

## Unpublished Prehistoric Lithic Tools In Shubra Museum at Taif of Saudi Arabia Prof. Mohamed A. El-Tonssy\*

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One of the most interesting Prehistoric stone tools in the Hejaz area are those which exhibiting in Shubra Museum at Taif. All dates to the Paleolithic, Middle Paleolithic and Neolithic periods. These collection had been found in the general Saudi Arabia areas, especially at eastern and middle borders in particular at Hejaz, The Red Sea basin and El-Hasa near the Arabian Gulf<sup>1</sup>. Many of these pieces are worthy of study; among them are thirteen stone objects that exhibiting in Shubra Museum at Taif will be discussed in this paper<sup>2</sup>.

### 1- Archeological study:

#### I- lower Paleolithic period ( Pls. 1- 4 ) , Figs. (1-4).

##### I-Tool No. 1 ( plate 1 ):

##### I.1. Description:

- Reg. No: sprm.38
- Type: hand axe, end scraper
- Material: fine flint
- Measures: 5.5×8.5cm
- Date: lower Paleolithic period (Abbevillian Type).
- Display: Prehistory gallery, hall no.1
- Description: Fine flint hand axe has tapered summit with a suitable base to use in palm, the veneer of natural stone was removed. Its shape has a bifacial retouch<sup>3</sup>.There is one widely used form of later scraper

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<sup>1</sup>Review: Michael Gilmore et Al., A comprehensive Archaeological Survey Program: (1) A preliminary Report on the Survey of the Northern and North-western Regions (in Arabic), 1981, Atlal, IV, part I, pp.7-21.

<sup>2</sup>There are many lithic tools in Shubra Museum at Taif which dates to Paleolithic, Middle Paleolithic and Neolithic periods; Baily G., & others, Coastal Prehistory in the Southern Red Sea Basin, Underwater Archaeology and the Farasan Islands, Proceedings of the Seminar for Arabian Studies , 37 (2007),pp.1-16.

<sup>3</sup> For more elaboration about technological and typological analysis of lithic assemblages review, Hilbert, Y., An Investigation of Late Paleolithic Stone Tool Assemblages from the

normally is formed in a narrow shape with one sharp edge<sup>4</sup>. The appearance is similar to early hand-axes and it is possible that it was used for the same jobs<sup>5</sup>.

**I-Tool No. 2 ( plate 2 ):**

I.2. Description:

- Reg. No: sprm.30
- Type: hand axe
- Material: rough flint
- Measures: 10×8cm.
- Date: lower Paleolithic period (Abbevillian type)
- Display: Prehistory gallery, hall no.1.
- Description: Flint hand axe<sup>6</sup>, Its shape has a bifacially retouched point, the base is quite suitable to use in hand, one serrated sides and the veneer of the core has been smoothly removed<sup>7</sup>.

**I-Tool No. 3 ( plate 3 ):**

I.3. Description:

- Reg. No: sprm.17
- Type: hand axe
- Material: flint
- Measures: 5×7cm
- Date: lower Paleolithic period (Acheulean type)
- Display: Prehistory gallery, hall no.1
- Description: flint hand axe with pineapple shape its summit almost pointy to be more effective in hunting process and make the lower part appropriate for to use in easy way, part of the natural veneer of stone on the bottom could be seen<sup>8</sup>.

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Nejd Plateau, Southern Oman, Birmingham, 2012; Zarins J., Al-Jawad Murad , The Comprehensive Archaeological Survey Program, Journal of Saudi Arabia Archaeology , Atlal , 1981, 5,9-42.

<sup>4</sup>Petraglia, M. , The Lower Palaeolithic of the Arabian Peninsula: Occupations, Adaptations, and Dispersals ,in: Journal of World Prehistory 17(2003) ,pp.141-179.

<sup>5</sup> Morrow, J., End Scraper Morphology and Use-Life: An Approach for Studying Paleo-Indian Lithic Technology and Mobility. Lithic Technology, New york, 1997.

