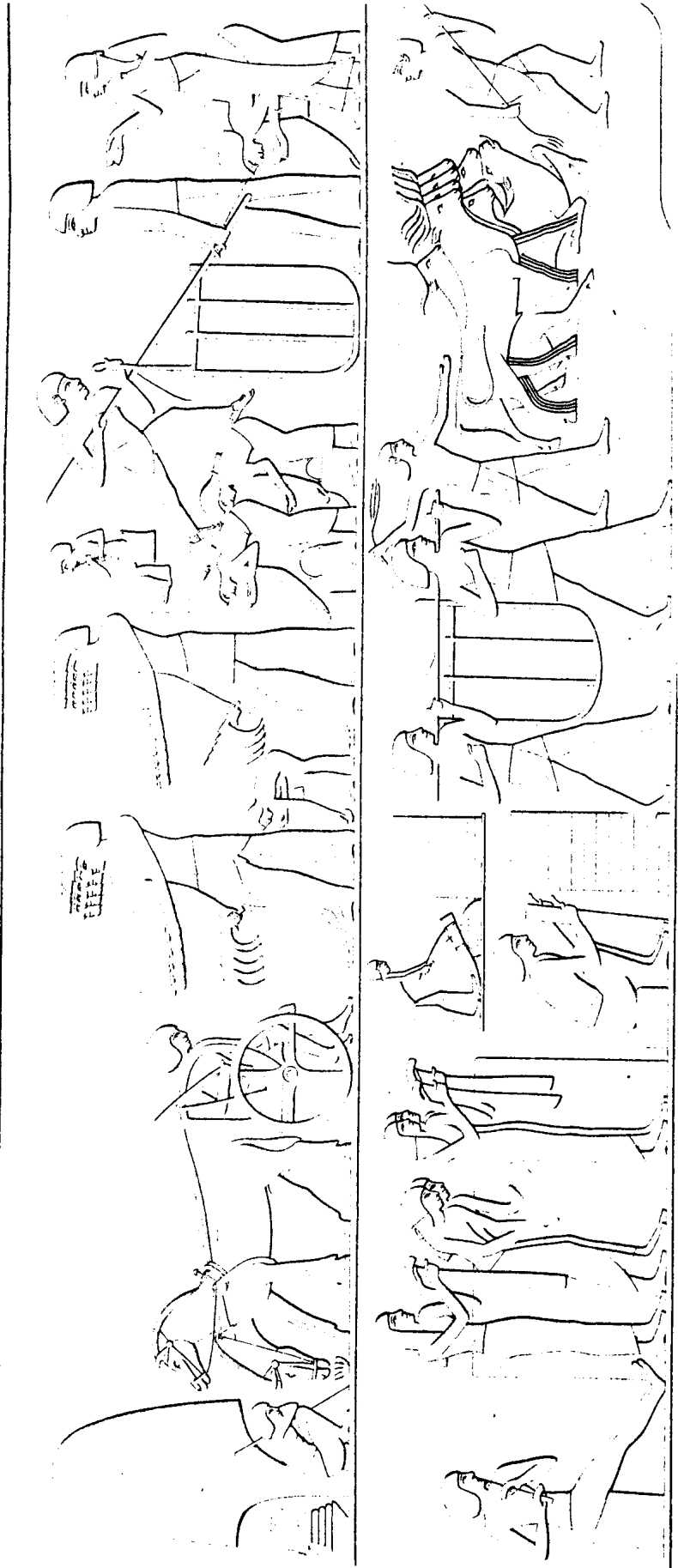


Figure (46): Corn and flax-reaping scene, the women and children are gleaning behind the reapers.
(Tomb of Khacemḥet).

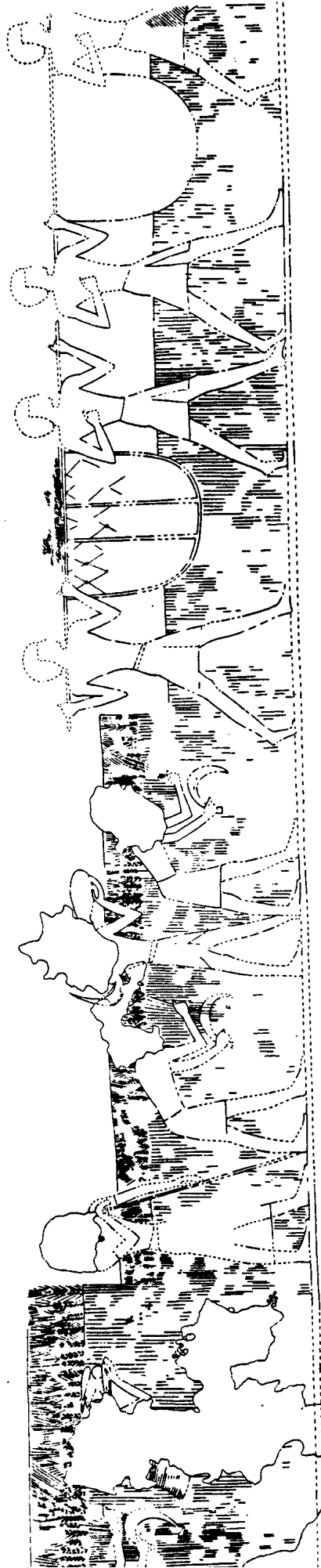


Figure (47): Men are carrying an enormous basket of reaped corn on a pole between them upon their shoulders to the threshing-floor.
(Tomb of Menkheperra^csonb).

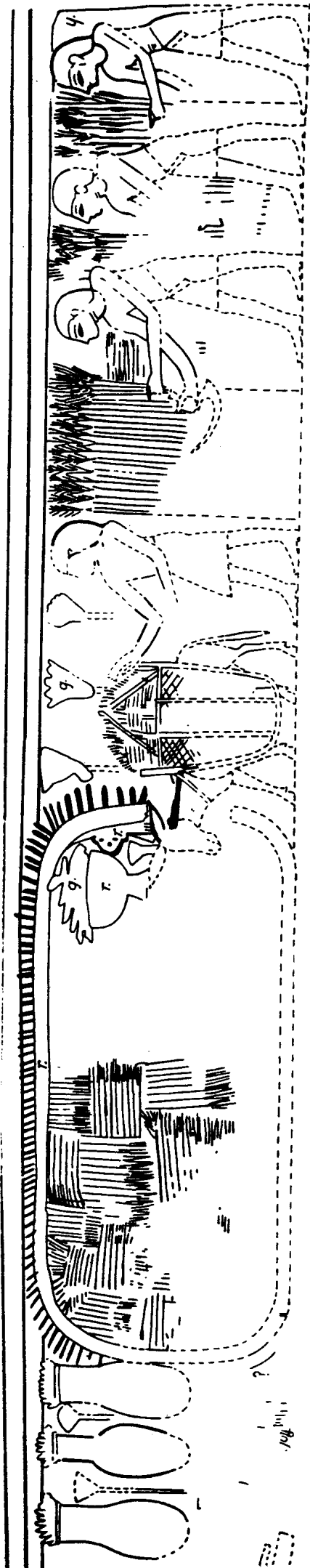


Figure (48): Transport the corn on the back of the donkeys to the threshing-floor.

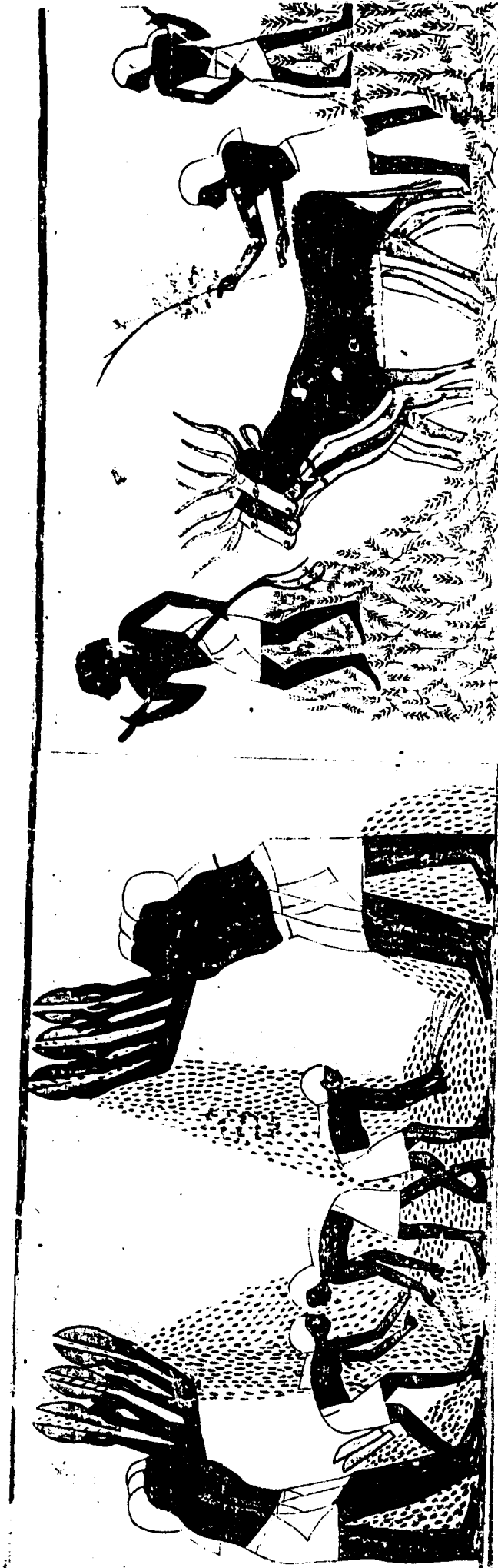


Figure (49): Threshing in the threshing-floor, and winnowing the corn by team of women.
(Tomb of Menna).

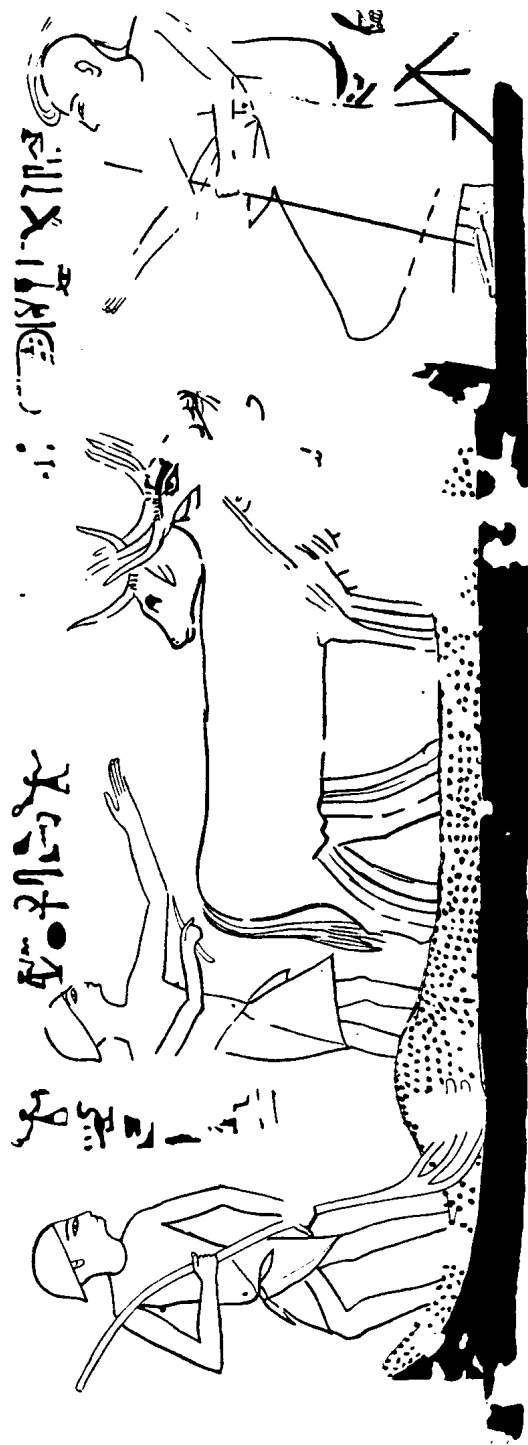


Figure (50): Oxen threshing the corn in the threshing-floor. A man sweeps the grain together ready to be removed.

