

1981

Frame by frame: a photographic essay on change in an Iowa community

Paul Jerome Hadley
Iowa State University

Follow this and additional works at: <https://lib.dr.iastate.edu/rtd>

 Part of the [Journalism Studies Commons](#), and the [Mass Communication Commons](#)

Recommended Citation

Hadley, Paul Jerome, "Frame by frame: a photographic essay on change in an Iowa community" (1981). *Retrospective Theses and Dissertations*. 7960.
<https://lib.dr.iastate.edu/rtd/7960>

This Thesis is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Retrospective Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

Frame by frame:

A photographic essay on change in an Iowa community

ISU
1981
H118
c.1

by

Paul Jerome Hadley

A Thesis Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE

Major: Journalism and Mass Communication

Signatures have been redacted for privacy

Iowa State University
Ames, Iowa

1981

1345783

TABLE OF CONTENTS

	page
I. INTRODUCTION	1
A. Problem Statement	1
B. Objectives and General Approach	3
C. Communities as Social Systems	5
D. Documentary Photography Utilized	6
II. SOCIAL CHANGE IN RURAL COMMUNITIES	8
A. Rural Social Change	8
B. The Community as a Social System	39
C. Development of Documentary Photography	45
D. Photographic Research	79
III. METHODOLOGY	87
A. Exploring Community Change	87
B. Foundation for Research	87
IV. FINDINGS: A PHOTOGRAPHIC ESSAY ON CHANGE IN AN IOWA COMMUNITY	99
A. Early History	99
B. Examination of a Community's Transition	104
V. CONCLUSIONS AND RECOMMENDATIONS	127
A. Successes and Failures	127
B. Recommendations	128
C. A Final Word	129
D. Inventory of Photographs	129
VI. LITERATURE CITED	136
VII. ACKNOWLEDGMENTS	148

I. INTRODUCTION

A. Problem Statement

Rural America's priorities have been uprooted in the twentieth century. The nation's changing needs and desires have transformed the structure and function of its farm communities and have altered the bonds between Main Street and the outlying hinterlands.

Larson and Rogers in 1964 distinguished seven major alterations in rural society which were said to specifically affect the institutions of rural communities. They were:

1. In the United States, an increase in farm production per worker is accompanied by a decline in the farm population.
2. Linkage of the farm with the nonfarm sector in U.S. society is increasing.
3. Farm production is becoming more specialized.
4. Rural-urban differences in values are decreasing as the U.S. moves toward becoming a mass society.
5. Rural people are becoming increasingly cosmopolite in their social relationships, due to improved transportation and mass media communications and realignments of locality groups.
6. There is a trend toward centralization of decision-making in rural institutions.
7. Changes in rural social organizations include a decline in the relative importance of primary relationships and an increase in the importance of secondary associations.

Social scientists such as Rogers and Burdge (1972) and Warren (1978) see those trends as indicating that small towns are undergoing a continuing process of social change.

U.S. census statistics suggested that Nevada, Iowa, was one of America's communities in transition. The town's total population grew from about 2,500 persons in 1900 to about 5,900 persons eighty years later, although the number of farm workers in the region declined during the period.

A 1973 study by consultants Wallace, Holland, Kastler, and Schmitz also utilized census data and surveyed Nevada businesses for a comprehensive development plan for the community.

While noting that the total population had increased, the researchers also saw shifts both in the occupations of Nevada's residents and in the types of people being served by the community's businesses, churches, and school system. Their study found professional services, including health care and educational and personal services, composed the largest employment group in Nevada. It also showed that these professional workers provided 80 percent of their service to customers from outside the community (Wallace et al., 1973, p. 50).

The development plan suggested also that the changing composition of Nevada's population would soon influence the local economy; the increasing number of residents who commute to jobs outside Nevada would have different needs and would offer different contributions to the community than occupants of past generations. An observation that population demographics have changed or that most local business was being conducted with out-of-towners suggested that a larger trade-centered community had replaced the

neighborhood-centered community as a base for social interaction (Loomis and Beegle, 1975, p. 32).

Those findings implied that other indicators of change from the seven-point list might be found in Nevada, Iowa. And, if the farm town was taking on the characteristics of the larger society, all facets of community life would be touched. However, Rogers and Burdge (1972, p. 2) and others have noted that social interaction can be met and adjusted to only if citizens know about the changing conditions.

Studies which supply such information can make the winnowing of new opportunities easier for residents, who then have a more effective voice in the growth or demise of their communities.

B. Objectives and General Approach

The intent of this thesis was to supply visual evidence which would support the observations of Larson and Rogers.

The camera as a research tool played an important role in the project. Still photography was used to demonstrate that a specific Iowa community was weathering the effects of social change which others had seen occurring on a more general landscape.

Collier described photographs as precise records of material reality and as documents which could be filed and cross-filed like verbal statements (1967, p. 5). He also said that the camera's eye can extend and re-find scientific description by including detail and nuance often lacking in the written records of sociologists and anthropologists (Wagner, 1979, p. 172).

European photographer Charles Negre said in 1854 that every generation leaves a visible trail across the face of the earth -- such as religious monuments, public or private -- and through the study of those monuments descendents may form exact ideas concerning the various civilizations (Pare, 1978, p. 10).

At Nevada in 1980, visible differences from the turn of the century village were apparent in many areas: in specialty shops which catered to the whims of a new clientele, in government-owned computer systems which managed amounts of information which would have overwhelmed the founding fathers, and in an implement dealership which offered farm equipment so large that it could no longer be parked on the firm's display floor.

Besides the physical structures left by early Story County builders, the modern-day Iowans had written accounts of life in an earlier Nevada. They also had black and white photographs which graphically pointed to changes wrought by the passing of decades.

Collier said that a comparison of images taken over time would reveal patterns of activity which would be valuable in community analysis -- but only if the photographs were collected in a valid sampling process. Social scientists, especially archaeologists, have used still pictures since the infancy of "the mirror with a memory" to count, measure, and compare (1975, p. 213).

However, according to Collier, two elements are necessary in order to produce creditable visual evidence (1979a, p. 161). First, an overview of the culture or setting which allows details to be seen within a context is required. The second necessity is that photographs contain creditable

research tangibles, such as those provided by photographic redocumentation and sequential recording of visible change, he said.

C. Communities as Social Systems

Social system theory provided a context for the study of Nevada.

Warren (1978) and Loomis and Beegle (1975) viewed communities as social systems, the major subsystems being the institutions of government, economy, education, religion and family. Each of these subsystems, in turn, is composed of a variety of associational groups; statuses are the building blocks out of which such groups are fashioned. According to Poplin (1979, p. 179), an individual becomes a part of these groups, and, hence, a member of larger social systems, by playing the roles assigned to the statuses.

As a social system, a community has a tendency to move toward a state of equilibrium (Warren, 1978). Therefore, a change in one component generally stimulates changes in others. The theorizing of social systems proponents allows for better understanding of how a community is affected by social change because the concept considers how the subsystems interact while fulfilling the needs of community members.

Collier (1967) insisted that sample groups possess common elements, in order that comparisons could be made between cultures or for the same subject over time. He suggested that researchers construct "cultural inventories" of objects or activities to be recorded.

By categorizing activities in Nevada according to social system theory, that commonality was established. Though, as Warren (1978) said, no two communities will place the same levels of importance on their various

subsystems, the five major institutions listed will be present. Communities may be compared by contrasting the structure and function of their separate institutions; a particular town's transitions can be charted by mapping patterns over time.

D. Documentary Photography Utilized

Collier's second requisite for insuring that photographs have scientific value was that the images have research tangibles (1979a, p. 161).

He said:

The camera is an automative tool, but one that is highly sensitive to the needs of its operator. Like the tape recorder, it documents mechanically, but does not by its mechanics necessarily limit the sensitivity of the human observer -- it is a tool of extreme selectivity.

The camera's machinery allows us to see without fatigue; the last exposure is just as detailed as the first. The memory of film replaces the notebook and insures complete notation under the most trying circumstances... (1967, p. 4).

He noted elsewhere that cameras by themselves do not take pictures; rather, the researcher has the responsibility for framing subjects. Thus, the photographer must have investigated the subject at hand thoroughly before releasing a shutter. Collier and visual sociologists like Curry and Clarke (1978) encouraged the use of photographic techniques which would consistently yield tangible information.

The genre known as documentary photography was found to be best-suited for this thesis project because the style results in images which have countable, measurable, and comparable elements. Further, the documentary photographer is one who attempts to persuade and to convince as well as to inform (Newhall, 1964, p. 137), so photographs produced in such a manner

were thought to be especially valuable to a community study which sought to support Larson and Rogers' observations on rural social change.

Lange, in 1940, provided the following definition:

Documentary photography records the social scene of our time. It mirrors the present and documents the future. Its focus is man in his relation to mankind. It records his customs at work, at war, at play, or his round of activities through twenty-four hours of the day, the cycles of the seasons, or the span of a life. It portrays his institutions -- family, church, government, political organizations, social clubs, labor unions. It shows not merely their facades, but seeks to reveal the manner in which they function, absorb the life, hold the loyalty, and influence the behavior of human beings. It is concerned with methods of work and the dependence of workmen on each other and on their employers. It is preeminently suited to build a record of change. Advancing technology raises the standards of living, creates unemployment, changes the faces of cities and of the agricultural landscape. The evidence of these trends -- the simultaneous existence of the past, present, and the portent of the future -- is conspicuous in old and new forms, old and new customs, on every hand. Documentary photography stands on its own merits and has validity by itself. A single photographic print may be "news," a "portrait," "art," or "documentary" -- any of these, all of them, or none. Among the tools of social sciences -- graphs, statistics, maps and text -- documentation by photographs now is assuming (its) place (Taylor; 1977).

For this thesis project, a selection of black and white photographs taken in Nevada during the years 1900 to 1925 was collected and categorized according to social institution. The photographer returned to the sites in 1980 to duplicate the earlier efforts and to supplement the contemporary images with documentary photographs which allowed him to comment on the passing scene.

A comparison of what Cartier-Bresson (1952) referred to as "slices of time" from the two eras was predicted to demonstrate the rural sociologists' implication that transition was widespread. The resulting photographic essay was designed to demonstrate change in an Iowa community.

II. SOCIAL CHANGE IN RURAL COMMUNITIES

Other researchers have analyzed the signals of transition which Larson and Rogers (1964) identified, and a review of available literature supported the contention that communities which exhibited such characteristics were undergoing social change.

This section discusses trends which compose Larson and Rogers' seven-point list. The usefulness of social system theory and of documentary photography to community studies are also discussed.

A. Rural Social Change

1. In the United States, an increase in farm productivity per worker is accompanied by a decrease in the number of farm people

The application of new techniques has resulted in a smaller number of farmers being able to supply food and fiber to a growing total population. And the role of the farmer as a highly-efficient producer has quickly evolved.

According to Durost and Bailey (1970), farming in 1920 had changed little from the previous century. Most farmers were still self-sufficient with respect to production needs; horses and mules were still the main source of power, and production technology had hardly changed. Crop yields were about the same as in the early nineteenth century. Farming practices represented family skills, and consisted chiefly of conventional wisdom handed down from parent to child.

But, since the mid-1920s, the nation has witnessed three full-scale revolutions in agriculture -- mechanical, technological, and managerial.

Together, these have changed the nature of farming (Durost and Bailey, 1970, pp. 2-10).

Loftsgard and Voelker (1963, p. 1110) said:

The technological advances most basic to changes in rural life are those which increase the physical productivity of land (substitution of capital for labor). From these two phenomena, the first round effect is largely shrinking farm numbers and fewer people employed on farms. But from this situation, one can extend a wide network of cause and effect relationships that encompass outmigration of people, changes in per capita income, structure of businesses, personal leisure, school organization, education levels, churches and the goals and values of individuals. Each of these items is a facet or partial explanation of changing rural life in the Plains.

Agricultural mechanization and technological innovations have allowed each farmer to increase both per-unit productivity and farm size. The consequence, Rogers and Burdge (1972, p. 4) said, will be a major decline in farm population. They noted that new technology was often seen as being at the heart of rural social changes, but added that other causes existed.

For example, the nonfarm sector of U.S. society has bid the price of agricultural labor to a level where machines must be widely substituted. Competitiveness among farmers may also have been an indirect factor in rural change because such rivalry often causes a more rapid adoption of technology.

Rogers and Burdge said the innovator has a relative advantage over the laggard, who must struggle to match the former's increased efficiency (1972, p. 5).

As stated earlier, the purpose of this thesis was to use visual communication to demonstrate social change. Specifically, documentary photographs taken at the turn of the century at Nevada, Iowa were to be compared with documentary photographs of the same community 80 years later.

A visual comparison of equipment being utilized during the two eras and of the change in the scale of farming operations should confirm statistics which indicated that Story County, Iowa farms were more productive in 1980 due to technological innovation, and shifts in agricultural practices were accompanied by alterations in other institutions of the community.

a. Impact of machinery The development of a successful light tractor in 1926 illustrated the effects that technology could have on social patterns (Hassinger, 1978, p. 73). Although "... changes in the organization of farming cannot be attributed to any one technological development, the change from "horse culture" to "tractor culture" had far-reaching effects on the character of American agriculture," he said.

Most horse-drawn implements had been developed by the late-1800s, but their capabilities were suddenly upgraded in the late twenties, when the all-purpose tractor with complementary machinery came into general use. Durost and Bailey said its adoption marked the beginning of the mechanical revolution because "it essentially emancipated farming from its dependency upon animal power" (1970).

But Hassinger (1978) pointed out that the tractor was a product of the nonfarm sector. Not only did the farm population depend on the industrial sector to produce this complex machine, but also to supply it with fuel. And the cost of the new tools placed greater emphasis on cash incomes from agricultural production. On the other hand, use of the gasoline-powered tractor freed substantial amounts of crop land from production of feed for work animals.

Pinches (1960, p. 4) estimated that in the 1920s one-fourth of the harvested grain was used for feed. Durost and Bailey (1970) estimated

that, in 1930, there were over 19 million horses and mules on U.S. farms and fewer than a million tractors.

Today, we have so few farm horses and mules that we stopped counting them in the 1959 census of agriculture. But we now have nearly six million farm tractors, and their size and adaptability continually amaze (Durost and Bailey, 1970).

Regarding the decline in numbers of farm animals, the trend is clear in Story County, where Nevada is the county seat. In 1925, there were about 1.2 million horses in all of Iowa, according to the U.S. Census of Agriculture. There were about 14,000 horses in Story County alone that year; in 1974, there were only 325 horses on 117 of the county's farms. Grains to feed such livestock also are grown less, and the amount of pasture land set aside in the region surrounding Nevada has been decreased proportionately.

The self-propelled combine and other harvesters followed the tractor's introduction, and the mechanical revolution is continuing. Contemporary tractors have power steering, automatic transmissions, hydraulic lifts, all-wheel-drives and other innovations. With such machines, total manhours required in U.S. farming declined from 23 billion in 1930, to 15 billion in 1950, and to seven billion in 1968. Consequently, output per manhour doubled between 1930 and 1950 and almost tripled in the two decades since 1950 (Durost and Bailey, 1970).

b. Increase in size of farms "Large farms are feasible today because modern machines permit each man to till more land. Greater output per farm means a larger volume of business, larger gross and a larger net income," Durost and Bailey also said.

The notion that farmers have become more efficient is supported by the fact that total production has increased on roughly the same number of acres. Land used for farming increased from 881 million total acres in 1910 to about 1.16 billion acres in 1954, when there were about 1.6 million fewer farms. Average farm size increased 103 acres, to 242, during the period.

By 1974, there were only 2.3 million American farms. But the average-sized operation of 440 acres was valued at about \$148,000 and was producing over \$35,000 worth of goods. U.S. Department of Agriculture data said the average farm in 1910 was worth \$5,480, and its products had a market value of \$1,442.

Those averages, however, fail to reflect the loss of the small operation. There were about 900,000 fewer farms in 1970 than in 1960, but consolidation kept the land in production. Most of those small farms had annual product sales of under \$10,000. In contrast, in 1968, nearly 194,000 farms were counted which averaged over \$100,000 in sales.

In Iowa, in general, and in Story County, in particular, this national trend toward larger farms has also been documented. According to the U.S. Census of Agriculture, the average Iowa farm in 1890 had 151 acres; in 1930, the average-sized farm was 158 acres. During the 1950s, the size of farms began to expand rapidly, and the trend has continued.

The 1980 agricultural census said the state's total farmland has remained nearly constant at 34 million acres since 1930, but consolidation has resulted in larger average units. From 1969 to 1974, the number of farms statewide decreased, but the average farm was enlarged by 23 acres. By 1980, the average Iowa farm was 286 acres.

Nearly 94 percent of Story County land was reportedly used for agriculture in 1974, just slightly less than in 1925. The Iowa Crop and Livestock Reporting Service said the average farm in the county contained 152 acres in 1925; the average size had swelled to 298 in 1979. Meanwhile, the total number of farming operations had decreased. There were 1,140 Story County farms listed in 1980; the 1974 census said there were 1,354 farms, compared with 1,424 in 1969, 2,263 in 1925, and about 2,400 in 1910.

Mechanization made larger farms possible; technological advances made them economically feasible.

c. Technology and the hinterlands Shortly after the tractor began the mechanical revolution, the technological revolution had its beginning with corn hybrids in the early 1930s (Durost and Bailey, 1970). Hybridization increased expected corn yields of the 1900-1925 era by 25 percent, and the potential for combining hybrids with other innovations such as chemical fertilizers, increased plant populations, herbicides, and narrow row spacing increased its impact.

Regarding the general improvements in productivity, Quinn (1955, p. 49) said, "As long as cities depend on farms for foods and fibers, their size and number will be limited by the efficiency of agriculture."

For a mainly-urban social order to survive, he reasoned, the rural segment of the population must produce a surplus for re-sale. The dimensions of cities have historically been dependent on the efficiency of farm workers and on their ability to transport products to market.

Statistics from the U.S. Department of Agriculture and U.S. Department of Commerce, Bureau of the Census, suggested in 1975 that an increase in average farm size had indeed been accompanied by an increase in

production efficiency. The yield figures for the national corn crop had jumped 197 percent in just 50 years, while labor required to raise those crops decreased 94 percent during the same period. The corn yield averaged 25.9 bushels per acre, and 132 hours per 100 bushels harvested were needed to raise the average crop in the 1915-1919 growing seasons. But the 1965-1969 harvests yielded an average of 77.4 bushels per acre, and farmers expended only seven hours of labor per 100 bushels harvested.

More efficient production, signalled by fewer farmers producing more crops per acre or more livestock at less cost, has been evident in Story County, too.

Iowa State University extension agent Jim Christy said central Iowa farmers principally "rotate" corn and soy bean crops from year to year over the same acres. Yields increased dramatically between the 1940 and 1979 annual farm surveys. Farmers averaged 21.2 bushels per acre for soy beans in 1940 and 40.1 bushels in 1979. For corn, 60.1 bushels was the average per-acre yield in 1940, and 140.4 bushels was the 1979 Story County figure (Iowa Crop and Livestock Reporting Service, 1980; and Iowa Department of Agriculture and U.S. Department of Agriculture, 1940).

Rural sociologists attributed the better yields to several factors, including the adoption of seeds bred for the climate, of chemicals for ridding the acres of plant competitors, and of mechanization. Besides the development of plant hybrids, major developments have occurred in animal breeding. However, Christy said in a 1980 interview that a depressed regional livestock market sharply cut the financial returns for raising hogs and cattle in Story County in the late 1970s, leaving only the most cost-efficient operations in business. A shift in farm practices by

large-scale operators has given livestock growers more control over the animals' life cycles. For example, farmers in the county have accepted the technique of confining large numbers of hogs in "feeder pen" environments.

These increased capabilities have caused sociologists such as Rogers and Burdge (1972, p. 131) to allay fears that rapidly-expanding urban developments will consume necessary farm ground by insisting that intensive farming methods will continue to meet Main Street's needs.

Supplanting stewardship of the soil with blind faith in science will not guarantee future harvests, but Rodefeld, Flora, Voth, Fujimoto, and Converse (1978) said the replacement of farmground with urban structures appears less threatening in light of this increased efficiency.

This was evident at the project site. What were once the "supporting hinterlands" of Nevada had become the fringes of the town, itself. Churches, housing complexes, and the local high school now border the once-distant corn and bean fields of Story County.

d. Shifts in rural population composition The mechanical and technological revolutions resulted in fewer farm workers becoming necessary to feed the country. For many decades, rural America sent its nonfarmers to the cityscapes. Recently, a reverse migration has occurred.

Although about three-fourths of the U.S. was classified as "urban" in 1970, the first American census in 1790 listed only five percent in that sector. Not until 1920 did the urban population exceed the rural groups, which were classified as "farm" or "nonfarm" rural residents for the first time. Of the total population, 48.8 percent were rural residents in 1920, and 30.2 percent of all Americans were rural farm residents.

By 1970, the total rural population accounted for only 26.5 percent of the 203.2 million residents counted, and the rural farm population added up to only 4.8 percent of the total. In actual numbers, the rural farm population decreased from about 32 million to less than 10 million persons between the 1920 and 1970 censuses.

As was the case with many of the midwest's smaller communities, the first decade of the twentieth century saw Nevada lose population. Between 1900 and 1920, Nevada lost 334 people, a 14 percent decline. Since then the growth rate has been fairly steady and has averaged a 15 percent increase for every census period (Wallace et al., 1973, p. 36).

Nevada's "urban" population grew from a total of about 2,500 persons in 1900 to 4,952 in 1970, and preliminary 1980 census figures indicated that the total had exceeded 5,900. The growth of the county population and of Ames, a much-larger community located less than 10 miles west of Nevada, was equally impressive during the 80-year time span. How Ames, with nearly 46,000 residents, and Des Moines, which listed 191,000, influenced (and were influenced by) Nevada will be discussed in Chapter IV.

Besides pointing to Nevada's total population growth, Wallace et al., in their 1973 study, noted that agricultural positions in the county had decreased steadily from 3,348 jobs in 1950 to 2,158 in 1970. Declines in the number of farms and in farm population relative to the total population and increases in farm acreages pointed to a rural community which was being supported by a hinterland containing more nonfarmers.

Moreover, the 1980 census showed that, for the first time in 160 years, the growth rate in rural and small-town communities was greater than in metropolitan areas (Aepfel, 1981). But, the Department of Agriculture estimated that only one of eight rural residents in the recent

count actually lived on a farm. The changing composition could spell change for the community.

e. The third revolution The third revolution identified by Durost and Bailey (1970) -- the revolution in business methods and financial management -- began in the 1950s and 1960s.

With it, the farmer has now taken his place with other businessmen as a user of production credit, a contractor of production services, an employer of workers, and a user of systematic accounts and records (Durost and Bailey, 1970).

The substitution of capital for labor effectively transformed farming as a way of life into agriculture as a market-oriented endeavor.

The price of an average acre of Iowa topsoil, less than \$50 in 1900, rose to over \$1,950 by 1979. Such increases in capital costs made management skills mandatory for successful farming.

Rodefald (1978), along with Rogers and Burdge (1972) emphasized that knowledge of the conditions bringing about changes in farm size and structure is critical.

It is necessary to better understand changes that already have occurred and to predict more accurately the directions and rates of future changes. Knowledge also is required if alterations are to be made in either the direction or rates of farm size and structural change by altering the casual forces responsible (Rodefald, 1978, p. 217).

A search for the seven changes indicated by Larson and Rogers (1964) would provide such information.

2. Linkage of the farm with the nonfarm sector of U.S. society is increasing

Sociologists agree that changes in farming methods have resulted in the formation of new links between farm and nonfarm sectors. Some have

suggested that cities and metropolitan areas could not emerge until working relationships were established between the community and its hinterland.

Historically, urban dwellers have had to obtain food, fuel, and fiber from the rural population. More recently, the urbanite has had to look to the hinterland for choice residential sites, and commercial and business ventures on the scale found in modern communities can thrive only if their trade is supported by persons who live far out in the hinterland (Poplin, 1979, pp. 30-33).

The urban sector remains dependent on farmers to fulfill a new set of needs. Likewise, formerly self-sufficient rural people must today count on urban industry to mass-produce machinery, to provide the petroleum products needed to power that equipment, and to process the farmers' raw goods at market time.

The traditional concept of "hinterland" implies economic interdependency between a city with its commerce and industry and the agricultural hinterland. That mutual reliance remains in communities like Nevada, but the reasons Iowans give for choosing town or country homes have changed. Shifts in population demographics, corresponding with twentieth century shifts in residents' needs, have made difficult the task of defining whether communities are rural or urban.

Poplin (1979, p. 31) suggested that a major difference lies in the nature of communities' outlying areas. To him, a small and underdeveloped hinterland characterized a rural community.

For this thesis, urban geographer Cristaller's concept that any community which serves as retail, financial, wholesale, medical, and legal center for an area should be thought of as "urban" regardless of size or

population density was accepted. In addition, Poplin's suggestion that rural communities could be classified on the basis of a dominant economic activity was needed because a low division of labor is a dimension of the homogeneity which he and others said characterizes rural communities (Poplin, 1979, pp. 40-41).

Such a scheme is at odds with researchers such as the federal census takers, but other sociologists have complained that the agency's arbitrary choice of cutting points makes its attempts to differentiate among communities on the basis of population tallies unrealistic.

