# URBANIZATION IN THE RURAL-URBAN FRINGE

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# ABSTRACT

## URBANIZATION IN THE RURAL-URBAN FRINGE

by Edward Thomas Pryor, Jr.

"Rural-urban fringe" has become a term of common usage in demographic, urban and community literature. Urbanization has required this concept in order to differentiate the phenomena accompanying rapid urban growth and expansion. However, the adequacy of such a broad concept to specify and describe the urban periphery is not beyond question. This thesis presents a particular case study investigating this problem of peripheral identification. Attempting to view urbanization within its spatial organization, this study contains two major perspectives: 1) rural-urban spatial interaction analyzed through specific hypotheses; and 2) a descriptive analysis of a particular segment of the rural-urban fringe. This study, through these two orientations, views in detail urbanization as an ecological and cultural process being imposed on a particular fringe area, i.e., a former rural trade center (village) now dependent economically on the related urban center.

Fifty-one of a total of fifty-nine families in the village were interviewed. An attempt was made to obtain data concerning urban contact and orientation, attitudes toward the area and evaluations of the changing rural-urban relationships. With certain reservations, past urban residence and present urban employment were found to be associated with other types of urban-rural interaction. Correlation was found between: 1) past urban residence and visiting relationships and specific kinds of retail-service purchasing; 2) present urban employment and locations of certain types of retail-service purchasing and

general non-work related movement or mobility; and 3) employment mobility and distance of retail and service outlets used. Frequency of movement emerged as a concept of certain theoretical importance suggesting closer study of frequency of movement as operative in ecological organization. On the other hand, no correlation of statistical significance was found (although in some cases the direction was toward that hypothesized) between: 1) past urban residence and present urban organizational memberships or the location of supposedly frequently used retail-service outlets; 2) present urban employment and visiting patterns or voluntary urban organizational membership; and 3) length of employment in the urban center nor distance to work when compared to general non-work mobility.

Among other findings, the study suggests the importance of kinship relationships in fringe organization and stability. The study also indicates the necessity and utility of understanding the economic and ecological history of any specific "fringe" area in order to proceed to generalizations about the existing rural-urban relationship and the social structure present.

In summary, both the quantitative and descriptive analysis of the study universe suggest that the urban peripheral areas need closer examination in order to differentiate the various possible relationships of geographic, ecological and social elements. The study emphasizes what are considered to be inaccurate applications of ecological theory with resulting unqualified assumptions and generalizations about the rural-urban fringe. Simply, urbanization of rural areas is a complex phenomenon requiring careful specification in order to correctly interpret rural-urban change.

# URBANIZATION IN THE RURAL-URBAN FRINGE

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# CHAPTER 1

## INTRODUCTION: THEORY

The study of the effects of urban development on outlying communities, as they gradually fall more firmly within the orbit of influence of the urban center, has been the concern of sociology and particular sociologists in the United States for some time. Various "factors" or variables have been offered as applicable in the study of this urban-rural influence. The problem has been approached in general theories explicable of urban change in the broad sense of urban expansion, "natural areas," technological change (new sources of power, industry relocation, agriculture change) and cultural determinants operating in urban-rural change. It seems, from this loose framework of general urban-rural theory, that a sound conceptualization of what is a "fringe" area must be deduced. As an outlying area or particular community comes within the influence of urbanization, it can be loosely called "fringe." However, in this sense, every community in the United States, not being a "closed system," could be conceived as "fringe." Obviously, such a definition would be of little scientific value and certainly nonoperative in research. On the other hand, in the light of research accomplished that has attempted to delineate what is "fringe" or what is "suburban," such a preliminary conception of the relationship of rural-urban areas seems to be a legitimate one. Fringe areas are, of necessity, defined in terms of characteristics that are per se inexact. Fringe, and to a lesser extent, suburb, are discussed in the form of a rural-urban continuum. Firey[1] has described the fringe as a "marginal area" and marginality is

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[1]Walter Firey, "Ecological Considerations in Planning for Rurban Fringes," American Sociological Review, Vol. XI (August, 1946), pp. 411-421.

determined according to a particular accessibility to the urban center. The fringe is commonly described as the area in transition from rural to urban use and orientation. If, therefore, "marginal," "particular accessibility," "transition," etc., are the descriptive characteristics of the fringe, the certain immeasurableness of these concepts has legitimized a continuum of the rural-urban concept--a continuum of certain polar limits within which this concept of fringe, which can be nothing more than descriptive, will be placed. Therefore, measurement, in the light of this tenuous conceptual arrangement, will be a major concern of this thesis.

## A. The Place of Selected Theorists

The difficulty encountered in delineating fringe necessitates the task of briefly reviewing certain sociological orientations that apparently are applicable to understanding the rural-urban relationship. Within social theory there has developed differing (if not conflicting) orientations in the analysis of space and its significance. Several sociologists can be pointed out as contributing to the extracting of the variables supposedly operating in the rural-urban problem. Interest in problems of deviancy, social organization, community theory, etc., have led over time to a clarification of spatial patterns as a reality of social theory. Proceeding historically (and arbitrarily), the work of specific theorists exemplifies the contributions, both direct and indirect, to the emergence of spatial considerations as a theoretical area, an area which is considered integral to the objectives of this study.

## B. Urban Organization and Deviancy

Robert Park and his colleagues brought forth with emphasis the importance of the ecological variable in understanding the social structure of the urban area. Park expressed the rationale of his method:

"The physical or ecological organization of the community, in the long run, responds to and reflects the occupational and the cultural."[2] Park, in this observation, anticipated the ecological-cultural issue which became a problem in social theory.

The importance of Park seems to be in his broader theoretical aspects. The lack of refinement, or even the validity, of the concentric theory of urban development is irrelevant. Stein[3] points out Park's interest in the intracacies that formed the social structure of a massive urban center. The point is that Park proposed that urban life was organized in patterns that included the concept of a spatial structure. The fact is that Park's methodology led, perhaps indirectly, to the investigation of a now fundamental variable in urban chance, i.e., the spatial or ecological structure of urban areas and its relationship to behavior patterns of the inhabitants. As Stein points out,[4] Park is to be criticized more for a lack of universality in his theory of urban social structure than for an inadequate conclusion of "natural areas" within the urban environment.

With the initial contributions of Park and his associates, it is difficult to refute the existence of some schematic development of land uses in urban areas. It is really no longer merely an assumption that there exists an ordering of land uses and transition of land utilization. To hold to the contrary would be to deny the delineation of areas or patterns of land development and habitation. Such a position is simply contrary to available data. As elementary as this phenomenon is to present ecological theory, it is also elementary to conceiving "fringe" as inherently related to these patterns of uses and, also, to these areas as possessing

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[2]Robert E. Park, Human Communities (Glencoe, Illinois: The Free Press, 1952).

[3]Maurice R. Stein, The Eclipse of Community (Princeton, N.J.: Princeton University Press, 1960), pp. 13-46.

[4]Stein, op. cit., pp. 28-31.

degrees of accessibility to the urban center and its facilities. If varying degrees of accessibility do exist, then measurements or factors of accessibility can be the legitimate concern and of significance in looking at the "fringe" area. Within this context, transportation, as one fundamental agent of accessibility, will be analyzed as having effect in accessibility and, therefore, of effect in this relationship of the rural-urban. In this case, an effect on the rural fringe community which possesses a marked degree of accessibility to an urban area.

## C. The Fringe and Community Theory

The problem of the effects of urban centers on the surrounding area as urbanization occurs has also been viewed in the perspective of community theory. Looking at the problem in this manner, the community (here, the rural center) is seen as an entity possessing a structure and certain characteristics. The urban center, as it invades the rural area, is then considered as effective in the community structure and its maintenance. If the "fringe" is loosely defined as the area of transition, then it seems that the rural community, as it fulfills the transitional characteristics of the fringe, must be described in those terms. The community then will be viewed as a recipient of change factors, i.e., variations in degree of accessibility to the urban center and expansion of the urban center.

## D. The Definition of Community as Affected by Urbanization

MacIver and Page, in their analysis of community structure,[5] were concerned with the effects of urban development and increasing accessibility of rural areas to the urban center. MacIver, as it will be pointed

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[5]R. M. MacIver, and Charles H. Page, Society: An Introductory Analysis (New York: Rinehard and Co., 1949).

out in a following chapter, emphasized the impact of the transportation system as a facet of accessibility in the changing structure of the small community by bringing about a weakening allegiance to the local area and strengthening the attachments to the urban center. For MacIver, this changing relationship, brought about by the increasing assessibility of the urban area, is not merely a matter of changing ecological patterns but of revised attitudes and cultural attachments in the face of increased urban contact.

Such a position necessarily follows from their definition of community:

> Wherever the members of any group, small or large, live together in such a way that they share, not this or that particular interest, but the basic conditions of a common life, we call that group a community. The mark of a community is that one's life may be lived wholly within it.[6] . . . locality, though a necessary condition, is not enough to create a community . . . there must be the common living with its awareness of sharing a way of life. . . .[7]

A community, then, is based on locality and sentiment or awareness. The question of the adequacy of this definition has been raised.[8] However, the question pertinent here engaged by this definition is that "the mark of a community is that one's life may be lived wholly within it." This observation of the potentiality of living exclusively within a group, if it is to be designated a community, is paramount to the redesignation of any established rural community as a fringe, i.e., transitional area.[9] As a

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[6]Ibid., pp. 8-9.

[7]Ibid., p. 10.

[8]Carle C. Zimmerman, The Changing Community (New York: Harper and Brothers, 1938), pp. 12-13.

[9]Transition, by definition, implies a change or transference of economic, social and/or political dependence or orientation. Fringe has been used to mean a transfer from rural independence to urban dependence under varying arrangements of such conditions.

community loses its ability to sustain its members, its very definition as a community comes into question.

The effects of urbanization and technology on the local, rural community have increasingly been a focal point of sociological investigation. The observation of changing sentiment that MacIver emphasized was certainly not original with him nor undeveloped since his time. This has been a common observation not only of social investigators but of all those interested in changing behavior patterns in our American culture.[10] These underlying assumptions of community change (empirically studied many times) have been of prominent interest to the sociologist especially with the advent of severe population shifts and expansion, land use changes, etc. These are expressed in such catch-all phrases as "urban sprawl," "suburbanization," "fringe development," etc. Obviously, the small, rural communities surrounding these expanding urban centers have not escaped such influence or even drastic effects on its behavior patterns and "mode of life." These observable facts of community change that MacIver and others have described are exactly that--facts of change, i.e., dynamic. These impacts of the urban center are continuously and increasingly important on the rural community as it falls within the orbit of urbanized life. As this process occurs, it is very doubtful that "community," even in its most generic definitions, can be validly applied to such changing areas.

## E. The Problem of Community Identification and the Case Study

Zimmerman, writing at approximately the same time as MacIver and Page, amplified the identifying characteristics of a community. He states:

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[10]For example, see Max Lerner, "The Decline of the Small Town," in America As a Civilization (New York: Simon and Schuster, 1957), pp. 148-155.

> Although there are many types of communities, . . . , there are nevertheless four characteristic elements to be found in any community. . . . These elements are: (1) social fact (social action) (2) definite specification (each community is unique) (3) association, and (4) limited area (a relatively definite and compact geographic base).[11]

Zimmerman then would add the necessity of perceiving each community as a specific entity with a definable geography. Zimmerman's theory of community uniqueness in interactions and geography appears worthy of consideration in approaching any community case study. Obviously, every case study is, in a sense, "unique" but Zimmerman proceeds by emphasizing this uniqueness is limited by the interrelation of these four elements. Therein, it seems, lies the significance of the community case study. As similarities are found in these elements among communities, some measurement of similarity of effect of an intervening variable (such as a transportation system) among communities can be made. However, these specifications again point out the inadequacy of community theory, in such a perspective as Zimmerman offers, to cope with the problems of definition brought about by urbanization. It is a question whether the urban complex (including its periphery or fringe) could be adequately investigated within the realm of "community" theory. Urban theory simply developed, with the influence of Park and others, a more intricate framework to handle the complexities of urban life and urban area expansion. However, the case study of the former rural community is useful, even in a negative sense, in showing that such an area can no longer be adequately analyzed apart from the urban complex.

## F. Community Organization

In the analysis of community organization, social theorists became increasingly conscious of the necessity of recognizing that ecological, economic or cultural sets of variables, independently, cannot adequately

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[11]Zimmerman, op. cit., pp. 15-16.

explain or define the community whether rural or urban. MacIver, in viewing increasing urban influence, is but one example in this historical trend in sociological theory. Ogburn and Nimkoff concisely stated this complexity:

> Human ecology undertakes to set forth the factors that influence the location, size and physical organization of human communities. While among animals the ecological factors are entirely those of the natural environment, in the case of human beings, the artificial environment of culture modifies greatly the ecological influence of nature; a fact of considerable importance.[12]

The modification of ecological influence by cultural factors has been a fundamental, if passing, problem in ecological theory. In this theoretical position, the cultural and social phenomena are viewed as effectors (the modifier). This problem is the source of one of the criticisms Quinn[13] made of Burgess' (and Park's) hypothesis that urban centers "naturally" organize into circular, concentric zones. Even assuming that such ideal areal development does occur, these areas are determined by natural organization, i.e., competition for land, time and cost factors of location of commercial, industrial, types of residential uses, etc. For Burgess, within these "natural" areas, characteristic social phenomena will be delineated. Quinn, to the contrary, says such a hypothesis cannot be demonstrated; no single set of natural areas can be conceived including both natural and social phenomena. For Quinn, such environmental, impersonal development is subsocial. Burgess[14] seems to have qualified this position in discussing successions in development:

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[12]William F. Ogburn and Meyer F. Nimkoff, Sociology (Boston: Houghton Mifflin Company, 1946), p. 427.

[13]J. A. Quinn, "The Burgess Zonal Hypothesis and Its Critics," American Sociological Review (April, 1940), pp. 210-218.

[14]Ernest W. Burgess (ed.), An Outline of the Principles of Sociology (Barnes and Noble, Inc., 1939).

> The form and rapidity of successive changes are, in the main, consequent upon the component biotic and cultural factors active in the development succession.[15]

He continues by stating certain types of change in succession supposedly "consequent upon the component biotic and cultural factors":

> In most successions, at least, three types of changes occur which transform the affected area: first, alterations take place in the spatial distribution of population units and institutional services; . . . Second, many times a new socio-cultural order is formed, with fundamental changes occurring in many aspects of the pre-existent order. Third, there is formation of a new population type which, with a characteristic composition, normally accompanies each succession. Succession generally develops along one or all of the following lines: classes, occupations, age, sex, race, or ethnic groups.[16]

## G. The Refinement of Ecological Concepts and Social Change

Park, in 1936, in defining succession underlined the importance of the ecological organization as an observable tool in measuring social change:

> Succession seems applicable to any orderly and irreversible series of events, provided they are to such an extent correlated with other less obvious and more fundamental social changes that they may be used as indices of these changes.[17]

Park insisted that succession and dominance (usually the area of highest land values) are functions of competition, but that, in contrast to non-human ecology, such elements as technology, customs, tradition, institutional structure, rational and moral order, law, etc., restrain

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[15]Ibid., p. 167.