(Tomb of Panehēsi).

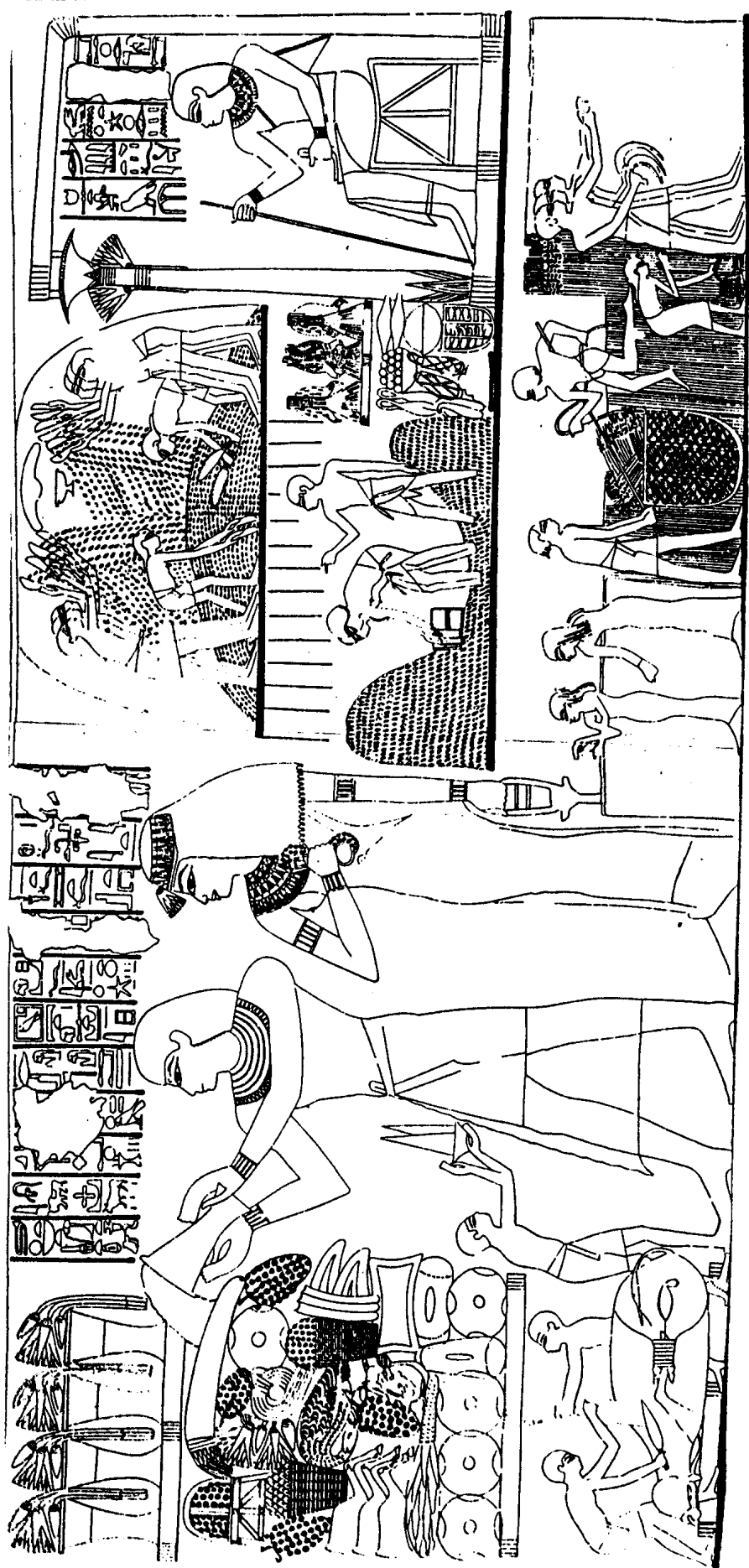


Figure (51): Winnowing the threshed corn by tossing it into the air with the pairs of scoops. Measuring the corn that has been winnowed.

(Tomb of Nakht).

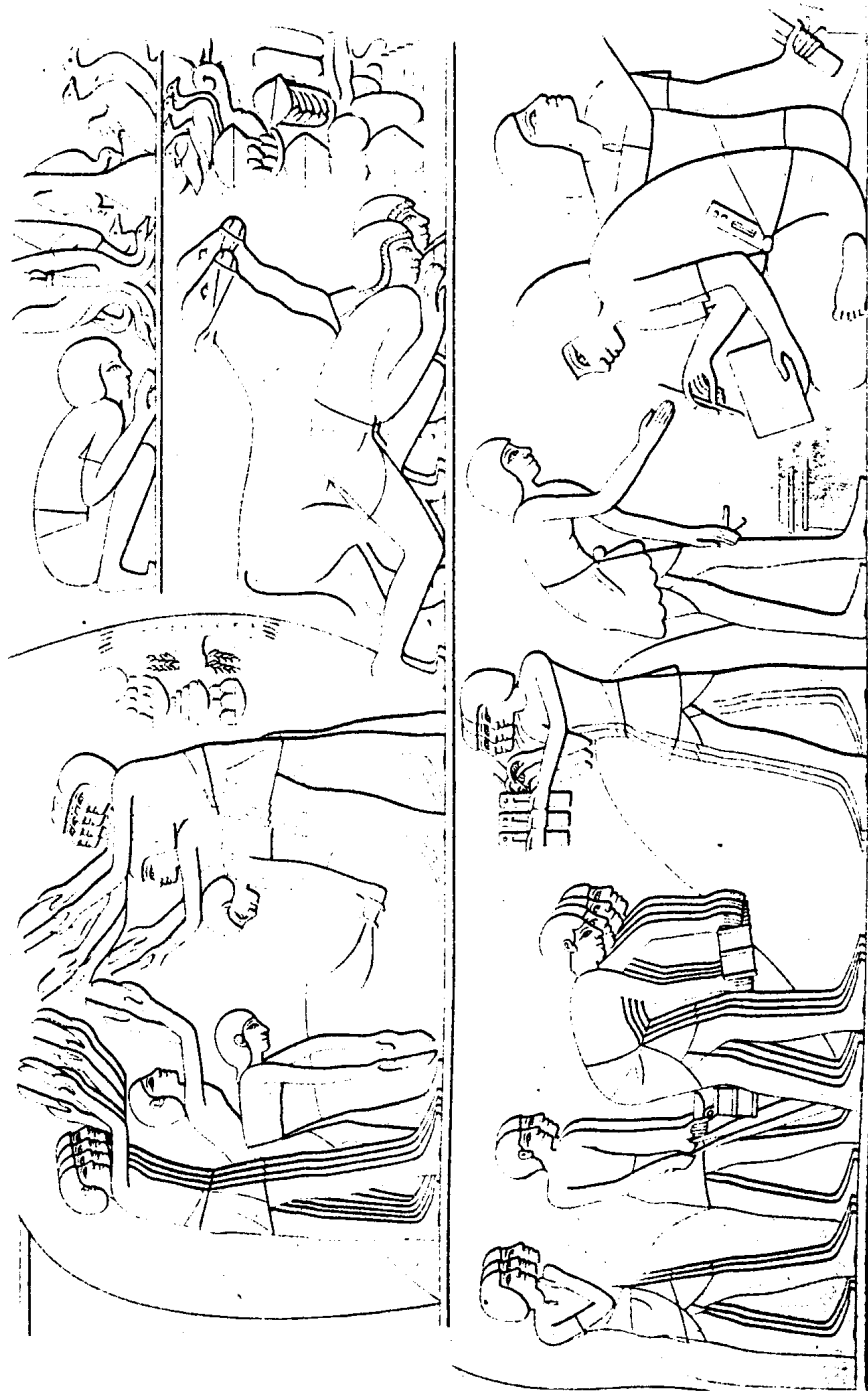


Figure (52): Scribes are measuring the corn.
(Tomb of Kha Cēmḥēt).

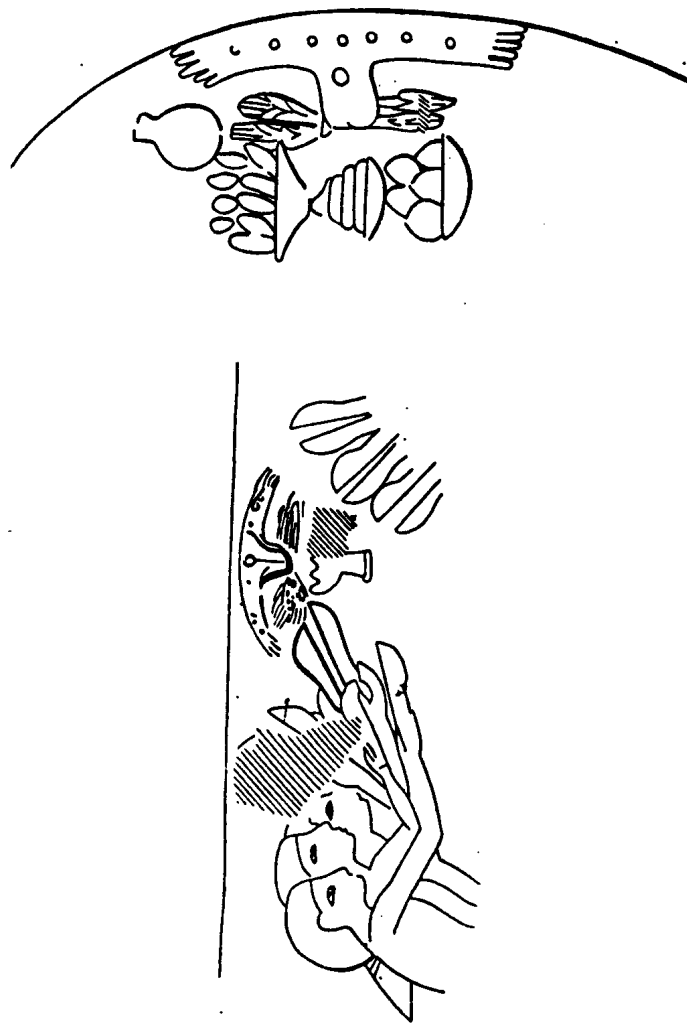


Figure (53): Offerings to Remnutet to ensure a plentiful harvest. There are a water bottle and also offerings of bread. (Tomb of Nakht).