Whichever label is chosen for communities such as Nevada, the relationships existing between Main Street and the hinterland remain important for the area's survival. Increased linkage to the larger society will also be seen as extending the "community" of Nevada beyond its physical boundaries.

a. Settling the land The rectangular survey provision in the federal Land Ordinance of 1785 imposed a gridiron on the land, with a mile-road system and regularly divided farmlands, Sutter noted (1973, p. 112). Story County settlements of the 1850s were influenced by the survey, which created geometrical townships six miles on a side, each containing 36 square sections of 640 acres apiece.

Isolated farmsteads became the predominant form of agricultural settlement in America. Although farms have declined in number, farmers continue to live on the land which they till. Nevada remains as a supply point for surrounding farmsteads, but livestock and crops are often shipped to larger markets.

Improved transportation systems changed town-country relations. As farmers began to supply regional markets, communities such as Nevada came to depend on centralized processors instead of local producers for food and fiber.

b. Signs of linkage Rogers and Burdge (1972, pp. 6-7) said evidence of increased farm-nonfarm linkage was manifested in several ways.

First, the disparity between farm and nonfarm incomes has created a growing proportion of farmers who work off the farm or who are otherwise dependent on nonfarm sources for an important part of their income.

American farmers have traditionally scaled an "agricultural ladder." In the process, farm children are first unpaid laborers on their parents' farm before becoming hired hands, tenants, operators of mortgaged farmland, and, finally, full owners. But the high cost of real estate has made ownership a less realistic goal. Instead, writers such as Rogers and Burdge have suggested that a new ladder is being utilized. The rung of family laborer has been replaced by 4-H and Future Farmers of America (FFA) projects; hired hands have been supplanted by partnerships with parents and in-laws.

Longer life expectancy and fewer available farms have reduced the chance of inheriting an operation when offspring are ready to begin farming. Becoming a corporate farm manager presents a career route to agricultural college graduates similar to the organizational ladders others climb in nonfarm businesses (Rogers and Burdge, 1972, p. 136).

Thus, the steps to farm ownership, as well as employment goals, have changed. That farmers are taking nonfarm jobs has become a signal of social change. Smith and Zopf (1970) maintained that "among all the

differences which have been noted between rural and urban portions of society, the occupational difference seems to have the most fundamental importance." Communities such as Nevada, which have members of a labor force of professionals living in rural settings, are, therefore, undergoing transition toward a "mass society."

A trend to agribusiness has been called a second indication of increased linkage. Technological change, according to Hassinger (1978, pp. 73-74) has made farmers and nonfarmers more interdependent. The nonfarm sector has become a direct participant in agricultural production by supplying machinery, insecticides, and other essentials. Farms and service centers have formed a new kind of relationship in agricultural production, and, in fact, created a chain of relationships which extends to urban industrial centers.

The term "agribusiness" is broader than "farming." In the early 1970s, it included 30 percent of the total U.S. labor force, while farming comprised about six percent (Rogers and Burdge, 1972, p. 143). Nineteenth century farmers were mainly producers; today farmers buy almost all their supplies from nonfarmers. Service industries, such as chemical supply stores at Nevada, have become modern-day necessities.

Contract farming, a form of "vertical integration" whereby a management firm controls two or more parts of the chain of supplying materials, producing, processing, and distributing a product, is another economic interrelationship. Swine and beef feeding operations and some corn and soy bean harvesting in Story County have recently been done under contract. Farmers exchange some marketing independence for increased economic security under such arrangements.

Another example of growing farmer-society linkages is the increasing importance of farmer-owned cooperatives, such as the Roland-Nevada co-op grain elevator near Nevada. A "cooperative," according to Rogers and Burdge (1972, p. 161), is a voluntary association of individuals who join together to secure goods and services at lower cost. A combination of like enterprises into a larger business is a form of horizontal integration.

c. Migration to the countryside Rural-urban interaction has led to a final type of interaction. Nonfarm people, who make up an increasing portion of the total rural population living on the fringe of urban centers, have begun to more closely link farm people with those metropolitan centers. Suburban commuting, like part-time farming, may act as a type of rural-urban linkage (Rogers and Burdge, 1972, p. 79).

Nevada grew because neighboring areas flourished. With the growth of the university, state governmental offices, federal laboratories, and private industry in Ames and of business and government at Des Moines, Nevada's population make-up shifted dramatically since 1900. An increase in the number of professional workers that commuted to outside jobs and a decrease in the number of Story County farmers created a new set of needs for the community's institutions to fulfill.

Central Iowa's network of highways has significantly influenced Nevada's population. The community's proximity to urban centers such as Ames (a city of about 46,000 persons, less than 10 miles to the west), Des Moines (about 191,000 persons living 30 miles south), and Marshalltown (about 27,000 persons 30 miles to the east) has encouraged workers from those cities to live in Nevada.

But, the arrival of suburban commuters to the rural-urban fringe areas could create a new set of problems. Rogers and Burdge (1972, pp. 283-284) noted that "bedroom communities" are frequently residential areas, with few factories or large businesses. Higher school and property taxes often result because the present tax base cannot support a school enrollment increased by new commuting families.

The commuters bring a new set of needs and expectations to the community -- they demand the same variety of goods and services from the local school and government which they have become accustomed to. At the same time, farming has become highly commercial, thoroughly market-oriented; the nature of farming has changed, and the farmer has become a new kind of consumer.

Paulsen and Carlson (1961) predicted that consolidation of farmland will change farm-family spending patterns. Main Street's consumer-goods stores can expect remaining farmers to gain larger net incomes from their larger-scale operations. "They'll call for a higher standard of living. They won't spend much more for groceries, but will spend more for housing, furniture, appliances, and recreation," Paulsen and Carlson said.

Changes in agriculture have, thus, been shown to link farmers with nonfarmers in new ways, which Rogers and Burdge said was an indication that rural communities were in transition. This thesis was intended to demonstrate such an increase in interdependency at Nevada, Iowa, through pictorial records.

3. Farm production is becoming more specialized

Rogers and Burdge contend that the differences between farming and other businesses are rapidly diminishing (1972, p. 127). Farming has emerged as an occupation, complete with its own system of statuses, rights, privileges, and obligations.

American farms have become more specialized. Instead of producing a little of everything needed by the farm-family, modern farms concentrate on a smaller number of enterprises. Specialization has resulted from the competitive aspects of technological innovation. Smaller operators cannot afford the equipment necessary to compete with larger-scale firms while meeting governmental regulations.

Such has been the case in Nevada's hinterland, according to extension agent Christy. Lower profit margins make dairy production unfeasible for most Story County farms. The Iowa Assessors Annual Farm Census listed 13,000 milk cows and heifers in the county in 1944. By 1979, there were only 900 milk cows in Story County, according to the Iowa Crop and Livestock Reporting Service.

Refrigerated tanks allowed the bigger producers to truck bulk milk -- already processed, in some cases -- to the next point in the marketing chain. Meanwhile, farmers were able to commit fields formerly used for pasturing herds to cash crops.

Local farmers concentrated on raising soy beans and corn. Over 130,000 acres were planted with beans in 1979, compared with about 13,000 in 1940. The state agricultural census said over 116,000 acres averaged a yield of 60.1 bushels of corn in 1940; farmers in 1979 harvested corn from 161,000 acres and averaged 140.4 bushels per acre.

Rodefeld said the development of large-scale equipment has encouraged larger, more highly-differentiated production units (1978, pp. 222-224). The availability of manufactured supplies and myriad custom services has given farmers less reason to diversify.

Fuguitt (1963, pp. 246-261) noted that "re-studies" of rural Wolworth County, Wisconsin, by Kolb and Polson (1933) and by Kolb and Day (1950) revealed changes since Galpin (1915) conducted a first community study there. The investigations found a trend toward specialization, a growing interdependence between rural centers and larger service areas, and more overlapping of areas.

Farmers' specializing has contributed to the same trend among other businesses in the rural trade center. Interdependence has increased, and merchants have become influenced by outside agencies of the larger society.

Hassinger said:

This is because when centers and their hinterlands were fairly self-sufficient they were affected less by the larger society. Frank and Ruth Young have pointed out that the first step in bringing traditional communities into the orbit of the larger society is to effect specialization within the centers and differentiation between them (1978, p. 125).

Therefore, as farms become more specialized, their relationships with Main Street businesses changes, and rural communities are altered.

4. Rural-ruban differences in values are decreasing as the U.S. moves toward becoming a mass society

Values are abstract and often unconscious assumptions of what is right and important (Rogers and Burdige; 1972, p. 39). Norms, which reflect cultural values, are the established behavior patterns for members of social systems.

Sociologists have had difficulty measuring values, but research has generally found that the values held by rural people are beginning to resemble those of urban residents. Urbanites, likewise, have begun to share values traditionally associated with farm people.

As America moves toward becoming a "mass society," ties between farm and nonfarm sectors result in an interchange of values. Rogers and Burdge said the breakdown of isolation, once a characteristic of rural life, aided the movement toward a society in which mass communication transmits the same ideas to everyone at about the same time and the population displays standardized values (1972, p. 8).

According to Warren, geographic area and people do not, in themselves, constitute a community. "One must look for institutions commonly shared and values commonly held by the local population," he said (1978, p. 32). In their first study of Muncie, Indiana, the Lynds (1929) found that the residents of "Middletown" were beginning to share a value system and to conspicuously display signs of attained status.

The Middletown studies found that after factory mechanization destroyed the craft unions as a system of social ranking, consumer goods were accepted as symbols of social mobility, and people became willing to work at specialized jobs to gain the means to buy those commodities (Goist, 1977, pp. 48-49; Stein, 1960, p. 53).

a. Changing values Rogers and Burdge listed five values which have been tempered to more closely resemble those held by urbanites. Those included individualism, conservatism, rural life, education, and leisure habits (1972, pp. 151-153).

Any resemblance of today's commercial farmer to the individualistic agrarian of the past is largely an illusion, they wrote in *Social Change in Rural Societies*. The rugged farmer tackling forces of big business, railroads, and the weather represented an outdated and romantic portrayal to the authors. Price supports, new research, and supplies from the non-farm sector have altered rural society. As the farmer became more business-oriented, he or she placed more value on cooperation and less on individual independence (Rogers and Burdge, 1972, p. 152).

Farmers generally have been aligned with conservative political forces, which support "laissez faire" economic policies and isolationist foreign policies. However, to Rogers and Burdge the label was inappropriate for commercial farmers who seek stricter economic controls for production and marketing, who annually export more than 20 percent of their production, and who need federal support on research projects and government-funded transportation facilities to move goods to market.

Both farm and nonfarm residents of rural areas placed a high value on where they lived in the belief that their life was superior to that of urban people. In 1953, Beers (pp. 1-10) found from public opinion polls that 83 percent of the farmers and 73 percent of an overall national sampling felt that "the farmer is better off than the city dweller."

However, Fuguitt and Zuiches (1975, pp. 491-504) noted that more recent polls qualified Americans' longing for the countryside. They noted that 55 percent of the respondents to a 1972 nationwide survey preferred to live in a rural area -- but only if their residence was within 30 miles of a city of over 50,000 persons. If the location was farther from a metropolitan center, only nine percent of the respondents preferred rural

living. Less crime, quality of air and water, and a better place for children were quality of life factors those preferring rural life desired.

The migration of professional workers to Nevada exemplifies such a wish for "simple rural life," while wage-earners are allowed to remain at work in nearby urban centers.

b. Opinions on education varied Rural people in general, and farm people in particular, have placed a lower value on education than urban people have (Rogers and Burdge, 1972, p. 152). However, education for the farmer has become more widely available. While high school vocational agriculture courses have generally declined, there has been an increase in adult training programs, and state cooperative extension services and experimental stations also provide up-to-date information on farm practices.

A study of Plainville, Missouri, demonstrated the damage that an educational system which fails to prepare its students for life after school can do. Parents who failed to recognize that the community could not support all of its children stifled the educators and instilled distrust of the outside world in the hope that their offspring would not leave (West, 1945).

At El Cerrito, New Mexico, Leonard and Loomis found that the population would rather migrate than alter its community structure. During the 1930s, the only additional sources of income for the residents were jobs that involved leaving the village, such as WPA and federal relief program positions. Children who traveled to federally-sponsored CCC camps learned about the outside world and grew critical of village customs in light of the economic possibilities elsewhere.

To preserve the community's ways, members moved to more populous regions, such as Pueblo, Colorado, where they were able to find work. Close ties were kept with the village's dwindling numbers, who accepted the alternative to financial subsidies from the larger society which would have meant a loss of local autonomy (Loomis, 1959).

Other researchers have found that mass society has been beneficial, in that it has resulted in a higher degree of literacy along with its greater availability of cultural products such as newspapers, television and records (Butler, 1976, p. 261).

Donohue (1957, pp. 984-982) noted that the values of part-time and full-time farmers differed regarding education according to the respondents' level of educational achievement.

Farmers' view of leisure time was the fifth value Rogers and Burdge considered. They noted that a general decline in recent decades of time spent working and a rise in per-capita income has resulted in people spending more time in leisure and recreational activities (1972, p. 152). However, farmers continue to hold to the "Protestant Ethic" which puts emphasis on work before leisure.

Rogers and Burdge concluded:

Values and attitudes are slow to change; they are deep and long-lasting. Farmers are slower to change their values than persons in other occupations. However, the commercial farmer is likely to change his values more rapidly than the marginal or subsistence farmer. Commercial farmers will almost certainly move into the mainstream of modern urban values, which above all emphasize change. The farmer who accepts change, and indeed champions it, will be the one who survives and remains in farming (1972, p. 153).

A 1968 study by the National Rural Electrification Cooperative Association asked a national sampling questions pertaining to the general image

of rural society. It was found that rural and urban people did not basically differ on the qualities of rural life nor on their desirability.

Hassinger (1978, p. 95) said:

In a sense this provides the rural sector with an advantage as it contends in the mass society with the dominant urban sector. It is an advantage that the commercial sector of agriculture is prepared to exploit as it seeks its place in the national economy.

To Kolb, the narrowing of value differences was a product of the twentieth century's intermeshing of town and country relationships. The two maintain a reciprocal arrangement in fulfilling each sector's needs; they have become interdependent in the modern rural community, and their bonds have been strengthened by the adoption of similar value systems.

Therefore, another of Larson and Rogers' indications of social change will be in evidence whenever the values held by rural and urban populations begin to match.

5. Rural people are becoming increasingly cosmopolite in their social relationships, due to improved transportation and mass media communication and realignment of locality groups

Cosmopolitanism is the degree to which an individual's orientation is external to a particular social system (Rogers and Burdge, 1972, p. 8).

At one time, most of a rural person's social relationships were limited to the physical boundaries of the local community. But, an increased separation of place of residence and place of work, exemplified by the part-time farmer and the rural-nonfarm commuter, has led to more cosmopolite relationships. Improved transportation methods have facilitated friendships and memberships in organizations outside the home community (Rogers and Burdge, 1972, pp. 8-9).

Widespread use of automobiles, trucks and buses has changed the meaning of time-distance in rural areas. Hassinger (1978, p. 75) said increased use of motor vehicles permitted consolidation of schools, churches and other service organizations and was the basis for a reordering of how trade centers were used.

Wilson (1912, pp. 91-92) pointed out that agricultural trade centers tended in the past to be located at "team-haul" distances from one another. That was, residents most distant from the center could drive by team and wagon to it and return to their rural homes in a day's time. Trade area communities of the "horse-and-buggy" era were defined by team-haul distance.

Improved roads and faster vehicles have expanded the "team-haul" concept and consequently redefined trade areas.

Sanderson in 1948 made trade centers the focus of his definition for rural communities, which he called "that form of association maintained between people and their institutions in a local area in which they live on dispersed farmsteads and a village which usually forms the center of their common activities" (pp. 278-279). Galpin in 1915 also depicted the relationship between the trade center and its open-country hinterland as the basis for rural communities.

Trade centers of that era were clearly delineated. Increased mobility has allowed rural people to penetrate those boundaries, but service relationships with centers are not easily changed (Hassinger, 1978, pp. 121-131). Centers instead became more differentiated, and residents began using several centers for different purposes.

Studies in Nebraska (Anderson, 1961) and Montana (Pedersen and Peterson, 1963) confirmed the suspected change. Shifts in service patterns were

also found in a study of Illinois communities (Haga and Folse, 1971), but the people continued to identify with their more limited community. There, the service area and location of "community" did not coincide (Hassinger, 1978, pp. 121-131).

Hassinger said:

The differentiation and specialization of trade centers has suggested a larger service community in which a dominant center would emerge with mutually beneficial relations with sub-centers and open-country residents. Thus farm, rural nonfarm and several types of urban centers would be a part of the same service community (1978, pp. 131-132).

a. Importance of mass communication Mass communication has also had a major impact on rural society. Sophisticated communication techniques have resulted in placing all but the most isolated areas in instantaneous contact with the larger society. Television has become central to leisure routines, and differences in media exposure among age, sex, social class categories, and rural-urban residents have virtually disappeared (Hassinger, 1978, p. 75).

Mass communication and the personal automobile erased isolation from the rural scene, and rural people were able to expand their number of social relationships.

b. Portable status symbols The impact of better transportation systems was not entirely economic in nature. The automobile provided the mobility that made suburban and "fringe area" development possible (Loomis and Beegle, 1950, p. 214), and cars have become status symbols by which one judges and is judged (Hassinger, 1978, p. 25).

An individual's position relative to others in a society -- his or her social status -- is often best indicated by that person's occupation.

Symbols which give status vary according to culture, but Rogers and Burdge (1972, p. 75) said a person's possessions are often an important indicator.

For Americans, automobiles have always been highly-visible status symbols, indications of income and general lifestyle. Further, "automobility" offered hope of a more perfect living arrangement, of a "middle landscape" which combined agrarian and small town virtues with access to the advantages of larger cities. The idea that the automobile was a means of bridging rural and urban differences by creating that middle ground was a theme of early twentieth century advertising (Goist, 1977, pp. 35-41).

A general fascination with motor vehicles was also found at Nevada. School children's two-wheeled "mo-peds" were also prized by adults for their low operating costs; motorcycles and engines tuned for speed signalled high status among teen-agers. However, farm and nonfarm residents alike admired pickup trucks which sported luxury appointments or all-wheel-drive.

Dewey said that cities could be characterized by anonymity, heterogeneity, a high division of labor, impersonality and status ranking on the basis of overt symbols (Poplin, 1979, p. 37). Therefore, implications that Nevadans have joined other Americans in emphasizing their automobiles as status symbols could be another signal that the community is in transition.

According to Hassinger and Goist, rural residents have become more cosmopolite. Rogers and Burdge said the trait is one of community power holders, who have friendships scattered over a wide area, belong to formal

organizations outside the community, and travel widely. Persons who act to stimulate the community decision-making process usually possess the quality, too.

Thus, new residents importing more cosmopolitan viewpoints could encourage social change at communities such as Nevada.

6. There is a trend toward centralization of decision-making in rural institutions

Complex governmental or business organizations outside the rural community now reach policy decisions which were once made locally.

A growing centralization of farm marketing is evident in fewer but larger-scale buyers and a shift from local markets to regional and national operations. Food processing is being centralized in fewer plants located in larger cities. According to Rogers and Burdige (1972, p. 9), in dairy regions, the conversion to bulk tank pick up at the farm has increased producers' dependence on centralized authority.

The rural community used to be characterized by self-determination, and issues affecting the community were handled locally by farmers and villagers who wanted to be involved in the decisions (Field and Dimit, 1970, p. 5). But today's community affairs are marked by state and federal intervention.

Many institutions have become centralized. State involvement in school consolidations, curriculum policies and standards for teacher qualifications are examples of outside influences on local education. Federal controls over sanitation, political representation, and law enforcement are others affecting government. Field and Dimit (1970) said the centralization of

authority also resulted in limitations of control for some churches and branch businesses.

Local governments' power has been reduced as increased financial aid -- with accompanying stipulations on qualification and uses -- has been provided from outside sources.

Businesses have also been affected. Grocery chain stores have in many cases replaced individually-owned stores where the owner was unable to provide the goods and services desired by a changing population. Several "branch" businesses were evident at Nevada, including automobile service stations and dealerships, utility companies, hardware and variety stores and banks.

Raup (1972, pp. 31-38) recognized that from 1935-1970 a migration took place, as business headquarters moved from Main Street to Wall Street. He said the loss could prove fatal to small towns which "find themselves left with few decision-makers who have power to affect the life of the community in significant ways."

a. Political surrender Vidich and Bensman found during their 1958 study of Springdale, New York, that the town's government had "politically surrendered" to mass society (1968, pp. 110, 116). The researchers noted that Springdale's village board had little tax revenue to operate with and consequently forfeited its political power by dealing only with issues which could be handled in part by other governmental agencies. Meetings became ceremonial proceedings, as a quartet of behind-the-scenes power holders actually controlled the town's local affairs.

Though the trend has been for small communities to lose or forfeit local autonomy to outside agencies, Henry described how local agencies

worked together at St. Cloud, Minnesota, to their mutual benefit when applying for federal funding in the 1970s.

Reapportionment decisions in the 1960s, following the U.S. Supreme Court's 1962 decision regarding equal voter representation, resulted in decreased rural political power because the rural areas had been overrepresented in relation to their share of the total population (Rogers and Burdge, 1978, p. 9). Another shift in power may be forthcoming, as the 1980 census suggested that population growth in Iowa's "fringe" areas may warrant another re-districting which could strengthen the political power of communities such as Nevada.

b. Positive side of centralization Warren (1973, p. 65) noted that, to the extent that decision-making is transferred elsewhere, community autonomy is impaired. However, regarding the potential loss of local control to other forces, residents could garner benefits from trade-off situations.

For example, Vidich and Bensman (1968, p. 83) noted that 4-H clubs, Future Farmers of America, Girl Scouts, Masons, and other local branches of national organizations related the Springdaler to the larger society through the social meaning and styles of activity defined by the national headquarters. Conventions of such organizations directly linked members to the outside.

Butler also inferred that residents expect their governments to provide services such as law enforcement, water supplies and waste disposal, and protection from fires. However, overlapping jurisdictions often result when local governments resist relinquishing administrative power to area-wide governmental agencies (1976, pp. 459-469). Duplication of effort

under limited funding can result because trade area outlines seldom match political boundaries.

A trend toward centralization of decision-making by persons outside the affected community is a sign of change.

7. Changes in rural social organizations include a decline in the relative importance of primary relationships and an increase in the importance of secondary associations

Members of social systems also belong to primary and secondary groups. Primary groups, such as locality and kinship groups, are smaller, more intimate, more face-to-face, relatively more permanent, well-acquainted and informal, less rational and more relationship-oriented than secondary groups. Most secondary groups, such as special-interest formal organizations and governmental agencies, place a major emphasis on the ends rather than the means of attaining goals. As societies become more urbanized, there is a corresponding change from primary to secondary groups (Rogers and Burdge, 1972, pp. 97-121).

A group is seldom completely primary or secondary in nature, but can be placed on a continuum. Primary relationships can also be found in secondary organizations.

According to Rogers and Burdge (1972, p. 10), it has been indirectly shown that the social relationships of rural people are becoming more formal, impersonal and bureaucratized.

Primary groups remain important, but the group affiliations of rural people have become less primary and are now more likely to be on the basis of their special interests than on where they live. Following a decline

in the traditional rural neighborhood, relationships based on proximity have shifted to those based on common concerns.

a. Outside influences Federal, state, and local governmental agencies influence community decisions by prescription, prohibition, and reward, it was noted earlier.

The primary relationships of the small town have been partially replaced by the bureaucratized nature of factory life. Rogers and Burdge (1972) also suggested that social relationships have become depersonalized as farmers begin to deal with large-scale business firms instead of general store merchants.

As the trend toward formality increases, the individual, not the family, has become the major participant in group activities (Ensminger, 1949).

At Springdale, New York, Vidich and Bensman found a prevailing attitude that anyone could participate in any local club or social activity. But the reality at the community in 1958 was that group membership was extremely selective (Vidich and Bensman, 1968, p. 23).

Warren (1978, p. 155) said that, as American communities are transformed, increasing impersonality and bureaucratization operate to place increasing importance on the organizations individuals belong to.

Such was the situation found by the Lynds at Middletown (Muncie, Indiana) in the 1920s and in a 1935 re-study. Social classes were replaced by specialized group memberships. Rotary-type clubs tended to be merely extensions of business, places to make contacts. The family became less the focal point for leisure time pursuits, and it was no longer a center for religious instruction (Goist, 1977, pp. 52-53).

Replacement of the neighborhood-centered community with the trade-centered community has been both a cause and a result of the shift to secondary associations. Increased mobility, as was stated, has multiplied social contacts and potential group associations.

According to MacIver, "Instead of belonging to a community with its close spontaneous personal ties, modern man belongs to a heterogeneous array of de-personalized associations" (MacIver, 1931).

b. Transition signalled Communities in transition can, therefore, be identified by the memberships of their residents, who have begun to emphasize their secondary relationships over primary associations.

In conclusion, it can be said that Larson and Rogers' observations were supported by a review of the literature. The following discussion of social system theory will provide further insight concerning the affects of social change on rural institutions.

B. The Community as a Social System

This thesis asks whether the seven general trends distinguished by Larson and Rogers (1964) can be identified in a specific Iowa town. The research sought evidence that rural communities, such as Nevada, were undergoing changes which would be reflected in a pictorial record of the town.

What was needed was a conceptual basis for the proposed community study.

Boskoff (1969, p. 160), said analyses of society require that transitional phases be studied, and Rogers and Burdge noted that the concept of social systems is useful to such studies because it allows researchers to classify the origins of change (1972, pp. 2, 97).