<sup>6</sup> For details about Arabian peninsula hand- axe, review Cornwall P., A Lower Palaeolithic Hand-axe from Central Arabia, Man, ( 1946) 46 p.144.

<sup>7</sup>For more models of hand-axe which appears almost everywhere that early man appears, see: Michael Gilmore et Al., A Comprehensive Archaeological Survey Program, 1981,Journal of Saudi Arabian Archaeology, Atlal, IV, p.9ff. pl. 19-20; Zarins J., Al-Jawad Murad, in: Atlal , 1981, 5,9-42,pls.,19 ( A 16); 20 ( B14-15 ).

<sup>8</sup>Sillitoe, P.& Hardy, K., Living Lithics, Ethno-Archaeology in Highland Papua New Guinea, In: Antiquity 77,(2003) No. 297, pp.555-566; for Nefud desert Acheulean type

**I-Tool No. 4 ( plate 4 ):**

I.4. Description:

- Reg. No: sprm.11
- Type: hand axe
- Material: flint
- Measures: 11×6 cm
- Date: lower Paleolithic period (Acheulean type)
- Display: Prehistory gallery, hall no.1
- Description: Rough flint hand axe with a conical tapered shape , the upper part of the core is being roughness without clear polished<sup>9</sup>, but it clearly seems with characteristics of the well-known traditional hand-ax in terms of the shape of the cone<sup>10</sup>. It is more appropriate to use with this edged summit and the base<sup>11</sup>.

**II- Middle Paleolithic period<sup>12</sup>: ( Pls. 4- 7) , Figs. (4 -7).**

**II-Tool No. 5 ( plate 5 ):**

II.5. Description:

- Reg. No: sprm.34
- Type: hand axe
- Material: flint
- Measures: 11×9.5 cm
- Date: Middle Paleolithic period (Mousterian type)<sup>13</sup>.
- Display: Prehistory gallery, hall no.1

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which probably is very often associated with fresh water sources see: Shipton ,C.,& others, Large Flake Acheulean in the Nefud Desert of Northern Arabia , Paleanthropology Society, 2014, pp. 446-462.

<sup>9</sup>De Sonneville D.& Perrot J.,Lexique Typologique du Paléolithique Supérieur. In: Bulletin de la Société préhistorique de France, vol. 53, n°7-8, (1956), pp. 408-412.

<sup>10</sup> Review ,Clarke, G. , World Prehistory: a New Outline (2 ed.), Cambridge ,1969, Cambridge University, pp.31ff; Franics H., Les Civilisations du Paléolithique , Universitaires de France, 1982,12ff.

<sup>11</sup>For more elaboration on Acheulean type lithic tools review: Petraglia M., Drake N, Alsharekh A., Acheulean Landscapes and Large Cutting Tool Assemblages in the Arabian peninsula, In: Petraglia MD, Rose JI, editors. The Evolution of Human Populations in Arabia: pale-environments, prehistory and genetics, The Netherlands, Springer, 2009,pp.103-16.

<sup>12</sup>Petraglia, M. & AlSharekh, A. M, The Middle Palaeolithic of Arabia: Implications for Modern Human Origins, Behavior and Dispersals, in: Antiquity 77 (2003), 671-684.

<sup>13</sup>For more elaboration about the Middle Paleolithic period east Mediterranean area review ,Shea ,J., The Middle Paleolithic of the East Mediterranean Levant, in: Journal of world Prehistory, vol.17,No.,4, 2003, pp. 312ff.

- Description: flint hand axe, its summit shaped nearly tapered ,the base is more suitable to use ,one serrated side, the veneer of core has not been completely removed<sup>14</sup>. The shape of its back is look like the turtle back which clearly refers to its history with Mousterian type of the Middle Paleolithic<sup>15</sup>.