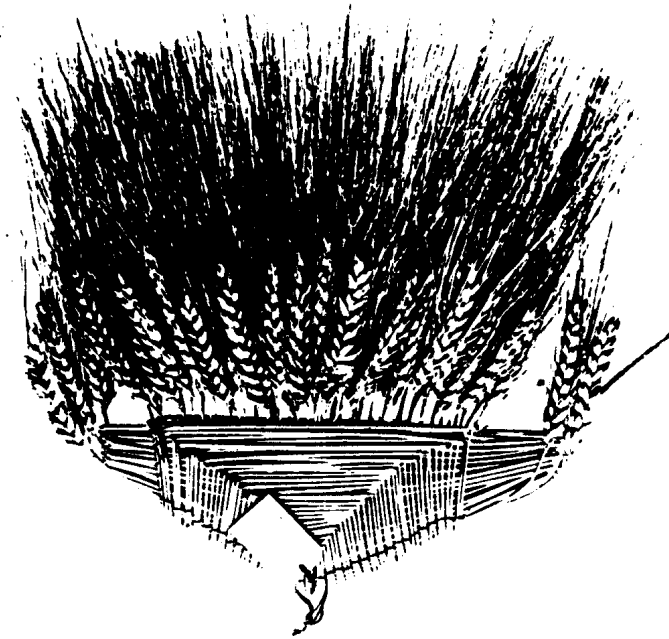
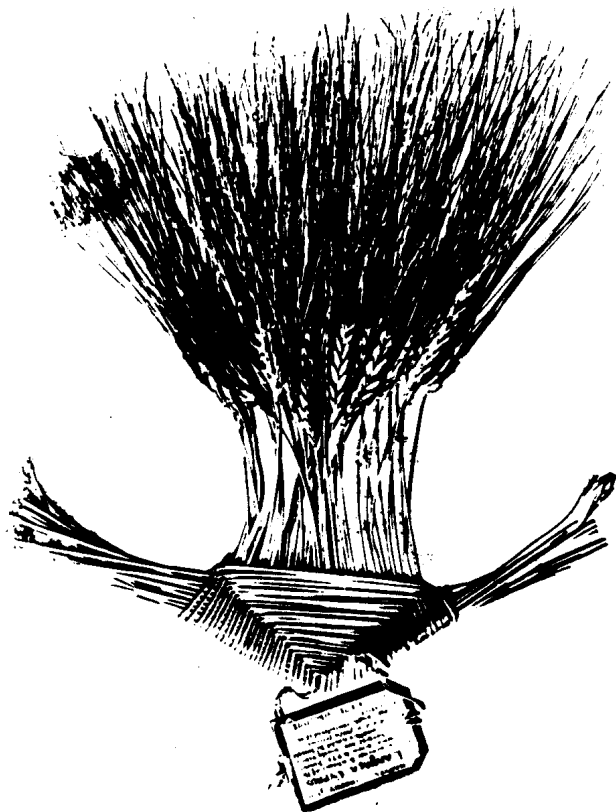


Figure (54): An ancient corn- Carūseh: it is made out of the first ears of corn while are plucked before the corn cut and plaited into this form. The owner of cornfield place, the Carūseh in the centre of heaps of corn to ensure a further plentiful supply.

(Tomb of Nakht).



Figure (55): Measuring the crop: labourers are measuring the corn by wooden measures. Scribes standing to be noting on the writing boards. A scribe sits on top of the heaped-up corn and keeps count with his fingers. scribes squat on the ground and they register on their writing boards. (Tomb of Menna).

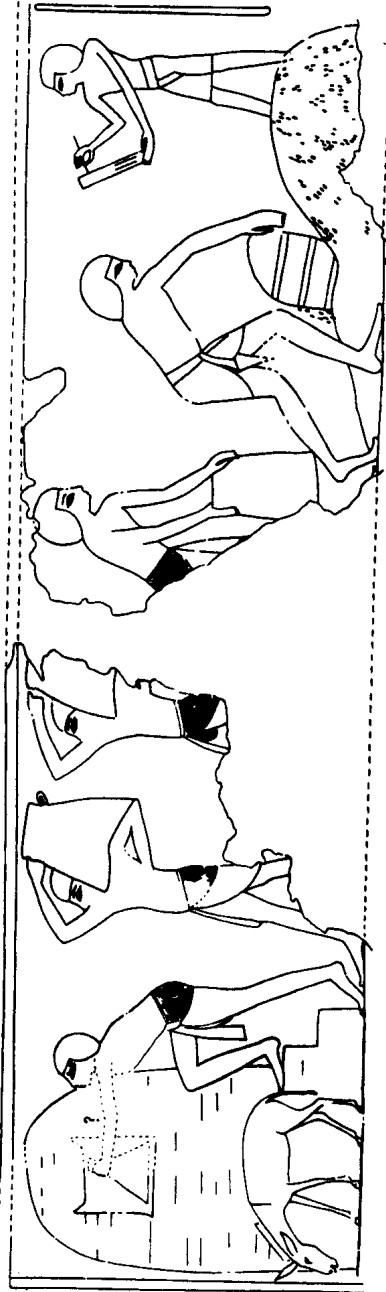


Figure (56): A scribe recording the amount of the heap in which he stands before him a man shovels the grain into a corn-measure, while on the left men carry it away in sacks to the conical granary, where it is emptied in through the aperture near the top.
(Tomb of Ahmose).

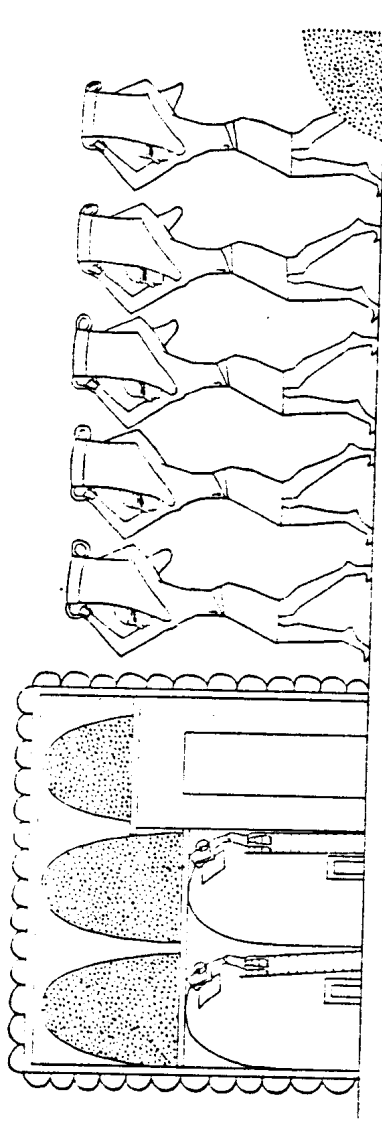


Figure (57): Five labourers carry away the measured grain in sacks raised on their shoulders to the granaries. There are five granaries surrounded by a brick wall, three granaries have already been filled.

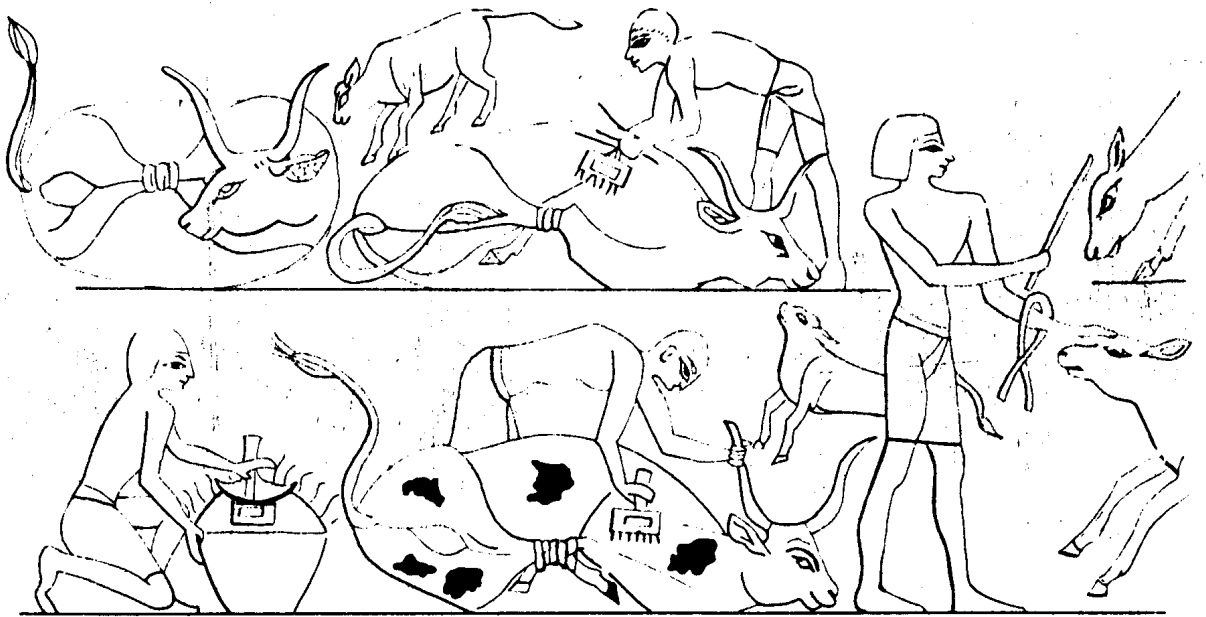


Figure (58): Branding cattle: we see one man heats an iron on the fire, while another is holding the hot iron tool by means of twigs to operate on the animal.

(Tomb of Nebamūn).

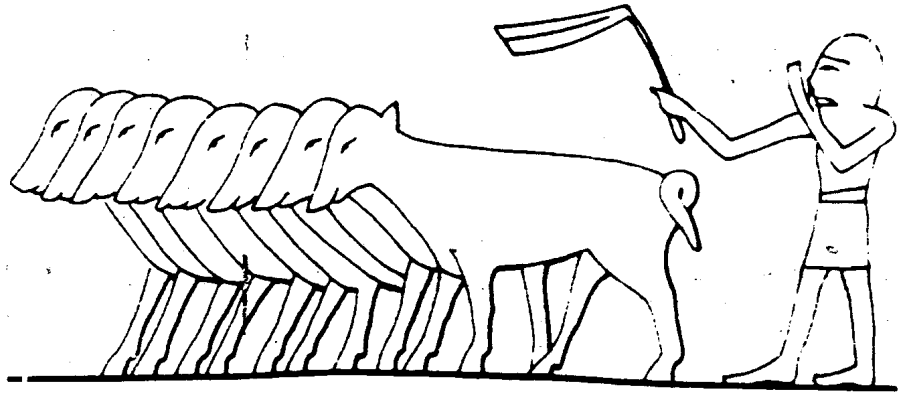


Figure (59): Herd of pigs.