Social systems are enduring, highly organized sets of socially significant relationships between two or more persons or groups (Poplin, 1979, p. 156). The related units are also engaged in joint problem-solving with respect to a common goal, and the structure of the social system is provided by the various statuses which compose it (Rogers and Burdge, 1972, p. 10).

Norms are the rules or guiding standards prescribing acceptable behavior for members of a social system (Loomis and Beegle, 1975, pp. 3-4). But the building blocks of social organizations, according to Poplin (1979), are statuses and roles. The first term refers to positions which individuals hold in any groups, and the "roles" are the manner in which members behave as they occupy statuses which have been assigned to them, such as husband and wife, sister and brother.

In short, the community can be viewed as a system, the component parts of which are statuses, roles, groups, and institutions. Furthermore, these components (or subsystems) are closely articulated with one another: roles and statuses are combined with other roles and statuses to form groups, groups are combined with other groups to form institutions, and, finally, institutions are combined with other institutions to give rise to communities (Poplin, 1979, pp. 156-157).

Power (control over others), social rank, sanctions (rewards for complying with the system's norms or penalties for noncompliance) and facilitate (the means used by members to attain the system's objectives) are other elements of any social system (Loomis and Beegle, 1975, pp. 5-7).

Warren (1978, p. 9) considered a community to be "that combination of social units and systems that perform the major social functions having locality reference." By that, he meant that a community is an organization that affords members access to activities needed in day-to-day living.

1. Functions performed

Communities, as social systems, perform several functions. They produce, distribute and consume the goods and services needed by members in the immediate locality. Socialization involves the process of transmitting knowledge, social values and behavior patterns. The function of social control influences members to conform to group norms. Providing local access to social participation, such as by religious organizations, is an important community function. Another major function is that of providing mutual support. Traditionally, such local support, whether in the form of care during sickness, exchange of labor, or financial aid, has been performed under such primary group auspices as families, neighbors and religious groups (Warren, 1978, pp. 9-11).

In addition, social systems are involved in certain "master processes," such as communication, boundary maintenance, and systemic linkage (Warren, 1978, p. 48).

Warren contended that, "With such a set of elements and processes, any social system can be analyzed and understood." And, if communities can be analyzed as social systems, he reasoned, then what is known about communities can be systematically related (1978, pp. 48-49).

However, communities differ from other types of social systems.

A community was defined by Moe (1959, p. 29) as a system of systems; it contains many institutions and organizations and the informal and formal sub-groups which grow up within them. Warren noted that organizations may also have subsystems. What distinguishes the community is that its subsystems are not rationally and deliberately related to each other, he wrote (1978, p. 49).

Instead, a community is composed of many subsystems because each fulfills special needs of the membership.

Poplin (1979, pp. 159-160) said the institutional systems found at the community level can be broken down into social and associational groups which, in turn, can be analyzed in terms of their component statuses and roles. The major institutions -- family, religion, government, education, and economy -- were identified as "cultural universals" because they are common to the world's communities (Rogers and Burdge, 1972, p. 34).

2. Subsystems are links

According to Warren (1975) and Poplin (1979), communities are indirectly related by the interaction of the separate communities' subsystems.

The important contemporary link between the community and the outside world is not an undifferentiated link between the community as such and other communities of the surrounding region, but rather it is the link between the highly differentiated parts of the community and their respective extracommunity systems (Warren, 1975, p. 242).

To compare subsystems of a community with those of another, Warren (1975) suggested that the communities' horizontal and vertical patterns of interaction be investigated. A community's vertical pattern was defined as the structural and functional relation of a community's social units to extracommunity systems. Horizontal patterns of a community are the relation of a community's various subsystems with each other (Warren, 1978, p. 164).

For example, the school board and city council would be on the same hierarchical level in the local power structure and would interact in a horizontal pattern. But the East Side Baptist Church maintains a vertical

relationship with the larger social system when it deals with the Southern Baptist Convention.

Warren said community goals often differ from those of its subsystems. Likewise, the norms of communities tend to resemble those of the larger society more than is true of their subsystems. Concerning statuses and roles, Warren believes that in small communities, the division of labor and definition of functions of members are usually not as specific as in the organizations of larger communities (Warren, 1978, p. 24).

Subsystems also have clear-cut organizational structures, such as the school with its board of education, principal, teachers, and pupils or the church's system of board of trustees, clergy, elders, and congregational members. "These subsystems have a definitely formulated and identifiable structure. Not so the community," he said (Warren, 1978, p. 157). He also pointed out that there is no "president" of a community; the mayor is usually the formal head of the governmental subsystem, but there may be 50 or 100 persons whose power or positions make them more important to the community.

3. Processes also differ

According to Loomis and Beegle (1975, pp. 43-44), social processes in the community also vary from other social systems.

Communication, the manner in which information passes through social systems and the manner in which opinions and attitudes are formed, becomes more impersonal as the size of the social system grows. Communities also vary greatly in their facility for boundary maintenance.

Education develops a broadmindedness which counteracts provincialism, but communities have boundary maintenance mechanisms which resist variations from accepted ends and norms. The distinctive dress of the Amish and their taboo against interaction with nonmembers are examples of successful boundary maintenance mechanisms (Loomis and Beegle, 1975, p. 46).

Social systems are constantly experiencing changes, both in their formal and informal structures. Warren (1978, pp. 146-147) said, "These changes are in part caused by the behavior of the system as it responds to impacts on it from its surrounding environment."

For example, when a member of a friendship group moves to another community, or competition from a rival company leads to reorganization of a branch office, adjustments in the systems involved are called for. Warren said such adjustments accommodate the change and typically operate to minimize its impact on the system (1978, p. 146).

A system is in "equilibrium" when it is able to react to a change in such a way as to minimize that change's impact on the relation of the units comprising the system (Warren, 1978, p. 146).

4. Applicability of social system theory

Warren (1978, p. 137) noted that utilization of social system analysis to community studies holds "great promise."

Poplin said, "There is no question that the community must be analyzed in terms of interaction, as a social group, or as a social system" (1979, p. 23). He also said the community is a unique form of social organization, because it is potentially able to meet the full range of its residents' needs. Families meet some needs, for instance, as do churches,

governments, and schools, but none of these institutions can provide people with food, shelter and clothing, with a marriage partner, with a sense of belonging, and so on "through the seemingly endless list of human wants," Poplin wrote (1979, p. 23).

The community is, thus, the first unit among social organizations that can claim to meet all needs, and social system theory has become the recommended approach to its study. Chapter IV will apply this theorizing to a comparison of the major institutions found at Nevada, Iowa, during the era 1900-1925 and to those found there in 1980.

C. Development of Documentary Photography

1. The mirror with the memory

No single inventor can take credit for discovering the photographic process. The principles of the "camera obscura" had been known for centuries, but it was not until the 1800s that several researchers, working independently, found practical ways to preserve what the lens beheld.

The German physicist Johann Heinrich Schulze had in 1717 established the light sensitivity of certain salts of silver, especially the halides, and had, therefore, unconsciously indicated a way to trap the elusive image of the camera (Newhall, 1964, p. 11).

Englishman Thomas Wedgwood later recognized the connection between the optical and chemical elements necessary in photography. He attempted to form images on metal plates as early as 1799, but the silver nitrate solution he used was not sensitive enough to produce a visible picture. His partner, Humphry Davy, continued the experiments using silver chloride, which was more sensitive to light. Neither was able to produce an image

with a camera, but they both succeeded in obtaining outlines of objects which they placed on their materials in direct sunlight. However, they were unable to permanently "fix" those images (Sandler, 1979, pp. 5-6).

The first successful photograph was taken by Joseph Nicéphore Niépce on a pewter plate in 1826 (Gernsheim and Gernsheim, 1965, p. 20). According to Sandler (1979), Niépce succeeded in combining chemicals in such a way as to make possible the securing of a faint positive image. He was one step from obtaining the sharp lasting image which many had sought, but poor health and lack of research funding convinced him to enter into a partnership with Louis Daguerre. Niépce was to contribute his knowledge of making silver, copper, or glass plates; Daguerre was to contribute his "new adaptation of the camera obscura" (Sandler, 1979, p. 6).

Daguerre visited Niépce, who demonstrated his techniques, and the partners went their separate ways to work on perfecting the invention. When Niépce died in 1833, Daguerre continued the experiments.

Using mercury vapors to develop images on silver-coated copper plates proved to be the missing link in the photographic process. He introduced his "daguerreotype" in 1839. Such images were unique and could be reproduced only by copying with another camera, but the age of photography had begun (Sandler, 1979, pp. 6-7).

Hundreds of thousands posed for the daguerreotype camera, despite the fact that from the beginning the experience was a true ordeal. Subjects risked sunburn and could not move during the necessarily-long exposure times. They had to be propped or braced during portrait "sittings" which lasted up to thirty minutes (Sandler, 1979).

Daguerre, according to Newhall (1964, p. 22) did little to refine the process, but improvements by others were forthcoming. The light sensitivity of the plate was increased by recoating the iodized surface with other halides; combined with lenses capable of producing more brilliant images, it became possible to take portraits at exposure times of less than a minute.

Portrait galleries opened everywhere, but Americans particularly embraced the new medium (Newhall, 1968, and Sandler, 1979).

Samuel F. B. Morse, a well-known portrait painter, professor at New York University, and inventor of the telegraph, traveled to Paris in 1839 to see Daguerre at work. He and partner John W. Draper took many pictures themselves, but Morse's main contribution to photography was as a teacher of the daguerreotype method. Among his students was a manufacturer of leather cases, Mathew B. Brady (Sandler, 1979, p. 11).

According to Newhall (1964, p. 26), Brady opened a studio in New York City in 1844 and began to assemble *Gallery of Illustrious Americans*. Brady's collection of portraits of the famous was one of the largest. Eventually, he employed camera operators at two studios in New York and at another in Washington D.C., as he built a personal fortune.

The enormous popularity of the new medium produced professionals by the thousands -- converted silversmiths, tinkers, druggists, blacksmiths, and printers. If photography was a new artistic problem, such men had the advantage of having nothing to unlearn. Among them they produced a flood of images. In 1853 the *New York Daily Tribune* estimated that three million daguerreotypes were being produced that year (Szarkowski, 1966).

The Commonwealth of Massachusetts officially reported that in 1855, 403,626 daguerreotypes were produced in the state (Massachusetts, Commonwealth of, 1856). Every major city and town had at least one gallery, and

itinerant daguerreotypists traveled to remote backwoods and frontier areas in horse-drawn "saloons" or floated downriver in houseboats.

Newhall noted that:

All kinds of people sat before the camera; thanks to the relative cheapness of production, financial distinctions mattered little. Celebrated men and distinguished ladies as well as peasants and workmen who otherwise would be forgotten have left their features on the silvered plate, which the American writer and physician, Oliver Wendell Holmes, called "the mirror with a memory" (1964, p. 22).

The daguerreotype process could not freeze motion, but not all daguerreotypes were portraits. Some photographers left their studios to make daguerreotypes of nature. For example, group shots of sight-seers at Niagara Falls or of the military muster at Boston Common were recorded (Sandler, 1979, p. 11). John Plumbe, Jr., in 1846, made a series of architectural photographs at the nation's capital.

Alexander Hesler was reputed to be the greatest of the outdoor daguerreotypists; he photographed frontier areas on the upper Mississippi and in Minnesota Territory (Sandler, 1979, p. 16).

Despite its popularity, the era of the daguerreotype lasted only about a dozen years. Yankee ingenuity sped up the process, and "mass production" techniques reduced costs. But, according to Newhall (1964, p. 26), competition forced a cutting of corners and an eventual loss of quality.

Braive (1966), p. 62) writes:

Despite all the charm of the 'mirror with a memory,' it tended to reproduce the outline rather than the substance of its object, and the reign of the single silver plate was a mere interlude in the development of photography. The future lay with those processes that permitted reproduction.

"The daguerreotype was doomed," Newhall said (1964, p. 28). Its image was reversed, it was fragile and had to be kept under glass in a bulky case,

and it was difficult to look at because of the metallic glare. Newhall added that, "When the rival paper process was perfected so that the public could buy a dozen prints for less than the price of one daguerreotype, the beautiful silver picture became obsolete."

Although unaware of the achievements of Wedgwood, Niepce, and Daguerre, English mathematician William Henry Fox Talbot had been pursuing the same idea since 1833. Fox Talbot experimented by coating paper with silver nitrate and common salt. In 1835, he produced the first paper negative, using a "camera obscura," of a window of his house (Hedgecoe, 1976, p. 22). After Daguerre's process was announced in 1839, and he received worldwide praise and backing from the French government, Fox Talbot sought similar acclaim for a process he had conceived of earlier.

His idea failed to capture the public imagination, but by 1841, he perfected his "calotype" process. By using silver iodide on writing paper, and coating it with gallo-nitrate of silver, the paper could be exposed and developed with another application of gallo-nitrate. He fixed his calotypes with hyposulfite of soda, the fixing properties of which had been discovered in 1819 by Sir John Herschel (Hedgecoe, 1976, p. 23). The "negative" was then sandwiched with another treated sheet of paper and subjected to light, resulting in a "positive" image.

The calotype became obsolete in 1851, the year of Daguerre's death, with the introduction of the "collodion" process. But Fox Talbot's calotype played a vital role in photographic history, for the negative-positive process formed the basis for all modern photography (Sandler, 1979, p. 18).

In 1851, another Englishman, Frederick Scott Archer, originated the "collodion" process of making negatives on glass. Collodion was a gluey

liquid that was spread on glass plates and coated with light-sensitive chemicals. Plates had to be exposed while moist and developed immediately, because the coating's sensitivity to light diminished as it dried. Therefore, it came to be called the "wet plate" process (Newhall, 1964, pp. 47-48).

It became the standard negative for photographers from the early-1850s until 1880 and was used in various ways. Placed on black cloth, the captured image appeared as a positive. Such wet plates became ambrotypes. The "tintype," invented by Hamilton L. Smith, was a popular modification. Collodion was poured over a piece of metal that had been coated with dark varnish. The tintypes were stronger than glass and inexpensive to produce (Sandler, 1979, p. 20).

Tintyping was usually casual; when the results have charm it is due to the lack of sophistication and to the naive directness characteristic of folk art. Records of outings, momentos of friendships, stiffly posed portraits of country folk against painted backgrounds are common; views are few. The process lingered in the backwaters of photography as the direct descendant of the daguerreotype (Newhall, 1964, p. 49).

The ambrotype and tintype looked like daguerreotypes, but it was a third application of the collodion technique, the "carte-de-visite" photograph that led to "the mirror's" demise. In 1854, Adolphe Eugene Disderi patented the carte-de-visite process; his camera had several lenses and a photo holder that moved. As many as twelve portraits could be taken on one wet plate negative, and the paper print from that negative cut into individual prints. It became a practice to exchange the prints as greeting and business cards and to collect prints of the era's famous personalities (Sandler, 1979, pp. 25-31).

The invention of the collodion process also made possible the popular photographic form, the "stereograph." Special cameras made two negatives simultaneously, and nearly-identical prints were later mounted side by side. When placed in a stereoscope, a three-dimensional effect was achieved for the viewer (Sandler, 1979; Hedgecoe, 1976).

The wet plate process, according to a review of the literature, contributed to a change in the way people viewed photographs -- and in the photographer's subject matter.

Szarkowski (1966) noted:

Photography was easy, cheap and ubiquitous, and it recorded anything: shop windows and sod houses and family pets and steam engines and unimportant people. And once made objective and permanent, immortalized in a picture, these trivial things took on importance. By the end of the century, for the first time in history, even the poor man knew what his ancestors had looked like.

People believed in the medium, according to Jussim:

Photography and its accompanying phototechnologies more or less completely redefined the nature of artistic expression and of information transfer. The fact that the camera seemed to be a scientifically reliable intermediary between the three-dimensional world and the media which multiplied its images had a profound and unquestionably unforeseen impact on our conceptions of "truth," "knowledge," and "reality" (1974, p. 8).

The camera had become the faithful witness of the world's events.

2. The authentic view

Early photographers rushed off to capture views of distant, exotic places that could be visited by the well-to-do and adventurous; no late-1800s home was complete without a scene from a faraway place on display (Time-Life, 1972, p. 13).

These scenic views won such wide popularity partly because they emphasized a quality, essential to the documentary photograph, that is a basic characteristic of the camera-made image: it provides a clear representation of what the retina of the human eye sees but does not always notice (Time-Life, 1972, p. 13).

Faith in the camera as a literal recorder gave rise to the belief that the camera does not lie. The Time-Life editors (1972) said, "This trust of the camera provides documentary photography with its greatest psychological strength and its strongest selling point -- it tells the truth."

In the winter of 1855, Roger Fenton sailed from England to the battlefields of the Crimean War. He converted a wine merchant's van into a portable darkroom, as he was using wet plates, and made 360 exposures. *The Illustrated London Times* copied 159 of the views as wood cut engravings and published the first documentation of battle (Hedgecoe, 1976, p. 26; Whiting, 1946, p. 13).

To a public used to the conventional fantasies of romantic battle painters, these photographs seemed dull, yet they recognized in them the virtue of the camera as a faithful witness. "Whatever he represents from the field must be real," *The Times* admitted, "and the private soldier has just as good a likeness as the general" (Newhall, 1964, p. 67).

Most of Fenton's photographs were straightforward, unemotional group photographs of soldiers and landscapes, which the English magazine had requested, fearing that readers would be upset by images of the afterbattle carnage. But Fenton returned to England for treatment of cholera, and his place was taken by James Robertson and an assistant. They concentrated less on portraits than on the battle at Balaclava (Hedgecoe, 1976, p. 26).

In 1857, Robertson and Felice Beato were sent as official photographers for the British military force which had been sent to quell a rebellion

in India. "Their photographs of the aftermath of the siege of Lucknow, 1858, are among the most terrifying documents ... of war: amidst shattered ruins of architectural splendor lie sun-bleached skeletons of the luckless defenders" (Newhall, 1964, p. 67).

The pioneer in the technique of mass coverage of war was the American, Brady. Like most photographers, he had adopted the wet plate process by 1861, when the Civil War began. He financed 20 teams of photographers in the field. They were outfitted with portable darkrooms, which the soldiers nick-named "Whatsit Wagons," and were able to photograph both armies in the conflict (Newhall, 1964, p. 26).

Brady's rapidly-failing vision deterred him from taking but a few of the thousands of carte-de-visites and general scenes of the warfront. His skill as an organizer was his greatest contribution, although his personal friendships with leading figures of the day allowed him to make significant historical photographs such as a portrait of defeated General Robert E. Lee (Horan, 1966, pp. 27, 54).

However, his policy of stamping all of the photographs with the Brady trademark caused a rift which resulted in at least two of his best employees going into business for themselves.

Alexander Gardner had managed one of Brady's portrait studios before the war; Timothy O'Sullivan had been Gardner's assistant after serving an apprenticeship with Brady (Horan, 1966).

One of O'Sullivan's pictures from the 1863 battle of Gettysburg, "The Harvest of Death," became a famous image. It possessed the attributes of documentary photography, as described by the Time-Life editors (1972, p. 13): it was able to convey the truth about the real world -- and to

communicate the photographer's comment on that truth. To O'Sullivan, war was not close-order marching and flags snapping in the breeze.

In O'Sullivan's photographs nothing stands between the viewer and the battlefield. The scene is there, undistorted by myth, legend, and the repetition of false tradition: the stiffened corpses robbed of their boots and accouterments by a tattered army defeated that day but determined to fight again; the quiet fields where the dead lay, hidden by the tasseled wheat; ... the sad and solitary wooden markers" (Horan, 1966, p. 44).

Gardner left Brady's operation in 1863 and was followed by O'Sullivan.

The images were powerful, according to Oliver Wendell Holmes, who had been on the Antietam battlefield searching for his wounded son and later saw photographs made by the Brady teams. He said:

Let him who wishes to know what war is look at this series of illustrations It was so nearly like visiting the battlefield to look over these views, that all the emotions excited by the actual sight of the stained and sordid scene, strewn with rags and wrecks, came back to us, and we buried them in the recesses of our cabinet as we would have buried the mutilated remains of the dead they too vividly represented" (Upton and Upton, 1976, p. 13).

Brady, Horan (1966) said, earned large sums of money during the Civil War. But, he channeled those funds back into the documentary project. When the conflict was resolved, the nation only wanted to forget. Brady had lost his fortune and was declared bankrupt in the next decade. In 1875, Congress paid \$25,000 for 5,712 glass plates, and Brady was able to pay off his creditors. But later, his photographic career was abruptly ended when he was injured in a street car accident at Washington. His financial situation worsened, and he died in poverty in 1896, before a scheduled major exhibition of his war photographs was held.

3. The western adventure

After the war, photographers such as Gardner and A.J. Russell made photographic records of the progress of the transcontinental railroad.

Carleton E. Watkins had been making daguerreotypes of the California region before the war, and by 1861 was using wet plate negatives to take dramatic landscape views in the Yosemite Valley (Sandler, 1979, p. 61). He also joined an 1870 geological expedition headed by Clarence King and later took photographs for the Union Pacific Railroad.

O'Sullivan and William Henry Jackson earned the greatest reputations hauling their large format glass plates and other collodion elements by pack mule into the wilderness and returning with images which amazed easterners.

O'Sullivan was hired as the official photographer for the 1867-1869 King expedition. The government-backed survey team crossed the Sierra Nevada Mountains and traveled eastward to the Great Salt Lake Basin. At Virginia City, O'Sullivan descended into the mine known as the Comstock Lode and used magnesium flares to photograph the miners at work. Some of his most dramatic photographs were of the dunes near Sand Springs, Nevada, and of the Shoshone Falls region on the Snake River (Sandler, 1979, pp. 69-70).

He then joined the Thomas Darien survey in Panama; that expedition sought possible routes for a canal through the Central American country. O'Sullivan worked for an Army Corps of Engineers study of the Nevada, Utah, Arizona, and New Mexico territories in 1871, and led an expedition of his own in 1873 (Sandler, 1979, pp. 73-75).

The work of Watkins and O'Sullivan was important to the settlement of the American Southwest, but Jackson's documentary photography proved most influential.

He was following the Union Pacific route in the 1860s as a free lance photographer when he was introduced to Dr. F. V. Hayden, who was to lead another of the government's geological surveys into unsettled territories. For eight years, Jackson traveled with the survey. He used 11-by-14-inch glass plates: in 1873, the expedition had reached the Rocky Mountain summit (Sandler, 1979, p. 78).

By this time he was an accomplished landscape photographer. He was also becoming more sensitive to the people who lived in the territory he was photographing. Toward the end of his years with the Hayden expedition, he took many pictures of the Indians who were still living in the areas where their ancestors had lived some three thousand years before (Sandler, 1979, p. 78).

In 1877, the expedition was in the Yellowstone. Here, Jackson's work transcended views of landscapes to reflect his love for the region.

Hayden had nine of Jackson's photographs reproduced and presented to each member of Congress; the publicity resulted in passage of a bill which made Yellowstone one of the nation's first national parks (Sandler, 1979, pp. 79-81).

A review of the literature reveals that the wet plate was being utilized worldwide as a documentary tool. The Scotsman John Thomson included 200 photographs in his *Illustrations of China and Its People*, which he published in 1873 and 1874, after ten years of travel in the Orient. "Didactic Victorians took these photographs very seriously -- and no one thought of them as "art," least of all Thomson himself. His purpose was simply to instruct," the Time-Life editors said (1972, p. 16).

Just as Americans were being awed by the wonders of the west, Europeans were dazzled by Thomson's work. Later, he concentrated on a topic equally exotic to his readers -- the slums of London in the late-1870s (Time-Life, 1972, p. 46).

Two more technological breakthroughs were destined to alter the focus of documentary lenses.

4. Photography for the millions

In 1871, Englishman Dr. Richard L. Maddox replaced collodion with an emulsion of gelatin mixed with cadmium bromide and silver nitrate. Improvements by other researchers led to the invention of the "dry plate" (Hedgecoe, 1976, p. 28).

Exposure times were shortened: it became possible with the new process to "hand hold" cameras at 1/25 of a second. Further, since the dry plates could be developed at a reasonable time after they were exposed, portable darkrooms were no longer necessary. Companies were formed to exclusively manufacture the new plates, and the photo-finishing industry was born (Sandler, 1979, p. 84). Speed and the dry plate process led to compactness; small "detective cameras" became popular (Hedgecoe, 1976, p. 28).

Newhall (1964, p. 89) noted that the most famous detective camera was invented in 1888, and manufactured by George Eastman, a dry plate maker in Rochester, New York. He had already invented "American Film" -- paper coated with gelatino-bromide emulsion on a substratum of plain gelatin. His new camera was called the "Kodak," and it was loaded at the factory with enough film to make 100 exposures. The slogan, "You press the button, we do the rest," referred to the system of returning the camera to

Rochester, where the film was developed and the Kodak re-loaded. His invention brought the taking of photographs to the millions.

In 1889, he improved his film by substituting clear plastic for the paper base; stripping the emulsion from the base became unnecessary, and amateurs could easily process their own negatives (Newhall, 1964, p. 89).

Taking photographs became a ritual for Americans. Recording activities and objects dear to the "shutter bugs" was linked to the early documentary photographers. They, too, were presenting their view of reality by what they chose to capture.