[16]Ibid.

[17]Robert E. Park, "Succession, An Ecological Concept," American Sociological Review, I (April, 1936), p. 172.

biotic competition.[18] Consensus, therefore, replaces or modifies the biotic competition. However, the decline of biotic competition and the emergence of consensus are viewed as only different levels of ecological phenomena:

> In short, society, from the ecological point of view, and insofar as it is a territorial unit, is just the area within which biotic competition has declined and the struggle for existence has assumed higher and more sublimated forms.[19]

In this sense, the consensus is merely a higher form of competition. Timasheff comments that "Park . . . by the 1930's, was arguing that, in human societies, one should distinguish two ecological (or sociological) levels: the symbiotic, rooted in impersonal competition; and the cultural, based on communication and consensus."[20] It would seem then that Park wanted to distinguish two ecological levels, one of competition and the other of consensus, but both, being ecological phenomena, the "struggle for existence," in more or less "sublimated" forms, is attributed to both. Social theory is then left in the dilemma of assigning a "struggle for existence" to two levels of analysis--one impersonal, competitive; the other, cultural, consensual--a seemingly obvious contradiction in terms. To solve this dilemma, as Timasheff does, by calling it a distinction of two ecological or sociological levels, seems to ignore the methodological significance of ecological and attempts to reduce the problem to merely a semantic one of naming abstractive procedures.

Louis Wirth, in his interest in urbanization, did not try to resolve this problem but acknowledges different and irreducible levels of

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[18]Robert E. Park, "Human Ecology," American Journal of Sociology, XLII (July, 1936), pp. 7-10.

[19]Ibid., p. 7.

[20]Nicholas S. Timasheff, Sociological Theory (New York: Random House, 1957), p. 214.

analysis. Wirth, in 1938,[21] observed that metropolitan growth (rural to urban) is not measured by numbers of people, density, etc. Heterogeneity of inhabitants and group life must also be included in the basis of research. The point to be made here is that Wirth envisaged urban analysis as empirically capable from "three interrelated perspectives": 1) urbanism in ecological perspective; 2) urbanism as a form of social organization; and 3) through the urban personality and collective behavior. These perspectives are abstractive positions and they are interrelated, but the interrelation is not resolved in a temporal order of replacement of hierarchical categories. The ecological, organizational and cultural are persistent perspectives that are intercausal but are not reductive to any one orientation at a particular point of societal analysis.

## H. Space: The Definition of Ecology

Walter Firey, in Land Use in Central Boston,[22] attempted to restate this "ecological-social" problem of land use and urban development and the place of cultural values and sentiment in modifying land use patterns. Firey concluded that noneconomic, nonecological variables, such as cultural, historical values, do influence and restrict the uses of land. It seems that Firey's argument was with the so-called "ecological determinists" who would hold that physical space is an entity not only immune to cultural modification, but actually the active agent to be projected on a passive social structure. Space, for Firey, has more than an ecological adaptation; there is also the societal adaptation with which

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[21]Louis Wirth, "Urbanism as a Way of Life," Community Life and Social Policy (Chicago: University of Chicago Press, 1956), pp. 110-132.

[22]Firey, Land Use in Central Boston (Cambridge: Harvard University Press, 1947).

to contend.[23] For Firey, this latter process is called the "symbolic" relationship in that space can possess nonphysical, i.e., cultural value in a society. Space, therefore, is a "symbol" for definite cultural values--historical or patriotic significance, respect for the dead, prestige connotations, etc. Consequently, location patterns of uses in a given area can be partially determined by sentiment and not by strict price determination alone. Firey offers his study of land use in Boston as an empirical verification of his position.

In his Human Ecology,[24] Amos Hawley took issue with the validity of the Firey study and the conclusion it reaches. For Hawley, space is one measurement of organization and this organization is ecological. Previously, in ecology, spatial patterns were considered the ecological organization. Hawley would change the frame of reference from these spatial patterns themselves to the organization, interdependence, and the inter-function of these spatial arrangements. "Ecological organization is the broad and general term used to refer to the complex of functional interrelationships by which men live."[25] The structure as observed in spatial and time patterns is the focus of ecology. Hawley gives his definition of community as an ecological phenomenon:

> For our purposes, community has essentially the same meaning as ecological organization, the one difference being that the former is applied to a relatively small unit of territory whereas the latter may extend over an area of indefinite scope. Formally defined, community refers to the structure of relationships through which a localized population provides its daily requirements.[26]

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[23]"It is the whole purpose of this study to show that so far as spatial adaptation is concerned social action cannot be properly understood unless values are made central to ecological theory." Firey, op. cit., p. 93.

[24]Amos Hawley, Human Ecology (New York: Ronald Press Co., 1950), pp. 282-285.

[25]Ibid., p. 178.

[26]Ibid., p. 180.

Again the focus in observing is in the "structure of relationships." The spatial and temporal interdependencies have meaning as they have form or organization.

Hawley's conception of the rationale of ecology is certainly not the ecological determinism that Firey opposes. However, Hawley himself in discussing the Firey study, attempts to clarify exactly what is the realm of ecology as he uses it.

First, perhaps this problem would be better stated if certain verbal usages, as attributed to this society-space relationship in the language of Firey, were diagrammed. Obviously, these theorists (Firey and Hawley) were not the only social scientists interested in this problem (at least a problem of the 1950's), but they do seem to have raised a fundamental problem of modern ecology--a problem that cannot but affect the perspective of the observer of behavior and social organization. Therefore, using the division (whatever its accuracy) presented by Firey as a conceptual tool:

SPACE-SOCIETY (Firey)

| Cultural System | Disparate Social System |
|---|---|
| Symbolic relationships (non-intrinsic nexus, i.e., space defined through social values) | Ecological determinism (intrinsic nexus, i.e., intrinsic spatial adaptation) |
| Ends = values which are expressed in a "volitional" orientation. Physical space dependent on values (volitional adaption).<br>Culture is active factor. | Ends = interests which are expressed in a "rational" orientation. Physical space independent of cultural values.<br>Culture is passive factor. |
| Habit | Rational = intelligible* |
| Sentiment | Structure - Ecological organization* |
| Attitudes - Motivations | External conditions of collective existence* |
| Individual psychological characteristics | Physical space considered as abstracted from cultural values (sentiment, motives, etc.)* |
| Physical space dependent on values | |
| Culture is active factor. | Culture is irrelevant factor.* |

*Hawley

It seems that in the explication of terms, Hawley has defined ecology in such a manner to make it immune to the accusation that Firey sees. Ecology is neither deterministic or culturally orientated. The influence of culture in space determination is conceded but it is irrelevant. In a sense, therefore, ecology is a "middle-ground." Hawley sees ecology, whether it is biological, economic, etc., as descriptive; descriptive of the structure of relationships. The causal influence of nonecological factors, such as motivation, etc., are not pertinent, irrelevant, and, therefore, unknown. Whether this structure is rational or irrational is outside the scope of ecology. The structure can be described without knowing the state of rationality inherent in the organization. Hawley would hold that ecological description has validity whether space-locational observations are attributed to a dominance, in Firey's terms, of either volitional or rational adaptation in the organization.

In commenting on Firey's analysis of the influence of prestige in maintaining noneconomic residential areas in downtown Boston, Hawley asserts that: "Regardless of the motive for the occupancy of a site, that occupancy involves certain costs which must be paid. If the family can pay the costs, then it may exercise any conceivable motive."[27] In this case, it is also conceivable that prestige, conspicuous consumption, etc., do involve certain monetary costs. But the fact that these "costs which must be paid" are paid because of an economic or noneconomic motive, must remain unknown to the ecological description if it is assumed that certain costs must be paid at all. If the ecologist holds that certain costs must be paid and his description of organization is based on such an assumption, his descriptive analysis in cases of space utilization must assume the coordination of noneconomic factors. "Human ecology studies the structure of organized activity without

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[27]Ibid., p. 286.

respect to the motivations or attitudes of the acting agents. Its aim is to develop a description of the morphology or form of collective life under varying external conditions."[28] In this sense "costs to be paid" (if assumed to be absolute) seem to be an external condition. However, the paying of these necessary costs depends on the exercise of some motive by the acting agent. A morphological description, however, would require the inclusion of external conditions regardless of motives, but the very existence of the external condition is controlled by the exercise of a motive, i.e., something internal to the organization itself. Thus, the abstractive process of separating the ecological from the motivational brings forth the difficulty or even validity of designating precisely what is an "external condition" devoid of any "symbolic" relationship to the use of space. Therefore, narrowing ecology to a purely descriptive theoretical realm, at the very least, severely limits its utility in assigning operative variables to collective behavior. The question is then raised, whether human ecology as a descriptive study of structure can consider the "psychological properties of individuals" (as Hawley says) as irrelevant and still be intelligible in description, or whether such properties, of necessity, can be adequately considered under the "varying external conditions."

William H. Form, in analyzing the factors acting in land use determination, has considered the cultural aspects of integral importance in determining what is the nature of each structure operating in the land market:

> . . . the land market is highly organized and dominated by a number of interacting organizations. Most of the latter are formally organized, highly self-conscious, and purposeful in character. Although at times their values and interests are conflicting, they are often overlapping and harmonious . . . From a study of this emerging structure one obtains a picture of the parameters of ecological behavior, the patterns of land

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[28]Ibid., p. 179.

> use change, and the institutional pressures which maintain the ecological order.[29]

The real estate, industrial, residential, and governmental structures, which Form proceeds to enumerate, would be the actual material of ecological organization (in Hawley's terms) and these structures would be described as they operate in the real estate market. This in itself would be useful. However, can these structures be adequately explained divorced of their internal values and self-conception as Form describes? Again, even the assumption of strict economic dominance in their interrelationship may reflect an attitude of the acting agent. If that be the case, other variables controlling the structure should be admitted. Such variables, even if conceded to be outside the realm of ecology, would be of obvious importance in the analysis of any area and, for this study, an urban "fringe."

## I. Conclusion

In this brief and arbitrary inspection of social theory, certain orientations have been offered as pertinent to the case study undertaken. A certain theoretical framework has pertinence to any community research. The ecological, technological, and cultural variables operative in the relationship of the peripheral area to the urban center are constantly being discussed in sociological literature today. Our aim here has been to attempt to show the development over time and the delineation of these orientations. However, no clarification of such orientations can be any more precise than the precision of the abstractions themselves. For example, the inexactness of the definition of precisely what is "fringe" is all too apparent. The goal is to be aware of these transiencies in definition. Likewise, when an ecologist states that "units of the community

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[29]William H. Form, "The Place of Social Structure in the Determination of Land Use: Some Implications for a Theory of Urban Ecology," Social Forces, XXXII (May, 1954), p. 317.

distribute themselves about a central point in relation to their ability to bear the time and cost of transportation to and from the central point,"[30] the theoretical context (here, the precise definition of ecology) within which this statement is made must be understood. In this context, Hawley is stating an ecological generalization of distribution that is not concerned with the alternatives of locations within relatively equal time-cost areas in relation to the central point. When an area is called "fringe," "suburban," a "community" it must be asked in what abstractive sense is this meant? Several variables are operative in such designative terminology.

Fringe, suburb, community are merely examples of vagueness, selectively chosen since these terms are of particular pertinence to a case study of this type, i.e., a rural group of people possessing observable accessibility to an urban center. Any cursory inspection of available literature will reveal numerous attempts to define and clarify the use of these terms.[31] No attempt can be made here to review each of these efforts. The most that can be undertaken is to try to point out the varying so-called perspectives, orientations, interests, etc., from which such terminology can be approached. There is a danger of pursuing this differences to the point of sterility insofar as contributing to research which, nevertheless, can be intelligibly presented despite such disparities. Proceeding from this brief review, which has attempted to emphasize these possible theoretical variances, the next two chapters will be concerned with the enunciation of those concepts considered essential to this study.

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[30]Hawley, op. cit., p. 286.

[31]For example, Richard A. Kurtz and Joanne B. Eicher, "Fringe and Suburb: A Confusion of Concepts," Social Forces, XXXVII (October, 1958) pp. 32-37.

# CHAPTER 2

## THE RURAL-URBAN FRINGE

A study of the urban periphery requires some discussion of the concepts constantly, if inconsistently, applied to such spatial areas. From the brief review given in the first chapter, it is seen that one major contribution of ecology has been to provide a terminology useful in describing urban change and expansion in terms of spatial organization. The imputing of change in the social structure, however, has not produced as precise a terminology. Fringe, suburb, and even community, have been abstractive products related to ecology. The refinement of such concepts would help to classify the patterns of use and habitation that are discernable in the urban complex. The concepts of suburb and fringe have been generalized in order to impute, to certain areas, particular characteristics. The ecological distinctions of areas in terms of particular land uses has inevitably led to efforts to impart other nonecological characteristics to such areas. To describe an area as a fringe or suburb in terms of ecological structure does not per se impute to such areas other characteristics supposedly operating in such land use delineations. It is only in the interrelation of known variables, both ecological and otherwise, that an area can be meaningfully termed fringe, suburb, etc. The only alternative is to assume no relationships are possible and that abstractions of fringe, etc., in terms of land use and behavioral factors, are unreliable. In any case, the use of such terminology demands specificity in enunciating what characteristics are being attributed to such terms. It seems that the fundamental problem uncovered by sociologists such as Park, Burgess, Quinn, Hawley, Firey, etc., has been to point out the complexity of

assigning factors influencing land use formation and change. The interrelation and inclusion or exclusion of factors in this framework has by no means been finally established in social theory. The place of non-economic factors in modifying land use patterns has caused a certain amount of controversy.[1] Certain other differences of perspective have been mentioned in the preceding chapter. Obviously, such differences have affected the conciseness of the use of fringe in describing the urban expansion. In addition, the ambiguities in the term, "community," have hindered the analysis of the area-patterns so delineated. It would be presumptuous to intend a resolution of such problems of definition here; however, an awareness of the variations in usage of fringe, suburbanization, etc., must be reiterated. Therefore, the objective will be to review the use of "fringe," a concept which is most pertinent to this study. "Suburb," although considered extraneous to this study, is considered insofar as it is confused ( or equated) with fringe.

## A. The Problem of Definition

Dobriner, in 1958, observed that:

> In the past two decades, there have been attempts to conceptualize the emerging outer rings of the metropolitan area. Ecological theory, consequently, seems oriented toward the analysis of (1) the spatial patterning of central cities, and (2) the spatial patterning of the metropolitan center which includes both the central city and the surrounding tributary area. In this regard, the two concepts currently most employed are "suburbs" and "rural-urban fringe." The term "suburban" can easily be traced back to the works of Adna F. Weber and undoubtedly was used much earlier in the popular rubric of cities. However, the concept of the rural-urban fringe can be traced back scarcely twenty years in the sociological literature. Unfortunately, there have been few attempts to distinguish between these two terms.[2]

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[1]See Gideon Sjoberg, "Comparative Urban Sociology," in Sociology Today, eds. Robert K. Merton, Leonard Broom, and Leonard S. Cottrell, Jr. (New York: Basic Books, 1959), p. 340 ff.