(Tomb of Paheri El-Kab).

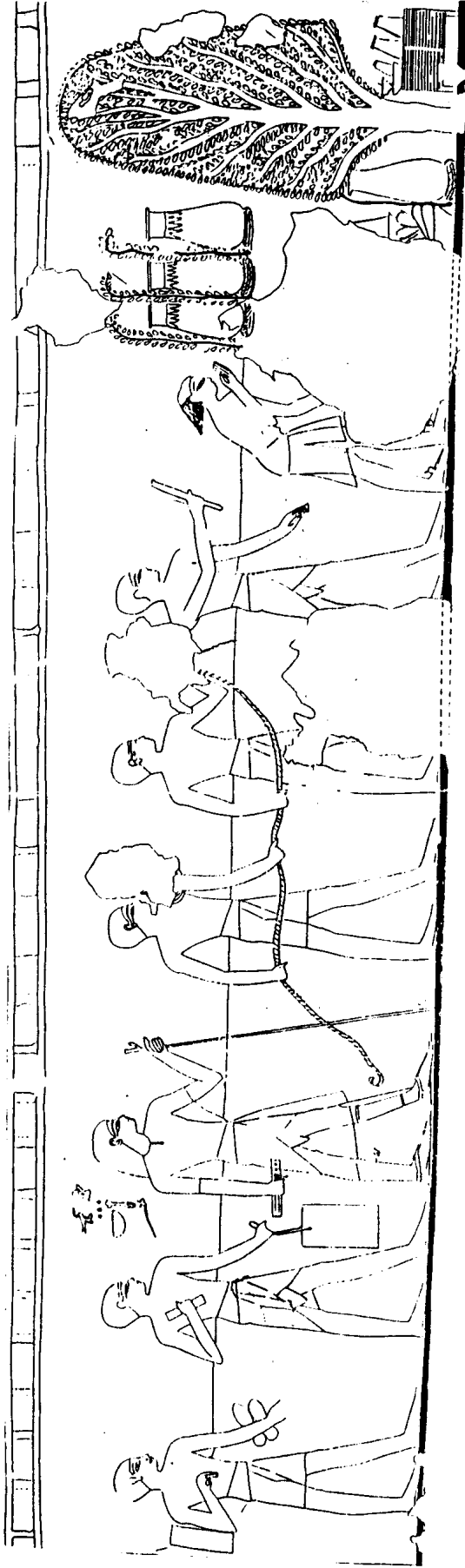


Figure (60): A scene of land-measurement: we see a man walks in front of the surveyors, scribes and places sceptre over a stela.

(Tomb of Zeserkere Csonb).



Figure (61): A scene of land-measurement: we see an old man swearing an oath over a boundary stone.

(A fragment in British Museum No. 37892).

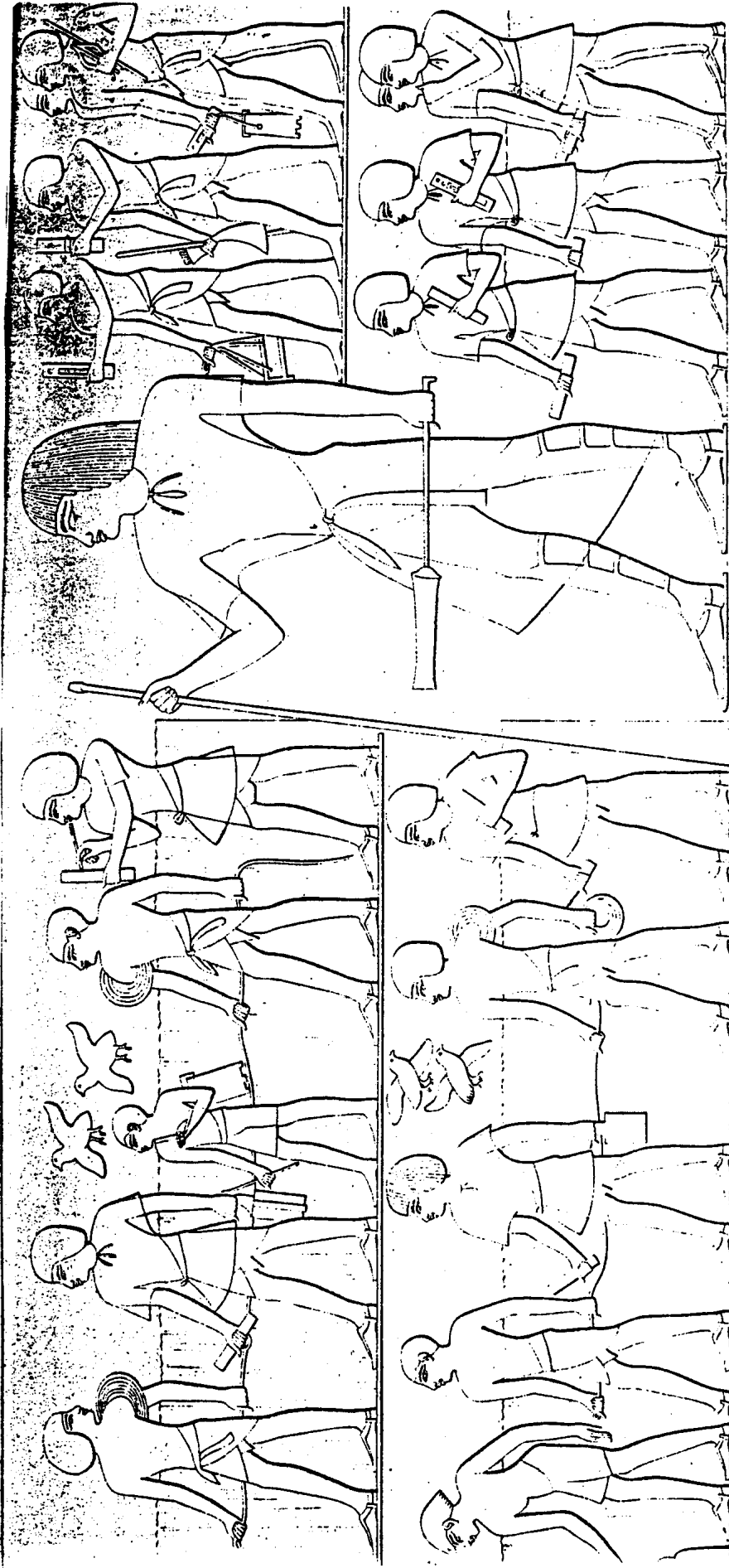
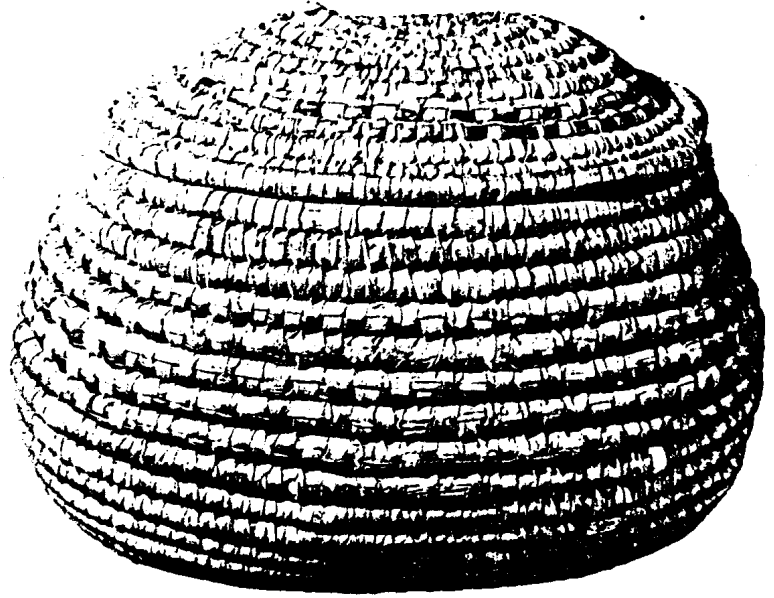


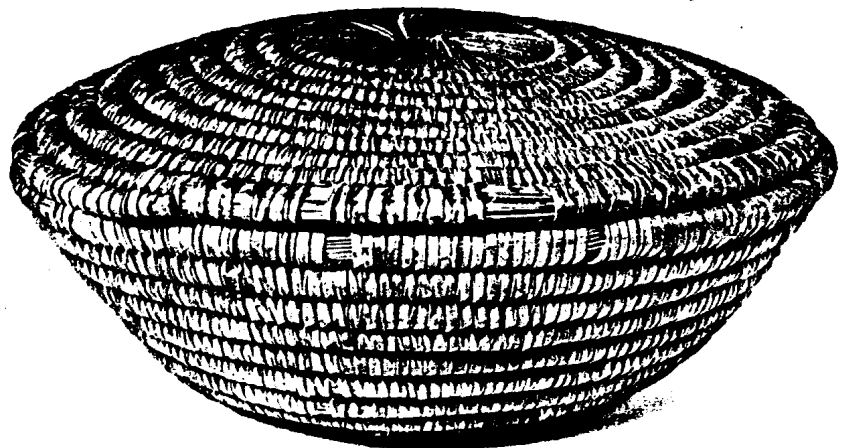
Figure (62): Field-measurement: the surveyors measuring a field of corn with a long cord, scribes and boys carrying writing materials and bags.

(Tomb of Kha^cemhēt).



(A)

Figure (63): (A) Oval basket with lid.
(Provenance not known - New Kingdom).



(B)

Figure (63): (B) Circular basket with lid.
(Probably Deir el-Medina tomb 1388 east cemetery - Dynasty 18).

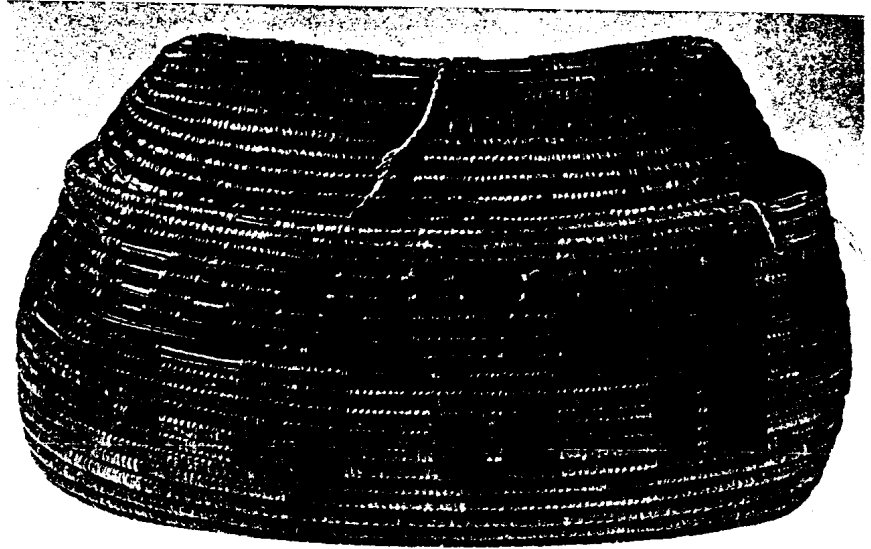


Figure (64): (A) Elliptical basket with lid.
(Heracleopolis Magna - Dynasty 18).