A second invention which affected documentation was perfected about the same time as the Kodak roll-film camera. By 1890, Max and Louis Levy of Philadelphia had found a practical way to use "halftones," a system of reproduction invented earlier by Frederick Ives, for printing. It broke down the photographic image into dot patterns which corresponded to the tonal range of a given picture. Photographs could be printed in newspapers and magazines in a form resembling the original (Gordon, 1977, p. 71). The invention of the rotogravure also increased the potential audience of photographers who wanted to bring their comments to the masses.

5. The image of change

The realization that the camera could communicate truth while commenting upon it led to the second stage in the expanding history of documentary photography: the discovery of the camera's power to hold up a mirror to society, to let the world see its reflection. Jacob Riis, a Danish-born newspaper reporter of the late 19th century, was one of the first to show how photographs could become social documents (Time-Life, 1972, p. 14).

Riis was outraged by the slum conditions in New York City in the 1880s and 1890s. Destitute people were crowded into areas such as Mulberry Bend,

near the *New York Tribune* where he worked, and crime and death rates were high. As a crusading reporter, Riis wrote expository articles and complained to city health officials -- with scant results. He then discovered the camera, which he used to communicate a distinct message (*Time-Life*, 1972, pp. 46-48).

According to Lane (1974, p. 65), Riis wanted to wipe out poverty before the culture of the slum affected younger generations and hardened into permanent patterns for individuals, families, communities, and, ultimately, the nation.

He was one of the first in America to use "Blitzlichtpulver," flash powder which had been invented in Germany in 1887 by Adolf Miethe and Johannes Gaedicke (Newhall, 1964, p. 140). The highly explosive mixture of powdered magnesium, potassium chlorate and antimony sulphide was an improvement over the flares O'Sullivan had used at the Comstock Lode mines.

Newhall said, "Riis succeeded in its use; the blinding flash reveals with pitiless detail the sordid interiors, but deals almost tenderly with the faces of those whose lot it was to live within them" (1964, p. 140).

In 1888, the *New York Sun* published a dozen drawings from his photographs with an article. Later, his articles and documentary pictures were published in *Scribner's Magazine* (1889) and in his two books, *How the Other Half Lives* (1890), and *Children of the Poor* (1892), in which the still-unperfected halftone process was used (Newhall, 1964, p. 139).

According to Sandler (1979, p. 132), Riis did cause reform. His photographic documents aroused the public to such a point that many tenements were torn down, schools were established for truants, and many squalid areas were cleaned up.

Photography was neither a pastime nor an art with Riis; "I had a use for it, and beyond that I never went," he said (Time-Life, 1972, p. 48). But, his straightforward technique and carefulness to avoid degrading his subjects influenced all later reformers who sought to rally the conscience of society. "Photographers remember him as the man who demonstrated the camera's power as a weapon of social reform and gave documentary photography a theme that has preoccupied it to this day," the Time-Life editors said (1972, p. 48).

Other photographers of the era were interested in preserving on dry plates cultures which were threatened by the industrialization of America.

Adam Vroman worked to compile a visual record of the Hopi and Zuni Indians of the Southwest before their ancient ways of life vanished in the face of a new social order. Vroman left an important architectural record of the farmers and villagers whose lifestyle in the 1890s was still as it was centuries before (Sandler, 1979, pp. 147-149).

Edward S. Curtis, according to Sandler (1979, p. 149-157) ranks among the most significant documentary photographers.

Like Vroman, Edward Curtis was obsessed with the idea of capturing the portraits and recording the customs and ceremonies of the North American Indians before their traditional ways of life disappeared forever. Unlike Vroman, however, he was not content to concentrate on one or two particular tribes. His goal was no less than to compile a photographic record of all the North American Indian tribes he could reach and to publish this record in a multivolume set of books (Sandler, 1979, p. 150).

Curtis began the project in 1896, estimating that the task would be completed in about ten years. By 1905, he had depleted his own funds, before the work was finished. President Theodore Roosevelt, in 1906, recommended the project to multimillionaire J. Pierpont Morgan, who agreed to

finance the documentation. Curtis was able to photograph all of the tribes, although the task of shooting over 40,000 negatives was not completed until 1930 (Sandler, 1979; Hoffman, 1972).

The final published work extended to twenty volumes of text, each accompanied by a portfolio of prints. *The North American Indian* was one of the most ambitious projects undertaken (Hoffman, 1972).

Solomon Butcher documented the endless prairie and the sod houses of a rapidly-changing 1880s Nebraska. While he preserved the homesteads on glass, Erwin Smith had purchased a Kodak and was documenting the most famous of all folk heroes -- the American cowboy (Sandler, p. 160).

Sandler speculated that Smith's photographs of the Texas cowboys were the best ever taken because he actually worked alongside his subjects; his box camera was strapped to his saddle, to go with him wherever he rode. Smith recorded every aspect of their work and showed them as they were -- men with important and often difficult jobs to do (1979, p. 167).

Arnold Genthe came to San Francisco in the 1890s from Germany to tutor the son of a wealthy couple. He became fascinated with the romance and mystery of the Chinatown section of the city and was determined to record that world. Because the Chinese thought the camera was a "black devil box," Genthe resorted to using a small camera while under cover of doorways and signs. Though technically "candid" photographs, Genthe had such a brilliant eye for composition that his results were pleasing. His documentation of Chinatown grew more important in 1906, when he photographed the San Francisco earthquake (Sandler, 1979, pp. 168-171).

Frances Benjamin Johnston went to the coalfields of Pennsylvania and the factories of Lynn, Massachusetts, to record working conditions during

an era when few women were involved in such endeavors. A niece of Mrs. Grover Cleveland, she had access to the White House during the Cleveland, Harrison, Theodore Roosevelt, and Taft administrations. She was able to make portraits of the leading personalities of her day, but she is remembered for accepting an invitation from Booker T. Washington to record life at Hampton and Tuskegee institutes, two schools founded to train black students in skilled labor. She traveled throughout the southern countryside, at the turn of the century, and her pictures emphasized how much remained to be done before blacks could gain equal rights (Sandler, 1979, pp. 173-175).

Other European documentarians at the turn of the century included Benjamin Stone, Jaques-Henri Latrigue and Eugene Atget.

Stone was interested in chronicling ancient customs and ceremonies found in Victorian and Edwardian England (Time-Life, 1972, p. 23). As a child, Latrigue used the camera to create visual records of his family's history in France; he made the family photo album a work of documentary art (Time-Life, 1972, p. 28). Atget was an early master of commenting visually on what he noticed in everyday life. He photographed Parisian parks and street scenes from 1898 to 1927. That his documents, clear and uncontrived, are works of art "is a tribute to a photographic vision that transcended strict record-making to preserve forever the spirit of a city as well as its appearance" (Time-Life, 1972, p. 36).

6. The Photo-Secessionists

In the 1890s, a debate raged over whether photography was an art form or a technical gimmick.

Alfred Stieglitz photographed life on New York City streets during that period. He intended to gain recognition for photography as a fine art. Although his idea was to emulate the current vogue in painting, his images proved that everyday scenes could be the basis for effective pictures (Gernsheim, 1965, pp. 172-189). He was one of the first to use a hand held camera, and his work was noted as an example of the finest documentary photography. His pictures "expressed the dynamics of urban life in a harmonious relationship with line and form," while being "a means of releasing his personal feelings" (Doty, 1974, p. 14).

Stieglitz founded the Photo-Secession group in 1902. They published the quarterly, *Camera Work*, from 1903-1917 to gain recognition for photography as a medium of individual expression (Gernsheim, 1965, pp. 188-189).

Eventually, he was to champion the "unmanipulated" photograph, the "straight" print which relied only on what the photographer perceived when the image was made and on the basic properties of camera, lens, and emulsion (Newhall, 1964, p. 111).

The efforts of Stieglitz created opportunities for other early photographers, notably Paul Strand, Edward Steichen and Imogene Cunningham.

But not all documentary photographers worked within the structure of the Photo-Secessionists' movement.

7. America and Lewis Hine

Lewis W. Hine did not share with Stieglitz the belief that the fine print was the critical mark of the true photographic picture. He was absorbed by social results, not mechanical perfection (Trachtenberg, 1977, p. 119).

For Hine, the "art" of photography lay in its ability to interpret the everyday world, that of work, of poverty, of factory, street, household. He did not mean "humble" subjects; he did not mean "beauty" or "personal expression." He meant how people live. He wanted his pictures to make a difference in that world.... He anticipated the direction taken by Stieglitz and Paul Strand after the demise of the Photo-Secession and soft-focus romanticism. To be "straight" for Hine meant more than purity of photographic means, it meant also a responsibility to the truth of his vision (Trachtenberg, 1977, p. 120).

Hine attended the University of Chicago when that city was the center for a reform movement to put equality and freedom for workers first in the government's mind, before profits and the welfare of industry (Meltzer and Cole, 1974, p. 56).

In 1902, he joined the teaching staff at the Ethical Culture School at New York City to instruct geography and nature study courses. He was called on to use a camera for records, and the early work became the basis for his photographic style.

He was awed by the modern industrial city with its influx of immigrants, and he was outraged by the exploitation of workers. Hine earned a master's degree in sociology from Columbia University and set out with his camera and magnesium flash powder to expose social ills (Gutman, 1967).

He traveled extensively (covering 12,000 miles in 1913 alone), photographing children and adults and their relationships to the industrial society (Gutman, 1967).

Unlike Riis, who had considered himself primarily a reporter and who used his pictures solely to supplement his written reportage, Hine relied chiefly on the camera to communicate his message and wrote very little once he had left the classroom. 'If I could tell the story in words,' he said, 'I wouldn't have to lug a camera' (Time-Life, 1972, p. 56).

Hine further developed his technique with his studies of immigrants arriving at Ellis Island at the turn of the century. According to

Trachtenberg (1977, p. 123), his urge to record there matched a new sensitivity toward the immigrant and put him in touch with a social experience that was destined literally to transform American life. He initiated a trend that had been avoided; he posed many of his subjects frontally, with unmistakable eye-contact between the subject and the camera lens.

He also discovered something else related to frontality, something that might be called "decorum." He learned how to achieve a certain physical distance, corresponding to a psychological distance, that allowed for a free interaction between the eyes of the subject and the camera eye. Put another way, he allowed his subjects room for their self-expression. This is something that cannot be taught, cannot be reduced to rules.... Typically in Hine's pictures, the place of the picture is a social space in which individuality is defined, related, and expressed through the encompassing detail (Trachtenberg, 1977, pp. 124-125).

In 1905, he became an investigator for the National Child Labor Committee and exposed child-abusing labor practices in glass works in Indiana and West Virginia, in night markets in Ohio, and cotton mills in North Carolina. In 1907, he photographed blacks in Washington, D.C., slums (Gutman, 1967, pp. 16-18).

The practical purpose of the National Child Labor Committee in its early years was to publicize the facts of child labor. During this period of intense commitment, Hine produced a body of images that revolutionized the medium (Trachtenberg, 1977, p. 129).

Whenever possible, Hine tried to photograph the work place itself, showing the details of labor. Where this was not feasible, he waited at the factory gates to catch his damning images and followed children to their homes. But the work place was -- and became again in his pictures of the 1920s and 1930s -- his quarry. It was there that he made one of the exciting discoveries in the history of photography, equal to Brady's on the battlefield: that the work site could become the site of powerful pictures, rich in a special human content. In a significant sense, Hines can be said to have created his own subject matter. His camera was no mere recording device; others looked at the scene, but Hine saw what he looked at (Trachtenberg, 1977, p. 130).

Photographing workers in the 1920s and the construction of the Empire State Building in the early 1930s, he purported to show "the true dignity and integrity of labor" and to explore how "work itself has become one of the deepest satisfactions" in the new industrial society (Gutman, 1967, pp. 44-48).

His audiences were found in lecture halls and through the pages of magazines such as *Survey Graphic*, which he regularly contributed to. *Men at Work* (1932), covering the Empire State Building project, was his only published book.

Hine's art form, according to Stockfield (1976, p. 25), consisted of a flat, fiery arrangement of people, and he used light and form to capture what he saw as basic, humanistic conflict shattering his image of a natural world.

Trachtenberg (1977, p. 131) also said:

But if Hine's pictures take their full force from their context, we can still see his particular social vision, his own humanity, in single images. Unlike the subjects in Jacob Riis's pictures, who are usually downtrodden, passive, and objects of pity or horror, Hine's people are alive and tough. His children have savvy. They have not succumbed. Their spirit is at odds with their surroundings. And this contradiction fills the pictures with an air of tension -- not between such abstractions as "suffering, helpless children" and "a brutal system" but between living creatures and a very particular fate.

Thanks largely to Hine's efforts, child-labor laws were passed (Sandler, 1979, p. 138). He had been an effective agent of change.

But not all of his efforts were to reveal abuses. During World War I, he was hired to document the Red Cross's efforts to help war victims -- and to persuade the public of the need for support. In the performance of that

task, he turned documentary photography from muck-raking to a new and positive role (Time-Life, 1972, p. 56).

Other photographers became documentarians in the 1920s. Paul Strand, a student of Stieglitz and Hine, spent a career documenting the lives of working people on several continents. He often spent months getting acquainted with his subjects and their dwellings. His European studies, especially, showed people in their struggles against oppression. Discussing photography, Strand said, "It is one thing to photograph people, and it is another to make others care about them by revealing the core of their humanness" (Time-Life, 1972, p. 133).

In Europe, Erich Salomon became a prominent recorder of 1920s political events. He relied on a small format camera with a lens and film combination which allowed him to take photographs in available light, often without detection. "He forged a style that inspired many photographers now more famous than he is, but he has never been surpassed as the master of the public person in private moments (Hunter, 1978, p. 12).

August Sander chose to document the citizens of pre-World War II Germany. His pictures were not meant to reveal personal characteristics, but to show the classes which made up the German society. His portraits were "so utterly factual and unsentimental as to be chilling at times; the individual disappears and only the type remains," Barbara Upton and John Upton said (1976, p. 20).

Andre Kertesz developed an informal, personal style of photographing ordinary people in various facets of their lives by keeping an "optical diary" in Hungary between 1912 and 1925. And his later work retained this character. His guiding rule was to photograph only that which he loved:

"If I do not have the contact, I do not touch" (Time-Life, 1972, p. 125).

Kertesz' disciple, Henri Cartier-Bresson, was also concerned with phases of human activity -- whether work or play, love or war. Cartier-Bresson's work is based on capturing a slice of life at the "decisive moment."

His genius is to sense when a combination of expressions and postures communicates his message, and in that instant, to record the reality, refined and concentrated, of the pleasures and pains of ordinary experience" (Time-Life, 1972, p. 123).

In 1928, a group of New York City motion-picture and still photographers formed the Film and Photo League (later shortened to Photo League). Its members recorded events of social significance not covered by the commercial press, such as street demonstrations, strikes, and picket lines. The League's teachers demanded students' involvement with their world, and the streets became their studios. Photographer Sid Grossman later became director of the Photo League School, whose aim he said was "to help the student to develop a personal approach to photography ... to make his individual interpretations of the immediate world" (Time-Life, 1972, pp. 88-118).

The League lasted until 1951, and members had included Sol Libsohn, Aaron Siskind, Jack Manning, Lou Bernstein and Dan Weiner, who would influence a later generation of documentarians.

By the early 1930s, the term "documentary" was commonly used, as photographers sought to record social relationships (Hicks, 1972). The economic depression provided myriad topics for comment, but the most extensive project was undertaken by the Farm Security Administration.

8. F.S.A. 'introduces America'

The economic depression had hit rural residents doubly hard because drouth and dust storms had followed the collapse in the market price for agricultural products. President Franklin Roosevelt appointed Rexford Guy Tugwell as Assistant Secretary of Agriculture in 1935; Tugwell chose to implement an aid to farmers program which included low-interest loans and controversial subsidies. He realized that photographs could help prove both the existence of the crisis and the effectiveness of the cure (Time-Life, 1972, p. 66).

Roy E. Stryker, a former colleague of Tugwell's at Columbia University, was put in charge of recording the activities of the Resettlement Administration branch, which became the Farm Security Administration (F.S.A.).

No photographer himself, Stryker recruited a remarkable band of young talents.... And he exercised his considerable gift for teaching, instructing and cajoling to transform them into anthropologists, economists, and historians, as well as reporters and commentators (Time-Life, 1972, p. 66).

"Stryker wanted his photographers to take care of the special needs of the F.S.A., yes, but to document, too, 'the America of how to mine a piece of coal, grow a wheat field or make an apple pie.' His aim, he would say, was 'to introduce Americans to America'," Dorothea Lange said (Meltzer, 1978, p. 183).

Lange and Walker Evans became the most influential of Stryker's photographers.

Dorothea Lange's pictures had an epic quality, with an added human and almost romantic vitality. Her subjects came alive; even her landscapes were vivid reminders of the sufferings of the human tenants who had given up and fled the worn-out acres. And if ever photographs

succeeded at persuasion, Dorothea Lange's did; her pictures of farmers made homeless by the dust storms, for example, are credited with being largely responsible for the government setting up camps for the migrants... (Time-Life, 1972, p. 78).

One of the most famous of the 270,000 pictures taken during Stryker's eight-year reign was by Lange in 1936. The "migrant mother" of Nipomo, California, has become a timeless symbol of strength in the face of hardship.

Walker Evans' photographs are now considered works of fine art. The Time-Life editors (1972, p. 69) called him a symbolist who could make the temporal seem eternal and the specific seem general. Maddox (1973, p. xi) said, "Working on the F.S.A. project did not particularly reform or alter his style, but seems instead to have offered the opportunity to refine an approach already established."

His "strikingly spare and stunningly textured" effects were achieved by shooting head-on to his subject and by frequently using an 8 x 10 view camera (Time-Life, 1972, p. 69).

Evans helped set the F.S.A. style of simplicity and directness, and though the Depression's wounds have been obscured by time, his pictures of even the most wretched subject matter still have a starkly evocative beauty (Time-Life, 1972, p. 69).

Later, he teamed with writer James Agee to produce *Let Us Now Praise Famous Men* in the mid-1930s, but no publisher would print the documentary until 1939.

Of that book, Maddox said:

In his photographs of the sharecroppers and their families, Evans seems to have reached more deeply into the subject, depicting those people as discrete individuals, yet at the same time expressing ...

something of the universal qualities to be found in their individuality (1973, p. xii).

Besides that series on the Alabama sharecroppers, Evans also drew acclaim for his architectural studies. One famous print implied a relationship between the owner of a cemetery's stone cross and the Pennsylvania steel mills which loomed in the background.

The F.S.A. provided a record of how America worked, lived, slept, ate, and played; it showed the floods, the drouth and the depression, and the dignity and strength of character of the people who endured (Stockfield, 1976).

Others of the F.S.A. group -- no more than a half dozen worked for Stryker's agency at a time -- included Ben Shahn, Russell Lee and John Collier, Jr.

The project fulfilled the administration's initial aims, by documenting both the need for the farm relief programs and their ultimate success. The pictures also promoted a photographic style (Time-Life, 1972, p. 66).

They were not only eloquent records but such compelling works of art that they drew public attention to a form of photography that had been taken for granted. They were the first documentary photographs to be known as such (Time-Life, 1972, p. 66).

In 1938, Edward Steichen, in an attempt to describe the F.S.A. images, said there are two sorts of documents: one gives factual information; one provides human information, makes citizens wince, and conveys the feeling of lived experience (Stott, 1973, p. 11).

Stott (1973, pp. 19-26) said human documents "show man undergoing the perennial and unpreventable in experience, what happens to all men everywhere...." Social documentary, on the other hand, shows man at grips with

conditions neither permanent nor necessary; it deals with conditions which are alterable.

Newhall (1964) said that documentary photographs are those which go beyond presenting evidence, to ones which actually move the viewer. Perhaps the legacy of the 1930s was the final polishing of a definable photographic genre, one which informs the emotions as well as the intellect.

9. Concerned communicators

The documentary tradition is exemplified in the postwar work of W. Eugene Smith. His best-known photographs were contained in essays for *Life* magazine. Because he allowed his philosophy to influence his work, his essays on "Spanish Village," "Nurse Midwife," "Country Doctor," and "Pittsburgh," among others, are considered documentary in nature. "My principal concern is for an honesty of interpretation to be arrived at by careful study and through the utmost possible sensitivity of understanding," Smith said (Bauries, 1967, p. 2).

His technique involved moving to the location of his studies to become part of the lives of the subjects (Bauries, 1967). The dedicated Smith risked contracting diseases while documenting Dr. Albert Schweitzer's African clinic and was severely beaten for exposing the life styles of victims of chemical poisoning in Japan (Capa, 1972).

Hungarian Robert Capa was killed by a landmine in Indo-China in 1954; it was the fifth war he had risked his life in to bring back evidence of the madness. According to Cornell Capa (1972), Robert Capa created a tradition of war photography which had these elements: a deep concern for mankind, superlative photography, exceptional courage, and enterprise.

John Steinbeck wrote of him: "Capa's pictures were made in his brain -- the camera only completed them. He could show the horror of a whole people in the face of a child. His camera caught and held emotion" (Capa, 1968).

10. Critics of complacency

According to John Szarkowski, director of photography at The Museum of Modern Art, photographers up until the 1950s aimed "to show what was wrong with the world and to persuade their fellows to take action to make it right." But another attitude began to appear among photographers -- they looked at the fabric of an affluent society, and, although they found it full of holes, they concluded that it was not up to them to mend it (Time-Life, 1972, p. 164).

Swiss-born Robert Frank and Americans Lee Friedlander, Garry Winogrand, and Diane Arbus were labeled "critics of complacency," members of a new generation "that felt bound by no mission whatever except to see life clearly; they set out not to reform the world but merely to know and reflect it" (Time-Life, 1972, p. 164).

Frank criss-crossed the continent in 1955-1956, taking the pictures which would become *The Americans*. After 10,000 miles of travel, he assembled 83 of the pictures, only to be rejected by the Yankee publishers.

"The book challenged the way Americans were supposed to look," Szarkowski said (Time-Life, 1972, p. 166). "It was about whole segments of life that nobody had thought the proper concern of art."

A friend of Frank's published the book in Paris in 1958, and it made its U.S. debut in print the following year. So startling were its images that it initiated a movement in documentary photography.

Frank (1977, p. 53) admitted, "When I did *The Americans* I was very ambitious.... It was the first time I had seen this country and it was the right mood. I had the right influences -- I knew Walker's (Evans) photographs, I knew what I didn't want, and then that whole enormous country was sort of coming against my eyes. It was a tremendous experience, and I worked, but it came naturally to show what I felt, seeing those faces, those people, the kind of hidden violence.... I felt it very strongly."

Garver (1967) said Frank's pictures reflected the country's desire for change. "As straight and factual as Walker Evans, they replaced his careful frontal approach with dazzling fluidity," he said.

Many of these photographs were of the roadscape and of roadside events. The automobile as object, social phenomenon, creator of another landscape, and vehicle from which to photograph have all been exploited by Frank. His style reflects the transient life. Plastic, fleeting, unobtrusive..., Frank approaches both people and objects in a side-long manner. Rarely do the people in his photographs realize that they are being photographed; and even if they do, the act seems unimportant to them (Garver, 1967).

His choice of objects for symbols of a culture was eye-opening. "One can look at the number of Frank photographs ... and observe not only his keen awareness of American culture, but also note how his personal vocabulary, like Walker Evans' in the 1930s, has become a symbol for the whole era," Bayer (1977, p. 20) said.

Besides the automobile, Frank particularly emphasized the U.S. flag. In a notable picture of a July 4th celebration, he showed it bigger than life, but the people were empty of spirit and the banner was patched (Frank, 1978, p. 44).

Lee Friedlander claims that, "I am not a premeditative photographer. I see a picture and I make it. If I had a chance, I'd be out shooting all the time" (Time-Life, 1972, p. 178).

His 1960s pictures show a distraught and frantic America (Time-Life, 1972, p. 178). His images are fractured elements held together by his impression of the moment, as he snaps his scenes seemingly in a reflex to perceptions. The Time-Life editors (1972) noted that even his representations of people in physical contact with each other seem "hard, tough and stubbornly unromantic," and Garver (1967) said that Friedlander is more involved with the artifacts of society than with those who produce them. He began to work with a combination of urban spaces and commercial imagery, and faces on TVs and in advertisements replaced "real" people.

Winogrand said, "I am a tourist," one which deals only with the banal and commonplace. But his pictures have an unsettling quality; many document paradoxical groupings, such as between animals and zoo visitors (*The Animals*, 1969). He records incessantly, his Leica clicking constantly, noting that, "No one moment is most important; any moment can be something" (Time-Life, 1972, p. 190).

His pictures present a view of humanity as Winogrand sees it, full of twists and confrontations, such as in photographs of a mother, babe in arms and hair in curlers, watching a spit-and-polish military review; of war veterans carefully ignoring a legless beggar; or of one dog leading another by a leash (Time-Life, 1972, p. 190).

Winogrand (1977, pp. 10-11) admitted that Atget, Evans, and Frank had most influenced his work. In 1977, Winogrand's *Public Relations* was published.

Diane Arbus usually "worked in the manner of an old-fashioned portrait photographer, talking with her subjects earnestly and sympathetically, making pictures that were collaborations between the camera and herself" (Time-Life, 1972, p. 202). She documented aspects that most people overlook or look away from -- transvestites, suburbanites, dwarfs, prizewinners, twins, nudist camps.

The quartet's intent was to present a view from within, to express rather than to judge, Alan Trachtenberg said (Time-Life, 1972, p. 164).