[2]William Dobriner (ed.), "Introduction," The Suburban Community (New York: G. P. Putnam's Sons, 1958), p. xvii.

Dobriner mentions the work of Blizzard and Anderson[3] in clarifying fringe-suburban in that suburbs are defined in terms of political units dominated by urban centers while fringe is defined in terms of land use and available services, i.e., mixed urban and rural uses where city services gradually decline and agricultural uses gradually increase. So, from one point of view, suburb-fringe have been conceived on a continuum. Urbanized and rural are the ideal extremities with dependence and subordination to the urban center increasing as we move from the rural to the urban pole. Looking at the continuum from the rural pole, "fringe" becomes conceptually significant and valid as urban dependence and function compete with rural independence and function. Looking at the continuum from the urban pole, "suburban" become meaningful as political separateness is established but urban dependence persists. On such a continuum, however, it is feasible that "fringe" and "suburban" could be identical where political units adjacent to urban centers contain this meeting and mixture of rural and urban function. It seems that part of the failure in making these concepts operational, or even communicable, is to insist on some sort of distinctive, i.e., absolute identity in these concepts, each having unique ecological and social characteristics. Fringe and suburb are relative conceptions meaningless apart from a particular urban center. What "absoluteness" that can be attributed to fringe-suburb seems to have evolved from ecological (land use) literature. Fringe has evolved to imply a mixture of land uses; suburb has come to imply land use (whether residential, industrial, "satellite," etc.) adjacent to the urbanized area proper or contiguous to other suburbs that are characterized by such adjacency. Fringe, as a mixture of land uses does not connote adjacency to an urban or suburban area. However, consensus or

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[3]Ibid., p. xxvi (footnote). See Samuel W. Blizzard and William F. Anderson, "Problems in Rural-Urban Fringe Research: Conceptualization and Delineation." The Pennsylvania State College Agricultural Experiment Station, Progress Report No. 89 (State College, Pennsylvania, November, 1952). (Mimeographed.)

consistency in the use of these concepts does not appear to be evident in sociological literature. Certain available (and highly selective) examples should be pointed out.

## B. Diverse Uses of "Fringe"

Kachtik in a recent M. A. thesis[4] seems to solve the problem of "fringe" conceptualization in a priori fashion. Fringe is only implicitly defined through characteristics assumed to be equated with "fringe" areas.[5] These assumptions in themselves do not invalidate the study but such assumptions should be explicitly stated. If a fringe area is considered to be self-evident, it still has become that obvious on the basis of explicit evidence that excludes other fringe generalizations.

This a priori procedure does not seem to be justified when comparison is made to another study made in this same Lansing metropolitan area (from which Kachtik selected Haslett) which describes this area as possessing a suburban settlement pattern:

> Suburban developments have become a common phenomena around most cities. As these developments have spread outward from their central cities, their influence has had a greater and greater impact upon rural areas. This bulletin reports a study of the effects or suburbanization upon rural land use patterns, property values, and local attitudes toward community services

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[4]Eugene E. Kachtik, "A Study of Community Orientation in a Rural-Urban Fringe Area" (unpublished M. A. thesis, University of Arizona, 1958).

[5]It seems at least ambiguous to speak of "smaller urban and suburban communities adjoining our metropolitan centers" and rural "open country" living simultaneously as introducing a universe of study. Conceivably, "smaller urban and suburban communities" could be pointed out that offer many of the advantages of "open country" living. Likewise, a peripheral or "fringe" area of an urban complex might offer none of the advantages of city living. It appears assumptive, therefore, to equate arbitrarily a style of life to a spatial area, especially an area so ill-defined. (Cf., Kachtik, op. cit., p. 1)

> in two segments of the suburban area surrounding the city of Lansing.
>
> Field surveys were made in two block sample areas located along U. S. Highway 16 between Okemos and Williamston. . . .[6]

This land economic study calls certain urban expansion, "suburban development"; expansion that has also been described as "fringe" development.[7] The authors are explicit in this designation. The point to be made is that such terminology cannot be treated a priori if it is to have any value in descriptive delineation of areas observable in urban expansion, in land use change, and in functional and social dominance.

Demographic literature illustrates another variance in use of this terminology.[8] For example, following the census definitions, Beegle and Halsted, use fringe in the following context:

> The authors estimate that the nonvillage or "fringe" part of Michigan's population in 1950 was about 800,000, or one in every eight persons. The village part of the rural-nonfarm population was estimated to be about half as large as the nonvillage segment of the rural-nonfarm population.[9]

Such use of fringe is certainly specific; however, the transient application of the term "fringe" must again be pointed out.[10]

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[6]E. Howard Moore, and Raleigh Barlowe, Effects of Suburbanization Upon Rural Land Use, Michigan State University Agricultural Experiment Station, Technical Bulletin 253 (September, 1955), p. 3.

[7]Here, "suburban" would encompass areas even beyond the Lansing "rural-urban fringe" as defined by Kachtik.

[8]"There is no official definition of a suburb provided by the Bureau of the Census, nor has the term received much systematic attention by sociologists." Dobriner, op. cit., p. xvii.

[9]J. Allan Beegle, and Donald Halsted, Michigan's Changing Population, Michigan State University Agricultural Experiment Station, Special Bulletin 415 (June, 1957), p. 11.

[10]Land economists, political scientists, sociologists, etc., have continued to formulate such transient but operational definitions. For example, "It would appear useful to look upon the fringe area as a zone of transition between rural and urban areas." J. Allan Beegle and Widick Schroeder, Social Organization in the North Lansing Fringe, Michigan State University

Dobriner holds that at this time our definitions of fringe and suburb are only of an operational order. His definition of suburb is broad:

> . . . a working definition of the suburb might be: those urbanized, residential communities which are outside the corporate limits of a large central city, but which are culturally, and economically, dependent upon the central city.[11]

Dobriner then also agrees with Blizzard and Anderson that fringe analysis is also at the working level, i.e., defined in terms of local uses and the availability of urban services.[12]

Fringe then has been used as a term implying land use, social, economic, political and service characteristics. However, if it is true we are at an "operational" stage, an encompassing at this time of all, or several, of these characteristics in definition is unattainable. However, to admit such terminology is "at a working level" or "operational stage" seems to imply potentiality for future refinement and specificity in definition. In this instance, it is indeed an assumption that these particular terms are satisfactory in themselves for spatial specification.

## C. The Status of Fringe Research

In general, it has been seen, the suburb is defined in terms of political boundaries and socio-economic dependence on the urban center. The fringe is primarily a measurement in terms of land use and availability of services. Such characteristics are the most readily observable when formulating tentative definitions. However, if following the postulate stated earlier that "fringe" becomes conceptually significant as urban

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Agricultural Experiment Station, Technical Bulletin 251 (September, 1955), p. 8. Obviously, the political scientist, interested in unincorporated government, would have a different perspective.

[11]Dobriner, op. cit., p. xvii.

[12]Loc. cit.

dependence and function compete with rural independence and function, then fringe can be considered operationally as possessing more than land use and urban service characteristics. Therefore, "fringe" as viewed in terms of competition will be a consideration in the analysis of this study.

Efforts to assign characteristics to the rural-urban fringe have approached the problem from diverse methods and frames of analysis. Demographic characteristics, occupation, migration, mobility, transportation and land use variables have been investigated in the fringe. Social and cultural factors have also been studied and assigned varying significance in fringe areas. The social organization, adjustment problems, and attitudes of fringe residents have been investigated. In addition, governmental organization and the outlook of fringe residents toward political problems have been the subject of inquiry. Each of these demographic, ecological, economic, and cultural variables have contributed to a body of data concerning the behavioral structure of the fringe. Demographic and ecological research, in general, has attacked directly the phenomenon of competition in the fringe between rural-urban dominance and function. Attitudinal-adjustment research generally has investigated the motivational characteristics for selecting fringe residence.

Each of these areas of research has contributed to the attempt to delineate fringe areas. Obviously, it is not to be implied that there is consensus among social scientists in evaluating the observable variables that seem to be of operational significance in identifying "fringe." The problems raised in the preceding chapter of interpreting the ecological, economic, and cultural factors influencing land use (in this case, the fringe) have by no means been resolved. For example, Martin would disagree with those who would interpret fringe development primarily in terms of escape from high urban living costs, high taxes, and prohibitive real estate prices. Martin concludes that:

> The evidence presented is not completely free of discrepancies and inconsistencies, but, in general, the major working hypothesis seems to be tenable: adjustment of individuals to residence in the fringe area, and inferentially to attraction of the area for them, can be understood principally in terms of socio-psychological factors rather than the economizing nature of the location.[13]

Kurtz raises a more fundamental objection to the status of fringe research:

> . . . it is suggested here that the conclusions of previous investigators are not relevant to rural-urban fringe areas in general. Basically, this criticism is based upon two factors which supplement the findings of the study: (1) previous investigators conducted their research in areas which are more clearly suburban than fringe, and (2) sociologists working in areas surrounding central cities have usually concentrated on recent arrivals, while ignoring long-time residents.[14]

It cannot be an objective of this study to review and summarize the wealth of fringe literature. However, the emphasis here on the negative aspects of such research are considered most crucial. The accusation of Kurtz points out a very serious problem which is critical to any study that presumes to designate an area as fringe and thereby possessing certain identifying characteristics. The fringe area has been delineated as characterized by a mixture[15] of rural-urban land uses; a lack of complete availability of urban services, accessibility to the urban center, and competition between rural and urban dominance. Kurtz contends that, in research, areas identified as fringe have actually lacked the characteristics of fringe; at the same time, areas

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[13]Walter T. Martin, "Some Socio-Psychological Aspects of Adjustment to Residence Location in the Rural-Urban Fringe," American Sociological Review, XVIII, No. 3 (June, 1953), pp. 252-253.

[14]Richard A. Kurtz, "Resident Adjustment Patterns in the Rural-Urban Fringe" (unpublished Ph. D. thesis, Michigan State University, 1959), p. 170.

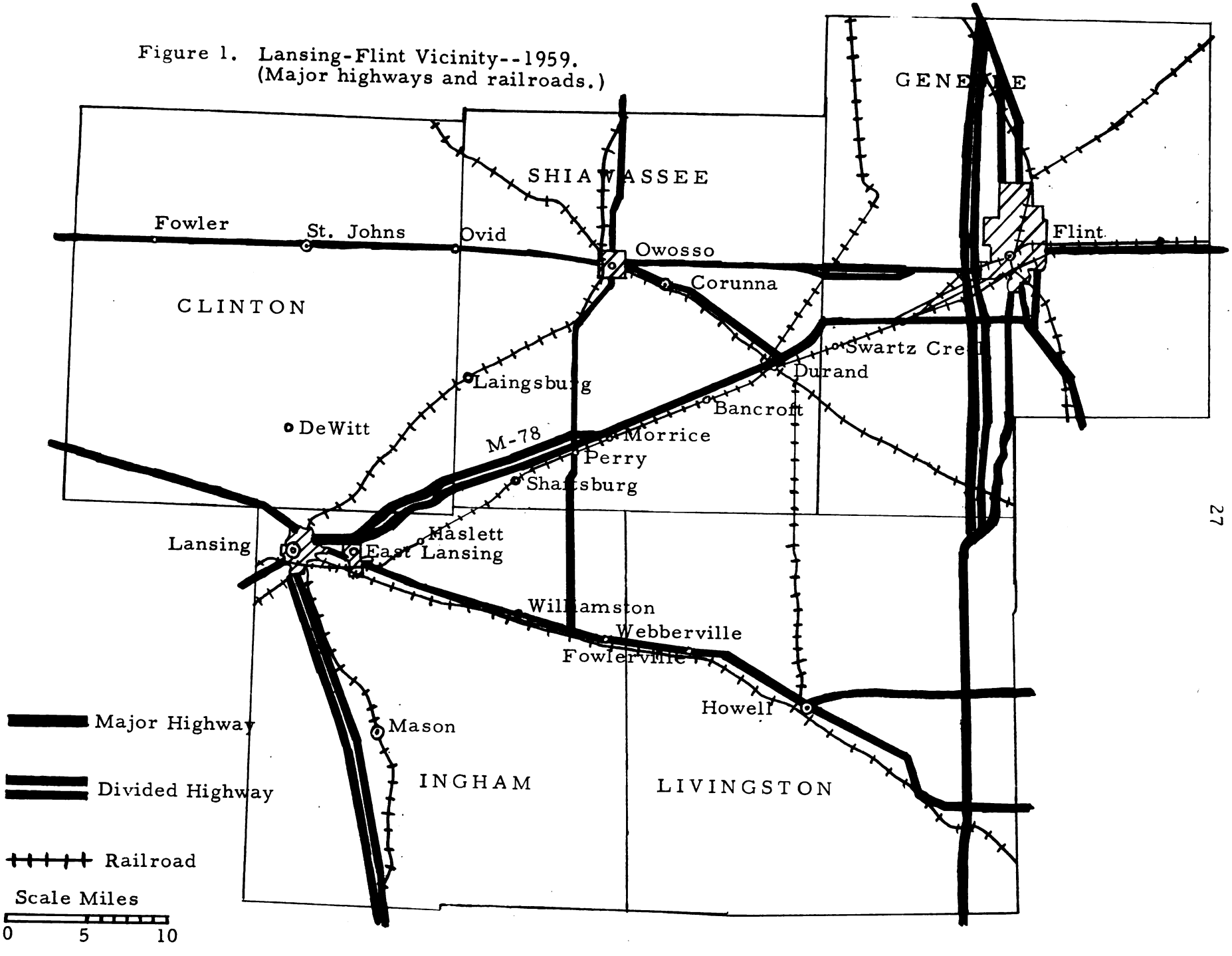
[15]For some researchers, this mixture is generally considered to be one of disorder. For example, see Walter Firey, Social Aspects to Land Use Planning in the Country-City Fringe: The Case of Flint, Michigan, Michigan State University Agricultural Experiment Station, Special Bulletin 339, (June 1946).

possibly correctly identified as fringe are approached with a research methodology that neglects the rural, farm, long-resident side of fringe life. The present study is thought to avoid the selective biases presented by Kurtz. The universe of study is an unincorporated village, historically identified as a rural trade center that has come increasingly under the influence of an urban center. Preliminary observations seemed to verify that the study area met the qualifications of a fringe settlement. Since no controls were attempted over longevity in the area, it is thought that the second objection of Kurtz has been avoided.

This rural fringe area, which is the universe of this study, can be shown to have passed from being a small, rural trade center to a fringe area from several variables operating in this particular situation. Lansing, the related urban center, developed as an industrial center and thus as a source of employment for the surrounding area. Farming was generally of a marginal nature in the township containing the study site. Historically, residential and industrial development of Lansing was not in the direction of this area but, however, in the early 1930's, a new highway (to connect Flint and Lansing) was constructed through this area which provided the accessibility of the area to Lansing (see Figure 1).