## II-Tool No. 6 ( plate 6 ):

### II.6. Description:

- Reg. No: sprm.33
- Type: hand axe
- Material: flint
- Measures: 10.5×8 cm
- Date: Middle Paleolithic period (Levalloisian type<sup>16</sup>)
- Display: Prehistory gallery, hall no.1
- Description: Flint hand axe summit shape almost pointy and base suitable to use with one serrated side. the veneer of the core has not been completely removed<sup>17</sup>. This lithic tool is shown with a bifacial retouch<sup>18</sup>. It could be dating easily with the era of Levalloisian type which was common the Middle Paleolithic period<sup>19</sup>.

## II-Tool No. 7 ( plate 7 ):

### II.7. Description:

- Reg. No: sprm.4
- Type: hand-axe
- Material: flint

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<sup>14</sup>Redford, D. , Egypt, Canaan, and Israel in Ancient Times. Princeton: University Press,1992 ,pp. 10ff.

<sup>15</sup>Compare for different models, Seeher, J. , "Ma'adi and Wadi Digla". In Bard, Kathryn A. Encyclopedia of the Archaeology of Ancient Egypt. London/New York, 2002, pp. 455-458; Kaiser ,W., Vor- und Frühgeschichte, LÄ 6, colls,1069-1076.

<sup>16</sup>For archeological features technique on such lithic tools review: Marks, A & Williams, J, Tool Standardization in the Middle and Upper Palaeolithic, a Closer Look, Cambridge Archaeological Journal 11 (1) ( 2001), pp.17-44.

<sup>17</sup>Bordes, F., The Tale of Two Caves, New York, 1972 , Harpar and Row, 12 ff.

<sup>18</sup>The Levalloisian technique depends mainly on preparing core method by radial flaking that requires the working face of the core to be specially prepared beforehand, allowing a predetermined flake of probable shapes to be detached, review McBrearty S. ,Down with the Revolution, in: Mellars P, Boyle K, Bar-Yosef O, Stringer C, editors, The human revolution revisited, Cambridge, McDonald Institute Archaeological Publications, 2007. pp.133-151.

<sup>19</sup>Compare Zarins J., Al-Jawad Murad, in: Atlal , 1981, 5,9-42,pls.,19 ( C14-15); 20 ( B23-24 ).

- Measures: 9×5 cm
- Date: Late middle Paleolithic period (Levalloisian type)
- Display: Prehistory gallery, hall no.1
- Description: This flint hand axe has the shape of the rectangular. The natural core had clearly removed<sup>20</sup>. Traces of blows in more than one place of the core could be definitely distinguished<sup>21</sup>. The retouch was confined mainly to a single side of this hand-axe. It has a pointed end probably to be more effective in hunting or to be used as a chopper<sup>22</sup>.

### III-Upper Paleolithic period: ( Pls. 8- 11) , Figs. (8-11).

#### III-Tool No. 8 ( plate 8 ):

##### II.8. Description:

- Reg. No: sprm.82
- Type: Microliths arrowhead
- Material: flint
- Measures: 4×1.5 cm
- Date: Upper Paleolithic period (Aurignacian type)
- Display: Prehistory gallery, hall no.1
- Description: Retouched flake with awl point that has the shape of arrowhead style<sup>23</sup>.One of its sides is clearly serrated. Its small size(microliths)and pointed summit refers to the characterized type of Aurignacian era<sup>24</sup>.

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<sup>20</sup>Review, Rosen, S., Litchis after the Stone Age " A Handbook of Stone Tools from the Levant, London, 1997, pp.12ff.

<sup>21</sup>For Levalloisian characteristic tools see: Jeffrey , B. & Kuhn,S., Constraints on Levallois Core Technology: A Mathematical Model, in: Journal of Archaeological Science, 28(7) 2001,pp.747-761,

<sup>22</sup>Compare for more examples in Africa continent: Bouchneba, L., "The inner ear of Nazlet Khater 2 (Upper Paleolithic, Egypt)", Journal of Human Evolution, 2009, No. 56 (3), 257-262; Sileshi ,S., "The World's Oldest Stone Artifacts from Gona, Ethiopia: Their Implications for Understanding Stone Technology and Patterns of Human Evolution Between 2.6-1.5 Million Years Ago" in: Journal of Archaeological Science 27 ,(2000), (12): 1197-1214.