Along with intent, technique also changed. Though Diane Arbus worked slowly and deliberately, Frank, Winogrand, and Friedlander are all fast shooters, snapping away without premeditation. It is not that they do not think as they work; rather they have speeded up their thought processes to make the act reflexive, shooting what they see before the conscious mind has time to analyze or rearrange it (Time-Life, 1972, p. 165).

Work by Friedlander and Winogrand was included in a 1966 exhibition of contemporary photographers who were said to be working "toward a social landscape."

Lyons said the term was not meant to become a neo-category. Instead, he suggested that our concept of environment and landscape be expanded by recognizing that objects may attain a symbolic identity based on where it is pictured, or the object itself might modify the environment (Lyons, 1966). For example, Frank, in *The Americans*, used the flag in a variety of contexts which differed from earlier photographers' visions.

The familiar object in an unfamiliar setting resulted in attention-drawing statements.

Other photographers included by Lyons were Bruce Davidson, Danny Lyon and Duane Michals. Though their styles were dissimilar, they each had a distinguishable point of view. Photography has achieved a mirroring

of the things of our culture, Lyons said. Our experiences form separate "landscapes," and the photographers have attempted to give us their impressions of the world by presenting views which include familiar objects (1966).

Davidson takes a more traditional approach to documentary photography. According to Geldzahler, "Fashionable revolutionaries often make the mistake of throwing out the past rather than criticizing it and building on it. Only the primitive artist, the first caveman, invents the very idea of art.... Thus, judging from the richness and breadth of Bruce Davidson's mature work, it is not surprising that his first effective photographs resume much of the history of photography up to the moment at which they were shot" (1978, p. 5).

Davidson, like Smith, chose to live with his subjects so that he might better understand them. He noted, "The work of W. Eugene Smith gave me the direction which I was determined to follow. His intimate *Life* essays ... taught me that a photograph could not only communicate emotions, but could also serve the human condition" (1978, p. 9).

His best-known work is *East 100th Street*, concerning an East Harlem neighborhood; other essays included "The Clown," "Brooklyn Gang," "The Widow of Montmartre," and several on European nations in the 1960s.

Danny Lyon, in the same era, concentrated on motorcycle gangs ("The Bike Riders") and on Chicago adolescents.

Duane Michals is a visual archaeologist, according to Garver (1967). "The surreal quality of Michals' photos is heightened because he has chosen to photograph with no one present (at) so many places usually seen when

densely populated," that critic said. In 1969, Michals published *Sequences*, a collection of impressions, each told with a series of images.

11. Contemporary documentarians

In the 1960s, the Office of Economic Opportunity (O.E.O.) sent a team of photographers to perform tasks similar to those fulfilled by the F.S.A. staff thirty years before. The agency's goal was to "eliminate the paradox of poverty in the midst of plenty" (Sandler, 1979, p. 229). About a dozen photographers built a record for the government, and the resemblance of their work to the F.S.A.'s illustrated the earlier group's influence.

Other photographers chose to take from the earlier documentary photographers and from their contemporary "urban landscapers" those elements which would help them create a personal statement about their worlds.

Herb Goro (*The Block*, 1970) studied a Bronx neighborhood in the manner of Hine. Martin Schneider's expose on pollution in the 1970s is reminiscent of Smith's work in its dedication to changing the human condition. William Mackey, Jr. (Meltzer and Cole, 1974) and Bob Adelman (1972) documented southern communities, while Jill Freedman concentrated on human rights (*Old News: Resurrection City*, 1970) and on urban heroes in *Firehouse* (Freedman and Smith, 1977).

The impact of Walker Evans can also be seen in the architectural photography from the Dakotas by David Plowden (Roueche and Plowden, 1975) and in the portraits of residents of Buffalo's ethnic neighborhoods as documented by New Yorker Milton Rogovin (Rice, 1977).

But the work of Bill Owens in the 1970s appears to be a combination of Hine's process of placing the subject with appropriate "tools of the trade"

and of Winogrand's contradictory, sometimes-mocking imagery. Owens, a California newspaper photographer, has published *Suburbia* (1973), *Working: I Do It for the Money* (1977), and *Our Kind of People: American Groups and Rituals* (1975).

It can be said that the genre known as "documentary" has turned full-circle with the work of photographers such as Tom Zimmerman and Arthur Freed. After *The Americans*, documentary photography entered a phase in which concern was with the problems of the inner person. But the latest documentarians have returned to the beginnings of the documentary "tradition." Families, friends, and homes are often subjects of modern photographs, as they were for the daguerreotype (Time-Life, 1972, pp. 14-15).

The difference is that today's documentary photographers communicate the emotions and interpersonal relationships of private life. As the Time-Life editors said (1972, p. 15), "From the 19th century album of snapshots to the 20th century portfolio of intimate views, documentary photography continued its spiral toward the understanding of society and man."

D. Photographic Research

Researchers in the natural sciences have made extensive use of photography in data collection, experimental manipulations, and comparative analyses. In fields such as physics and astronomy, some objects of inquiry -- such as subatomic particles and distant stellar constellations -- have been "seen" only with the aid of the camera. Similarly, in the applied sciences of medicine and engineering, photography has become an essential and routine research tool (Wagner, 1979, pp. 13-14).

Collier (1979a, p. 162) adds that archaeology uses the camera as a mapping tool and a recorder of spatial relationships, and zoology and botany use photographs to measure growth and change and as accurate evidence for comparative studies.

However, with the exception of anthropologists, social scientists have traditionally limited themselves to collecting verbal or written information and have overlooked visual data. Curry and Clarke contend (1978, pp. 1-2) that a new balance of verbal and visual approaches is needed for the study of social systems.

1. In aid of science

Eadweard Muybridge, in the 1870s, used photography to win a bet for former California Governor Leland Stanford. He took a series of photographs to prove that race horses had all four feet off the ground while in full stride.

As it ran down the track, the horse broke strings which triggered each of twelve cameras. The resulting series was the first motion study. Muybridge continued his experiments, and, in 1887, published *Animal Locomotion*, an eleven-volume set of 20,000 photographs of every imaginable motion of animals and humans (Sandler, 1979, pp. 86-87; Collier, 1967, p. 5; 1979b, p. 275).

Gregory Bateson and Margaret Mead (1942) were the first to apply the camera to an anthropological record of another culture. For *Balinese Character*, they enlarged single frames from 16-mm movie film and took 25,000 still photographs to describe the "ethos" of the people of Bali and New Guinea in 1936-1938 (De Brigard, 1975, p. 26).

But they had not been the first behavioral scientists to use the camera. In the 1920s and 1930s, Dr. Arnold Gesell assembled his *Atlas of Infant Behavior* with stills from motion picture film (Collier, 1979, p. 275). Based on the photographic record of children taken at scheduled intervals over many years, Gesell drew up a sequence of the normal maturation process (Collier, 1967, p. 5).

In 1968, Paul Byers and Mead published *The Small Conference*, an account of a university meeting of Fulbright scholars. By tracking the actions of the scholars with a 35-mm camera, they demonstrated that it was possible to capture precisely the shape of behavior with photos (Collier, 1979, p. 277).

Edward T. Hall (Collier, 1975) developed the science of human relations in space, which he labeled "proxemics." His research revealed that various cultures used time and space differently.

Ray Birdwhistell, researching nonverbal behavior during the same period, developed the measurement of body language, which he called "kinesics." Collier (1979b, p. 277) said the two approaches, proxemics and kinesics, gave anthropologists both a formal language and a method for researching film and still photography.

In another type of research, Paul Ekman, in the 1970s, refined his photographic research of the emotional signals of the human face. His research on facial kinesics offers diagnostic insights into nonverbal behavior that have become valuable to psychotherapists (Collier, 1979, p. 277; 1975, p. 212).

2. Criticism of documentarians

The documentary image remains as a familiar part of the contemporary visual scene. However, as Becker (1974) observed, when such images are

produced by laymen instead of social scientists, they tend to be "theoretically thin."

They explicate an artistic conception of the social world, but problems of sampling frequently occur, in regard to both the pictures taken and the photographs selected to portray the event (Curry and Clarke, 1978, p. 16).

Some of these photographers have produced work characterized by at least an implicit analytical focus as well as explicit attention to visual impact. Danny Lyon (1971) and Bruce Jackson (1977) have both made strong visual statements -- records of a sort -- about prison life. Geoffrey Winningham has done the same for professional wrestling (1971), and the Texas State Fair (1972). Bill Owens has worked in the "documentary" tradition in photographing people at home in the suburbs (1973) and at work (1977). Casting a long shadow over these more recent efforts is the large body of work produced in the 1930s and 1940s by photographers under the auspices of the Farm Security Administration (Wagner, 1979, p. 286).

Wagner said the problem with such projects is that the photographers generally give visual detail and form priority over concepts and analytical categories (1979, p. 287-288). "In making photographs, for example, they typically begin by "looking," not by designing a scheme for visual analysis," Wagner said.

Neither Lyon's nor Owens' works were intended to be definitive sociological studies, Curry and Clark (1978) noted. But the pictures offer prospects of what can be achieved when sociologists begin to produce their own documentary images or to provide directions based on theory.

3. The methodological answer

Camera lenses often see things differently than humans perceive them. The camera mechanically records all circumstances within its field of vision. But human eyes witness whole actions only by constantly shifting

their focus, and elements which are irrelevant or disturbing to the observer are conveniently edited out (Collier, 1979b, p. 271).

Collier noted, "The camera's eye can extend and refine scientific description by including detail and nuance presently lacking from the written field records of sociology and anthropology.... With scientifically disciplined selectivity, the camera can even gather a contextual record, a larger view of what is there" (1979b, pp. 271-272).

According to Collier, archaeologists have dealt with photographs as artifacts since the days of the wet plate process.

They worked with the fine detail of photographs as studiously as they analyzed spearpoints or architectural detail. The cultural anthropologists of this period simply recognized the illustrative value of the camera record. Archaeologists, in their need for definitive detail and accurate association of materials, genuinely established the three basic ways that photographs can be used scientifically, to measure, to count, and to compare (Collier, 1975, pp. 212-213).

In addition, the photograph has proven to be valuable as an information probe or stimulus during interviewing (Collier, 1979b, p.281). And, Dr. Robert Akeret (1973) uses family photographs in his psychoanalytic practice.

But some social scientists have questioned the credibility of the camera image.

I see this distrust as resting not on the camera record itself, but in the fallibility of the process of human selectivity. As working photographers know, cameras by themselves do not take pictures (Byers, 1966). It is not the camera image that creates the inaccuracy, but where, when, and how the records are made. It is in these decisions that we may be mistaken and lose the validity of photographs, Collier said (1979a, p. 162).

He noted also that, "Photography is a process of abstraction; we never construct anything approaching a complete document. In any practical sense, photography is very selective" (1967, p. 25).

Therefore, photographers need a scheme to ensure that their images will have research value.

Collier (1967; 1979a, pp. 161-165) recommended that photographs contain two elements. The first is an overview of the culture or setting which allows all details to be seen within a context; the second necessity is that photographs contain creditable research tangibles, "such as those provided by photographic redocumentation and sequential recording of visible change."

He suggested that elements in photographs be counted and systematically inventoried. Three possible plans included: an item listing, such as an enumeration of all possessions in a home; a categorical listing, such as of the kinds of possessions at the dwelling; or an inventory of cultural significance, which would contain references to both cultural processes and structure (Collier, 1979a, pp. 165-166).

4. Recent applications

Several twentieth century research projects have based their findings on information provided by documentary photography.

Collier photographed house fronts in a sampling in Nova Scotia. The 1953 mapping of village dwellings constituted a visual model; showing spatial relationships and the visual character of homes offered sociometric understandings, qualifications of affluence and poverty, and identified subdivisions within the community. In the study, Collier provided evidence for Alexander Leighton of correlations between the families' houses and their relative mental health (Collier, 1975, p. 215).

In the late 1960s, Collier made another cultural inventory of 24 Indian households in the San Francisco Bay area for a research project on the psychological adjustment of native Americans who relocated in cities. He photographed the kitchen, living room, and one bedroom at each home, and it was determined that success of relocation could be measured by their style and order.

Collier had earlier worked as a documentary photographer for the Farm Security Administration. Roy Stryker, who coordinated the photographic project, encouraged his staff to use "shooting scripts," which were lists of suggested images to be taken. Stryker's plan preceded Collier's own recommendation for "cultural inventories."

Russell Lee photographed Pie Town, New Mexico, in 1940, for the F.S.A. using an expanded script. "Very few people at that time had considered using a camera to dissect the social and economic forces at work in a town, but Lee had proved that it could be done," Hurley wrote (1972, pp. 118-120).

In 1977, John Zielinski collected photographs taken by F.S.A. staff members from 1936-1941 of "Unknown Iowa." Combined with newspaper accounts of the period, readers obtained a flavor of the era.

That effort fell short of Collier's double-criteria for photographs for research, but *Crying for a Vision: A Rosebud Sioux Trilogy 1886-1976* is one of the few documentary collections illustrating a community over time.

Photographs of the Rosebud Sioux Reservation at South Dakota taken by John A. Anderson at the turn of the century, by Eugene Buechel, S. J. in the 1920s to 1940s, and by Don Doll, S. J. in the 1970s, were combined to

make a unique statement about a people's cultural transformation over nearly a century of Indian reservation life (Doll and Alinder, 1976).

In *Images of Information: Still Photography in the Social Sciences* (Wagner, 1979), several documentary studies were outliend, including Doug Harper's study of "tramps," Bill Aron's photographs of the Jewish community of Lower East Side Manhattan, and Phillis Ewen's documentation of beauty parlor clientele.

Other studies mentioned in the book included Ervin Zube's Boston study of problems caused for pedestrians by the wind and Jon Wagner's exploration of community perception at a planned community, Twin Rivers, New Jersey. The first project relied on time-lapse photography to map out the effects of high winds, and the second used photographs to test residents' attitudes toward physical elements of the community.

Bob Adelman produced what he termed a "social portrait" of Camden, Alabama, by categorizing his documentary images of the rural community according to important local institutions (families, social life-recreation, school, religion, work, and politics). Interviews with the subjects accompanied the images (1972).

The studies presented had different focuses. What they had in common was a systematic examination of subject matter from theoretical perspectives designed to accommodate the special features of documentary photography.

Chapter II reviewed literature in support of Larson and Rogers' (1964) observations on rural social change. It described social system theory as an appropriate framework for community analysis, and it presented documentary photography as a tool capable of producing tangible research evidence.

III. METHODOLOGY

A. Exploring Community Change

Written records and interviews of Nevada residents have revealed that some of the general trends identified by Larson and Rogers (1964) have occurred there, and such findings suggest that the community is in transition.

This thesis project intends to use documentary photography to supply further evidence that this particular Iowa community is assuming characteristics of a larger, mass society.

Such a study will benefit the residents. They can apply the findings when assessing whether the services offered locally are fulfilling the needs of the community's population -- or whether the direction of change is an appropriate one.

Also, demonstrating the camera's usefulness as a research tool will aid other investigators.

By comparing specific aspects of the community over time, additional insight can be gained concerning changes in the structure and function of Nevada's institutions. The situation at Nevada may then be contrasted with those at other communities.

B. Foundation for Research

Because this community study relies on photography for evidence of seven general patterns of transition, a strategy is needed which allows for scientific comparisons.

Applying social systems theory to the project becomes significant because it provides a design for comparing the community's major institutions over time. Rogers and Burdge (1972) labeled families, religion, education,

government, and business "cultural universals" because they can be found in every community.

It was decided that, by categorizing Nevada's activities and artifacts according to their relation to these five institutions, the purpose and structure of the community's organizations could be detected. Inventories of photographs according to institution could then be contrasted side-by-side to demonstrate visible changes.

For example, changes in the physical dimensions of business operations or the appearance of status symbols associated with mass society in "family pictures" could imply shifts from rural to urban characteristics.

The community as a social system is linked with the outside world by its subsystems. Therefore, it is important to note the relative importance that groups and associations place on their ties with extralocal "parent" organizations. A decline in residents' participation in local or regional activities sponsored by national organizations such as Boy Scouts, 4-H clubs, or the Republican Party would indicate a lack of interest in those ties and imply a low level of cosmopolitanism.

At the same time, outsiders may influence a community through other institutions. Governments or schools may sacrifice local autonomy to larger bureaucracies in exchange for state- or federally-funded projects. Franchise operations and chain store businesses on Main Street are other farm-town institutions which have been affected by modern social change.

This type of information can be revealed by analyses of photographic records. And research based on such a system of categorization offers tangible support for the observations of Larson and Rogers.

1. Considerations for sample area

Nevada, Iowa, was initially selected as the sample community because recent changes in its institutions, due to the community's proximity to the larger metropolitan areas of Ames and Des Moines, were visible. The research site was located less than ten miles from the researcher's residence at Ames. This made the necessarily-frequent visits to Nevada convenient and allowed the researcher to empathize with workers from Ames and Nevada who commuted to jobs at each others' community.

Before beginning the project, the researcher enrolled in coursework which was expected to benefit the community study. Specialized classes in photographic techniques were supplemented with courses involving the theories of human ecology and rural sociology and urban sociology. In addition, the researcher participated in a 1980 project at Story City, Iowa, in which prints from antique glass plate negatives were contrasted with photographs taken of the sites in the contemporary community.

Rothstein (1971, p. 291) said documentary photography demands the ability to see, to understand, and to interpret as the photographer selects subjects. The guide for those choices is intellect and emotion. For that reason, research and training were carried out before the project began in the spring of 1980.

A review of newspaper files concerning Nevada and historical references, such as Payne's *History of Story County, Iowa* (1911), and consultation of census records exposed some of the patterns of change which Larson and Rogers (1964) had discovered in the general society. Interviews, further research of public records, and documentary photographs were expected to provide more evidence that Nevada is a community in transition.

Besides the written information, an extensive collection of visual evidence existed. Working alone, the photographer spent several weeks re-searching Nevada's history before beginning to collect pictures.

The project's basic methodology involved collecting black and white photographs taken during the period 1900-1925 and deciding which, when compared with contemporary views of the same location, would reveal changes. The era 1900-1925 was chosen for contrast because mechanization of Story County agriculture and better transportation systems which linked Nevada with neighboring communities were developed during the period. It was also determined that photographs could be obtained more easily from the 25-year period than from a narrower slice of history.

However, assembling a meaningful body of images required both strategy and assistance.

2. Key informants and categorization

Harper nurtured personal relationships before beginning a documentary study of hoboes. This approach was also considered for the Nevada project, but the amount of time available for "get-acquainted" sessions was a limiting factor (Wagner, 1979).

Therefore, the role of the documentary photographer was established to be "observer as participant." He explained to community members that a study was being conducted, but then tried, as much as possible, to remain aloof from direct participation in community events. According to Poplin (1979, p. 296) and Gold (1958), the technique is especially useful in studies involving limited field encounters.

Completing -- or beginning -- the research would have been impossible without the aid of a network of "key informants."

The old-time photographs had to be secured and analyzed; establishing a rapport with community members was essential. Early in the study, local historians, political figures, merchants and commuting university professors were contacted to gain information.

Maintaining those relationships was important to the continuance of the project. For example, through the county agent's office came an introduction to a farm family; that farm operation linked the researcher to agri-businesses in town, and the marriage of a daughter directed the researcher to a local Protestant church. Conversations there sent the researcher to contacts at the school, to the local government -- and eventually back to the county agent.

Gaining the community's confidence required a willingness to cooperate with both owners of the early photographs and with modern-day subjects; most reciprocated if sincerity in purpose was demonstrated.

Often acceptance of the photographer was dependent on whether it was evident that his project was considered worthwhile by the key informants. Resentment of the camera lessened when it was clear that persons who were respected in the community approved of the research.

Support from locally-based "history buffs" and the knowledge that the project was part of a university student's research made more photographs from the turn of the century available. A store-by-store survey of merchants turned up other examples of early Nevada photography, although an appeal to the senior citizens' luncheon group bore little fruit.

Generally, following up on leads from the informants "spun off" into more avenues and provided a wealth of information.

The key informants and other sources provided a reference as to the significance of the images. But it was Collier (1967) who again provided the basis for research.

His "inventory" scheme, discussed in Chapter II, was the starting point. Activities within the community were categorized according to the major institutions -- family, religion, business, education, government.

Applying Larson and Rogers' (1964) observations about general changes in rural America to this specific community to determine if it is undergoing social change became the conceptual basis of the study.

By directly comparing pictures taken during two historical periods, inferences concerning the community's development may be drawn.

To organize the categories, a "shooting script" was devised which provided an overview of the photographic documentation. Curry and Clarke (1978) and Cartier-Bresson (1952) recommended using the camera as a type of visual notebook. Stryker's shooting scripts went beyond simple instructions, according to Wood (Stryker and Wood, 1973, p. 15), to raise questions and comment on the assignments.

An attempt was made to systematically record activities and the buildings which housed the sponsoring institutions; the shooting script provided an index for interviews which accompanied the photographs, and it suggested other images. The inventory provided organization; as archaeologist Harold Simmons said, "Skill in photography is never a substitute for knowledge" (1969, p. 3). And the conceptual basis gave the photographic study its scientific direction.

The old-time photographs were copied with a portable outfit, consisting of 35-mm camera and stand and artificial lighting. Copying was performed at the owners' location, to remove any apprehension that an original print would be lost or damaged in transit. This policy appeared to draw a positive response.

After the scenes were copied, they were analyzed by the researcher with assistance from the informants. The images were catalogued, and dates, places, and faces were identified.

Actual shooting began in late-April and was concluded in early-August, 1980. During that time, approximately 200 historical photographs were copied. From that collection, 21 views were selected for re-documentation and comparison. The "re-creations" were planned for when lighting conditions were most favorable, to ensure the best images from technical as well as aesthetic standpoints.

Forty additional prints of contemporary Nevada were also produced. These documentary photographs were chosen from 1,975 exposures which were made during the same summer months as the set of 42 contrasting views.

The supplementary images were intended to serve as a benchmark for future researchers; comparisons of future institutions with the 1980 views will show whether the community continued its process of transition.

3. Philosophy and purpose

A thorough examination of Nevada was planned. But, as Collier noted (1967, p. 30), in a limited field period, often the observer "is faced with the negative circumstance in which an important link in the seasonal technology has past -- you cannot photograph haying in the spring."

Likewise, classroom situations at the high school were only briefly available when the project began, and harvesting had not yet begun when the documenting was concluded.

Therefore, it was necessary to establish a guiding philosophy for the project. It was decided that the researcher would not have residents "simulate" activities. The contemporary images would be made as near the site of the original photographs as possible, and no "trick" photography or equipment would be used which would diminish the integrity of the early photographs.

The project's conceptual purpose has been mentioned. The intent of the documentary photographs is to provide the residents with one researcher's view of their community, to show them the changes and similarities between their home and the community of their ancestors. The photographic genre not only can reveal such transitions, but it also allows the photographer to comment on the passing scene.

The related images, combined in the photographic essay, are intended to induce emotional reactions concerning social change in this Iowa town. However, they will only present evidence of that alteration; they will not pass judgment.

4. Selecting equipment

Considerations for equipment needed for projects like the study of Nevada are varied.

Archaeologists, such as Conlon, recommend use of the 35-mm camera. He notes that its light weight, relative to formats using larger film sizes and creating larger negatives, makes it more portable (1973, p. 5).

Documentary photographers such as Smith (1977, p. 97), and F.S.A. staffers such as Carl Mydans (Hurley, 1972, p. 42) and Shahn (Davis, 1975), used the small-format camera extensively.

A compromise is necessary for this thesis project, but the final images sought dictate the equipment selected.

To demonstrate change at Nevada, black and white photographs from the period 1900-1925 were to be compared with images made in 1980. Film for the large-format cameras was considered too expensive, especially since modern fine-grain films will produce enlargements from 35-mm negatives which are of similar quality to prints by early-Nevada documentarians.

A "reflex" viewing system was preferred because it allows the photographer to more closely match the framing of the turn-of-the-century cameras. Therefore, elements within the respective borders can be more easily compared.

Although many lenses are available to 35-mm camera users, those with "normal" perspectives (which were prevalent among the earlier photographers) were chosen for the project. To maintain consistency, and thus provide for better comparisons, black and white film was also selected. A tripod aided in setting up the contemporary comparison views and allowed for photographs with great depth of field, produced by long exposures at small "f-stops."

Basic lighting was produced by ambient sources, by "bouncing" light from an electronic flash unit to provide even illumination, or by directing the flash unit at the subject in the fashion of the early documentarians.

The researcher had, thus, assembled a photographic system which would provide the desired images. Their analysis, like the incentive for their inclusion, would be based on social system theory.

5. Analyzing the data

By directly contrasting the 42 comparison views (21 from each era), and with the help of key informants, physical changes in the community can be identified. Implications concerning the major institutions can be drawn also from the qualitative elements of each image. For example, changes in the physical dimensions of schools or businesses can quantitatively express change in total population or volume of clientele; dress and mannerisms can qualitatively imply other social changes.

Musello (1979) noted that for many families, the picture-taking act signifies that the event is important. That point was considered when the significance of the old-time photographs was discussed. Photographs are used as a form of entertainment, and some use images to reinforce bonds in their relationships with friends and family members.

The ability of the camera to document the growth of children and other aspects of family life is an important feature. Musello added that photographs are not simply mechanical recordings of natural events. "Rather, they are the artifacts of numerous decisions which in turn are shaped by the social contexts in which they are made; and to evaluate the document, we must understand the processes which shape it," he said (1979, p. 117).