The transportation change and the consequent change in relationship of the urban center, Lansing, to the then rural community, Shaftsburg, is viewed as the dominant variable, both in time and effect, for the presentation of this study. This transportation change provided Shaftsburg with accessibility to the urban center, a sine qua non condition for the development of that area as a rural-urban fringe. With this framework in mind, transportation, as such an independent variable, will be discussed in the next chapter. Change over time in both the ecological and social organization will be viewed through transportation as a

Figure 1. Lansing-Flint Vicinity--1959.
(Major highways and railroads.)



determinant of spatial interaction. This study, therefore, will attempt to find an orientation or "common ground" for fringe research in the investigation and analysis of spatial interaction.

# CHAPTER 3

# TRANSPORTATION

The fringe concept intrinsically involves movement over space, i.e., there must be present a degree of accessibility of the so-named fringe area to the related urban center. One primary measure of this degree of accessibility is the transportation variable, i.e., the available transportation system in a particular area. Past research has established that changes in accessibility (transportation) bring changes in behavioral patterns. However, it is a tenuous assumption to attribute through a degree of accessibility a simultaneous, collateral effect in all areas of interaction. The "lag" has been a major point of investigation in fringe research. Fringe has been conceived as the area of competition and transition in organization; however, not by definition, orderly, coherent transition whether in land use, social, or governmental organization.

As one facet of this problem of change, the primary social problem proposed for consideration in this study will be the illustration in one "case study" of the possible disjunctive influence of transportation facilities in a rural-urban fringe segment.

## A. The Impact of Transportation

First, however, the nature of transportation as an operative variable in urban development must be considered. In that fringe and suburb both involve urban dependence, both are viewed in terms of accessibility as intrinsic to the existence of such identifiable areas. Consequently, transportation as a factor in urban-rural development

necessarily must involve fringe and suburb as directly influenced by the rural-urban transportation system.

In trying to measure and evaluate the relationship of transportation and certain observable patterns of human behavior, several supposedly valid and explicable relationships can be discussed. Obviously, transportation facilities have particular effects on residence locations, land values, place of work, vacation alternatives, and the general purchasing, servicing and visiting patterns of any specific community, area, etc. As transportation becomes more efficient (or inefficient), alternatives choices of movement available to actual and potential transportation users will be affected.[1] For example, if the transportation facilities from home to work become more efficient, the commuter using these transportation facilities will be affected and thus offered other alternatives in behavior. Such a commuter may choose to continue the same residence to work routine and apply the savings in time to other activities or he may decide to move further from the urban center and travel the distance to work in the same amount of time as was consumed from his previous residence location before the transportation improvement. Over sixty years ago Cooley observed that: "The more perfect is transportation the more exclusively can people everywhere devote themselves to those pursuits for which their dwelling place is suited."[2] This principle has applicability in the consideration of work-purchasing-recreation relationships. As transportation is perfected, the commuter

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[1]Wehrwein bluntly points out the impact of automobile-highway development: "Motor transportation has released man from the necessity of living in places where mass transportation is available." George S. Wehrwein, "Rural-Urban Fringe, in Readings in Urban Geography, eds. Mayer and Kohn (Chicago: University of Chicago Press, 1959), p. 538.

[2]Charles H. Cooley, "The Theory of Transportation," Sociological Theory and Social Research (New York: Henry Holt and Company, 1930), p. 71.

is given greater time to concentrate on activities related to his residence. Various studies have shown that the time spent in traveling from work to home will influence "dwelling-place" activity and that locational choices of residence are made following "pursuits" which the commuter values.[3] Other studies have attempted to point out the various characteristics of commuting populations and the sociological and psychological consequences of these arrangements.[4] The point to be made here from migration studies is in the illustration of the particular application of transportation in influencing behavioral patterns. Similar applications of the transportation process can be made to other areas of social and economic behavior. Residential growth patterns, community composition and stability, industrial development patterns, recreational choices, zoning and planning are broad areas involved in the effect of the transportation system on social, economic and political life.

As introductory, the mentioning of these broad categories merely emphasizes the interrelationship of transportation to a considerable number of behavioral areas. In talking about "transportation and the fringe," certain basic concepts of transportation should be abstracted that will assist in making any area of relationships of transportation and behavior patterns coherent and capable of analysis. These basic concepts or properties of the transportation process will provide a framework which will assist in the analysis of transportation and its relation to social organization.

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[3]See Wendell Bell, "Social Choice, Life Styles, and Suburban Residence," in Dobriner, op. cit., pp. 225-247.

[4]For a general discussion of the effects of commuting on social relationships seeWalter T. Martin, "The Structuring of Social Relationships Engendered by Suburban Residence," in William Dobringer, op. cit., pp. 95-108. For a more specific consideration in a fringe area see, Anthony J. Diekema, "A Study of Migration and Commuting in the Rural-Urban Fringe" (unpublished M. A. thesis, Michigan State University, 1958).

## B. Mobility and Accessibility

Since transportation, by its very nature, involves motion or movement, the properties associated with transportation are concerned with movement. Mobility then will be an essential concept in discussing any system of transportation. As greater transportation efficiency permits greater movement, the mobility capacity and the alternatives of uses in an area will be increased. Mobility then is a characteristic of transportation that will be present in any relationship to behavior. With greater mobility there results a greater choice in movement alternatives for those affected by any particular transportation process.

If transportation becomes more efficient, mobility capabilities will increase and thus there will be greater access to the area affected by the increased efficiency of the transportation system. Accessibility then will be a characteristic of any transportation process. Therefore, a transportation system, as it brings greater mobility, will also introduce greater accessibility to the area receiving the more efficient transportation system. A transportation system's efficiency then as mobile and accessible will be measured in terms of the time-distance ratio and the network or complex of area that is involved.[5]

Mobility and accessibility intrinsically presume time and distance. The effectiveness of transportation will be evaluated as mobile and accessible in terms of both time and distance. So, by the very nature of transportation, an area or space must be considered in which the system can be measured. "Space itself is something to be passed over and thus it calls for an expenditure of time and energy."[6] Following Hawley, this

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[5]Hawley, op. cit., p. 237.

[6]Ibid., "Hence the efficiency of transportation and communication devices is a measure of the friction existing at any one time."

"energy" expended can also be called the cost involved in any movement over space. Space, time, and cost are "resistances" to be measured in movement or transportation, i.e. there exists a friction of space.[7] Mobility and accessibility then will be considered here as concepts deduced from this relationship expressed in the friction of space construct.

Therefore, it seems that transportation as a factor in space development can be discussed in terms of mobility and accessibility.[8] A transportation system can also be analyzed as having certain psychological and social considerations as these attributes of mobility and accessibility are evaluated. The "flight" to the suburbs may be thought of as a value of suburban life in possessing accessibility to but separateness from the urban center which the transportation system provides. It can be said that since some degree of accessibility and mobility are essential to a transportation facility, the facility is attributed value and thus maintains an influence in locational decisions as it possesses mobility-accessibility.[9]

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[7]Ibid.

[8]Ibid. Such development is explained: "The territorial pattern of collective life is largely a result of the friction of space as manifested in time-cost distance."

[9]Within an ecological context, value might be defined as the ability or decision to pay or not to pay certain locational costs. Value, in this sense, is interpreted as merely an ex post facto expression to help explain certain costs (whether economic or social) that have been weighed and acted upon. Value, in this context, would have little predictive meaning if such cost analysis and action were the only criteria within which territorial development is to be explained. Hawley, in his definition of human ecology, would leave room for causal variables outside the "friction of space" framework: "Human ecology studies the structure of organized activity without respect to the motivations or attitudes of the acting agents," op. cit., p. 179.

## C. Transportation and Social Theory

The concept of transportation as viewed in an access-mobile structure illustrates certain effects from demographic, ecological, and social or community[10] analysis. Simply, the ability to traverse space has causal significance in human behavior. For instance, transportation in this context has consequences on population distribution, land uses and values, community location and change, and on the social structure of communities as changes occur in the efficiency of transporting facilities. Briefly then, transportation will be viewed in the access-mobile framework as its various aspects are influential on behavioral and locational patterns.

### 1. Demography

With the advent of more efficient transportation means (such as new and paved roads), which provide greater mobility and accessibility, new areas are opened to development and habitation for those having dependence on the urban center. An important factor then for suburban and fringe development, especially in the last thirty years, has been the emergence of a transportation system, sufficiently advanced technologically, that has provided access to increasingly more distant areas surrounding the urban centers. Therefore, the mobility of the population has been gradually accelerated as more efficient transportation facilities provide a means of dispersion to areas topographically favorable to

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[10]The alternatives available in fulfilling daily needs is not far removed from the efficiency of the transportation system. Thus, transportation efficiency is closely related to the territory of "community." This would follow from Hawley's definition of community: "Formally defined, community refers to the structure of relationship through which a localized population provides its daily requirements." Hawley, op. cit., p. 180.

development.[11] However, on the other hand, one of the critical problems, which has been the subject of suburban and fringe research, centers around the phenomenon of improved transportation facilities providing dispersion to areas topographically, economically, or politically unsuitable or unconditioned for development.

Transportation has been a contributing cause in the redistribution of the population that obviously occurred with the fringe and suburban development. Concurrently, there also has resulted changes in the characteristics of the population that have been partially induced by the transportation process. As transportation has improved, the conveyances of transportation (both public transportation and the automobile) have become economically feasible for lower income groups. At the same time, a higher average income for the skilled and semi-skilled worker has provided new segments of the population with an economic capability that has given them greater mobility. Outlying areas then have been opened to these occupational groups as a choice of residence further separated from their work place than ever before. Technology has brought a transportation system that has provided the means for more and more people to live further and further from the concentrated urban areas on which they depend for work, goods, services, recreation, etc. This dependency is a limited and narrow one for fewer people as not only the "upper" and "middle" class find it possible to live in suburban areas but the young, the laborer and the white collar worker have found living outside the city is possibly more desirable and economically sound. Transportation then can be observed as a causal factor in the change in population dispersion especially as population increase demands the opening of new land for habitation.

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[11]Hawley, op. cit., pp. 337-338. This increased mobility provided by transportation improvement has allowed for dispersal (here, home from work) that acts as a substitute for migration.

2. Ecology

Transportation, as it becomes more efficient through the application of new technical knowledge to the various transportation facilities, opens new areas to residential, industrial, agricultural, and recreational development. Simply then, as technology gives the means of greater mobility in the transportation system, accessibility is also granted to areas that previously were inaccessible economically and perhaps even physically. Transportation and its efficiency therefore has been an important factor in development by providing the means to physically enter suburban and fringe areas, economically live there, and possess the social balance of residing in an area characteristically nonurban and still have the ability to use the urban centers in daily social and economic action.

Industry. This increasingly efficient transportation system has also provided the mobility for industry to decentralize and abandon the overcrowded urban centers for the more spacious surrounding areas. More mobile, flexible transportation in the highway system has lessened the necessity for industry to locate adjacent to the railroad facilities or water transportation routes. These "satellite" suburbs[12] are a product of transportation changes that opened areas outside the central city to industrialization and that provided the means to transport raw materials, semifinished and finished products to connecting transportation facilities and markets of consumption.

Dispersion. Transportation has provided the mobility to separate physically the central city or urban center from the outlying area; on the other hand, transportation development has, with this physical separation, still maintained or preserved the accessibility of these areas to the urban center. But with this physical separation and accessibility have come certain ecological problems. (The traffic problems that

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[12]Leo F. Schnore, "Satellites and Suburbs," in Dobriner, op. cit., pp. 109-121.

plague most metropolitan or urban areas can be readily seen as one of these.) The future impact of transportation in generating further dispersal of the urban orbit has been summarized:

> But more recently transportation has become an agent of dispersal as well, making possible the avoidance of concentration and promoting a diffused pattern of industrial and residential development. . . . The problems of overcoming transportation difficulties are giving way to the possibilities of exploiting the advantages of transportation. The relative force of these two opposite aspects of transportation development will continue to play an important part in determining the character of urbanization in the future.[13]

The automobile has become the increasingly used means of transportation since it provides greater mobility than public transportation, which as a result has increasingly declined in efficiency. Ernest Mowrer comments on the use of the more mobile automobile transportation to suburban areas as compared with the mobility of public transportation and the accessibility it provides:

> Much of the past advantage of living in the central city was the accessibility of public transportation which brought all of the varied institutions of the city within easy reach. With the deterioration of public transportation the city no longer presents this advantage; automobile ownership provides greater freedom in the choice of place of residence without sacrificing the advantages which the city provides. Suburban residence provides a comprose between the accessibility to urban institutions and the pleasures of a more leisurely pace of life.[14]

The principal reason for discussing the problem of urban traffic and development here is in order to point out the influence of transportation on the environment of present urbanized areas with a continuing rapid growth in population of suburban and fringe areas at the expense

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[13]Wilfred Owen, The Metropolitan Transportation Problem (Washington, D.C.: The Brookings Institution, 1956), pp. 15-16.

[14]Ernest R. Mowrer, "The Family in Suburbia," in Dobriner, op. cit., p. 153.

of the urban centers. The point to be emphasized here is the importance of the mobility and accessibility characteristics of transportation in influencing the patterns of urban expansion and change.

Community Organization. Not only has the more efficient transportation (which has contributed to this growth) had important impacts on the urban centers related to this growth but transportation improvement has affected the established communities which have been in the path of suburban and fringe development as it reaches further from the urban center. In addition, new transportation systems such as limited access highways have placed established communities directly under the impact of new development; whereas, previous to this new transportation system, these relatively independent communities were ecologically removed from the pattern of urban growth. Therefore, as new areas and communities become accessible (as the transportation network permits) land use and land values, population characteristics, and political boundaries will change as residential and industrial development takes place. In the face of available data it would be naive to assume that such change will be concomitant.[15] Appropriate governmental and political revision, or lack of it, has not always been in conformity with the attitudes of suburban and fringe residents toward the function of government organization.

Ecology and Transportation. There are certain general conditions necessary for the transportation system of a given area or space before this peripheral development will take place. In a discussion of the manner in which transportation determines the location of towns and

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[15]Zimmer and Hawley have extensively investigated this problem: "Local Government as Viewed by Fringe Residents," Rural Sociology, XXIII, No. 4 (December, 1958); "Approaches to the Solution of Fringe Problems: Preferences of Residents in the Flint Metropolitan Area," Public Administration Review, XVI, No. 4 (1956); Resistance to Governmental Unification in a Metropolitan Community (University of Michigan, 1959), mimeographed.

cities Cooley gives the generalization that: "Population and wealth tend to collect wherever there is a break in transportation."[16] Cooley held that a "break" was a condition of transportation necessary for a concentrated area to arise. This break in transportation was considered to be a point at which goods were transferred and distributed. This "break" then may be viewed as a break in the accessibility structure of the transportation system. The point of emphasis here is not whether Cooley proposed a general observation that is without exception, but that his generalization was in terms of the conditions of transportation which involve the concepts of accessibility and mobility.