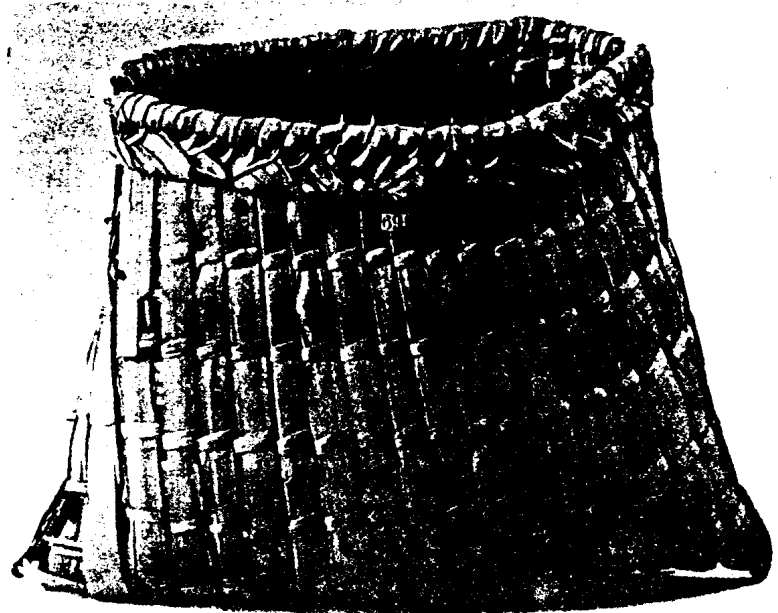


Figure (64): (B) Small basket.
(Provenance not known - New Kingdom).

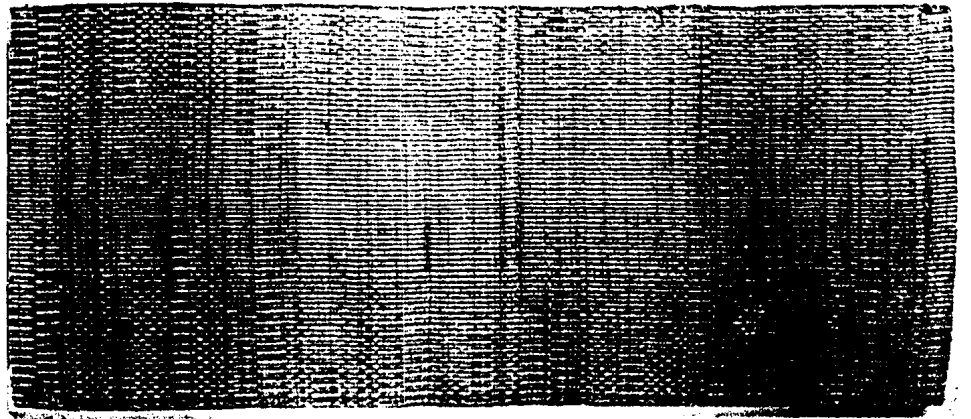


Figure (65): (A) Mat is made of reed stalks woven through a cord wrap.

(From Deir el-Medina tomb 1389 - Dynasty 18).

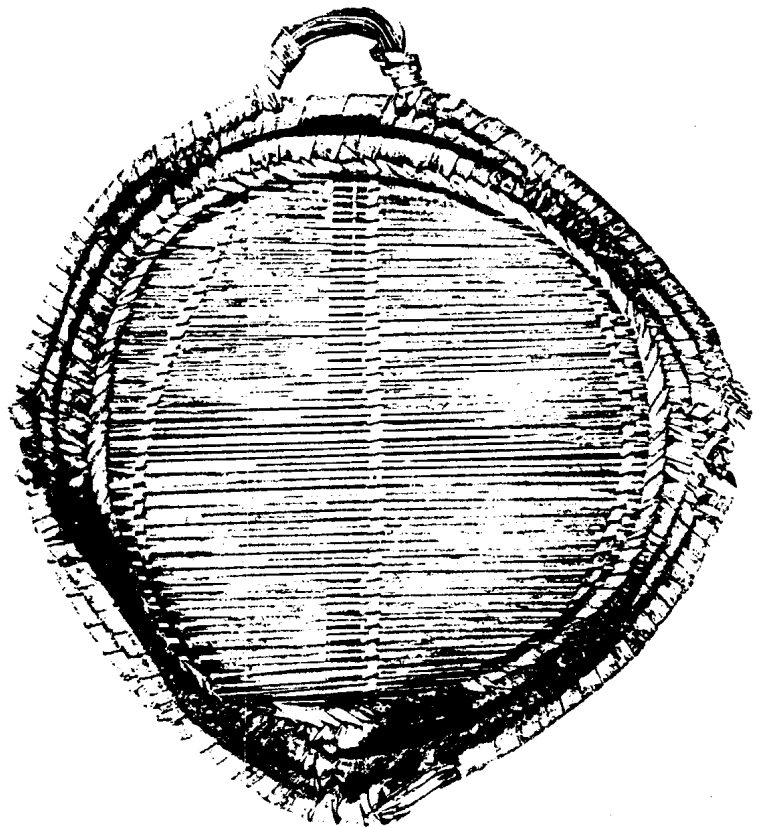


Figure (65): (B) Sieve made in two sections.

(Provenance not known - probably Dynasty 18-19).

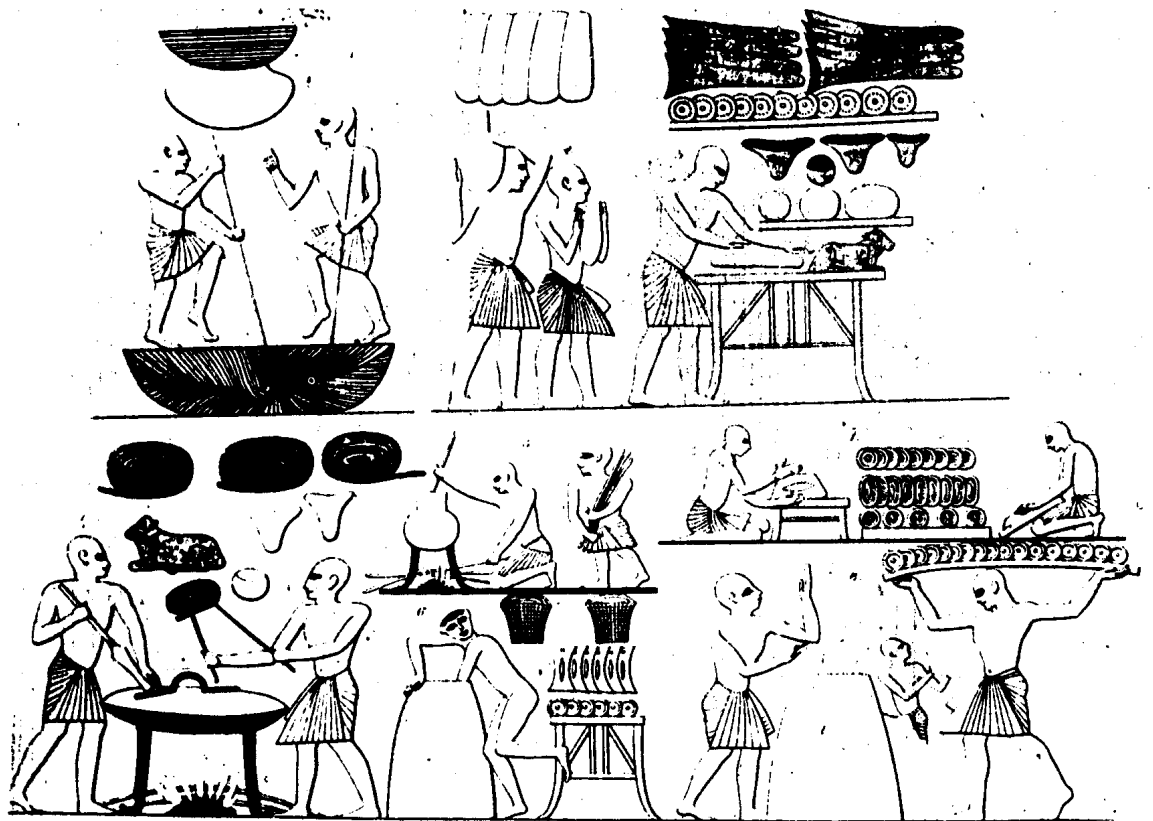


Figure (66): Stages of bread-making.
 (Ramesses III's tomb).

65



Figure (67): (A) (Left) Triangular loaf.

(From Deir el-Bahari - Cairo Museum No. J. 49096).

(Right) Semi-circular loaf or cake.

(From the tomb of Tut-ankh-Amun- Cairo Museum).



Figure (67): (B) Cakes or loaves in the shape of a feminine figure.

(From Deir el-Medina Dynasty 18 - Dokki Agricultural Museum, No. 1447).



Figure (68): (A) Conical loaves.

(New Kingdom - Dokki Agricultural Museum, Cairo, No. 4272).

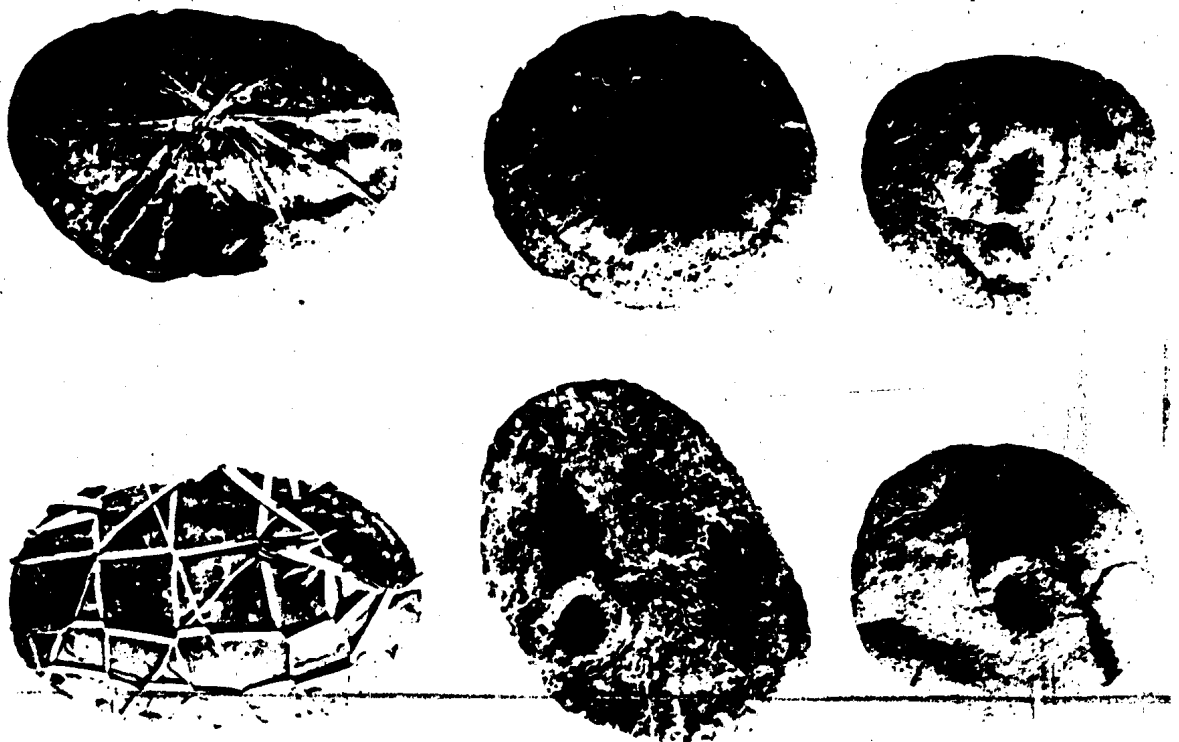


Figure (68): (B) A selection of loaves of the New Kingdom at the Dokki Agricultural Museum, Cairo.