<sup>23</sup>Compare Zarins J., Al-Jawad Murad, Op.ct. , Atlal , 1981, 5,9-42,pls.,19 ( D.13,14,15); 20 ( B. 5-6 ).

<sup>24</sup>Yamandú, H., An investigation of Late Palaeolithic Stone Tool Assemblages From The Nejed Plateau, Southern Oman, Institute of Archaeology and Antiquity University of Birmingham , London 2012,pp.70-87.

### **III-Tool No. 9 ( plate 9 ):**

#### III.9. Description:

- Reg. no: sprm.51
- Type: Microliths scraper one side blade
- Material: flint
- Measures: 4×1 cm
- Date: Upper Paleolithic period (Aurignacian type)
- Display: Prehistory gallery, hall no.1
- Description: The shape of this lithic takes the form of the microliths scraper. One of its side is well refined, it seems a rectangular in shape with pointed apex<sup>25</sup>.

### **III-Tool No. 10 ( plate 10 ):**

#### III.10. Description:

- Reg. No: sprm.48
- Type: Microliths one sided serrated blade
- Material: flint
- Measures: 2×4 cm
- Date: Upper Paleolithic period (Solutrean type)
- Display: Prehistory gallery, hall no.1
- Description: This fine microliths tool was formed in the shape of backed lunate with the form of projectile point and alternate serration. It is suitable to be used as side scraper in hand or to be fixed in a wooden handle.

### **III-Tool No. 11 ( plate 11 ):**

#### III.11. Description:

- Reg. No: sprm.62
- Type: Microliths Scraper
- Material: flint
- Measures: 1×2.5 cm
- Date: Neolithic period
- Display: Prehistory gallery, hall no.1

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<sup>25</sup> We can say that this lithic tool could come from the collection which is most often called "flake" tools that were normally produced by human or natural separation process from its core, see for more details Baker, T., The flake, Stepchild of Lithic Analysis, Stone Dagger Publications, Lakewood, Colorado, 2006, 1-15.

- Description: This microliths side scraper is clearly well refined rectangular in shape, one of its sides is serrated to be freely used in hand.

#### **VI- Neolithic period: ( Pls. 12- 13) , Figs. (12 -13).**

##### **VI -Tool No. 12 ( plate 12 ):**

###### VI.12. Description:

- Reg. no: sprm.90
- Type: Microliths arrowhead
- Material: flint
- Measures: 1×2.5 cm
- Date: Neolithic period, end of the Neolithic culture.
- Display: Prehistory gallery, hall no.1
- Description: Fine flint microliths tanged projectile point arrowhead<sup>26</sup>. It is well refinement, triangular in shape and projectile point with alternate serration. It has a tanged form on base to be easily fixed with a wooden branch<sup>27 28</sup>.

##### **VI-Tool No. 13 ( plate 13 ):**

###### VI.13. Description:

- Reg. No: sprm.72
- Type: Microliths spearhead ,( flake)<sup>29</sup>.
- Material: flint
- Measures: 4×1.5 cm.
- Date: Neolithic period ( Pre-Pottery Neolithic)
- Display: Prehistory gallery, hall no.1
- Description: Flint microliths spearhead, well refinement triangular in shape<sup>30</sup>. It has been formed with projectile pointed , alternate serration

<sup>26</sup> Parallel examples in Neolithic Egypt, review, Amer, M.,& Menghin, O., The Excavation of Egyptian University in Neolithic Site at Maadi ( season 1930-1931) Cairo; Thompson, G., Gardiner, A., prehistoric of Hkargh Oasis, in: Geographical Journal ,53 ( 1932 ),pp.403ff.