A general description of the relation of transportation to urban and peripheral change has been discussed; however, an access-mobile model is not a model of change devoid of the particular conditions of an area upon which it is imposed.

First, it must be noted that each particular area capable of development will have special requirements and conditions before such expansion will take place regardless of the conditions of transportation present in that area, e.g., sufficient population, development capital, financing, etc. But if the capability exists, then transportation can condition this development. Primarily, transportation must provide mobility; the transportation system must possess a degree of efficiency in mobility to make outlying locations advantageous and feasible choices of residence. Economic and social value will be attributed to the transportation system as it provides mobility. The transportation system must also provide the accessibility to the area that will make the area capable of development. The level of accessibility must be such that it is economically profitable for the developer to operate in the area especially in relation to other areas of development around the urban center. In general, the accessibility of transportation to an area outside

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[16]Cooley, op. cit., p. 76.

the urban center must be such that dependency on the urban center can be maintained. The area itself despite the efficiency of the transportation system, must be capable of development, i.e., suitable topography, sources of power, etc. Adjacent and nearby development obviously will also influence the use of an area capable of development.

It must be pointed out that the conditions of transportation are but one factor, but an important conditional factor, for suburban and fringe development. The values and talents of developers of suburban areas who are actually major planners of urban development will also determine patterns of development regardless of other conditions (such as the degree of transportation efficiency). The rationality of behavior in this sense will, in itself, be a condition of development. Such decisions will affect the nature and direction of fringe areas as places of habitation.

The conception of an ecological model of urban development is integral to constructing a framework of analysis of a case study within a rural-urban fringe area. It is assumed that a "model" is an abstract but rational construct. The model presents development as encompassing efficient transportation facilities providing accessibility and mobility within an urban complex to areas capable of efficient residential, industrial, etc., development. Obviously, in the concrete, such ideal conditions of efficiency are not met. Improved transportation facilities between urban centers bring greater mobility and accessibility to interlying areas (from which the urban periphery is conceived) not possessing the conditions (geographic or topographic, economic or political) for efficient, orderly change. The "disordered" fringe has often been the product of a poor combination of these conditions.

### 3. Social Structure

From what has been said there are obviously societal effects of the transportation process. The problem here seems to be to abstract those effects on the social structure which are primarily related to the

transportation process. Broadly speaking, the whole suburbia complex and its universe of behavior could be related to the transportation process in an interdependent relationship.[17] More specifically, it seems to be a question of how does the efficiency of transportation affect the area and its development; and what effects does transportation have on the communities it absorbs into the urban orbit. MacIver and Page in discussing the changes taking place in the smaller community mention the influence of the urban center (transportation being one factor) on the social structure of the local community:

> Another evidence of the lessening of the coherence and intensity of local community sentiment is seen in many rural districts as they come within the orbit of an urban center. The automobile and modern highway, the radio, the invasion of the urban newspaper and of the chain store, and generally the increasing dominance of the city . . . weaken the attachment to the locality and reduce the number of interests which depend upon it. Contacts with the city become more numerous and more important. The decreasing dependence upon the local community center indicates not only a change in its physical configuration, . . . but a diffusion of community sentiment itself.[18]

This excerpt seems to summarize concisely the change in the established community as the urban center and the accessibility its transportation system provides will have on the social orientation and behavior patterns of those in the local community as the transportation system becomes more efficient. The concept of territoriality of the community will also be qualified by the transportation process. Since the accessibility of a transportation system must exist not only in time but in space or area,

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[17]That transportation made suburban development possible is assumed. ". . . suburbanization could not have taken place except for the development of rapid transportation, which makes it possible for persons to commute in a relatively short time from their homes in the country to their places of work in the city." N. Whetten and W. McKain, "Suburbanization and Metropolitan Growth." Paper prepared for the Chamber of Commerce Executives Conference (Michigan State University, 1955), p. 13.

[18]MacIver and Page, op. cit., p. 296.

the territoriality conceived of the local community will be altered. The diffusion of the local community will not only be in terms of sentiment but community territoriality will be revised and diffused with a lessening in coherence also as the transportation process extends from the urban center.

Commuting. Although the origins and effects of the influence of the urban center on behavior will be different in the established community and the newer suburb, the similar ecological positions of both will result in certain common features of social action. It is obvious that one requirement for urban influence to exist is that a daily commuting pattern between the urban center and the suburban and fringe areas takes place. It is in the context of this commuting, transportation, and interaction of the suburban area with the urban center that changes in the formerly "rural" communities occur and patterns of rural-urban life are formed. Martin points out the influence of commuting (transportation distance and efficiency) in affecting the community involvement of those living in suburban areas.[19] The problem here seems to be to separate out other characteristics of social relationships in those areas which can be related to the transportation system and its efficiency (through which its influence will be determined).

Community Sentiment and Values. Again it seems proper to view the influence of transportation (in this case, on social structure) in terms of a mobility-accessibility structure. Since behavior in the suburb-fringe area is influenced by the mobility and accessibility of the

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[19]Walter T. Martin, "The Structuring of Social Relationships Engendered by Suburban Residence," in Dobriner, op. cit., pp. 95-108. He concludes that despite measurements in terms of age, income or occupations, commuters participate less in the social interaction of the community of residence than noncommuters. Diekema goes a step further and concludes that occupational status, age, income, and sex affect time spent in commuting; however, time involved in commuting and community participation are not compared. (See Diekema, op. cit., pp. 81-82.)

transportation system, these factors can be observed as behavioral modifiers or as placing limitations on the social action of the suburb or locality of communities involved. As accessibility will affect the coherence of community sentiment of the rural area, it will also affect the coherence that can exist in the suburb. Accessibility then which made the suburb possible and created the fringe in the first place, will continue its influence in the social relationships of suburb-fringe residents. Since such residential locations would not be possible except for the mobility which the transportation system affords, social action will continue to be influenced by this mobility. Mobility and accessibility will bring an interchange and diffusion of values between the central city of former residence and the new suburban area or the changing rural community. Mobility and accessibility, therefore, will encourage heterogeneity. The orientation of those coming under the influence of a more efficient transportation system will tend to diffuse and acquire the various cultural elements present throughout the broader urban-rural network. Values, choices, and "mode of life" of the city will become known to those of fringe communities and, because of the transportation system, available for participation. On the other hand, advantages of outlying residence remain intact to those dependent on the urban center. By means of the transportation process and its degree of mobility and accessibility, there is a retention of former values and behavior by life-long rural residents and an acquiring of certain characteristics formerly unattainable and/or possibly unknown.

The fringe community and its relationship to the urban center as viewed through the available transportation system is considered to contain a limited but indispensible explanation of certain patterns of behavior exhibited by fringe residents. The transportation system is not only a means of transporting but also a mechanism of communication affecting the perception, knowledge, and alternatives of action available. This study will investigate specific aspects of this prospectus of transportation and fringe residence.

# CHAPTER 4

# METHODOLOGY

## A. The Context of the Study

The first three chapters have been an attempt to clarify the basic concepts, or at least, to point out certain differences concerning these basic concepts, that are considered crucial in trying to observe and classify behavior viewed within its spatial perspective. The relationships of space and human action through the variables operative in this relationship is the concern of human ecology. This case study is approached with the awareness that such variables are difficult to separate, and then incorporate, in a framework that is explanatory of past change and predictive of future change in any particular place of study.

In Chapter 1, an effort was made to give some notion of the place that ecological and social theory have assigned to the spatial variable. The history of ecological theory itself has been indicative of the increased emphasis on understanding spatial development and spatial patterns that are pertinent to the United States. As this ecological theory has been refined and revised, these observable spatial relationships have been interpreted in various, if not contradictory, contexts. However, these spatial delineations have yielded a rather universal conceptual scheme and nomenclature. Succession, invasion, and dominance were among these conceptualizations that were considered to be central to this case study. Chapter 2 was an attempt to point out the basis of these concepts and the differences in usage of these primarily ecological abstractions. This chapter then treated in detail some of the concepts and names that have been given to certain spatial areas. Chapter 3 has been a discussion

of one variable that is considered of primary significance in the determination and the development of these spatial areas. Transportation, as possessing differentials in efficiency, will be effective in determining the alternatives of behavior available to a subject population.

Therefore, it is intended that this particular case study be viewed within the framework presented in these three chapters, i.e., a case study of a specific, designated area in space that has developed and changed in a prescribed manner and is related to an urban center under particular circumstances, with this relationship modified by a particular transportation facility.

## B. The Problem

The general problem of this case study was centered in the effects of the expansion of an urban center on a small, rurally located community. The effects of expansion would constitute an investigation of the relationships and conceptions present in the community toward the community and the urban center. Obviously, such a broad problematic base could produce numerous corollary problems under differing methods of analysis. However, as the preceding three chapters were to theoretically support, the analysis of the community was to proceed with the transportation variable as central to understanding this particular fringe area in relation to the urban center. The justification for such an emphasis is primarily historical. Simply, the transportation facility and its changing efficiency has been a fundamental condition of change for such a community to take on its present relationship to the urban center.

Within this approach, several subsidiary social problems could soon be elaborated from the existence of a changed, i.e., improved, more efficient transportation facility (see The Fringe Area: Woodhull Township, Chapter 5). These tentative problems were questions evolving

from the changing relationship between a traditionally rural community and a growing, expanding urban center. The following general questions (not all of these were "answerable") helped to clarify the problematic base upon which highly selective hypotheses could be formed in the light of the theoretical framework (Chapters 1, 2, and 3). If the more efficient transportation system has drawn the community into more intense interaction with the urban center, what effect has this new involvement made on the "sense" of community or community life and, conversely, what deteachment from the community has resulted? Sociologists have been interested in this problem of coherence for some time. MacIver and Page have been pointed out (Chapter 3) as observing this change in locality attachment when contact with the urban center increases.

The mobility of the population was to be the problem of immediate importance. How is mobility encouraged by the accessibility provided by a highway combined with little local control (or legislation) of migration and quality of development and possibly combined with little competition with other land uses in the fringe area? What is the relationship of the newer residents to the long-time residents considering the previous complexion of the area? With the supposed influx of newcomers and the ease of accessibility to a wider area, has there been a tendency for the area to disintegrate, i.e., the primary orientation to be other than local? With a primary "highway accessibility" orientation will there be, correspondingly, a lack of orientation to the local political institutions and local problems (government, school, taxation, zoning, planning) and to other local interests (business, associations, neighborhood, etc.)? In summary, with this orientation, what is the "culture" of this peripheral area?

These were some of the very general questions that were raised. Even a particular case study would not produce satisfactory answers to every question. However, these questions, that fundamentally were concerned with coherence, stability and mobility, were the basis of the

interview schedule used in the community in attempting to measure the interaction process of the urban-rural community.

## C. Assumptions

Similarly, these preliminary questions point out several assumptions that operated in formulating the study. The fundamental assumption (obvious by this time) in approaching the study was that the expansion of the urban center had been of important effect on the community, principally through the more efficient transportation system generated by inter-urban commerce. Further, it was assumed that this development (expansion) had placed the community in such a situation to be conveniently designated as "fringe" (following the general use of this concept in sociological literature. See Chapter 2). Accepting this broad assumption brought the assuming of certain other phenomena consequential to urban expansion and its influence on affected peripheral areas. Urban expansion would bring greater interaction. Supposedly, such interaction would bring greater occupational, visiting, associational and buying attachment to the urban center. The assuming of urban influence, or even an urban orientation, of the study area does not assume a urban-rural fringe relationship consistent with present theory. The pattern of this relationship was to be investigated and described; first, by preliminary inquiry within the community and surrounding area (township), but principally, by the interviewing conducted in the village itself.

## D. Hypotheses

The selection of relevant, workable hypotheses was by necessity an arbitrary endeavor. The task was to select those hypotheses that appeared to be the most pertinent and testable for a case study of this type. The investigation that has been outlined, of a particular urban-fringe relationship to be analyzed principally through the transportation

variable, did set certain limits to what propositions could be legitimately tested. The formation of hypotheses had another limitation beyond that of dealing with a non-comparative case study. It is readily apparent that a many-sided variable such as a transportation system (despite its homogeneity in this case) is difficult to dismantle into a series of "airtight" hypotheses.

Transportation by its very nature is difficult to abstract from a geographic, ecological situation. Since the assignment of significance in affecting behavior to a transportation variable has limitations of measurement, the measurement of the variable has been intended to be in terms of mobility and accessibility. Mobility and accessibility have been presented (Chapter 3) as valid attributes of transportation efficiency. Therefore, in this sense, measurement of these attributes will be an objective of the study. Specifically, mobility and accessibility, as attributes of an operative transportation system, are hypothesized as modifying certain movement patterns between periphery and urban center. In the following hypotheses this modification is presented as distorting the theory of the pattern of movement for goods and services which states that the frequency of use of a service or retail outlet is inversely related to the distance traveled to obtain those goods and services.[1] Since transportation efficiency has provided the accessibility to the fringe area for residence by former urban inhabitants who have been or still are employed there, certain hypotheses are aimed at testing differences in mobility that may exist between former urban center residents and those who have not lived in the related urban center. Employment is also tested as a variable possibly affecting other movement patterns. In general, these hypotheses are an attempt to find variables or conditions explanatory of social and economic behavior as viewed through its spatial organization.

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[1]Hawley, op. cit., pp. 277-278.

Hypothesis 1: Those families with past residence in the urban center will show significantly greater interaction with that center than those families never having residence in that center.

Hypothesis 2: Those who are employed[2] in the urban center will show more intense interaction with that place than those employed elsewhere.

Hypothesis 3: The longer and more recent the past employment in the urban center, the greater the continued interaction with that center.

Hypothesis 4: The longer the present employment in the urban center, the more intense the interaction with that center.

Hypothesis 5: As employment mobility, i.e., miles traveled in work connected trips increases, the average miles traveled in other than work connected trips will also increase.

Hypothesis 6: The distance traveled for retail goods and services will increase as the distance to work increases.