(From Deir el-Medina (Left) Ovoid loaves with lateral slashes still in their wrapping of papyrus. (Right) and middle) loaves with a central crater.

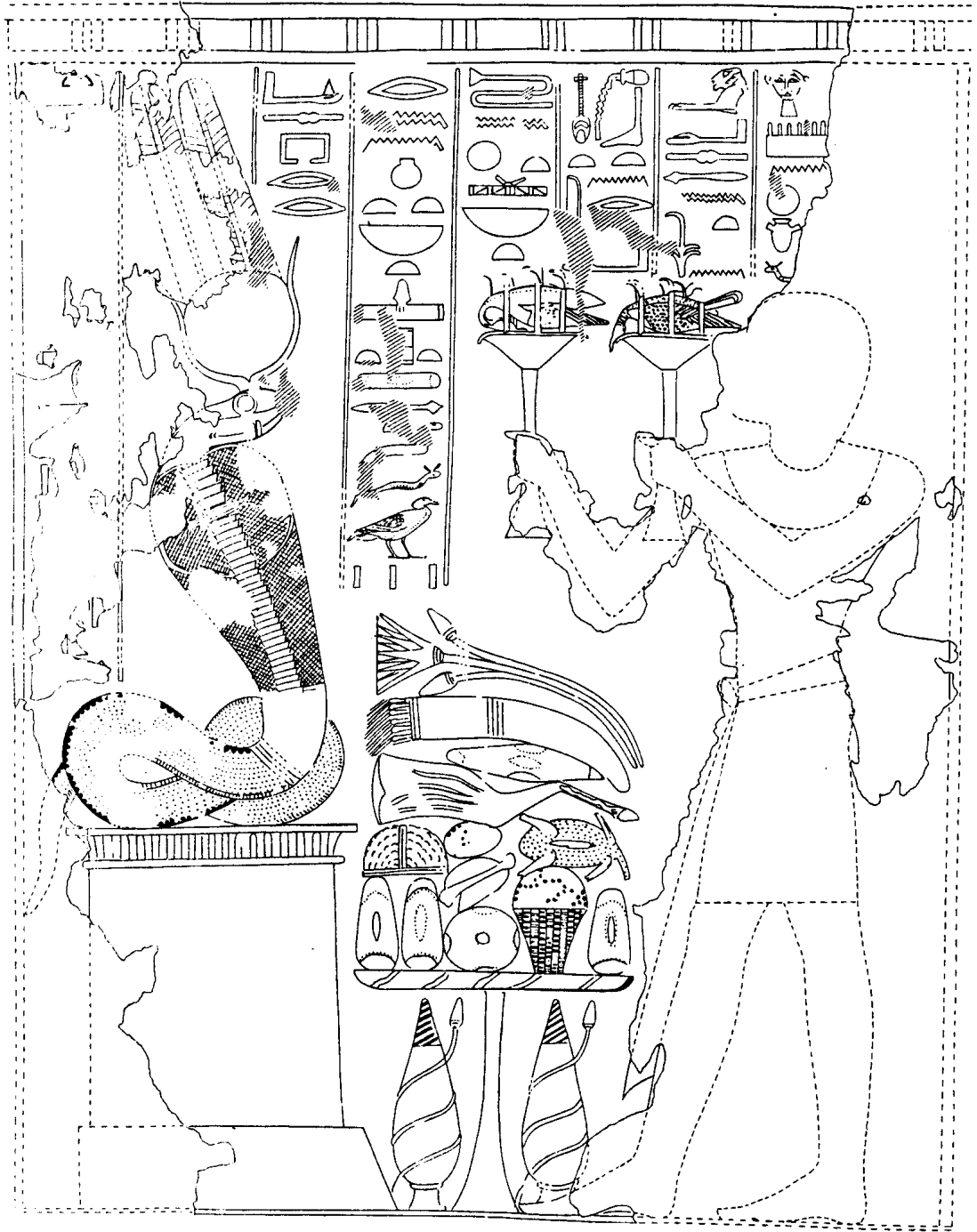


Figure (69): Kenamūn offers two braziers with burnt offerings of a duck and a pigeon to Rennutet.

(Tomb of Kenamūn).

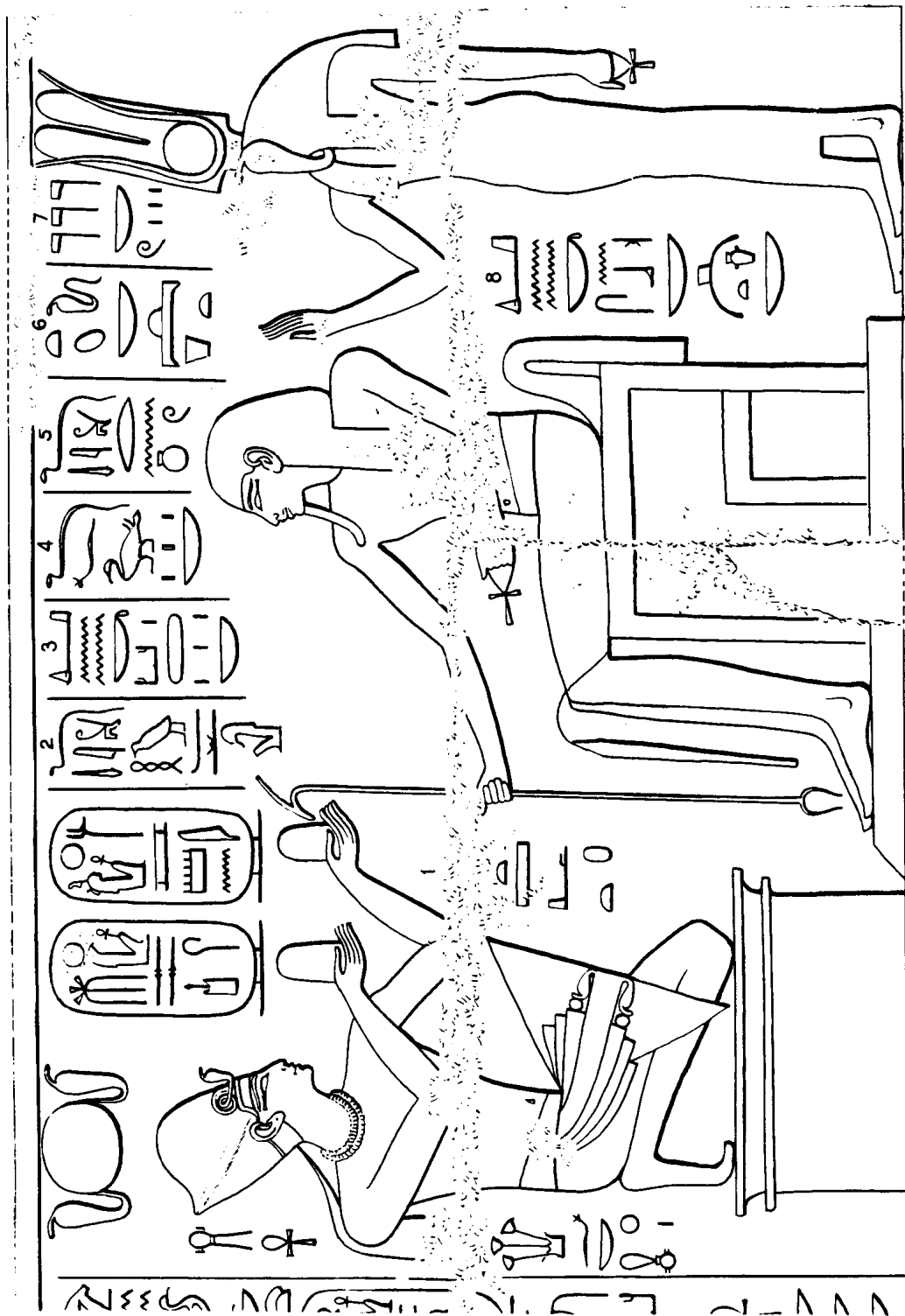


Figure (70): Ramesses III kneeling on a shrine presenting offerings to Hu and Rennutet).

(Medinet Habu).