<sup>27</sup>Zarins J., Al-Jawad Murad, in: Atlal , 1981, 5,9-42,pls.,19 ( D1-2); 20 ( B1-4 ).

<sup>28</sup>Such kind of lithic tools could be used in woodworking, splitting bone for the extraction of marrow and fashioning bone tools, hide cutting and piercing, butchering of animals and the preparation of plant food ,review Kaiser,W., Vor-und Frühgeschichte, LÄ 6, colls,1069-1076.

<sup>29</sup>The term flake refers to any small piece of shards detached from a core, see Yamandú, H, Op. ct., p.101,footnot no. 25.

and an end scraper to make it easier to be placed in a wooden stick as a spear.

## 2-Analysis and Conclusion:

From this brief study for these lithic materials, we can surely confident that the earliest evidence for Hominids (the early man) who lived in the western Nejed and at the eastern Hejaz in particular, dates from around 500,000-700,000 years ago<sup>31</sup>. Early Paleolithic sites are most often found around Arabian gulf or near Red sea coast where materials to make stone tools were plentiful<sup>32</sup>. This early man was involved in the revolution of a cultures life in Arabian peninsula from at least the beginning of Paleolithic era<sup>33</sup>.

All of these Acheulean artifacts were made of fine quality flints, and were like those found by Cornwall in 1946 and Zarines in 1979<sup>34</sup>. As a direct result of survey efforts in Arabian peninsula, many archaeological works on the Paleolithic and Middle Paleolithic sites were discovered in the central, western and south-western provinces<sup>35</sup>. Most importance sites were three old sites, namely, Shuwayhiyah in the north, the site number 226-63 near Najran in the south and Tathlith in the southwest of Saudi Arabia<sup>36</sup>.

Initially, Hominids used these lithic tools that were commonly made from flints which used for hunting, fishing, and all his daily activities. The natural

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<sup>30</sup>Compare for more examples see: Hranicky, J., Archaeological Concepts, Techniques, and Terminology for American Prehistoric Lithics Technology, Author house, Indiana , 2013, pp. 17ff.

<sup>31</sup>The economic and social preadaptive life of hominid on his early urbanism centers has been documented in Arabian peninsula from pre- Paleolithic age, review Tosi, M., The Emerging picture of Prehistoric Arabia, in Annual Review of Anthropology 15, (1986), pp.461-490; Amirkhanov, H., Research on the Palaeolithic and Neolithic of Hadhramaut and Mahra, in: Arabian Archaeology and Epigraphy 5,(1994),pp. 217-228.

<sup>32</sup>It is quite clear that the early man on his long prehistoric different ages lived around the coasts all over the ancient world to benefit from sea nutrition, review about such scholar theory Fischer, A. (ed.), Man and Sea in the Mesolithic: Coastal Settlement above and below Present Sea Level, Oxford, 1995, 12ff; Fischer, A., People and the sea-Settlement and Fishing Along the Mesolithic Coasts, in: L., Pedersen, A. Fischer and, B., Aaby (eds.) The Danish Storebælt since the Ice Age-man, Sea and Forest. Copenhagen, 1997, A/S Storebælt Fixed Link, 63-77.

<sup>33</sup>Petraglia, M., The Lower Palaeolithic of the Arabian Peninsula: Occupations, Adaptations, and Dispersals, in: Journal of World Prehistory, vol.17( 2003),141-179.

<sup>34</sup>Zarins J, in: Journal of Saudi Arabia Archaeology , Atlal ,1981, 5,9-42; Cornwall P., Op. ct., ( 1946) 46 p.144.

<sup>35</sup>Yamandú, H, Op. ct., pp.70-87.