## E. Method of Study

An initial land use, roadway, residential and business survey[3] of the universe of investigation, i.e., eight townships in the Clinton and Shiawassee County area (see Figure 2) elicited Woodhull Township (in which Shaftsburg is located) as most closely possessing the characteristics fulfilling the general conditions for this problem. The original survey was conducted as a pilot study to determine the more general

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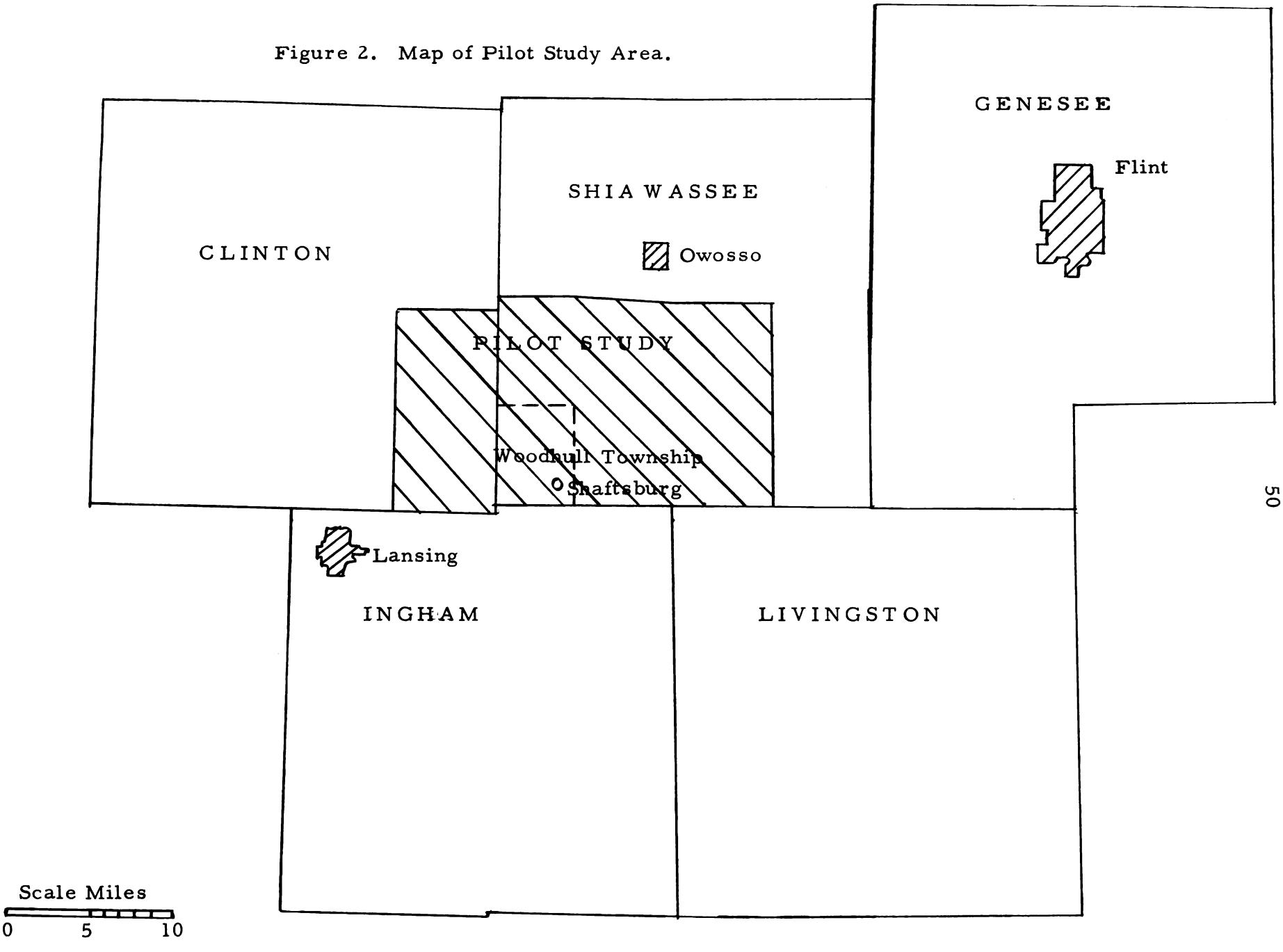
[2]Throughout the statement of these hypotheses, and the remainder of this thesis, employment refers to the employment of the head of household.

[3]Louis Vargha and Edmond Alchin, "Problematic Survey of Highway Impacts in Central Michigan," (unpublished preliminary report, East Lansing: Michigan State University Highway Traffic Safety Center and Departments of Agricultural Economics and Resource Development, September, 1958).

Figure 2. Map of Pilot Study Area.



relationships of the urban expansion of Lansing on one segment of outlying rural lands (see Figure 3). Relationships were then constructed between highway development and improvement, land uses, land values, residential and commercial development, and agricultural marketing.[4] Woodhull Township proved the most favorable for a more detailed case study of the problem that has been outlined here (see Selection of the Universe below).

Next, a preliminary investigation was undertaken questioning certain county and township officials concerning their evaluations of the selected area. Their comments were compared with the original observations formed during the original land survey. These officials were asked to recommend residents throughout the township that also might be questioned about their impressions of the area. These residents were then interviewed.

Finally, the interview schedule was constructed upon the basis of the information that was obtained from these sources. This interview was then administered within the village of Shaftsburg. The data thus collected constituted the quantitative test of the hypotheses, which were stated earlier in this chapter, and the descriptive analysis of the research area.

## F. Selection of the Universe

As stated in the last section, Woodhull Township was considered most suitable for this study. The township had been relatively isolated from Lansing until a new highway (M-78) was constructed through the township during 1932-1933. The township is generally unfavorable topographically for agricultural development and it has no industry,

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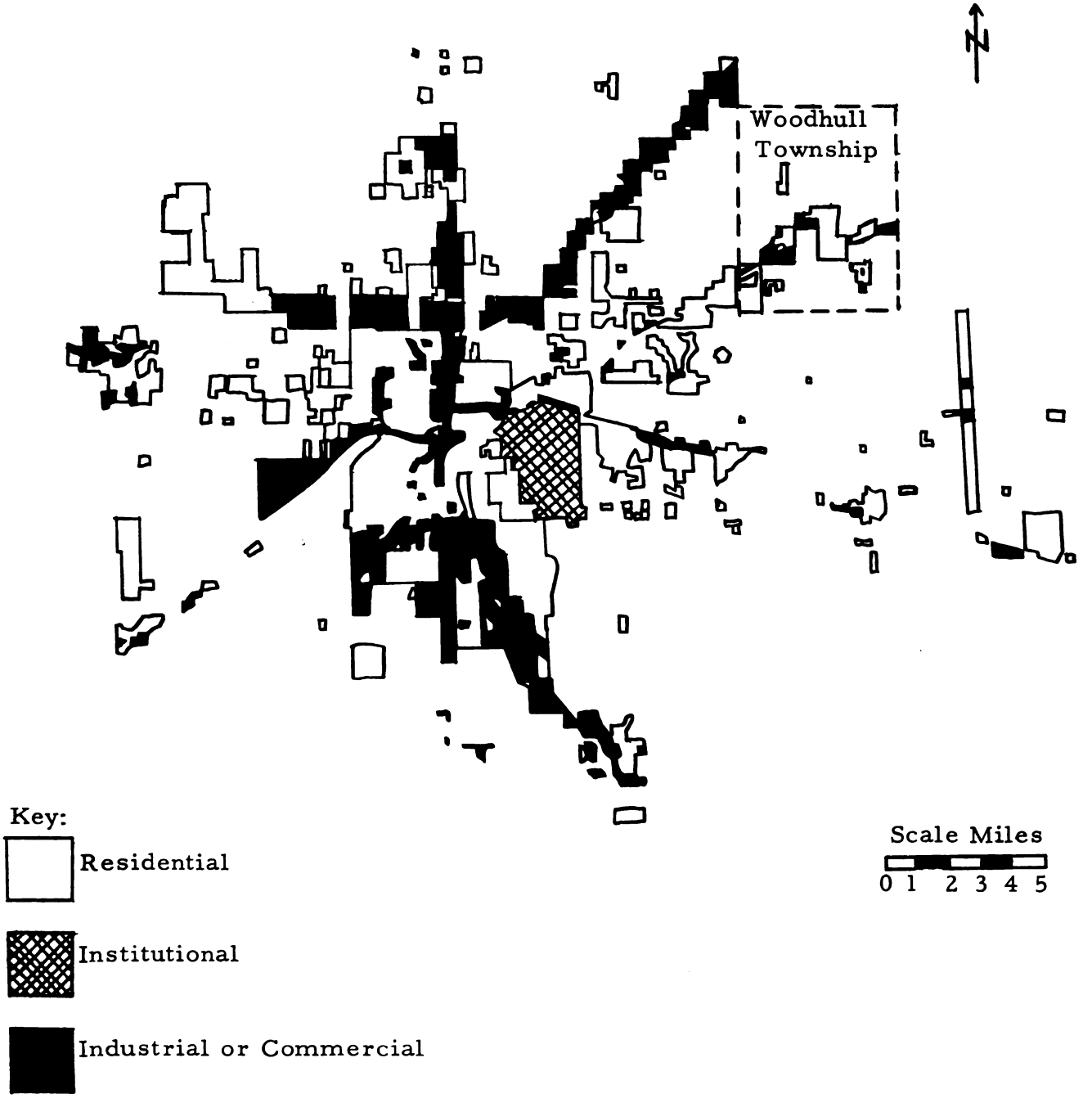
[4]See final report: Louis A. Vargha, Effects of Highway Development on Rural Lands (East Lansing: Michigan State University Highway Traffic Safety Center and Departments of Agricultural Economics and Resource Development, 1960).

Figure 3. Map of Lansing Metropolitan Area* (Including Woodhull Township): Regional Zoning Pattern




*Adapted from Functional Organization of the Lansing Tri-County Region (Tri-County Regional Planning Commission, 1959), p. 33.

few retail or service outlets, and a low tax base. Residential development has been slow and generally has been of poor quality and low value. Shaftsburg is the only village in the township and with the advent of the new highway it was located within a half mile of a major transportation route to Lansing. Simply, Woodhull Township was assumed to possess (or lack) certain characteristics that made it susceptible to particular economic and social change and to continually greater dependence and orientation to the urban center, Lansing. During the process of the preliminary interviewing within the township certain factors (see Chapter 5) brought the decision to concentrate the final structured interview within the village of Shaftsburg. The judgment was made that a comprehensive case study of the village would fulfill the intention of investigating a particular fringe area that historically had changed considerably under the pressures of urbanization.

## G. Summary

The presentation or ordering of this chapter is, in general, the order of procedure in the ultimate selection of Shaftsburg as the unit of investigation for this study. The original pilot project set definite limits to the accumulation of data and, within these limitations, Woodhull Township was the area which seemed most appropriate for further study. Only Woodhull Township contained all the following criteria: 1) no present trade or commercial center; 2) a place that formerly was a trade center; 3) accessibility to an urban center; 4) accessibility to the urban center via a new transportation route at some point in time after considerable development; and 5) considerable interaction with the urban center that would allow the tentative assumption that the township could be designated "fringe" (according to the present refinement of this term in sociological literature). Finally, Shaftsburg was selected from the township as a

convenient, cohesive unit that could be illustrative as a case study and a test of the hypotheses constructed. Shaftsburg was assumed to meet the requirements of "rural community" as outlined (cf. The Problem, this chapter).

# CHAPTER 5

## THE RESEARCH SITE

### A. The Place of Local History

Before presenting the data, or body of material, actually acquired during the course of the study, an effort will be made to place the study area within an historical perspective. Some knowledge of the ecological development, as history, seems necessary to interpret the points of view and comments of residents presented in the latter part of this chapter. Since it is obvious that a "case" study inherently assumes a locality, i.e., "localness," "uniqueness," etc., it is imperative to have some notion of what is particular (within this specific meaning of history) to the study at hand. In this sense, the initial land survey and the following "preliminary data," i.e., pre-interview data, can be viewed as an attempt to compile a local history.

Over twenty years ago, Carle C. Zimmerman, in his analysis of community, states that "definite specification" is one of the persistent characteristics of any community. In commenting on this uniqueness of each community he observed that ". . . any community is a reality with a history. It has existed long enough to have developed a body of tradition and belief peculiarly its own."[1]

Although a comprehensive history was not an objective of this case study, the existence of a community history is conceived as a perspective that cannot be ignored in studying the development and change of a community itself and its relationship to a much larger urban center.

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[1]Zimmerman, op. cit., p. 20.

Louis Wirth, points out that local history cannot be avoided in sound methodological construction for study of the small community despite the fact of "lessening coherence" noted by MacIver:

> Despite the mobility of our American population as facilitated by the automobile, there are local customs, traditions, dialects, folklore, and prejudices. Indeed, there are cultural islands which may be archaic reminders of an earlier form of isolated existence and do not simply average themselves up like the figures of a Gallup Poll into a national standardized index of opinion and attitude.[2]

Therefore, since a written record of historical significance is lacking for the Shaftsburg area, the interview included certain questions (see questions 20, 21, 22 and 24, Interview Schedule, Appendix C) that attempted to discover what "sense" of local history might exist. Obviously, such questions cannot elicit or portray a complete local history but can be merely a verification of the existence of such local traditions, prejudices and folklore.

## B. The Fringe Area: Woodhull Township

The present-day relationship of rural-urban cannot be adequately conceived without some knowledge of the demographic-ecological history of the area under question. If Woodhull Township (Shaftsburg) is assumed to be "fringe" in the sense of the rural-urban relationship (Chapter 2), then demographic and ecological change in the rural area cannot be considered as isolated, self-explanatory change. Such an explanation would be inconsistent with the very basis of ecological theory. Despite the disagreements

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[2]Louis Wirth, "Sociology and Local History," Community Life and Social Policy (Chicago: University of Chicago Press, 1956), p. 184. In this short article, Wirth defends the value of local histories in themselves as a source of sociological knowledge. Within the resources available, his research suggestions in community history were utilized in the methodology of this study.

in this theory of assigning causes of change (Chapter 1), there is consensus that such change is interrelated. Briefly, then, the change in the study area (demographic, ecological or cultural) cannot be divorced from the urban complex of dependence.