He agreed with behavioral scientists who said that shared values and conventions influence how we take pictures, and how we view our

photographs is guided by beliefs nurtured from childhood (Musello, 1979).

However, Byers (1966) has argued that photography has a language of its own. For him, Lasswell's 1948 paradigm of the communicative act ("Who says what in which channel to whom with what effect?") does not lend itself to an examination of different forms of communication. His model is based on sequential forms of communication, such as written statements, and is, therefore, inappropriate for analyzing still photographs which represent nonlinear communication.

Visual researchers, such as Arnheim (1974) and Bayer (1977) have noted that what we perceive from photographs is influenced by our past experiences and by our attitudes concerning those experiences. Also, since we communicate when we assign the same meanings to symbols used by senders, to have a "language" of photography, photographers must use common elements for their messages to be received.

Within the limiting frames of a photograph, camera operators communicate by utilizing the principles of design: balance of elements, variety and contrast of tones, repetition and rhythm, emphasis of focus, and unity (Varney, 1977; Dondis, 1973). Use of these elements in the photos will be considered.

Thus, documentary photographs provide the research tangibles Collier called for, and they rely heavily on the camera's ability to record quantitative aspects which can be counted, measured, and compared.

But, photographs can also present qualitative information, such as the emotional message of the documentary photographer who attempts to persuade an audience.

Walker Evans' photographs frequently have no one in them; the rooms are empty, the floor swept, the broom stands in the corner..., and beside the empty washbasin a clean towel hangs from a nail. In many of his pictures it is when people are gone, leaving the signs of their lives for our unhurried contemplation, that we discover most about them and the group they represent (Stott, 1973, p. 62).

The analysis of the documentary photographs of Nevada, Iowa, will involve the examination of physical change and reflection on the implications that such alterations have on the social system.

By looking for visible changes and comparing them with the list drawn up in 1964 by Larson and Rogers, it will be determined whether the community has indeed been altered.

IV. FINDINGS: A PHOTOGRAPHIC ESSAY ON CHANGE IN AN IOWA COMMUNITY

A. Early History

Although the federal census listed no inhabitants of Story County in 1850, just four years after Iowa gained statehood, at least two families were living in the region.

And, by the time Englishman Roger Fenton was setting sail for his documentation of the Crimean War, Nevada was experiencing growing pains half a world away.

In 1853, the state legislature appointed three commissioners to establish a county seat; they chose the east half of the northwest quarter and the west half of the northeast corner of Section 7, Township 83, Range 22, west of the Fifth Principal Meridian. According to legend, Commissioner Joseph M. Thrift of Boone County had been a California "Forty-niner," and had admired the Sierra Nevada mountain range during his travels.

So, the Iowa site was designated "Nevada," ten years prior to the western state's adoption of the name.

According to Payne (1911), the mid-1850s were a "boom period" for Nevada. Theodore E. Alderman was one of the region's first settlers, and the 28-year-old built a cabin on the present courthouse grounds in October, 1853. He and his wife, Hannah, and their son became the county seat's first permanent residents, and their general store was the first commercial venture.

By 1857, many others had joined the settlement, and a steam saw mill was erected to supply lumber for the growing community's buildings. The pioneers used native timber for every conceivable purpose, and farmland adjacent to a wooded area was highly-prized. But, it was not until 1864, when timber was needed for the first railway to enter the county, that settlers discovered that coal was a practical substitute to fuel furnaces. Konkle (1890) noted that, as trees for lumber became scarce, landowners adopted measures to conserve the native groves. The state offered tax exemptions, and agricultural and horticultural societies offered premiums to those who planted trees.

The county's population grew from 214 residents in 1852 to a total of 5,918 by 1865, according to the state census (Payne, 1911), as settlers came looking for farmland or space for a business enterprise in the new communities.

Konkle (1890, p. 191) noted that prairie settlements tended to follow railroad expansion, rather than water courses. Sutter (1973) said migration routes and settled places support each other; stable communities are formed where settlers can provide services for people in transit.

Nevada and other towns were founded where the soil looked best for farming -- and near sites of promised railroads.

Nevada had grown steadily until the American Civil War, when little progress was made, but it remained the largest of the county's settlements. Its citizens had sought a railroad, but it was not until July 4, 1864, that the first train entered from the east. At that time, nearly 1,000 persons lived at Nevada.

Development of the railroads provided "a motive for production beyond the needs of the local communities," Konkle said (1890, p. 178). Story County farmers grew 116,000 bushels of corn in 1856; in 1875, about 1.8 million bushels were harvested, and much of the major crop was shipped to outside markets.

Colonel John Scott in the 1870s introduced the Shorthorn breed of cattle to the area, and earned a national reputation for his purebred livestock. Other farms improved their livestock lines, and heavy draft horses replaced the pioneers' teams of oxen.

Central Iowa's climate and rail service favored farm operators and trade areas. But much of the region's potential went untapped until its swamplands could be drained. Both town and country properties were cursed by the "slough" areas.

In the 1800s, factories producing clay bricks and sections of piping prospered. At Nevada, Lockridge and Beatty tile factory and the Lyman Tile Factory supplied tile which was used to transform marshes into some of the world's richest cropland.

They continued to rely on the Nevada Brick and Tile Company until its demise in the 1980s, when synthetic piping was popularized.

As for Nevada's businesses, the merchants were divided physically and emotionally into two commercial districts by the slough. Lowlands were periodically flooded by Indian Creek or continually marshy. Trade was settled in two public half-squares, north and south of the slough, and Lynn Street, which eventually would become the main north-south roadway, was uncrossable for years. Debate over which area would become the business district raged until the late-1870s.

Frank D. Thompson and T. C. McCall -- a realtor and an attorney -- resolved the issue when they secretly offered lots on the north side for sale at deflated prices. Their fees allowed the grading of Lynn Street (now 6th Street north of the courthouse), and the migration of several key south-side merchants led to a complete exodus.

Nevada's chief business district became established along Lynn Street (known today as "Main Street" and designated as 6th) north of the slough. Not until after the interstate highway bisected Nevada in 1914, would a similar challenge to the business center ensue.

Historians of the region noted also that fires influenced the growth of the business district.

In December, 1879, a blaze began in a photography gallery on the west side of Lynn Street and spread to buildings on both sides. A block of wooden buildings was destroyed, and the catastrophe led to a town ordinance which prohibited construction of wooden buildings within "fire limit" zones. Wooden structures were also lost to fires in 1882 on the west side of Lynn and in 1887 on the east side. By the ordinance, merchants who chose to re-build used principally brick or stone materials.

Besides the sloughs, rail service, and dangers of fire, another factor contributed to the rate of Nevada's growth.

In 1858, the state legislature debated a bill which would have established a state-supported agricultural college and model farm, "for the purpose of affording education to the industrial classes" (Hainer, 1890).

The act provided \$10,000 to purchase at least 640 acres of land in 1859.

Income from the sale of five sections of land granted by Congress also was appropriated. A board of trustees received propositions for the site from Hardin, Polk, Marshall, Tama, Jefferson, and Story Counties.

About 650 acres of unimproved land west of Nevada was chosen and purchased for \$5,380. Story County earned the selection by securing \$10,000 in bonds and another \$11,000 in private donations. Construction began following the Civil War, and the first classes were held in 1868 (Payne, 1911, pp. 349-351).

According to Payne (1911, pp. 100-101), the site of "College Farm" was determined by two factors: because residents of Boone County to the west had contributed to the fund, it was agreed that the college should be accessible to the bordering county. Also, the soils near Nevada were not considered varied enough for a model farm where testing for the whole state was to be undertaken.

A community gradually developed around College Farm, which became known as Iowa State Agricultural College and grew into Iowa State University of Science and Technology. Ames rivaled Nevada for supremacy -- later it tried to wrest the county seat from its eastern neighbor. Eventually, Ames became one of Iowa's largest cities, a center for industrial firms, laboratories, state government agencies, and commuters to jobs at the capital city.

As Payne (1911) said, by the actions of the Nevada investors, they made it possible for a rival town to get started.

During the period 1900-1925, the population of Nevada grew from about 2,500 persons to a total of about 3,000. And technological advances changed the needs of the farm town's residents.

Photographers, such as C. C. McManus in the 1870s, and Reynolds in the 1890s, recorded life in the community before that era. Allen maintained a portrait studio before 1900 above what is now Reedholm's Hardware. H. H. Day, McVay and Frank O. Ingalls documented Nevada activities during the 1900-1925 era.

By comparing their records from those years with documentary photographs taken in 1980, social change among Nevada's institutions will be illustrated.

B. Examination of a Community's Transition.

The researcher found that the seven trends identified by Larson and Rogers (1964) can be supported with visible evidence from Nevada, Iowa.

1. An increase in farm productivity per worker is accompanied by a decline in the farm population

A comparison of photographs 4A and 4B illustrates the effect technology has had on the hinterland. The combine in the latter picture can reportedly harvest more corn per-day than the three dozen farmers who gathered for the 1899 portrait after a morning of picking by hand. That the modern machine is included in the community's Fourth of July festivities indicates that residents remain proud of their ability to produce food and fiber and of their relationship between town and hinterland.

Number 30 represents the scale of the modern farm equipment needed to profitably manage farms of increasing size. The diesel-powered equipment allows the two tractor operators to cultivate more acres per hour than the equipment of the earlier era. The Gerlachs' corn field yielded an average of 150 bushels per acre in 1980.

Photographs 12A and 12B demonstrate a decline in the importance of work animals and livestock in Story County. Horse markets, such as in Number 12A, were important because the animals were necessary for transportation and other farm work. Number 12B considers a 4-H and FFA showmanship competition; an auction followed the contest. Raising horses and livestock has become a discipline for some, a hobby for others. But in each era, the event offered a chance to "socialize."

2. Linkage of the farm and nonfarm sectors is increasing

Number 27 shows the executive vice president and a nutritionist from Man-an-so, an agri-business offering the farmer feed and fertilizer products and the expertise necessary for appropriate application. The firm was one of the many such businesses at Nevada. Other examples were the Nevada Brick and Tile Works (Number 13B), Dawson Elevator Company (Number 29), and combines on display at the Massey-Ferguson dealership (Number 31).

Vertical linkage is a form of business where several steps in a production process are controlled by one firm. The Roland-Nevada Co-op (Number 28) exhibits elements of this, in that it not only purchases equipment for applying chemicals to fields. It also stores the harvested crop, and locates transportation facilities for moving the product to market.

With changes in the farm operator's work day -- there are fewer Story County animals to care for and more efficient machines to tend to crops -- the rural resident sometimes commutes to other jobs. The cars parked in Number 20B belong to workers at Nevada's Donnelley Marketing.

Increased efficiency also means that fewer farm jobs are available; some rural people have moved to mobile home courts to live within commuting

distance of rural friends and nonfarm jobs. Number 42 illustrates a trailer court which links a neighborhood of modern, single-family dwellings with an industrial zone. The grave stones and trailers visible in Photograph 44 comment on what some residents perceive as a threat -- becoming a "bedroom community."

Glover Ambrose, owner of a local clothing store, said, "Nevada to quite an extent is even now a bedroom town. But I think we're more than that. Our economy doesn't hinge on one industry. Obviously, we don't have as much work to offer as we have people, so they have to branch out. But we have a lot of other things to offer" (Glover Ambrose, Ambrose's, Nevada, Iowa, personal communication, 1980). He noted also that Nevada merchants still rely on sales to local farmers, but the decline in their numbers means businesses have to reach a new sort of consumer.

Paster Walter Lack said many Nevada residents are not members of the local churches. The Lutheran minister said, "We have a mixed bag as far as the community is concerned. Some live and work here, some are transient people. We know that Nevada is partly a bedroom town, with a lot of trailer courts. A lot of people have pretty solid jobs at Ames at the federal disease lab, or the Department of Transportation, or at Iowa State. Or others, like students, are here for two or three years or have an uncertain job" (Minister, Memorial Lutheran Church, Nevada, Iowa, personal communication, July, 1980).

Associate Lutheran Pastor John Chadwick pointed out that modern families have fewer members than before. But the small town often has few attractions to convince young adults to stay, so the population composition

changes (Minister, Memorial Lutheran Church, Nevada, Iowa, personal communication, May, 1980).

Historically, farmers have been active members of the Lutheran Church at Nevada; they donated their time and equipment to raise crops on the site of the new church. Proceeds from the harvest in the late-1960s went to the building fund.

The Rev. Chadwick said less than 20 percent of the Memorial Lutheran church members are from farm families, although the community considers his congregation "a rural church."

Where the hinterland visibly meets the urban sector is visible in Number 43. The east edge of town where a perimeter road separates a new housing development from nearly-planted fields is illustrated.

3. Farm production is becoming more specialized

In Photograph 29, a farmer and his son wait for their wagon to be filled with corn which they intend to feed to their livestock. Farmers in Story County are becoming more specialized, preferring to produce one or two crops, sometimes no livestock, and to rely on agri-business to meet their production needs.

County extension director Jim Christy said he sees young farmers becoming particularly enthusiastic about modern ways to raise hogs, such as confinement units and open-front systems. He predicted that more farmers will "be working with hogs in the 1980s than with other large livestock types." He noted that operators continue to raise about 6,500 beef cows in Story County, although poultry and dairy operations -- once animals found on every farm -- will be raised only by specialized operations.

Dick Irish, manager of Nevada Poultry Company, said his family has been in the poultry business for about 50 years. "Years ago, the farmers all had chickens and milk cows. We put up carloads of dressed poultry here and had buying stations for butter and eggs, too," he said. But changes in the industry, especially demands by the supermarkets for a uniform product and by federal regulations -- have altered his firm's relationships with farmers. Irish said, "Farmers didn't raise 'broilers' like the large businesses in the south, so they went out of business. The stores got into handling 'friers,' and with the federal grading system, all these things combined to cause a gradual change." He said the small operator could not compete with those employing modern techniques.

John Hattery, attorney and landowner, agreed with that assessment, but cautioned the beginner not to be so desperate to begin farming that he or she spends more on land and equipment than the market will return. "From 1940 to 1980, it's been a revolutionary period. But with the improvements in tractors and other technology, the cost of everything has sky-rocketed along with it," Hattery said. He noted that in the depression era of the 1930s, land with as little as \$100 mortgages due had to be sold back to banks or insurance companies because there were no profits. "Those who had heart could work it out. We're in the same dilemma with land at \$2,000 or \$3,000 an acre -- we can't get enough return to break even. And when the house of cards falls, we're going to be in the same situation as in the depression of 1890s that my father told me about." The 83-year-old concluded: "Don't get me wrong -- there are smart, successful farmers who manage their operations well and will make money. But the unwary could become consumed by inflation and depression at the same time."

The specialized farmer who has become less self-sufficient is matched by a city counterpart. However, changes in types of services offered are influenced by the demands of the consumer; new residents at Nevada bring new desires.

The bakery in Number 26 has traditionally been a specialized business; supermarkets are now supplied with mass-produced breads and pastries. The APCO self-service gas station (Number 8B) has trimmed services to a minimum to offer only what is requested -- quick service, no costly frills. This is in contrast with the tire shop and cafe which was located on the site sixty years earlier (Number 8A) and offered a complete line of goods and services.

The barber-stylists in Photograph 24 offer personal grooming on the site of past barber shops, but the service is perhaps more formal, and the grooming aids are supplied only by dealerships.

4. As America moves toward becoming a mass society, differences in rural and urban values are decreasing

The farm family which needs less time to produce a crop has correspondingly more leisure time. Photograph 37, of a male-versus-female water fight sponsored by the fire department during the Fourth of July, shows rural and urban residents enjoying the same leisure activities. The same is true of the boys' baseball game illustrated in Number 38.

The 3rd-graders in 1910 represent the urban sector; rural children enrolled at "country schools." Those students (Number 14A) seemed to wear a vague uniform; parents in 1980 also dressed their 3rd-graders in uniforms of T-shirts, jeans, running shoes -- or in turn-of-the-century styles.

The contemporary photograph, 14B, was composed to emphasize the informality of the modern classroom, with its curriculum of games to stimulate skills at mathematics and handicrafts. In contrast, Number 14A goes beyond the children's unwillingness to sit still for the photographer to demonstrate an accepted formality in an earlier era.

This is implied in the architecture, also. The high school (Number 15A) in 1920 was imposing, upright; in Number 15B, the building is more "spread out," designed to seem less rigid. The classrooms at the left seem to get equal billing with the gymnasium/auditorium at the right.

For Nevadans, the city swimming pool is an expected government service. It has essentially taken the place of the watering trough or muddy creek for spontaneous summer fun (Photograph 39), and rural or urban children can be seen in California-designed swimwear.

Images from the wedding (Numbers 46 and 47) show that the Nevada farm family sees the ceremony in much the same way as participants at other weddings the researcher attended. Gowns and tuxedos, flowers and formal vows -- feelings about the public recognition of their marriage are the same for rural and urban people.

And attitudes concerning divorce have also become similar, according to the ministers and county social workers.

"It's not only easier to get a divorce, there's less pressure to stay married," said the Rev. Chadwick (Nevada minister, personal communication, 1980). "I'm afraid that kids jump into a marriage with the attitude that 'We can always get a divorce if it doesn't work.' Nevada isn't exceptional, as far as its divorce rate, we're just more aware of it."

The associate pastor added that persons dating divorced men or women have become accepted by both rural and urban residents.

According to the Rev. Lack, a community's social trends become the trends of the church. But he added that divorce rates and broken homes were not quite as high as for the general population.

And he emphasized the participation of the membership. "I've never seen a church so active," he said, citing the congregation's initiation of special nondenominational programs for the elderly, its allowance of the use of church facilities by community groups such as 4-H clubs and Boy Scouts, and its cooperation with the Kiwanis service club and city government to use church property as a local park and recreation ground.

Memorial is the only Lutheran church among the dozen Nevada congregations. It began with eight members in 1865 as The First English Lutheran Church; by 1979, it listed over 1,330 members. According to its ministers, the values of its congregation have become more sophisticated as the group gained new members.

"I think that there have been some changes in attitudes," the Pastor Lack said. "People are not so shocked, such as when a couple marries after living together. The other thing that has happened is that people have become more tolerant of persons who have been divorced but re-married someone else."

Circuit Court Judge M. D. Seiser said the court's caseload at Story County has increased 20 percent in each of the past three years. He said much of that was due to an increase in the divorce rate. "In the olden days, you had to prove that your spouse was at fault, not you," he said. "Now, we've gone to no-fault divorce proceedings, and it's become easier to

get a 'disillusionment' settlement, because the cases are not just to punish people. The parties aren't branded with the stigma of being at fault" (Judge, Second Judicial District, Nevada, Iowa, personal communication, July, 1980).

Christy pointed out that the graduates of 1970 published a pamphlet for their 10-year reunion which listed the classmates' activities since commencement. Of all the students, 25 percent still lived in Nevada, and about 25 percent lived in other parts of the county. Of the total, more have been divorced (26) than remained single (23), he said (Christy, Story County Extension Agent, Nevada, Iowa, personal communication, 1980).

Jeana King of the county's child support recovery agency said in central Iowa, particularly at Des Moines, the divorce rate is as high as the rest of the nation. She added that, "The whole concept of childhood has changed since the child labor reforms came about, which said that children should be protected, not just considered as wage-earners for the family" (Story County Social Services Agent, Nevada, Iowa, personal communication, 1980).

County relief worker Irene Howard said the community's attitude toward 'welfare' has changed. She noted the elderly were reluctant to seek help from social services, but "younger people almost look on it as a benefit. It's seen as part of our government programs that they're entitled to, and the majority have no qualms about asking for help" (Story County Relief Office, Nevada, Iowa, personal communication, 1980).

Howard also said the agency's caseload had increased in the previous six months because unemployment had also risen. Although Ames had the greatest number of applicants, she said most communities had at least some

applicants -- and professionals as well as persons with less than high school educations were seeking aid. "Our ultimate goal is to have no one coming in, that we'll be able to help everyone help themselves," she concluded.

As Nevada's population shifts, new demands may also be placed on its school system. Elementary Principal Robert McIntire said a survey taken during orientation sessions found that about 30 percent of the junior high school students came from single parent families. Of 25 new families with children in grades kindergarten-fourth, 17 were single parent situations (Nevada School System, Nevada, Iowa, personal communication, June, 1980).

McIntire said, "It's an interesting kind of phenomenon that we're seeing. I think that a certain percentage of the population is in transit, and the economy has something to do with it. But we're seeing a number of kids struggling with family situations, and their problems at school are reflections of what anxieties are going on at home." The principal said, "It's important to us, because you can't reach a child until he or she has a good attitude."

Enrollment in the Nevada school district was about 1,425 for the 1979-1980 school year. In 1906, 15 students were graduated, and the student body totalled about 200; by 1957, K-12 enrollment was over 900 pupils.

Superintendent Kenneth Shaw noted that the increase is due not only to a change in total population, but to a difference in values. "You'd have to guess that 99 percent of the students go on to high school and graduate, whereas only about half of the students did at the turn of the century. Today, more than half go on to two-year or four-year colleges for further education" (Nevada School System, personal communication, May, 1980).

The school administrator said the community's "professional" make-up affected the search for higher education, and he echoed McIntire, who said members of such families tend to have higher expectations for themselves and for their school district.

Other citizens characterized Nevadans in traditional terms. Sheriff John Stark said, "Basically, they're hard-working people who don't really expect much out of Washington. We do have some of the problems of the city, just not as often. If I had my druthers, I know of no other county I'd rather be sheriff of. It doesn't matter which of the towns you're in; the people are loyal, and if I need help, I can get it" (Story County Sheriff Department, Nevada, Iowa, personal communication, 1980).

Businessman Glover Ambrose noted that the merchants display a lot of pride in their Main Street district, as evidenced by the lack of "beat-up" buildings. Photographs 2B and 2D illustrate his point.

And attorney John Hattery added that, "The basic ideals of the people of Nevada are good -- they're a Christian, God-fearing people. Our churches are well-attended, and the boys and girls attend 4-H and other youth groups. They know the realities of life and are facing them" (Nevada, Iowa, attorney, personal communication, 1980).

Regarding declining differences in values, Number 45 shows the expensive funeral accorded a teen-ager who died in a motorcycle race. In death, as in life, parents want the finest things for their offspring.

5. Improved transportation and mass communications systems have made rural people more cosmopolite in their social relationships

Interstate 30 connected Nevada with other communities in 1914, but it was not until it was paved in the late-1920s that tourists began to

visit Nevada, and local people began to utilize the "Lincoln Highway" (personal communication with Nevada historian, Joe Briley, July, 1980).

Mrs. Grace Bowers, 94-year-old former school teacher, recalled that she made frequent visits by train to a cousin in Chicago (personal communication, August, 1980). Briley noted that the Chicago and Northwestern depot where he worked was always a hub of activity.

"There were always a lot of stock buyers and farmers around, and the produce was better because it was fresh. They sold it right off the railroad cars. In the 1920s, we had special passenger coaches called "49'ers" and Pullmans. Of course, there were more bus lines running between Ames and Nevada -- now we have just one -- but transportation has always been the best of its day. When I worked in the early 1930s, we had these fantastic, big steamers. The accommodations were all first-class. They had special names, like the San Francisco Zephyr, and they all were beautiful. I can't see why they had to leave this earth," Briley said (personal communication, 1980).

The retired railroad man supposed that use of larger trucks to move cargo and jet planes and automobiles for personal travel spelled the end for the passenger trains.

But the bands of concrete have helped put Nevada in touch with other trade centers.

Hattery said the highway makes Nevada "an ideal place," having the virtues of larger cities with only a few of the vices.

Ambrose considered the social relationship to Ames "quite warm, what with the existence of the I.S.U. Center with its sports and cultural

attractions. There has been an added closeness to the people there; we have something in common" (personal communication, Nevada, Iowa, June, 1980).

The businessman said firms compete according to size, but price and selectivity are the drawing cards to any venture, he said. He added, "It's pretty hard to match the selectivity of Ames," such as the variety of goods offered by that community's larger clothiers.

But Ambrose said, "We compete by offering more personalized service to our customers. For instance I know three-fourths of the people who come through my door, and I try to make them feel comfortable instead of like a number. Quite a few people like the atmosphere of a smaller store -- it's a little warmer." He also said in the summer, 1980, interview that he has adopted some modern marketing techniques.

"If I tried to run the same kind of operation as twenty years ago, I'd be out of step," he said, pointing out that items are displayed where they can be seen and touched. Before, they would have been stockpiled and boxed.

He also said, "The residents are much more sophisticated by virtue of a total change in the pattern of living, and an increase in fluency. Exposure to television and use of the Lincoln highway have made my wife and me more sophisticated."

According to Ambrose, people with professional jobs at Ames who live in Nevada have become members of the community and have contributed to the town's change. "And we do some fine arts things such as theater productions. The school offers some things in the way of entertainment, and there is the Camelot movie theater. As we are exposed to more things, our demands differ, and we want more," he said.

Nevada's love affair with the automobile is evident in the photographs. Numbers 7A and 7B illustrate the modernization of a business designed specifically to serve the automobile. Photographs 8A and 8B demonstrate a shift from a full-service business to one which is geared to offering gasoline only -- which the consumer must pump.

In Number 47, the decoration of the bride and groom's car is seen as an American ritual, a part of the formal wedding service. And the Nevadans, like their more-urban counterparts, use their vehicles as status symbols.

The sports car has become an object of attention, itself. In Photograph 33, it is used to transport a beauty queen during the community's Fourth of July parade.