<sup>36</sup>Marks, A., The Paleolithic of Arabia in an Inter-Regional Context, in: Petraglia MD, Rose JI, editors, The evolution of human populations in Arabia, pale-environments, prehistory and genetics, The Netherlands, Springer 2009, pp.295-308.



properties of flints is usually very hard and effective<sup>37</sup>. The Early Man oldest evidence of using flints in Arabian peninsula is documented from the early Paleolithic period at the Hejaz and Nejed artificial lithic tools<sup>38</sup>.

It should be noted here that from the beginning of the Paleolithic period ,the hominids in Arabian peninsula produced flint lithic tools and weapons that were characterized by large size such as the bifacial side-scraper(tool nos.1-4)which is similar to those found in the Nile Acheulean Type<sup>39</sup>. However, The presence of Acheulean sites in the Nejed and Hejaz surely opens up new possibilities in our understanding of hominin first behavior relating with the western coast of the Red Sea and the archaic industries nearby<sup>40</sup>.

One can easily distinguish The Mousterian Type of the Middle Paleolithic on lithic tools no.5 which clearly refers to the technic of industry<sup>41</sup>. But from the Neolithic period onwards, we can find different Microliths tools which became more and more accurate and were formed in a perfect way to be used in a freely way with one hand (tools nos. 12-13)<sup>42</sup>.

All of this progress in early man's life in Arabian Peninsula definitely leads to the great transition of the Neolithic period when he realized the art of agriculture, the domestication of animals, settlements or semi-permanent dwellings, and eventually the invention of pottery<sup>43</sup>.

<sup>37</sup> AlSharekh, M., The Archaeology of Central Saudi Arabia: Investigations of Lithic Artefacts and Stone Structures in Northeast Riyadh. Riyadh , 2006 , Deputy Ministry for Antiquities & Museums, pp6ff.

<sup>38</sup> Compare in Egyptian prehistorically ages, Smith, P., Egypt and the Levant, Interrelations from the 4th through the Early 3rd Millennium BCE, London-New York, Leicester University Press,2002, pp. 118-128

<sup>39</sup> Franics H., Les Civilisations du Paléolithique ,Universitaires de France, 1982,45-70;Kaiser,W.,Vor-und Frühgeschichte, LÄ 6, colls,1069-1076.

<sup>40</sup> Fischer, A. (ed.),Man and Sea in the Mesolithic,pp.12ff; Fischer, A., People and the sea-Settlement and Fishing Along the Mesolithic Coasts, pp., 63-77.

<sup>41</sup> Harold L., The Interpretation of Middle Palaeolithic Scraper Morphology , in: American Antiquity, 52(1) 1987 , pp.109-117;Marks A., The Mousterian Industries of Nubia, in: (Wendorf F, ed.) The prehistory of Nubia, vol. 1. Dallas, Southern Methodist University Press, 1968, pp.194-314.

<sup>42</sup> There are various collections of Paleolithic and Neolithic stone tools displayed in Shubra regional Museum, all of which came originally from Nejd and El-Hasa near the Arabian Gulf and a little of which was found Southwestern border near the Red Sea which was an important coastal habitat for human settlement, review Shubra Museum Archive nos. 28, 29, 60, 65, 66-78, 84,85;Zarins, J.,& Zahrani, A., Recent Archaeological Investigations in the Southern Tihama Plain (The sites of Athar, and Sihi, 1404/1984), in: Journal of Saudi Arabian Archaeology, Atlal 9 (1985), 65-107.

<sup>43</sup> For more details about early hominid occupation in Africa and Arabian peninsula at the Neolithic period review Bower, J., The Pastoral Neolithic of East Africa, in: Journal of

But it must be kept in mind, however all the archaeological records and scientific attempts to study lithic ages in Saudi Arabia, our activities and source information about lithic assemblages are definitely still insufficient and poorly represented. This fact lead us to study these lithic objects that maybe offer a new evidence to plan for future studies on the areas of Saudi Arabia in particular at Hejaz districts and Southwestern borders<sup>44</sup>.