1. Commerce and Services

In 1846, John P. Shaft purchased 160 acres in Woodhull Township which included the Shaftsburg area. Why Shaft decided on this area has been stated rather archaicly but perhaps quite adequately:

> Whether it was fate or luck or pluck or foresight that induced John P. Shaft . . . to purchase the land, in Woodhull Township, on which the village of Shaftsburg is now located, will always remain a mystery.[3]

It appears that Shaft randomly bought up land in the area under the prevailing low government price per acre.[4] The location of Shaftsburg did not possess the natural resources generally associated with such settlements in southern Michigan. No source of water power existed and lumbering was of original, but not enduring, importance for the area; consequently, Shaftsburg did not develop as any sort of trading center until about 30 years later when farming became more extensive. Since the immediate terrain is suitable for a settlement, it can only be surmised (since no historical evidence was uncovered) that perhaps this was the site of some small Indian settlement or at least located on an Indian trail which provided the original accessibility to the settlement site (see Figure 4). From the record, it appears that Shaftsburg did not actually develop as a settlement until 1875 when the construction of the railroad

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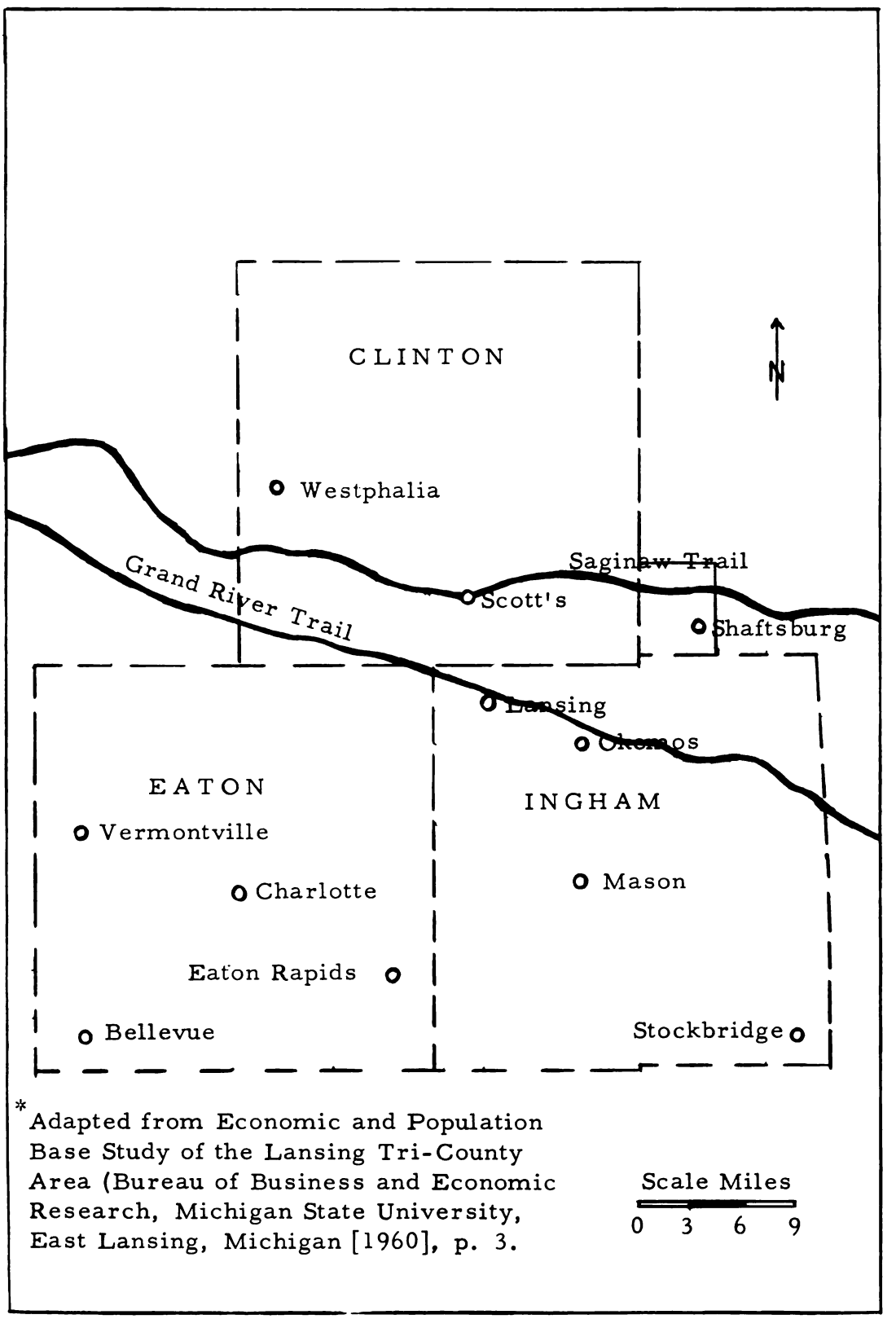
[3]The Past and Present of Shiawassee County, Michigan (Lansing, Michigan: The Michigan Historical Publishing Association, n.d.), p. 475.

[4]"At one time John P. Shaft owned 2,339 acres, mostly in Woodhull Township," ibid., p. 479.

Figure 4. Early Settlement in the Tri-County Area*




*Adapted from Economic and Population Base Study of the Lansing Tri-County Area (Bureau of Business and Economic Research, Michigan State University, East Lansing, Michigan [1960], p. 3.

commenced through the township. John M. Shaft (son) "erected a building for general store purposes on land previously owned by his father, where Shaftsburg is now situated. . . . He then embarked in the general mercantile business."[5] This was the first store in Shaftsburg and actually the beginning of the village as a commercial trade center. Until the railroad was completed in February, 1877, Shaft transported his goods by team from Williamston and Lansing.[6]

2. The Railroad

It seems valid to interpret the sequence of development of Woodhull Township as principally initiated by the railroad's construction through the township. Perhaps more important to the future growth of Shaftsburg was its location as equidistant between adjacent station stops (see Figure 1, page 27). This railroad was a new major transportation route across southern Michigan. This entirely doubled tracked route was constructed to connect directly Lansing and Flint and formed a link in the Chicago-Port Huron line.[7] Locally this route made Shaftsburg the "hub" of Woodhull Township. Shaftsburg became the local trade center and thus one more stop for the salesmen and other travelers who might conduct business in the village. Since such itinerant visitors required overnight accommocations, a hotel existed in Shaftsburg before 1895.[8]

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[5]Ibid., p. 476.

[6]Portrait and Biographical Album of Clinton and Shiawassee Counties, Michigan (Chicago: Chapman Brothers, 1891), p. 220.

[7]Interestingly, this Lansing-Flint route which was integral to Shaftsburg's existence was again repeated with the Lansing-Flint highway constructed in 1932-1933 with Shaftsburg receiving perhaps reverse effects to its future growth (see Figure 1). Shaftsburg, similar to many small, rural, non-industrial communities in southern Michigan, has been intimately involved and affected by the transportation development between the dispersed, industrializing urban centers.

[8]The Past and Present of Shiawassee County, Michigan, op. cit., p. 475.

## C. The Universe of Study: Shaftsburg

### 1. A Trade Center

With the coming of the railroad in 1877, Shaftsburg made an important step toward becoming the trade center for the surrounding area. Shaft began a general store in 1877, added a hardware line in 1884, and in 1889 erected a new brick store supplying "hardware, nails, paints and groceries, in fact almost everything to be found in a 'country' store with the exception of dry goods."[9] A hotel was in operation before 1895 and by 1897 Shaft was running an elevator in Shaftsburg and buying "grain, wool and general farm produce."[10] Therefore, by the turn of the century, Shaftsburg was evolving as a typical rural trade center of the type that flourished in southern Michigan during this period.

In 1916, Shaftsburg had a stationer and postmaster, an express and telegraph agent, physician, harnessmaker, and elevator, and three retail stores. By this time, the hotel and saloon had closed and the lumber mill had ceased to operate. By that year, two churches, Congregational and Methodist, served the village.[11]

In 1932 (immediately before the opening of the new Lansing-Flint Highway), Shaftsburg had almost doubled in commercial establishments. The village possessed a postmaster, an express and telegraph agent, physician, justice, insurance agent, three blacksmiths, an elevator, two threshers, a painter, an agricultural implements store, and three other retail (grocery, harness, dry goods, etc.) stores. There were

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[9]Portrait and Biographical Album of Clinton and Shiawassee Counties, Michigan, op. cit., p. 220.

[10]The Past and Present of Shiawassee County, Michigan, op. cit., p. 475.

[11]Michigan State Gazetteer and Business Directory, 1915-16 (Detroit: R. L. Polk and Company, 1915), p. 1335.

still two churches, the Nazarene and Methodist.[12]

However, by 1959, Shaftsburg declined in its commercial establishments to an automobile repair shop, a combination gas pump and post office, a woman's hairdressing shop, a grocery store, and an elevator. There is one church, Methodist. Shaftsburg has consistently maintained a post office (at present, third class), there has never been a bank in Shaftsburg, the lumber mill closed sixty years ago, and a saloon has not existed in the village for over fifty years.

2. Residential Development

One phase of the land use survey (the Pilot Study) mapped residential construction. Approximations of the year of construction were broken down into three time periods: pre-1941, 1941-1950, 1951-1958. This survey indicated that residential construction has been concentrated principally on the highway (M-78). Shaftsburg has not been the recipient of this residential development from the Lansing expansion. Over seventy per cent of the housing in the village was constructed prior to 1941, whereas only thirty-seven per cent of housing in the remainder of Woodhull Township was constructed prior to 1941.[13]

3. Land Values

Land value data on the area was compiled using tax stamps on deeds as the source of information. This data was broken down into time groups similar to that for residential construction. All "over the counter" sales from 1932 through 1958 were included. In comparing these sales to the state average of agricultural land values for each year, a relative

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[12]Polk's Michigan Gazetteer and Business Directory (1931-1932) (Detroit: R. L. Polk and Company, 1931), p. 1121.

[13]Vargha and Alchin, op. cit., Map Supplement, pp. 13-15.

value index could be plotted within the study area. A sharp increase in land values in the study area was noticed with the increasing sales after 1950. However, it must be noted that most of the increased valuation was concentrated within a half-mile of M-78 or tributary paved roads.[14]

4. Population

There was a numerical decline in the population of the township (see Table 1, below) in each ten-year census from 1880 until 1940. The census' of 1950 and 1960 show increases. The increases between 1950 and 1960 of over fifty-six percent, even by the most conservative demographic analysis, would attribute a considerable portion of this population increase to in-migration. However, it should be noted that this population growth has been concentrated outside the Shaftsburg area and, principally, increase has been coordinated to highway development. Although no official population figures are available for unincorporated places, other sources give estimates that at least illustrate this point. The population of Shaftsburg in 1916 was estimated to be 210,[15] in 1932

Table 1. Population of Woodhull Township, Shiawassee County*

| Year | Population | Year | Population |
|---|---|---|---|
| 1880 | 883 | 1930 | 625 |
| 1890 | 869 | 1940 | 887 |
| 1900 | 805 | 1950 | 1,053 |
| 1910 | 749 | 1960 | 1,644 |
| 1920 | 746 | | |

*Source: Population of Michigan, United States Bureau of the Census.

[14]Ibid., pp. 1-3 and 7-9.

[15]Michigan State Gazetteer and Business Directory, 1915-16, op. cit., p. 1335.

to be 225,[16] and in 1952 it is given as 173,[17] and, based upon the data of this study, the 1959 population is estimated to be 236. Obviously, Shaftsburg's growth has not kept pace with that of the township.

## D. Preliminary Data: The Pilot Study

### 1. Data Collection

The information and data forming the basis of this study can be separated into three steps for analysis. It might be convenient to view these steps as stemming from the three geographic universes that ultimately determined the realm or universe of the study: 1) the pilot study of eight townships; 2) Woodhull Township; and 3) the village of Shaftsburg. This procedure has been discussed briefly in Chapter 4 (Method of Study and Selection of the Universe).

Woodhull Township, Shiawassee County, was selected for more detailed study after the extensive land value, land use, and residential mapping project of the "pilot" area of eight townships northeast of the Lansing urban center (see Figure 2). This first step of the pilot project produced information of land value and land use change, residential development and its quality, agricultural productivity, topographical characteristics, etc., of these townships. In addition, contacts with residents throughout the pilot area, business people, and county and township officials allowed certain preliminary judgments. By comparison, Woodhull Township seemed to offer a case of certain characteristics adequately illustrative for further investigation.

The second step involved the informal interviewing of residents throughout Woodhull Township in order to delineate township community

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[16]Polk's Michigan Gazetteer and Business Directory (1931-1932), op. cit., p. 1121.

[17]Rand McNally Michigan Pocket Map (Chicago: Rand McNally & Co., 1952), p. 35.

structure, township problems, etc. The third step was the construction and administering of the interview in the village area. Chapter 5 will be concerned with outlining the information obtained from these first two levels of data collection and to explain the relationships between these levels or steps of analysis in forming the study. Chapters 6 and 7 will present the pertinent data collected in the structured interview as consistent or incompatible with the hypotheses (Chapter 6) and as the basis of the "qualitative" or descriptive analysis (Chapter 7).

2. The Pilot Study

This eight-township study of economic change in relation to road development and improvement seemed to indicate Woodhull Township as favorable for further study of economic and social characteristics, again, as related to transportation availability and efficiency. Woodhull was the only township that possessed a village that was a former trade center that no longer performed that function, that now had no trade center of any size, and that still was serviced by a major highway. Other characteristics also seemed of interest: 1) accessibility for residence in the township from Lansing was possible for anyone with a car; 2) land was relatively cheap; 3) despite marketing advantages, the poor grade of land made agriculture at the present time economically unsound;[18] 4) few local land controls, generally strip zoning, no township building code, ineffective subdivision controls; 5) the few subdivision developers lack capital; 6) trailers are common in these subdivisions and housing completed is of very poor quality; 7) bank loans are difficult to secure because of the present poor development and little prospect for improvement; 8) consequently, assessed valuations remain low and thus a limited tax base[19] that allows only a minimum of government services to the township.

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[18]One township official said that, at the present time, there are only two full-time farmers in the township.

[19]Share of county tax base per population.

This land use-economic framework provided interesting conditions for urbanization. In addition, it was obvious that in-migration was taking place into an area that claimed a large number of long-time residents. Since the township possessed a very limited commercial and no industrial base, it was apparent that those living in the township were highly mobile. Such mobility would be dependent on the transportation system. In this sense, the theoretical summary of Chapter 3 was presented to provide a framework for viewing transportation and space.

The Pilot Study provided the initial survey necessary to conceive particular social conditions in a township of such general geographic and economic characteristics. The subsequent preliminary, i.e., unstructured, interviewing was undertaken to learn more concerning the social and political aspects of this changing township.

### 3. The Preliminary Interview

The purpose of this phase of the study was to accumulate a body of information concerning the social structure within this township. At that time, the intention was, using the material available from both the Pilot Study and this inquiry, to construct a questionnaire that would be administered to a sample of the township residents. As will be seen, this procedure was modified upon the completion of this second phase.

In Chapter 1, an attempt was made to point out the theoretical problem of the relationship of the social and ecological viewpoints. One of the difficulties was seen to be in the definition itself of the "ecological." Whatever the present status of this theoretical problem might be, it was concluded that we could observe the organization of behavior. Organized behavior implies some pattern or patterns of operation. Whether the influences operative in this organization are geographic, economic, demographic or cultural, these influences are related in some manner insofar as this organization is operative.

The preliminary or unstructured interview was the next step methodologically in learning more about the manner of organization, in this case, the social organization of the township. This phase of the study embodied talks, varying from thirty minutes to several hours, with various residents,[20] arbitrarily selected upon the basis of names provided by county and township officials of people whom they thought held some opinion on township affairs. It was felt that attitudes of these residents would be important to know since certain conflict areas might be pointed out that would be worth incorporating in the structured interview. Also, it was felt that a certain amount of information would be accumulated which would be common knowledge, i.e., common issues and problems of the township that the interviewer should be aware of. Considerable information was collected that shed light on the social structure. The following resumé summarizes the areas of information and some of the comments elicited during this phase of the study.

Lansing Orientation. Among the people interviewed there was a distinct awareness of the influence of Lansing on township affairs. The people work and buy in Lansing. Many of the newer township residents work in Lansing and some of the older residents (farmers primarily) now work in Lansing and, in some cases, continue part-time farming.