Automobiles bring customers to Main Street and residents to social events. In Numbers 2A, 2B, 2C, and 2D, the business district has been changed to accommodate its visitors. Better lighting and signs which regulate traffic and steer clients to goods and services can be seen in the contemporary views.

Some of Nevada's businesses are strictly dependent on the mobile consumer. Casey's General Store in Photograph 23 is such a firm. The Chrysler mechanic in Number 22 has a shop outfitted to remedy any ills our motorcars might suffer.

The adolescents use automobiles not only to drive to gathering places such as the Gates Hall parking lot, but to illustrate their "arrival" in the social order. Cars, as symbols of mobility, can make statements about their owners; vehicles can demonstrate wealth or a rebellion against

traditional authority. At Nevada, motorized vehicles of some form were used by every resident. The motorcycles in Numbers 2B and 15B are other cases.

Cosmopolitanism was also seen in the adoption of new marketing techniques, such as in the Nevada National Bank's lobby and convenient drive-up window (Numbers 10A and 10B).

Families have been affected. That the citizens have become part of a mobile "mass" society is further demonstrated in Photograph 42, which shows an established trailer neighborhood which houses commuters and part-time farmers, and in the "moving day" scene in Number 40.

That families are attempting to meld the physical appointments which symbolize the value system of an earlier era and the conveniences supplied by today's technology can be witnessed by the many attempts to refurbish Nevada's historic homes for contemporary lifestyles.

Examples are the homes in Number 41, Numbers 20A and 20B, and 21A and 21B, and 19A and 19B.

That Nevadans have adopted the ways of the outside world is further evidenced by other examples of their architecture. Photograph 43 graphically displays the confrontations occurring in the rural-urban "fringe" areas, as city dwellers require more land for expansion.

"Expansiveness" is also illustrated in the interior view (Number 46) of the Memorial Lutheran Church. The high school gymnasium houses many of the activities which are rites of passage for community members, such as sports events and commencement ceremonies (Numbers 50 and 51).

The mass media have also influenced students' activities so that their senior prom night has become like any other in North America (Number 52).

And church-goers have modernized their worship places to reflect changing tastes. Photographs 17A and 17B demonstrate change at Saint Mary's Catholic Church, and Numbers 18A and 18B illustrate the transition in the physical structure of the church occupied by Lutherans in 1920 and Baptists in 1980.

Women are allowed to fully compete in the new social system, as evidenced in the number of female business managers, such as at the bakery in Photograph 26, or by athletes in the hurdles race in 16B. Schoolgirls had basketball in the earlier era, but accounts by "old-timers" imply that the six-player style of play was designed to be more genteel. Girls sports in 1980 have become popular in their own right, with a following of fans comparable to the male sports teams of the bygone period (Number 16A).

The acceptance of new technology is another sign of cosmopolitaness found at Nevada. County Extension Director Christy said, "I don't know if farmers in this county feel they are leaders, but I think they are progressive."

Pastor Chadwick noted that Nevada is special because it maintains "an invisible status" of being the county seat. "But what keeps it nice is we're 10 minutes from culture," he said, in reference to the Ames connection.

Businessman Ambrose added, "The economic pace is good, but not frantic. I think we're pretty aggressive -- it's more relaxing here than in the city, but we're no longer in the cracker barrel and pot bellied stove era, either. The stores have kept up with the times, and the people have, too, both culturally and economically."

The sixth point trend identified by Larson and Rogers (1964) is one of the most visible at Nevada.

6. There is a trend toward centralization of decision-making

Outside influences on local institutions are evident on several levels.

Sheriff Stark said many communities in the county have disbanded their police departments in favor of law enforcement provided by his department. As a result of increased countywide services, expenses as well as benefits have risen. Stark said the sheriff's department collected \$10,759 and expended about \$93,000 in 1969. The agency's 1979 budget exceeded \$580,000, but over \$320,000 in revenue was generated. The size of the county jail and number of deputies have been increased in the past decade. But the greatest changes, according to the sheriff, involved the additional paperwork which attended a heightened level of bureaucracy and the arrival of better-educated deputies.

"Our hiring standards are as strict as anywhere in the state because the quality of people we have in this area allows us to be choosy. Some have four-year degrees, and the last deputy we hired is an attorney. The laws are always changing, and we insist more on an education than we would have in the 1940s and 1950s," the sheriff said.

Story County Sheriff's Department furnishes Nevada with a jail, handles the police department's communication system, and supplies back-up assistance at an annual cost of about \$120,000.

The cooperation between departments is illustrated by Photograph 55, which shows a discussion between a city police officer and sheriff's deputy

at the court house jail. Number 54 shows the modern courtroom facility, one of many court house aspects which bring non-residents to Nevada.

Centralization of business operations has affected local firms. The parent company at Canada has taken direct control of the local Massey-Ferguson implement dealership (Photograph 31). *The Ames Tribune* opened a branch office at Nevada to obtain special coverage of the community. *The Nevada Evening Journal* reversed a trend when an independent, Eugene Thomas, purchased the newspaper from a Florida-based "chain" in 1980.

Ambrose, who simultaneously operated clothing stores in other Story County towns, noted that Nevada is not dominated by "big industry." Donnelley Marketing, the county hospital, and the school district are some of the largest employers.

"I'd say that 'bigness' has taken over Ames more than Nevada," he said, noting that the two supermarkets and grocery in town are home-owned, but most at Ames are controlled by outside management.

Hunt's grocery (Number 25) is an example of franchise operation which allows the owner a large degree of independence. Reedholm's Hardware (Photographs 11A and 11B) and the barber-stylists (Number 24) represent a trend of local businesses which retail goods supplied through dealerships.

Some franchises exert more control, such as the Conoco organization, which threatened to impose sanctions on Bill's Tire (Number 7B) because his building failed to comply with color scheme regulations. The Ostrich Chrysler Corporation dealership (Number 22) also answers directly to management located outside Nevada.

Other examples of "chain" or "franchise" operations photographed were Nevada National Bank (Number 10B) and Casey's General Store (23).

Dick Irish noted that his firm sells poultry only in Iowa. He said the federal inspections necessary to qualify for interstate sales would certainly cause changes which would raise costs enough to keep him out of the market, anyway.

"In the 1930s you could count 135 poultry dressing plants in Iowa, but federal regulations and changes in what the supermarkets want caused farmers who used to supply those plants to quit raising chickens," he explained (personal communication, 1980).

Besides the legal system, other subsystems of the governmental institution have been affected.

Photograph 53 illustrates a trend for city councils to manage their decisions as a commercial operation would; the local government is listening to one of several sales representatives' claims about before buying a photocopying machine.

At Nevada, construction of new waste water treatment plant has been delayed five years -- and estimated costs have sky-rocketed -- while the federal bureaucracy has changed regulations for such facilities. The city will pay 20 percent of the \$3.8 million facility plant, the state five percent, and the rest will be granted by the federal government.

But Bill Selby, the city's zoning enforcement officer, said that, "The end justifies the means. The public in a small town would really like to be independent. But they can't afford such projects, and they can see that the environment is better off with state and federal participation.

They tack on a lot of rules which are important to good growth" (personal communication, 1980).

According to the city clerk and zoning officer, the number of mobile homes at Nevada has tripled since 1973. Total housing units increased about 33 percent, while total population increased about 19 percent.

Since 1977, the city government has established new zoning procedures and housing specifications which Selby said will be good for the community, because the only changes will be improvements.

The increase in mobile home "neighborhoods," as seen in Photographs 42 and 44, has encouraged new types of migrations to Nevada.

They brought with them different sets of expectations; combined with rising number of professional workers in the community, the city will be called on to supply new services.

A larger population with a new composition requires more services for its residents, such as more mail carriers (Number 57), more county hospital facilities (Number 56), garbage pickup (Number 59), protection from fires (Number 60), and dependable utility services, such as electricity (Number 58).

The institution of education has also been changed by the new population and by the increased authority of outside governments which control funding.

School Superintendent Shaw pointed out that the curriculum offered has expanded since 1900, to include enrichment programs for developing individual talents and learning disability programs with outside financial aid.

But Principal McIntire said, "There's been an ever-increasing amount of infiltration by the state and federal governments in the local school districts. Part of that stems from our move from depending on local property taxes to support from the state for education."

That means that the local school has lost some of its control, in order to continue operation.

Various federal "Title" funding programs have financed additional library materials for the school district and provided for programs for the physically handicapped and disadvantaged and mentally handicapped, he said.

In Photograph 14B, the "packaged" curriculum aids, aimed at making learning less tedious, are pictured prominently. The emphasis on handicrafts as controlled group activities are also evident at the Lutheran church's summer Bible camp (Photograph 49).

Extension Director Christy summed up the situation when he said, "The businessmen would like to be more autonomous. But they realize at the same time the influence of Ames and Des Moines. With the interstate highway system, we're very much a part of a total community of central Iowa towns" (Story County extension Agent, Nevada, Iowa, personal communication, 1980).

The example of Nevada has shown that small-town social systems must compromise some of their local control to enjoy the benefits of the larger society.

7. Changes have resulted in a declining emphasis on primary relationships and an increase in the relative importance of secondary associations

This trend was illustrated by group-sponsored activities which have replaced what were traditional roles of the family or of small, intimate groups.

For example, the July 4th parade in Photograph 33 is a planned activity "for the whole family," and kinship children and parents generally stayed in close proximity during the event. But, in Number 43 of the same activity, it can be seen that people generally attend events as individuals and "mingle" with peer groups. Participants in baseball game (Number 38) and girls track and field competition (Number 16B) were witnessed by family members, but they arrived at and left the event separately.

Instead, Nevadans have adopted a more "urban" characteristic of seeking entertainment outside the family unit. In Photograph 36, the male teen-agers depend on automobiles to bring them together.

Formal organizations such as the Eagles Lodge (Number 34) and Rotary Club (Number 35) have replaced less-formal associations among the middle-aged. The senior citizens club provides a meeting place which returns to less-structured activities for the elderly, however.

Don Tripp, Nevada's parks and recreation director, countered the assertion that city recreation programs take residents away from their families. He said his agency encourages participation -- and whole families attend the events.

"There is so much for kids to do now, that there is mounting criticism that kids don't have time to be kids," he said. We're just trying to make

it easier for kids and to get together and play ball while structuring it so that the whole family can enjoy the event."

In Story County, the family farm (Photographs 29 and 30) remains as a commercial operation with both economic and emotional bonds between workers. According to County Agent Christy, however, as the rural farm population declines, organized groups with national ties, such as the county's 800-member 4-H association, will be composed of higher percentages of urban residents (personal communication with Story County Agent, August, 1980).

When that happens, participants will concentrate less on raising large animals, so that contemporary Photograph 32 of the girl who raised the Reserve Grand Champion Beef could soon become as quaint as the glimpse of participants at the old-time Nevada horse market (12A).

In conclusion, it can be said that Nevada residents, like members of the larger society, have begun to structure their activities around individual tastes. Participation is moving more to formal associations.

V. CONCLUSIONS AND RECOMMENDATIONS

A. Successes and Failures

Based on the analysis of the documentary photographs, the thesis project should be considered successful for two reasons.

First, the evidence supported the general observations on rural social change which Olaf F. Larson and Everett M. Rogers first published fourteen years ago. It can, therefore, be said that the community of Nevada, Iowa, is in transition.

Second, a demonstration of the camera's ability to establish a visual record offers social scientists another tool for community studies.

It was also discovered that implications regarding social change can be made after regarding a photograph's quantitative aspects -- what can be counted, measured, and compared over time. And, because the photographer is able to comment with the documentary genre on these changes he or she perceives, the qualitative elements of images have also been found to be useful.

However, it should be noted that photography cannot stand alone as a research tool.

Instead, community study methodologies can be placed on a tripod of visual records and written evidence and a scheme which is designed to locate patterns of behavior.

This project was successful because its inventory system provided tangible evidence in support of a particular concept. The utilization of documentary photography benefited the community study by providing information which written records and interviews may not have.

It failed in the sense that all samplings fail -- the researcher could not be everywhere and record everything. He had to decide which of several simultaneously-occurring events should be attended to.

A larger available body of photographs from the 1900-1925 era would have increased the significance of the re-documentation photographs. In some instances, it must be questioned whether the images are representative of the social reality of those foregone days.

B. Recommendations

Nevadans, to most fully utilize this study, should continue the project by adding to the collections according to the inventory of cultural universals already established. Then, the activities photographed can be deciphered according to social system theory. It should also be suggested that others of the approximately 1,900 contemporary views not used in the final presentation be reviewed and added to a permanent collection. Later, comparisons should reveal further transitions.

In a similar study, it might be helpful to use more than one photographer. Varying perspectives from the photographers involved could show even more about the research subject. A team of analysts worked on this project; such a practice should be continued, although singular viewpoints can come from only one source.

In other words, just as a photographer waits to release the shutter until all of the elements in front of the lens have reached the desired relationships, the researcher can filter information from the analysis team to fit the goals of the project.

However, it is suggested that future researchers narrow the scope of coverage. For instance, researching just one of the institutions -- while considering its relationships to the other subsystems -- might prove less unwieldy.

The research should definitely note that the development of a network of key informants is essential to the project's success. And an inventory, such as the one seen below, remains a must for organizing data.

C. A Final Word

In conclusion, it can be said that John Hattery was correct when he predicted, "Nevada will go forward and grow in various ways. I think ... it will keep serving the people of its trade area -- and it will still be a delightful place to live" (attorney, Nevada, Iowa, personal communication, July, 1980).

The implication of the study is that, if researchers continue to use photographs to trace the community's institutions, patterns of change will be revealed.

Evidence of great social change has been provided. How that information is put to use is up to the Nevadans.

D. Inventory of Photographs

Captions for the documentary photographs are generally listed according to social institution. The redocumented photographs include illustrations 2A to 21B.

1. Fourth of July, Main Street, Nevada, Iowa, 1980
- 2A. Lynn Street, looking south, about 1913; now known as 6th Street or "Main," it was first paved in 1914
- 2B. Main Street, looking south, July, 1980

- 2C. "View No. 56" was originally taken for a post card, about 1913-1914, before Lynn Street was paved. View is looking north, toward Old Lincoln Highway, which was completed in 1914 and paved in the late 1920s. Note vintage automobiles, electric lights. Buildings at right include dentist's office, cafe, masonic lodge, radio tower; at left is drug store on site of 1980 pharmacy. On next block is cone of drug store now operated by Tipton.
- 2D. View looking north, Main Street, July, 1980. Note that rooftop facades have been removed, the lighting system improved, and traffic regulations have been installed.
- 3A. Lynn Street, about 1917. The position of automobiles suggests the preparation for a circus parade. Angle of the sun and police officer's uniform indicate mid-day of autumn day. Dome at left illustrates relationship of county courthouse to Main Street businesses.
- 3B. Main Street, 1980. Present courthouse not visible; camera's street level position due to contemporary one-story building which replaced multi-level building from which 1917 photograph was taken.
- 4A. Corn harvest, late fall, 1899. Each of approximately 36 wagons represents that morning's labor. Note heavy coats, caps. Bearded man in second wagon is believed to be Boots Toms, with son, Mack, on the horse in front. Note early street lights, transparent realtor's sign at right, which was read "straight" by travelers entering the town from the chief thoroughfare. Merchants in white aprons and businessmen in dark suits line sidewalks.
- 4B. Progress on parade, July 4th, 1980. Combine with special attachments could probably pick more corn per day than the farmers assembled in Illustration Number 4A. View is from a half-block south of earlier photographer's site.
- 5A. View from courthouse tower, originally taken for post card sales, about 1913.
- 5B. Bird's eye view, looking east from courthouse roof, July 22, 1980. Modern courthouse, dedicated 1968, not as tall and located farther from curb.
- 6A. Courthouse exterior, northeast corner, about 1910. Note early utility poles and horse trough at right.
- 6B. Story County Courthouse, Nevada, Iowa, July 16, 1980. View from Main Street, looking southwest.
- 7A. Karges Tire, mid-1920s, on north side of Old Lincoln Highway; Fred Karges with son and neighborhood friends near service vehicle.

- 7B. Bill's Tire Service, July 21, 1980. Staff and Bill Atkinson, near service vehicle. Atkinson was Karges employee; some of exterior dimensions of original structure now form inner walls of new business. At left, in next block, is Ryan Funeral Home; in Illustration 7A, a funeral home at the same location is visible.
- 8A. Harry's Tire Shop, mid-1920s. Twin business in Nevada and Marshalltown, offering full service and cafe-meeting place at left. Building was originally a monuments works operation; in background is Guy Goosic's home.
- 8B. APCO self-service gasoline station. Old Lincoln Highway, formerly path of Interstate 30, north side of roadway. Goosic home remains. Emphasis of business has shifted from full-service to quick delivery, July 22, 1980.
- 9A. Nevada Manufacturing Company, about 1915; made parts for steam-powered tractors. Business was idle by 1919.
- 9B. Nevada Poultry Company, operated by Irishes for 50 years on north side of town. Note hard-surfaced streets; pipe line being constructed by city crews, July 29, 1980.
- 10A. Nevada National Bank interior, about 1920; located on south side of west end of Lynn Street, was first called Farmers Bank.
- 10B. Nevada National Bank interior, August 1, 1980; present location off Main Street, at K and 5th.
- 11A. Reedholm Hardware, 1924. Arthur Reedholm (at right) bought the store in 1923 from O. O. Mullen. At far left is Audie Lindroth; at center, leaning on baseball bats, is his son, Jeff Lindroth.
- 11B. Reedholm Hardware, August 7, 1980. Employee Mrs. Myrna Schmitt with owner Glenn Reedholm, son of Arthur Reedholm.
- 12A. Horse Market, Nevada, Iowa, at intersection known in 1980 as 7th and J. Old Fire Station at extreme left and grainery and Lough Livery Stable at extreme right were later demolished. Photograph taken between 1900 and when the post card was dated, 1915.
- 12B. Stock Show, F.F.A. and 4-H competition, Story County Fair, August, 1980, Nevada, Iowa. Annual auction has replaced street sales which in the earlier era were held more often.
- 13A. Nevada Brick and Tile Works; post card photograph taken about 1905. Six kilns pictured then; and dirt road located between business and groves in background would become Old Lincoln Highway section in 1914 (Interstate 30 connection moved south of Nevada in 1970s).

- 13B. Nevada Brick and Tile Company, July 24, 1980; kiln explosion during previous week left business with two kilns for making clay pipes for drainage. Photographer facing south, toward main building, but from northeast position to include workers. (Note: the business was demolished in June, 1981, after plastic piping supplanted the clay sections.)
- 14A. Grace Borgen and elementary pupils, probably 3rd-graders, in 1910. Miss Borgen later married Dr. Henry Bowers. Photograph at site of old high school building.
- 14B. Miss Pearl Picht and 3rd-graders, Nevada Elementary School, May, 1980.
- 15A. Nevada High School, about 1920; was dedicated 1917.
- 15B. Nevada High School building, July, 1980. Located east of old building, which now serves junior high and grades K-4th.
- 16A. Nevada Cubs football squad, 1924. On the line, from left to right, Frank Ambrose, Ivan Shalley, John Williams, Galen Sowers, Frank Lounsbury, Bill Sylvester, and John Briley. Backfield included Mac Allen, Henry Belcher, Al "Fat" Anfinson, and quarterback Henry Berka. Coach Glenn "Shrimp" Strowbridge in background, wearing suit.
- 16B. Nevada Girls Invitational Track Meet, April, 1980; skimming hurdles during rainstorm. Track by new high school building borders seed company and fields on east side of Nevada.
- 17A. Saint Patrick's Catholic Church, built 1902, post card dated 1914. Possibly holiday season; note floral arrangements on altar.
- 17B. Saint Patrick's Catholic Church, July 20, 1980, after mass on Sunday morning, the second service at Nevada for Father James Supple.
- 18A. Memorial Lutheran Church, Advent season, about 1920. Note wreaths, Christmas trees, and electrified decorations.
- 18B. Baptist church with the Rev. Daniel M. Osterhout, July 29, 1980. Lutherans sold building when they re-located at new church on south-east edge of Nevada in 1969.
- 19A. Family portrait, about 1910.
- 19B. Page family portrait, August 10, 1980. Kimberly and Aaron Page with parents, Phillip and Paula. Family restored home which was built in 1870s by C. F. Edward. Photographer contrasted style with 1910 version, which had eliminated background.
- 20A. Frank Thompson, lawyer who, with T. C. McCall, instigated movement of business district. Home at corner of 6th and M Streets was built in 1868; photograph probably taken between 1900-1910.

- 20B. Restoration of home by Young family. From left: Robin Young, Brenda Lorenz, Mike Young, Terri Young, and Sandy Young, with Justin Young and puppy in front.
- 21A. Town band at couple's golden wedding anniversary at "old Briggs property," about 1900.
- 21B. Sam Briggs' house, built in 1870s on 3rd Street, restored by Marie and Jake Donnellan. Photograph taken July 29, 1980, from slightly different angle than earlier version, due to foliage; feted couple in Illustration Number 21A would be where white wrought iron porch railing is in Number 21B.
22. Mechanic at Chuck Ostrich Chrysler-Plymouth-Dodge dealership, July 24, 1980.
23. Casey's General Store, July 24, 1980.
24. Shear Excellence, "barber-stylists," July 23, 1980. Employees Janet German, Juanita DeLong, Jackie Minear, Jerry Jensen, owner Rob Harrison and customer John Vasey. Photograph of 1920s barber shop at same location is in foreground.
25. Al Perkins, checker at Hunt's Super Valu, July 16, 1980.
26. Nevada Bakery, independent business, July 31, 1980; employee Cheryl Smith with co-owner Mrs. Georgiann Koerder.
27. Man-An-So (man, animal, and soil) feed and fertilizer agri-business company; Executive Vice President Everett Vannorsdel and nutritionist Ron Smith in doorway, July 30, 1980.
28. Farmers Co-Op, Roland-Nevada, July 23, 1980, with chemical storage tanks and rail service.
29. Farmer Donald Cochran and son at 90-year-old Dawson Elevator Company, waiting for wagon load of shelled corn for livestock feed.
30. Dwayne Gerlach and nephew, Mike Gerlach, working on diesel-powered tractors at end rows. Willard Gerlach is partner in operation with Dwayne; fields in Nevada hinterland produced 150 bushels per acre.
31. Massey Ferguson combines for sale, Nevada Farm Center, Inc., Old Lincoln Highway, July, 1980; firm managed by Canadian headquarters.
32. 4-H Research Grand Champion Market Beef; Kris Weuve entered the Simmental breed. From left are Mrs. Delores Weuve, Kris, Kim and Mr. Ron Weuve, August 6, 1980.
33. Story County Beef Queen Tracy Sheldahl of Huxley in Fourth of July parade on Main Street, Nevada, 1980.

34. Eagles Lodge Number 3696, North 6th Street (Main), August 7, 1980.
35. Rotary Club International, Nevada chapter, at Gates Hall meeting place, July 23, 1980.
36. Male teens at Gates Hall parking lot, August 5, 1980.
37. Water fight, women versus men, sponsored by Nevada Fire Department, July 4, 1980.
38. Boys Baseball, Babe Ruth League for 13-15-year-olds, sponsored by local merchants, July 18, 1980.
39. Nevada Swimming Pool, July, 1980, near Gates Memorial Hall and Nevada High School building.
40. Moving day, Nevada, Iowa, August 1, 1980.
41. Page Four, home of Phillip and Paula Page and their children, Kimberly and Aaron; 1110 9th Street, Nevada, Iowa, Sunday morning, August 10, 1980.
42. Established mobile home court, linking business district with new residential area, July 29, 1980.
43. Where rural meets urban; suburban development on east edge of Nevada divided by hard-surfaced road, bordered by crops and seed company at end of access road, July, 1980.
44. Catholic Cemetery and mobile society, western Nevada, July 16, 1980.
45. Funeral of Jason Rewerts, 13-year-old killed in moto-cross motorcycle racing accident, buried August 15, 1980, at Nevada Cemetery.
46. Marriage ceremony, Memorial Lutheran Church; wedding of Pam Gerlach and Michael Schmidt, Pastor Walter Lack officiating, June 28, 1980.
47. Wedding tradition, Memorial Lutheran parking lot, June 28, 1980.
48. Mass, Saint Mary's Catholic Church, July 20, 1980, Father James Supple officiating.
49. Vacation Bible school, Memorial Lutheran Church, June, 1980.
50. High School commencement exercises in gymnasium, 2:15 p.m., May 18, 1980.
51. On May 18, 1980, Nevada Community High School graduated 114 students. A reception line followed the distribution of diplomas.

52. Stratification at the prom; the theme of the May, 1980, dance was "A Stairway to Heaven," from the title of a popular rock-and-roll tune.
53. The mayor and city council hear photocopier salesman's pitch, City Hall, July, 1980.
54. Judge M. D. "Milt" Seiser, Second Judicial District, as seen from the witness stand, Story County Courthouse, July 18, 1980.
55. City police officer and Story County deputy sheriff at county jail facilities, July 30, 1980.
56. Operating room supervisor Terry Voight, R.N., with staff physician Pandu Bonthala, M.D., Story County Hospital, July 22, 1980.
57. Three of four mail carriers in post office parking lot, Nevada, Iowa, July 18, 1980.
58. Iowa Electric Light and Power Company workers at Nevada utility sub-station, July 16, 1980.
59. City garbage crew, in alley beside Bill's Tire, July 21, 1980.
60. Nevada Fire Department, July 30, 1980, before crew training session.