Finally, we have aimed in this paper to present a recorded of prehistoric materials to provide a brief observation data for planning future fieldwork and studies discovering better documented and dated evidences about Saudi Arabia Early Stone Ages.

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world Prehistory, vol.5,No.1, 1991,pp.49ff; Petraglia, M., in: Journal of World Prehistory 17(2003) ,pp.141-179.

<sup>44</sup>As members of Taif University archaeological team, with the cooperation Saudi Commission for Tourism & National Heritage to survey at the site of Souk- Okaz, first season in October 2013, we have found three Paleolithic assemblages besides many Neolithic flakes, scraper and retouched flakes from the surface of the terrace above and nearby the main cave of Okaz site .

I- lower Paleolithic period:

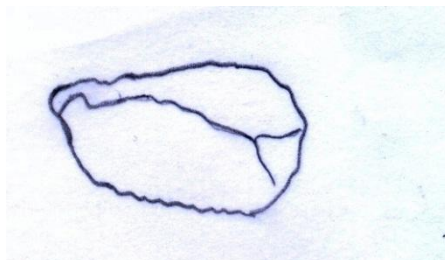


Plate 1- Fig. 1

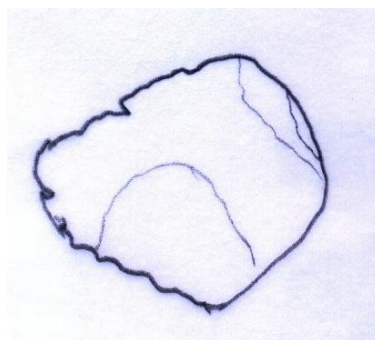


Plate 2- Fig. 2

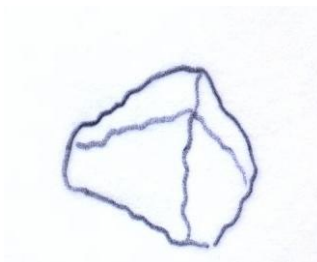


Plate 3- Fig. 3

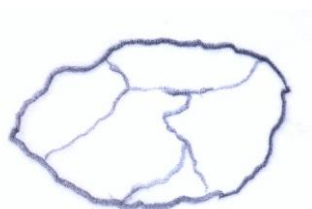


Plate 4- Fig. 4

II- Middle Paleolithic period:

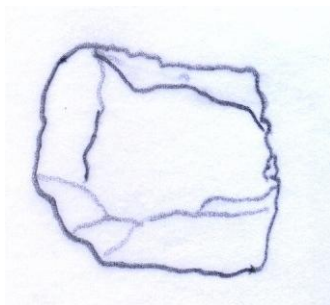


Plate 5- Fig. 5

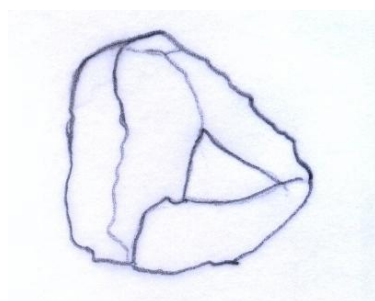


Plate 6- Fig. 6

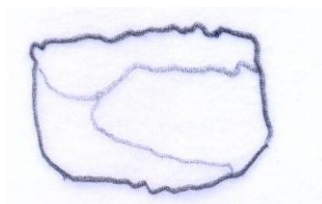


Plate 7- Fig. 7



Plate 8- Fig. 8



Plate 9- Fig. 9

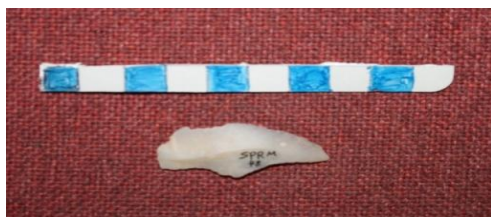


Plate 10- Fig. 10



Plate 11- Fig. 11

**III- Neolithic period:**



Plate 12- Fig. 12



Plate 13- Fig. 13