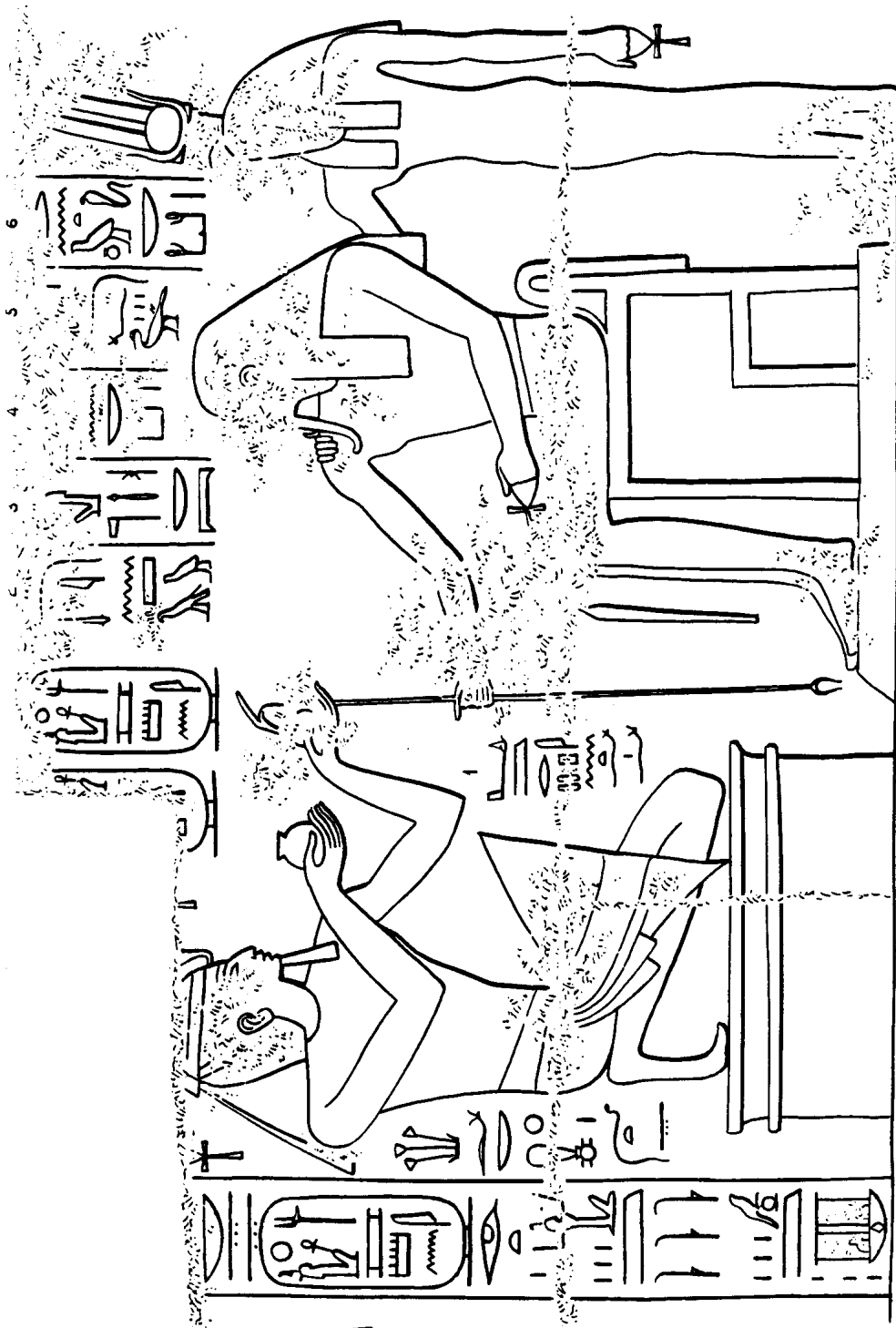


Figure (71): Ramesses III kneeling on a shrine presenting wine to Sia and Rennutet.

(Medinet Habu).

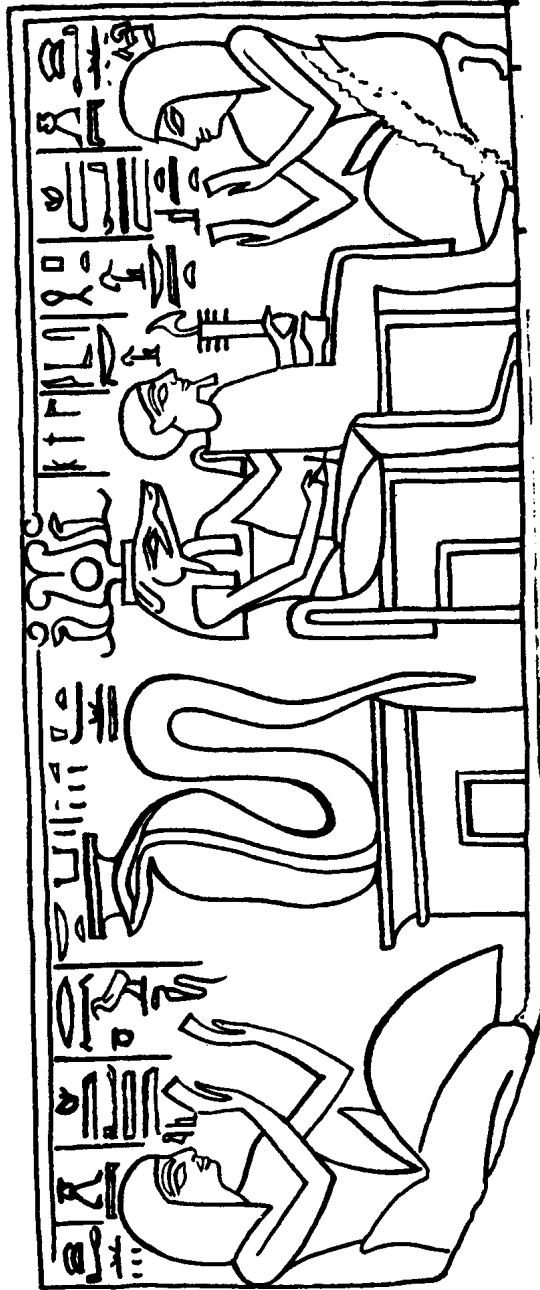


Figure (72): Anhur-kha^{cu} adoring the goddess Renmutet in the form of a serpent upon a shrine.

(End of the XVIIIth Dynasty).

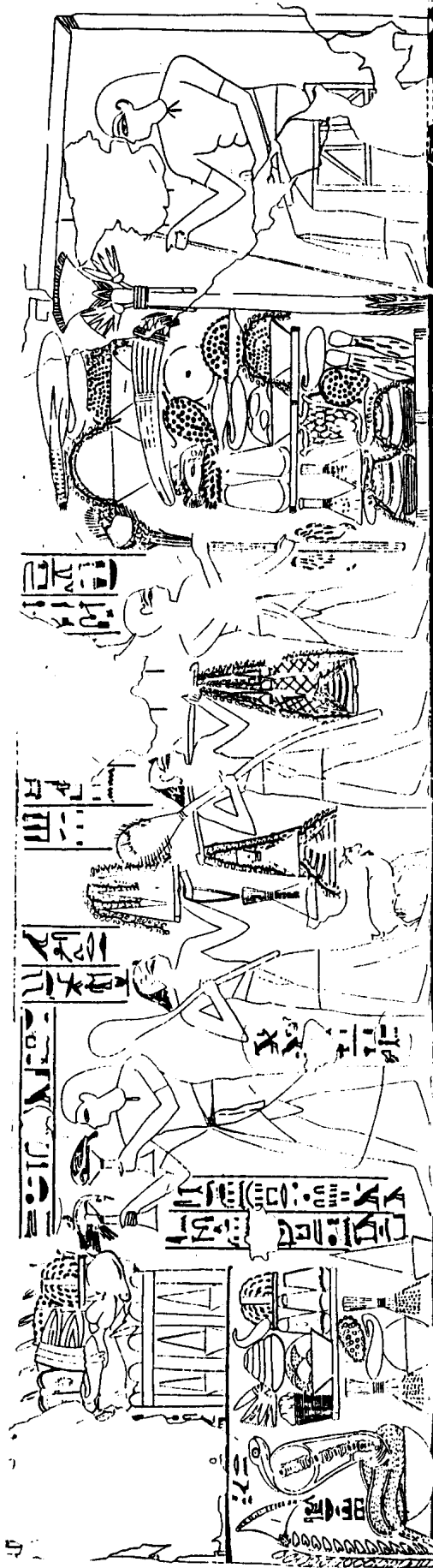


Figure (73): Kha Cemhet makes a burnt offerings to Rennutet, who is represented as a snake-headed goddess seated on a throne and suckling a child, this is Nepri.

(Tomb of Kha Cemhet).

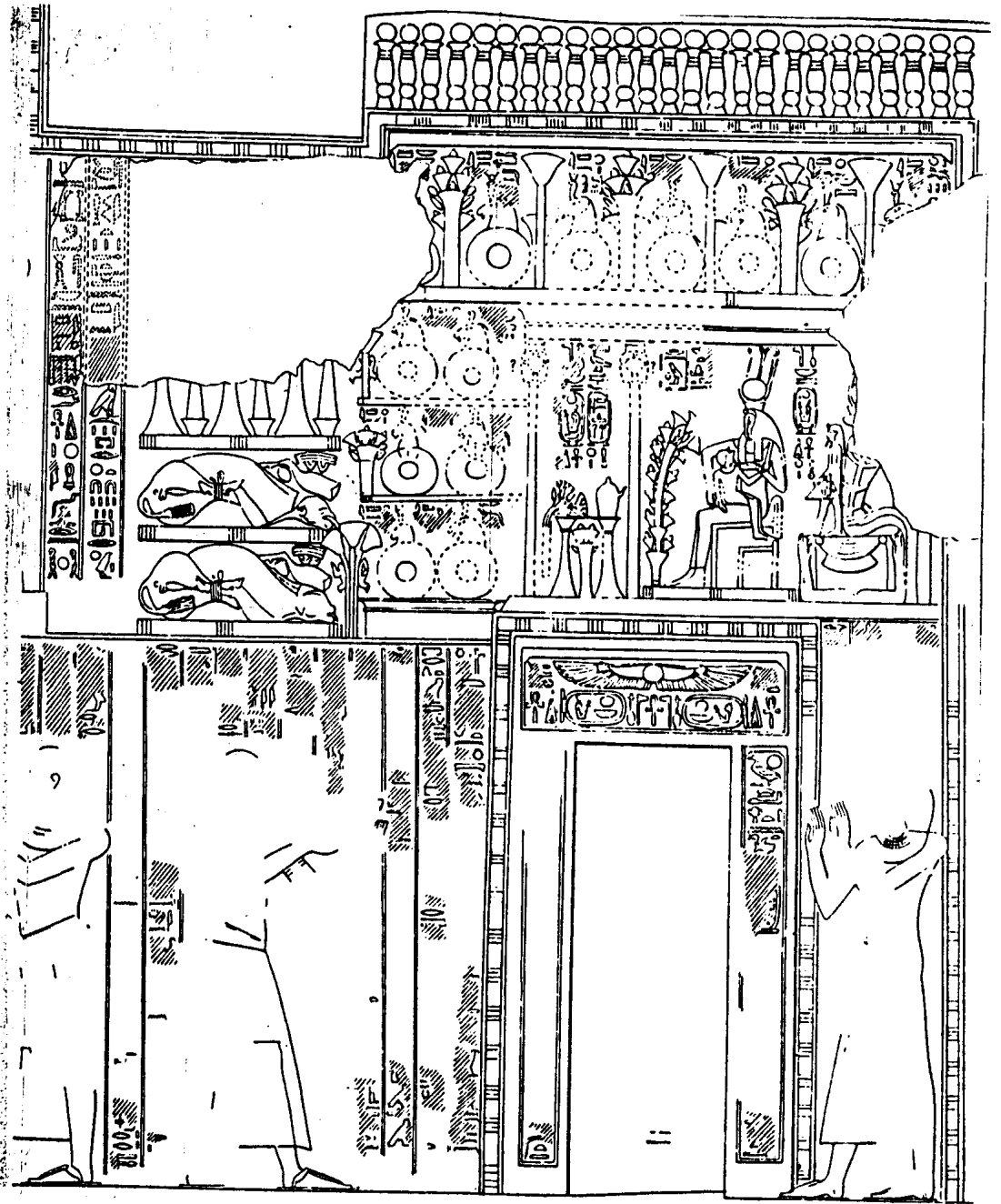


Figure (74): Celebration of harvest and the role which gods and King played there.