VI. LITERATURE CITED

- Adams, Mark; and Lee, Russell. "Our Town in East Texas." Travel 40 (March, 1940): 5-12.
- Adelman, Bob. Down Home: Camden, Alabama. New York: A Prairie House Book, McGraw-Hill Book Company, 1972.
- Aepfel, Timothy. "Range War Spreads Across Rural America." The Des Moines Register, 9 May 1981, sec. 1, p. 8B.
- Agee, James; and Evans, Walker. Let Us Now Praise Famous Men: Three Tenant Families. Boston: Houghton Mifflin Company, 1969.
- Akeret, Robert U. Photoanalysis: How to Interpret the Hidden Psychological Meaning of Personal and Public Photographs. New York: Peter H. Wyden, Inc., 1973.
- Anderson, A. H. "The 'Expanding' Rural Community." Nebraska Agricultural Experiment Station Bulletin SB464, Sept. 1961.
- Aperture Monograph. W. Eugene Smith: His Photographs and Notes. New York: Aperture, Inc., 1969.
- Arbus, Doon; and Aperture, Inc. Diane Arbus. New York: Rapoport Printing Corporation for Museum of Modern Art, 1972.
- Arnheim, Rudolf. Visual Thinking. Berkeley and Los Angeles: University of California Press, 1969.
- Arnheim, Rudolf. Art and Visual Perception: A Psychology of the Creative Eye. Berkeley and Los Angeles: University of California Press, 1974.
- Bateson, George; and Mead, Margaret. "Balinese Character:" Special Publication of the New York Academy of Science, Vol. 2. New York: Academy of Science, 1942.
- Bauries, Fred. W. Eugene Smith: An Examination of His Career and Philosophy. Paper presented, Photo Journalism Division, Association for Education in Journalism, University of Colorado, Boulder, August 30, 1967.
- Bayer, Jonathan, ed. Reading Photographs: Understanding the Aesthetics of Photography. New York: Pantheon Books, The Photographers' Gallery, 1977.
- Becker, Howard S. "Photography and Sociology." Studies in the Anthropology of Visual Communication 1 (Fall, 1974): 3-26.
- Becker, Howard S. "Do Photographs Tell the Truth?" Afterimage 5 (February, 1978): 9-13.

- Beers, Howard W. "Rural-Urban Differences: Some Evidence from Public Opinion Polls." Rural Sociology 18 (1953):1-11.
- Bell, Colin; and Newby, Howard. Community Studies: An Introduction of the Local Community. Winchester, Massachusetts: Allen and Unwin, 1972.
- Bethers, Ray. Composition in Pictures. New York: Pitman Publishing Company, 1956.
- Boskoff, Alvin. The Sociology of Urban Regions. New York: Appleton-Century-Crofts, Division of Meredith Publishing Company, 1962.
- Boskoff, Alvin. Theory in American Sociology: Major Sources and Applications. New York: Thomas Y. Crowell Company, 1969.
- Braive, Michel F. The Photograph: A Social History. New York: McGraw-Hill Book Company, 1966.
- Butler, Edgar W. Urban Sociology: A Systematic Approach. New York: Harper and Row, 1976.
- Byers, Paul. "Cameras Don't Take Pictures." Columbia University Forum 9 (1966): 27-31.
- Capa, Cornell, ed. The Concerned Photographer. New York: Grossman Publishers, 1968.
- Capa, Cornell, ed. The Concerned Photographer. 2. New York: Grossman Publishers, 1972.
- Cartier-Bresson, Henri. The Decisive Moment. New York: Simon and Schuster, 1952.
- Collier, John, Jr.; and Buitron, Anibal. The Awakening Valley. Chicago: University of Chicago Press, 1949.
- Collier, John, Jr. Visual Anthropology: Photography as a Research Method. New York: Holt, Rinehart, and Winston, 1967.
- Collier, John, Jr. "Photography and Visual Anthropology." In Principles of Visual Anthropology, 211-230. Edited by Paul Hockings. Chicago: Aldine Publishing Company, 1975.
- Collier, John, Jr. "Evaluating Visual Data." In Images of Information: Still Photography in the Social Sciences, pp. 161-169. Edited by Jon Wagner. Beverly Hills: Sage Publications, 1979a.
- Collier, John, Jr. "Visual Anthropology." In Images of Information: Still Photography in the Social Sciences, pp. 271-281. Edited by Jon Wagner. Beverly Hills: Sage Publications; 1979b.

- Conlon, Vera M. Camera Techniques in Archaeology. London: J. Baker, 1973.
- Curry, Timothy J.; and Clark, Alfred C. Introducing Visual Sociology. Dubuque, Iowa: Kendall/Hunt Publishing Company, 1978.
- Davidson, Bruce. Bruce Davidson Photographs. Introduction by Henry Geldzahler. New York: Agrinde Publications, 1978.
- Davidson, Bruce. East 100th Street. Cambridge, Massachusetts: Harvard University Press, 1970.
- Davis, Pratt, ed. The Photographic Eye of Ben Shahn. Cambridge, Massachusetts: Harvard University Press, 1975.
- De Brigard, Emilie. "The History of Ethnographic Film." In Principles of Visual Anthropology. Edited by Paul Hockings. The Hague, Paris: Mouton Publishers, 1975.
- Dewey, Richard. "The Rural-Urban Continuum: Real but Relatively Unimportant." American Journal of Sociology 66 (July, 1960): 60-66.
- Doll, Don, S. J.; and Alinder, Jim, editors. Crying for a Vision: A Rosebud Sioux Trilogy 1886-1976. Dobbs Ferry, New York: Morgan and Morgan, 1976.
- Dondis, Donis A. A Primer of Visual Literacy. Cambridge: The Massachusetts Institute of Technology Press, 1973.
- Donohue, George A. "Socio-economic Characteristics of Part-time and Full-time Farmers in the Twin-Cities Area." Journal of Farm Economics 39 (1957): 984-992.
- Doty, Robert. Photo Secession: Photography as a Fine Art. Rochester, New York: The George Eastman House, 1960.
- Doty, Robert, ed. Photography in America. New York: Ridge Press, 1974.
- Durost, Donald D.; and Bailey, Warren R. "What's Happened to Farming." In Yearbook of Agriculture, 1970, pp. 2-10. Edited by J. Hayes. Washington, D.C.: U.S. Government Printing Office, 1970.
- Ensminger, Douglas. "Rural Neighborhoods and Communities." In Rural Life within the United States, pp. 55-77. Edited by Carl C. Taylor, et al. New York: Alfred Knopf, 1949.
- Exhibitions Staff, National Archives. The American Image: Photographs from the National Archives, 1860-1960. Introduction by Alan Trachtenberg; with Exhibition Staff of Office of Educational Programs, National Archives and Records Service, General Services Administration, Washington, D.C.: Pantheon Books, 1979.

- Field, Donald R.; and Dimit, Robert M. "Population Change in South Dakota Small Towns and Cities, 1949-1960." South Dakota Agricultural Experiment Station Research Bulletin 571, March, 1970.
- Frank, Robert. Interview in Photography within the Humanities. Edited by Eugenia Parry Janis and Wendy MacNeil. Danbury, New Hampshire: Addison House Publishers, 1977.
- Frank, Robert. The Americans. Millerton, New York: Aperture, Inc., 1978.
- Freedman, Jill. Old News: Resurrection City. New York: Grossman Publishers, 1970.
- Freedman, Jill; and Smith, Dennis. Firehouse. Garden City, New York: Doubleday and Company, 1977.
- Fuguitt, Glenn V. "The City and Countryside." Rural Sociology 28 (3) (September, 1963): 246-261.
- Fuguitt, Glenn V.; and Zuiches, James J. "Residential Preferences and Population Distribution." Demography 12 (3) (August, 1975): 491-504.
- Galpin, Charles J. "The Social Anatomy of an Agricultural Community." Wisconsin Agricultural Experiment Station Research Bulletin 34, 1915.
- Garver, Thomas H. 12 Photographers of the American Social Landscape. New York: October House, Inc., 1967.
- Geldzahler, Henry. "Introduction." In Bruce Davidson Photographs. New York: Agrinde Publications, 1978.
- Gernsheim, Helmut; and Gernsheim, Alison. A Concise History of Photography. New York: Grosset and Dunlap, 1965.
- Goist, Park Dixon. From Main Street to State Street: Town, City and Community in America. Port Washington, New York: National University Publications, Kennikat Press, 1977.
- Gold, Raymond L. "Roles in Sociological Field Observations." Social Forces 36 (March, 1958): 217-223.
- Gordon, George N. The Communications Revolution: A History of Mass Media in the United States. New York: Communication Arts Books/Hastings House, 1977.
- Gore, William J.; and Hodapp, Leroy C., editors. Change in the Small Community: An Interdisciplinary Survey. New York: Friendship Press, 1967.
- Goro, Herb. The Block. New York: Random House, 1970.

- Gutman, Judith Mara. Lewis W. Hine and the American Social Conscience. New York: Walker and Company, 1967.
- Haga, William J.; and Folsie, Clinton L. "Trade Patterns and Community Identity." Rural Sociology 36, No. 1 (March, 1971): 42-51.
- Hainer, J. C., with others. Biographical and Historical Memoirs of Story County, Iowa. Chicago: The Goodspeed Publishing Company, 1890.
- Harp, Elmer, Jr. Photography in Archaeological Research. Albuquerque: University of New Mexico Press, 1975.
- Hassinger, Edward W. The Rural Component of American Society. Danville, Illinois: The Interstate Printers and Publishers, Inc., 1978.
- Henry, Edward L. Micropolis in Transition. Collegeville, Minnesota: Center for the Study of Local Government, 1971.
- Hedgecoe, John. The Book of Photography: How to See and Take Better Pictures. New York: Alfred A. Knopf, 1976.
- Hicks, Wilson. In Photographic Communication: Principles, Problems and Challenges of Photojournalism. Edited by R. Smith Schuneman. New York: Hastings House, 1972.
- Hockings, Paul, ed. Principles of Visual Anthropology. The Hague, Paris: Mouton Publishers, 1975.
- Hoffman, Michael E. The North American Indians: A Selection of Photographs by Edward S. Curtis. Millerton, New York: Aperture, Inc., 1972.
- Horan, James D. Timothy O'Sullivan: America's Forgotten Photographer. Garden City, New York: Doubleday and Company, 1966.
- Hunter, Peter. Erich Salomon. 10th book in a series "The Aperture History of Photography." Millerton, New York: Aperture, Inc., 1978.
- Hurley, Jack F. Portrait of a Decade: Roy Stryker and the Development of Documentary Photography in the Thirties. Baton Rouge: Louisiana State University Press, 1972.
- Ivins, William M., Jr. Prints and Visual Communication. Cambridge, Massachusetts: Harvard University Press, 1953.
- Iowa Crop and Livestock Reporting Service. Iowa Agricultural Statistics, 1980. Des Moines: Iowa Department of Agriculture, 1980.

- Iowa Department of Agriculture and U.S. Department of Agriculture. Iowa Assessors Annual Farm Census 1940. Iowa Division of Agricultural Statistics, Des Moines. Iowa Department of Agriculture, Bulletin No. 92-B, 1940.
- Jussim, Estelle. Visual Communication and the Graphic Arts: Photographic Technologies in the Nineteenth Century. New York and London: R. R. Bowker Company, 1974.
- Kolb, John H. Emerging Rural Communities. Madison: University of Wisconsin Press, 1959.
- Kolb, John H.; and Polson, R. "Trends in Town-Country Relations." Wisconsin Agricultural Experiment Station Research Bulletin 117, September, 1933.
- Kolb, John H.; and Day LeRoy J. "Independence in Town and Country Relations in Rural Society." Wisconsin Agricultural Experiment Station Research Bulletin 172, 1950.
- Kolb, John H.; and de S. Brunner, Edmund. A Study of Rural Society. Cambridge: The Riverside Press, 1952.
- Konkle, B. A., editor, with others. Biographical and Historical Memoirs of Story County, Iowa. Chicago: The Goodspeed Publishing Company, 1890.
- Lahue, Kalton C.; and Bailey, Joseph A. Glass, Brass, and Chrome: The American 35mm Miniature Camera. Norman, Oklahoma: University of Oklahoma Press, 1972.
- Lane, James B. Jacob Riis and the American City. Port Washington, New York: Kennikat Press, 1974.
- Larson, Olaf F.; and Rogers, Everett M. "Rural Society in Transition: The American Setting." In Our Changing Rural Society: Perspectives and Trends. pp. 39-67. Edited by James H. Copp. Ames: Iowa State University Press, 1964.
- Lee, Russell. "Pie Town, New Mexico." U.S. Camera 10 (October, 1941): 41.
- Loftsgard, Laurel D.; and Voelker, Stanley W. "Changing Rural Life in the Great Plains." Journal of Farm Economics 45, No. 36 (1963): 1110-1117.
- Loomis, Charles P. "Systemic Linkage of El Cerrito." Rural Sociology 24, No. 1 (March, 1959): 55.
- Loomis, Charles P. Social Systems. Princeton, New Jersey: D. Van Nostrand Company, Inc., 1960.

- Loomis, Charles P.; and Beegle, J. Allan. Rural Social Systems. New York: Prentice-Hall, Inc., 1950.
- Loomis, Charles P.; and Beegle, J. Allan. A Strategy for Rural Change. Cambridge, Massachusetts: Schenkman Publishing Company, 1975.
- Lynd, Robert S.; and Lynd, Helen Merrell. Middletown, A Study in Contemporary American Culture. New York: Harcourt, Brace and Company, 1929.
- Lynd, Robert S. and Lynd, Helen Merrell. Middletown: A Study in American Culture. New York: Harcourt, Brace and Company, 1956.
- Lynd, Robert S.; and Lynd, Helen Merrell. Middletown in Transition; A Study in Cultural Conflicts. New York: Harcourt, Brace and Company, 1937.
- Lyons, Nathan, ed. Contemporary Photographers Toward a Social Landscape: Bruce Davison, Lee Friedlander, Garry Winogrand, Danny Lyon, Duane Michals. Rochester, New York: George Eastman House, 1966.
- Lyons, Nathan. Photography in the Twentieth Century. New York: Horizon House in collaboration with the George Eastman House, Rochester, New York, 1967.
- MacIver, Robert M. Society: Its Structure and Changes. New York: Ray Long and Richard R. Smith, Inc., 1931.
- Maddox, Jerald C. Walker Evans: Photographs for the Farm Security Administration, 1935-1938. New York: F.S.A. Collection of the Library of Congress, 1973.
- Martindale, Don; and Hanson, R. Galen. Small Town and the Nation: The Conflict of Local and Translocal Forces. Westport, Connecticut: Greenwood Publishing Company, 1969.
- Massachusetts, Commonwealth of. Statistical Information Relating to Certain Branches of Industry in Massachusetts for the Year Ending June 1, 1855. Boston: 1856, p. 591.
- Meltzer, Milton. Dorothea Lange: A Photographer's Life. New York: Farrar Straus Giroux, 1978.
- Meltzer, Milton; and Cole, Bernard. The Eye of Conscience: Photographers and Social Change. Chicago: Follett Publishing Company, 1974.
- Michals, Duane. Sequences. Garden City, New York: Doubleday and Company, Inc., 1969.
- Moe, Edward O. "Consulting with a Community System: A Case Study." Journal of Social Issues 15, No. 2 (1959): 29.

- Moe, Edward O.; and Taylor, Carl C. Culture of a Contemporary Rural Community: Irwin, Iowa. Rural Life Studies No. 5. Washington, D.C.: U.S. Department of Agriculture, Bureau of Agricultural Economics, December, 1942.
- Musello, Christopher. "Family Photography." In Images of Information: Still Photography in the Social Sciences, pp. 101-118. Edited by Jon Wagner. Beverly Hills: Sage Publications, Inc., 1979.
- Museum of Modern Art. Photography, 1839-1937, with an Introduction by Beaumont Newhall. New York: Museum of Modern Art, 1937.
- Newhall, Beaumont. The Daguerreotype in America. New York: New York Graphic Art Society, U.S.A., 1968.
- Newhall, Beaumont. The History of Photography from 1839 to the Present Day. New York: The Museum of Modern Art, 1964.
- Owens, Bill. Suburbia. San Francisco: Straight Arrow Books, 1973.
- Owens, Bill. Our Kind of People: American Groups and Rituals. Livermore, California: Working Press, 1975.
- Owens, Bill. Working: (I Do It For the Money). New York, Simon and Schuster, 1977.
- Pare, Richard, ed. Courthouse: A Photographic Document. New York: Horizon Press, 1978.
- Park, Robert Ezra. Human Communities: The City and Human Ecology. Glencoe, Illinois: The Free Press, 1952.
- Paulsen, Arnold; and Carlson, Jerry. "Is Rural Main Street Disappearing?" Better Farming Methods 33 (December, 1961): 12.
- Payne, W. O. History of Story County, Iowa: A Record of Settlement, Organization, Progress and Achievement. Volume I. Chicago: S.J. Clarke Publishing Co., 1911.
- Pedersen, Harold; and Peterson, Earl B. Market and Trade Center Patronage Patterns of Central Montana. Montana Agricultural Experiment Station Bulletin 578, May, 1963.
- Pinches, Harold E. "Revolution in Agriculture." In The Yearbook of Agriculture, 1960, p. 4. Washington, D.C.: U.S. Government Printing Office, 1960.
- Poplin, Dennis E. Communities: A Survey of Theories and Methods of Research. New York: Macmillan Publishing Co., Inc., 1979.

- Quinn, James A. Urban Sociology. Ram Nagar, New Delhi-1: Eurasia Publishing House, Ltd., 1955.
- Raup, Phillip M. "Societal Goals in Farm Size." In Size, Structure, and Future of Farms, pp. 31-38. Edited by A. G. Ball and E. O. Heady. Ames: Iowa State University Press, 1972.
- Rice, Shelley. "Milton Rogovin: Compassionate Portraitist." Modern Photography 41, No. 9 (September, 1977): 106-112.
- Riis, Jacob A. How the Other Half Lives: Studies among the Tenements of New York. Edited by Sam Bass Warner, Jr. Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 1970.
- Rodefeld, Richard D. "The Causes of Change in Farm Technology, Size and Organizational Structure." In Change in Rural America: Causes, Consequences, and Alternatives. Edited by Richard D. Rodefeld, Jan Flora, Donald Voth, Isao Fujimoto, and Jim Converse. Saint Louis: The C. V. Mosby Company, 1978.
- Rodefeld, Richard D.; Flora, Jan; Voth, Donald; Fujimoto, Isao; and Converse, Jim. Change in Rural America: Causes, Consequences, and Alternatives. Saint Louis: The C. V. Mosby Company, 1978.
- Rogers, Everett M.; and Burdige, Rabel J. Social Change in Rural Societies. New York: Appleton-Century-Crofts, Educational Division, Meridith Corporation, 1972.
- Ross, Earle D. Iowa Agriculture: An Historical Survey. Iowa City: State Historical Society of Iowa, 1951.
- Rothstein, Arthur. "The Documentary Tradition." In Photographic Communication: Principles, Problems and Challenges of Photojournalism. Edited by R. Smith Schuneman. Essay written 1971. New York: Hastings House, 1972.
- Roueche, Berton; and Plowden, David. Desert and Plain, the Mountains and the River: A Celebration of Rural America. New York: E. P. Dutton and Co., Inc., 1975.
- Sander, August. Men Without Masks: Faces of Germany, 1910-1938. Introduction by Gunther Sander and Foreword by Golo Mann. Greenwich, Conn.: New York Graphic Society, Ltd., 1973.
- Sanderson, Dwight. Rural Sociology and Rural Social Organization. New York: John Wiley and Sons, Inc., 1948.
- Sandler, Martin W. The Story of American Photography: An Illustrated History for Young People. Boston: Little, Brown, and Company, 1979.

- Scharf, Aaron. Pioneers of Photography: An Album of Pictures and Words. New York: B. N. Abrams, 1976.
- Shahn, Bernarda. Forward in A Vision Shared: A Classic Portrait of America and Its People 1935-1943. Text by Hank O'Neal. New York: St. Martin's Press, 1976.
- Simmons, Harold C. Archaeological Photography. New York: New York University Press, 1969.
- Smith, T. Lynn; and Zopf, Paul E., Jr. Principles of Inductive Rural Sociology. Philadelphia: F. A. Davis Company, 1970.
- Smith, W. Eugene. Interview in Photography within the Humanities. Edited by Eugenia Parry Janis and Wendy MacNeil. Danbury, New Hampshire: Addison House Publishers, 1977.
- Smith, W. Eugene; and Smith, Aileen M. Minamata. New York: Holt, Rinehart and Winston, 1975.
- Stein, Maurice R. The Eclipse of Community: An Interpretation of American Studies. Princeton, New Jersey: Princeton University Press, 1960.
- Stockfield, Robert L. "A Photographic Exploration of the Aged in a Small Iowa Town." Masters Thesis, Iowa State University, Ames, Iowa, 1976.
- Stott, William. Documentary Expression and Thirties America. London: Oxford University Press, 1973.
- Stryker, Roy Emerson; and Wood, Nancy. In This Proud Land: America 1935-1943 as seen in the FSA Photographs. Greenwich, Conn.: New York Graphic Society, 1973.
- Sutter, Ruth E. The Next Place You Come To: A Historical Introduction to Communities in North America. Englewood Cliffs, New Jersey: Prentice-Hall, 1973.
- Szarkowski, John, ed. Walker Evans. New York: Museum of Modern Art, 1971.
- Szarkowski, John. The Photographer's Eye. New York: Museum of Modern Art, 1966.
- Taylor, Paul Shuster. Interview in Photography within the Humanities. Edited by Eugenia Parry Janis and Wendy MacNeil. Danbury, New Hampshire: Addison House Publishers, 1977.
- Time-Life, ed. Documentary Photography. New York: Time-Life Books, 1972.

- Trachtenberg, Alan. "Ever -- The Human Document." Essay in America and Lewis Hine: Photographs 1904-1940. Foreword by Walter Rosenblum. Millerton, New York: Aperture, Inc., 1977.
- Upton, Barbara; and Upton, John. Photography. Boston: Little, Brown, and Company, 1976.
- U.S. Department of Commerce, Bureau of the Census. Advance Reports PHC80-V017: "Final Population and Housing Unit Counts," March, 1981.
- Varney, Vivian. The Photographer as Designer. Worchester, Massachusetts: Davis Publications, Inc., 1977.
- Vidich, Arthur J.; and Bensman, Joseph. Small Town in Mass Society. Princeton, New Jersey: Princeton University Press, 1968.
- Wagner, Jon, ed. Images of Information: Still Photography in the Social Sciences. Beverly Hills: Sage Publications, Inc., 1979.
- Wallace, Holland, Kastler, and Schmitz Professional Planning Services. Comprehensive Development Plan, City of Nevada, Iowa, July, 1973. Director of Planning Gary L. Claude, Associate AIP, Des Moines, Iowa, 1973.
- Warren, Roland L. The Community in America. Chicago: Rand McNally College Publishing Company, 1978.
- Welling, William. Photography in America: The Formative Years, 1839-1900. New York: Crowell, 1978.
- West, James. Plainville, U.S.A. New York: Columbia University Press, 1945.
- Whiting, John R. Photography is a Language. Chicago: Ziff-Davis Publishing Company, 1946.
- Wilson, Warren H. The Evolution of the Country Community. Boston: Pilgrim Press, 1912.
- Winogrand, Garry. The Animals. With an afterword by John Szarkowski. New York: Museum of Modern Art, distributed by New York Graphic Society, Greenwich, Conn., 1969.
- Winogrand, Garry. Public Relations. Introduction by Tod Papageorge. New York: Museum of Modern Art, 1977.
- Winogrand, Garry. Stock Photographs: The Fort Worth Fat Stock Show and Rodeo. Austin: University of Texas Press, 1980.
- Witkin, Lee D. George A. Tice: Photographs 1953-1973. New Brunswick, New Jersey: Rutgers University Press, 1975.

Zakia, Richard D. Perception and Photography. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1975.

Zielinski, John M. Unknown Iowa: Farm Security Photos. Kalona, Iowa: Photo-Art Gallery Publications, 1977.

VII. ACKNOWLEDGMENTS

No significant endeavor has ever been accomplished alone. Many persons who selflessly added their efforts to this project should now be listed.

To the people of Nevada the author owes his thanks. They allowed him to explore their farms and other businesses, to scale their watertower, to witness events in their schools, churches, and homes. For a summer's time, they shared their community.

The images presented are the photographer's perception of those days. The thesis committee members -- Professors Bill Gillette, Joseph Hraba, Jake Hvistendahl, and Edward Powers -- taught lessons with their exceptional guidance which promise to extend beyond this project's completion.

Others should be specifically recognized, including the researcher's parents, Dr. Clifford M. and Betty Lou Hadley, for their emotional (and financial) support, and Nevada historians Joe Briley and Alberta Stansbury.

The author's "surrogate family" for three years included "Brothers" Robert Coughlin and Bob Fischbach, colleagues; "Aunt" Dorothy Martin, ISU custodian; "Uncles" John Wooley, publisher, and Pastor John Chadwick; "Cousin" Jon Noland, Head of Circulation, ISU Library, and Carl and Mildred Dunshee, who were "Mom and Pop" for the duration.

And a special thanks is due to Janis Diane, a friend whose love and encouragement made fulfillment of the goal as satisfying as was the forming of the dream.