(Tomb of Amenemhēt).

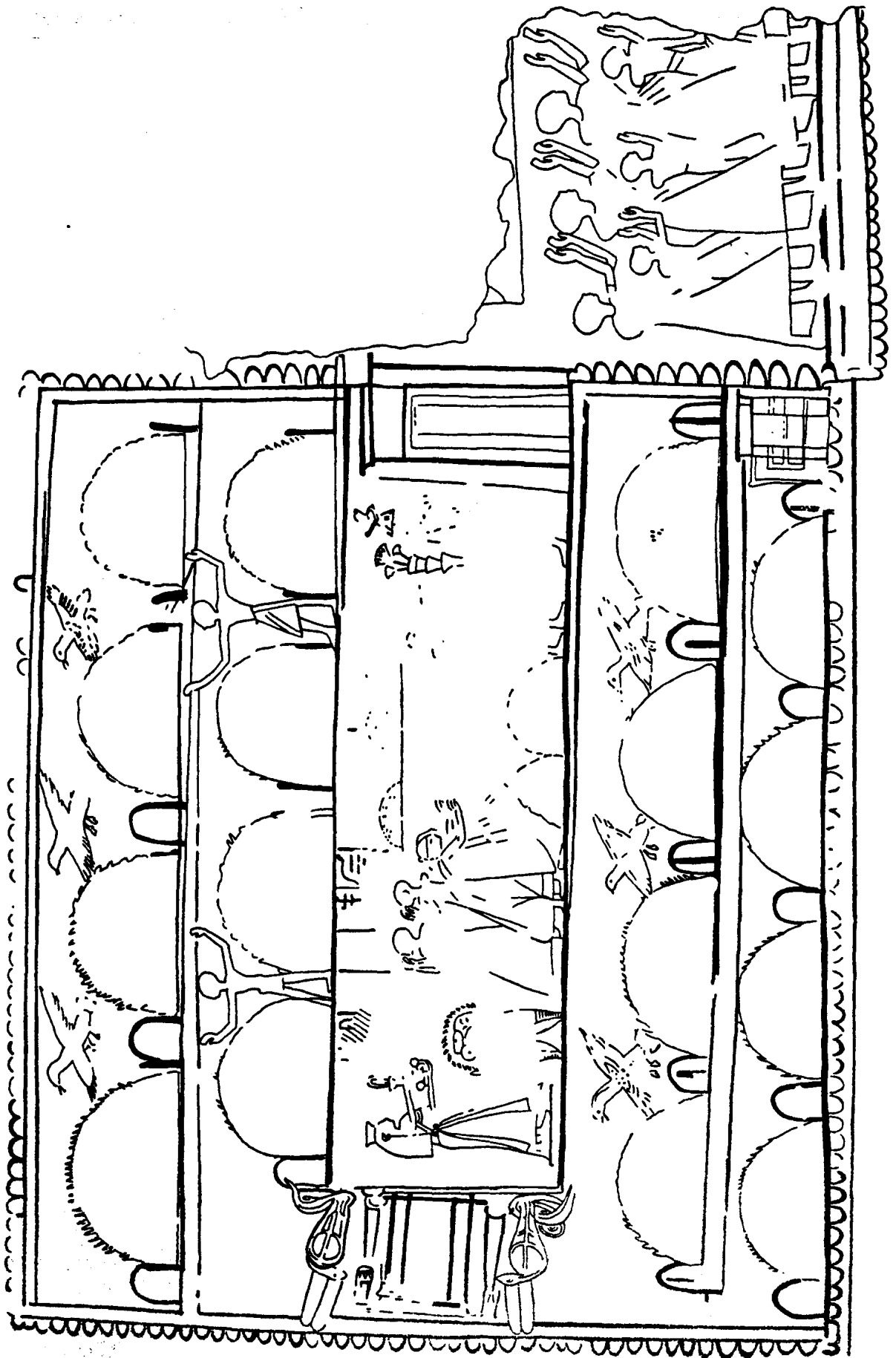


Figure (75): A scene represents heaps of corn and boys scaring birds and a harvest festival at the shrine of Rennutet attended by both King and Queen.

(Tomb of Pahemeter).



Figure (76): Kha^cemhēt makes a burnt offerings to Rennutet, who is represented as a snake-headed goddess seated on a throne and suckling a child, this child is Nepri.

(Tomb of Kha^cemhēt).

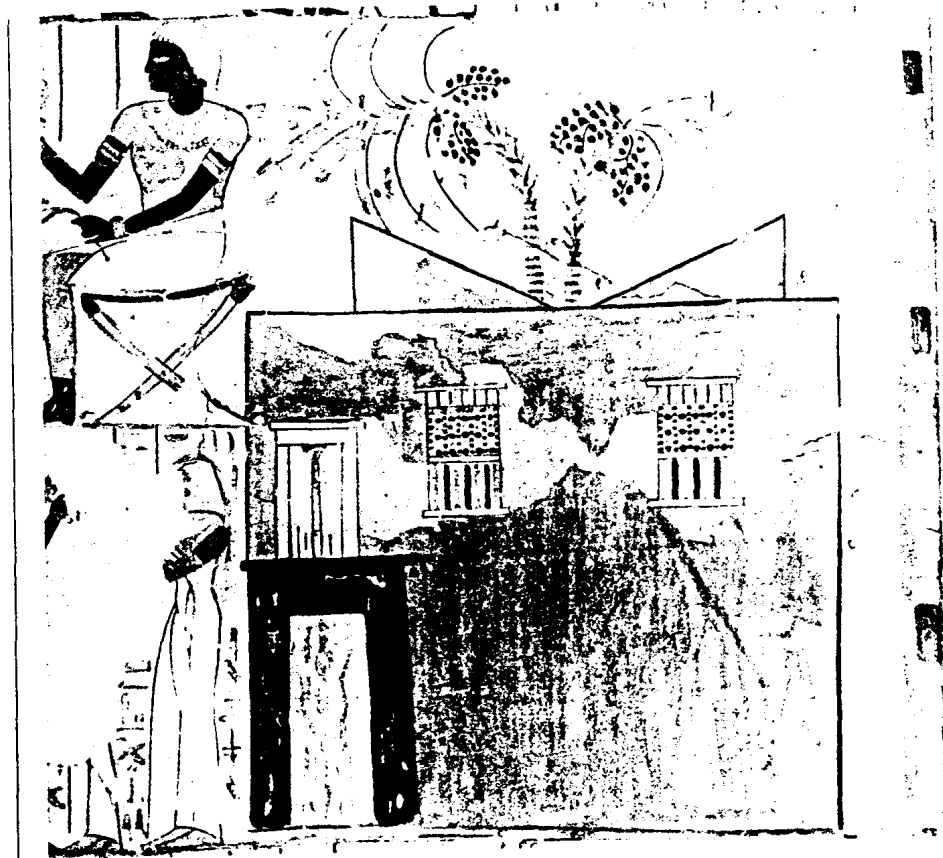


Figure (77): Country house.

(Tomb of Nebamūn).



Figure (78): Barber shaving.

(Tomb of Userhēt).

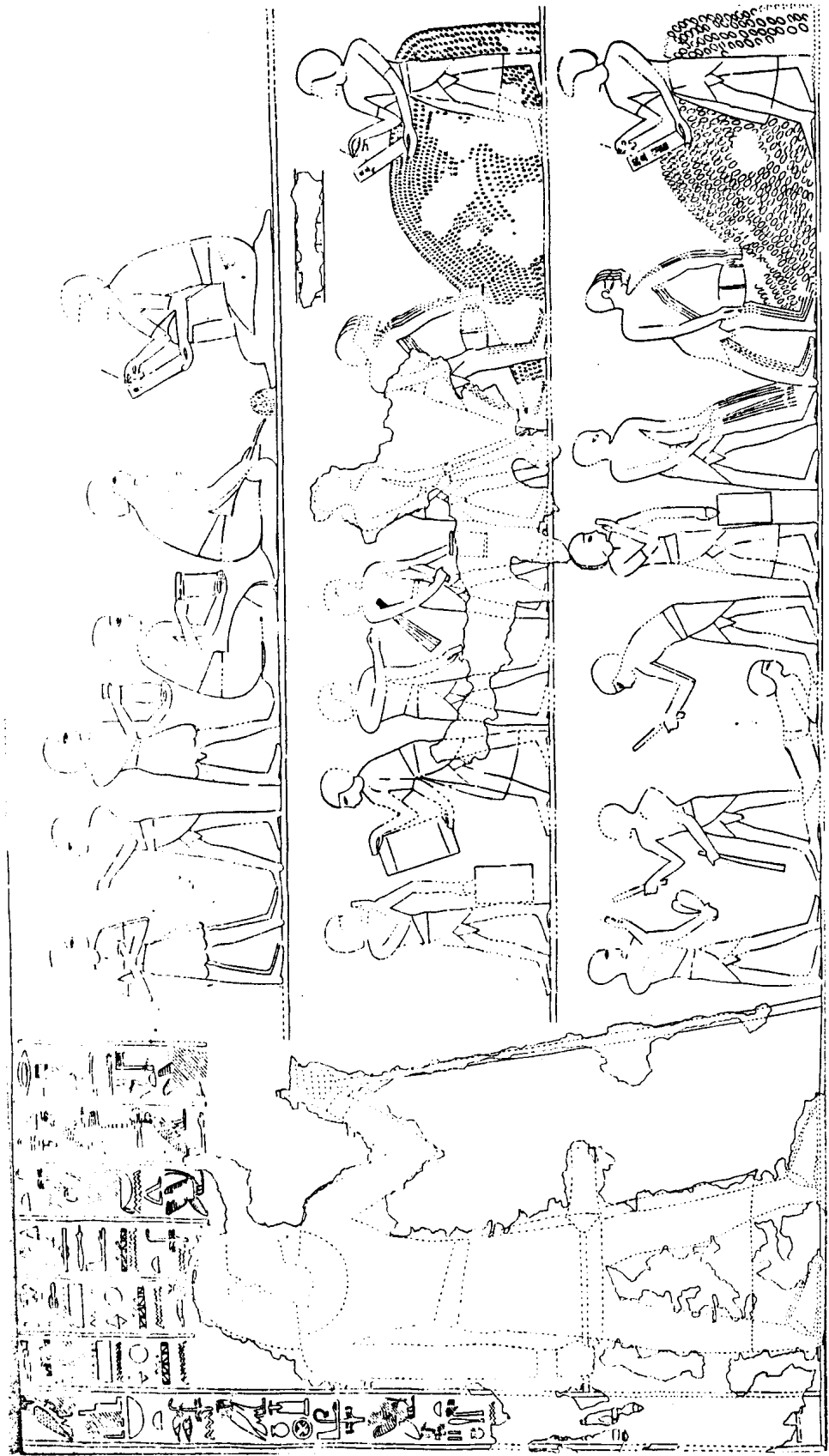


Figure (79): Measuring the corn and punishment the peasant.

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* There are some academic thesisses which connected this thesis:

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