Highway. A majority thought that the highway (M-78), especially since its expansion to a four-lane divided roadway, has been of "benefit" to the township. Travel to and from Lansing is now quicker and easier. However, not all the long-time residents were convinced of this new "benefit." As one lifelong resident stated: "How could a predominantly farm area be improved by what we have received along with M-78? Some of the people and some of the housing is certainly poor stuff."

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[20]About fifteen persons were interviewed. Other sources of information used were attending township board meetings and conversations with individuals who "dropped in" the local restaurant, gas station, post office, etc.

However, another interviewee perceived the widening of M-78 and its consequences quite differently: "The M-78 widening was a good thing--encourages building out here."

Residential Development. There was not consensus in evaluating the new residences that have been built in the township in the past ten years. Some perceived any development and population increase as an improvement and as a symbol of "progress." For instance, "This is a growing area with people from Lansing moving in." Another resident commented: "We want new people so as to build up the area. Shaftsburg is progressing." One respondent replied to a question concerning the appearance of low quality housing by saying this problem will ". . . take care of itself--most people are young, hard-working around here."

On the other hand, some were not satisfied with the change taking place. "Some good houses have gone up but mostly a lot of junk." One respondent thought that the subdivision in which he lived did not have proper regulations to stop some of the housing that had gone up around him: "The judge told us they [new residents] could build out of cow dung as long as they met the square foot specifications. . . ." Consequently, dissatisfaction with development raised the problem of such controls and regulations that might determine the pattern of township residential change in the future.

Zoning, Building Code, Planning. As a corollary to differing evaluations of housing quality, there was a wide range of opinion toward the need and effect of present housing regulations and toward the merit of stricter housing controls and general planning in the township for the future. One county official summarized his evaluation of Woodhull Township:

> . . . Adjacent counties and townships have stricter laws and Woodhull gets the over-flow. Zoning in Woodhull is ten years too late. Township officials are for the new building code. Most of the problems are over trailers moving in and septic tanks and

> outside toilets. . . . Woodhull gets lower levels of people--mostly from Lansing and they build poor residences and not much can be done about it unless there are children. Then it's a health hazard.

Some interviewees agreed with this position. One commented: "The Township is working on a building code that will help the bad areas in the township." Another long-time resident felt a need to supervise "those who can't manage their own personal affairs." These people he called "riffraff." He added, "Some people you could give $10,000 for a house and they would never do it. They work, make good money but never have anything. Have to control these people somehow."

In contrast, two or three persons, when asked, were strongly opposed to such controls that a building code, planning, etc., would bring to the township. One respondent, of self-evaluated (and stated) importance in the township, emphatically supported this viewpoint:

> The way I see it this type of ordinance is actually against the rights of people and the use of private property. People are good, most of them, they can control the few bad ones. I don't believe in this 'one bad apple' idea. You can pick it out if you see it in time. First, we use persuasion to get people to live at standards we want, then ordinances, then laws with teeth in them. It can end in bayonets to get something. The few bad people can be controlled. A man can work a lifetime, then have everything ruined because he is told his place or business is against the law.

Another resident, for different reasons, also opposed such regulatory legislation. In response to a question concerning zoning he said: "They have no right to pass laws on people like this." Asked for his opinion of the building code he stated: "Frankly, I think it is a bunch of bullshit." He viewed such regulations as an infringement of his personal rights. "Nobody has any business--nobody--to tell me what to put in a house or how to build it."

As this preliminary interviewing proceeded, it seemed to be valid to conclude that respondent evaluation of controlled change was closely related to their perception of the new residents who would bring change.

One hypothesis might be that the desirability of construction regulations was inversely related to the personal gain for the respondents that would be realized with a less regulated in-migration.

"Newcomers." As might be expected, the recent migrant or "newcomer" was evaluated differently. He is perceived variably as an asset or a burden to the local economy, as a contributor or disruptor to the local social structure, and as a favorable addition or hindrance to local government efficiency. When asked, "What is a newcomer?" one resident of Shaftsburg answered: "Some have lived here ten years. I realize I'm older than they but others in Shaftsburg will say the same thing." This same respondent presented one view of the integration of these new arrivals into the local social structure:

> Newcomers don't take part. They may go to PTA meetings if they have children. . . . But generally, stick to themselves. I've tried in the past to become acquainted but have decided it doesn't help much. They don't return visits. . . . They're too busy chasing the dollar. . . . Most newcomers shop and go back and visit in the town where they came from. . . .

Another resident agreed: "I don't know many of the new people. Most probably they don't know each other. Some though are pretty good people I suppose." And another respondent added: "Old-timers are losing influence. The new ones, mostly young, do not take an interest in local government." On the other hand, one twelve year resident of the township observed:

> . . . Some people don't want new people to move here. . . . New people feel rejected. Older ones don't welcome them. Some do but not many so new people visit people and friends they knew in Lansing or other places. . . . It takes five years to really fit in here. Some people still consider me an outsider.

The wife of a house trailer resident who had lived four years in the township commented: "I agree that really it's hard time for new people. There's really a hard core to get around when moving here. Not everyone but a lot of them."

An evaluation of change was evident in the responses received and certain preliminary conclusions drawn. A majority of the long-time residents tended to perceive change, and the new people who brought this change, as disrupting. The newcomer, since he was usually young and having children, was seen as a financial liability for the township government and school district, as inhabiting poor, low value (and low taxed) housing, and as unwilling to join the social life of the township or community. The proximity of residents within Shaftsburg seemed to facilitate this evaluation especially of such qualities as "neighborliness," "clean living," "nice people," etc. Again, for the "old-timer," change is "all right" if it "fits in" with our usual way of doing things.

Meeting this viewpoint, the newcomer does feel unwelcome. In any case, he doesn't really want to mix with these "old busy-bodies" (as one young housewife put it). Shaftsburg is primarily a place to reside. Socializing is confined mainly to similar age groups. The oldster who insisted that "we should draw them [younger people] into our group" did feel rejected. At the same time, the newcomer considered rejection justifiable since he did not feel obligated to "fit in."

Township Government. At the present time, the ruling township government is composed entirely of Republicans. The supervisor, treasurer, and secretary are women and each would be considered a long time resident of the township. In the last election (April 6, 1959) each of these three officials out polled their Democratic opponents by over two to one. One Democratic resident predicted a change of the political alignment: "The Democrats got out the vote in the last election. Things will change as more Democrats are moving into this Republican township." Among the respondents there was a sharp distinction in evaluation of the present township government. One respondent felt that the township officials' continuous re-election was harmful:

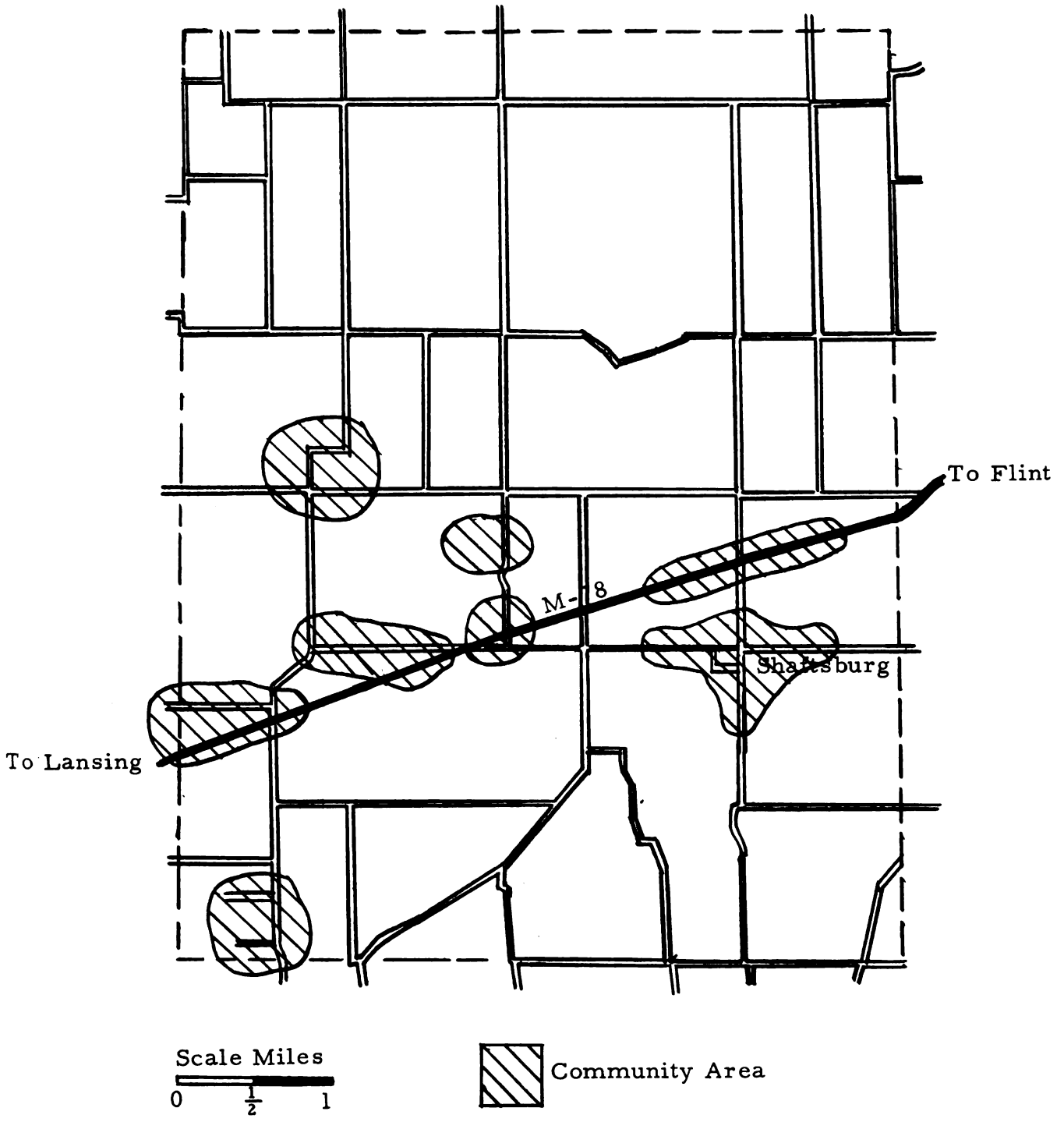
> Officers should change around and this is not happening. Same ones are elected time after time. . . . The Township Board is just too old and has no concept of what is happening in the township. . . . Can't get anywhere with a planning group at all.

Another respondent was more strong in his attributing of "conservativism" to the township board: "Township board acts like a bunch of ten year-olds. They're against progress." [What's progress to you?] "Well, letting people in. They think everyone who comes in is bad." When asked his opinion of the township board, a factory worker who had lived in the township for two years replied: "Hopeless. Old women on board. Can't get anywhere with them or find anything out. School board is the same way. This township board has been in office too long." One young housewife commented: "Don't know much about board. We have little contact with them but I do think the township board is too old and should retire." Others, especially older, long-time residents, were more positive in their attitude. These responses were generally to the effect that, as one person said, "They [township board] do the best they can with what they have."

Age differentials were apparent in the responses. Generally, the younger residents felt that, despite limited township financial resources, a younger township board would be more efficient. On the other hand, the older residents felt that no group of township officials, of whatever age, could do much differently with the resources available.

Community Organization. The preliminary interviewing produced residential areas within the township characterized by relatively intense concentrated interaction. It is in this sense of interaction that "community" is used here. Interviewees were asked to delineate what they considered their area, i.e., people they knew (at least by name), people they visited, "their neighbors," etc. Figure 5 shows that these areas of interaction are fairly distinct. Residential development in geographically distinct areas has no doubt influenced this delineation. In addition, intrusion of the highway created string development at a later date distinct from the earlier residential concentration, i.e., Shaftsburg. From this data Shaftsburg remains unique as an area of concentrated development that occurred chiefly prior to 1940 and since that date has

Figure 5. Community Areas in Woodhull Township.



not increased proportionately with the remainder of the township. Since 1940 development in the township has increasingly concentrated on the highway (M-78) and its arterial roads closer to Lansing. In a very real sense, Shaftsburg has been "by-passed." Township residential and commercial development has tended away from Shaftsburg. In fact, Shaftsburg has lost its position as a trade center for the area and remains as a stable residential center within the township.

Shaftsburg. Quantitative measurement of these characteristics uncovered in this preliminary interviewing became increasingly pertinent to the fringe-transportation framework constructed as a theoretical guide for investigating this problem of rural community change. In the light of its historical development, the observed change in Shaftsburg, could be viewed within this framework. The ecological framework presented provided one method of analysis to discover and explicate certain factors that have contributed to this change. Urban expansion and new transportation facilities have been immediate physical causes of change. However, any ecological theory must offer an explanation, not only of the physical change, but of other factors that will modify this physical change. Simply, the validity of the ecological framework rests in discovering how the present status, i.e., organization, in this case, of Shaftsburg, confirms the explanation of change given in the theoretical framework. To say the obvious, physical change (such as urban expansion, transportation improvement, etc.) does not occur in a vacuum. Such physical change, whatever its pattern, is imposed on an already existent, patterned land use and social structure; here, a primarily rural area.

This study, thus far, has attempted to point out the reality of this change in the subject area and especially in Shaftsburg as illustrative of a specific area undergoing long-time change. Therefore, Shaftsburg

was considered significant[21] within the township (from the information gained in the preliminary interviewing) for a detailed case study testing some of the statements constituting the theoretical procedure.

### E. The Interview Schedule: Description of Shaftsburg Through the Major Social Characteristics

Upon the basis of information gathered while in the pilot area during most of 1958 and in Woodhull Township in early 1959 (cf. The Preliminary Interview), an interview schedule was constructed (cf. Appendix C). This interview was administered in the village of Shaftsburg during the summer (July-September) of 1959. No sampling procedure was used to determine who would be interviewed. The intention was to interview every family within the village. The following breakdown summarizes the results:

51 families interviewed
4 refusals
4 unavailable (hospital, vacation, etc.)
59 families

The general objective of this interview has been outlined in the preceding chapter (cf. Selection of the Universe, Chapter 4). However, the interview itself had certain particular objectives in specific, measurable information and in some questions that are simply projective and not aimed at particular, quantitative results. Some questions requested responses measuring perception of the area and attitudes toward various area institutions and a considerable portion of the interview was devoted to questions on spatial movement.

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[21]Especially since there was a lack of consensus in evaluating the present status of Shaftsburg: "Shaftsburg nothing any more--those people still think it is going to be better in the future"; and to the contrary: "Shaftsburg is progressing."

The general intention has been to view the present status of Shaftsburg in the light of the theoretical position put forth in the first three chapters. The particular hypotheses have been presented to relate those characteristics which could be pertinent to the concepts of fringe and transportation. If fringe can be conceived as a rural-urban continuum, how does Shaftsburg support such a conception? What can Shaftsburg illustrate that would help to clarify the conception of transportation in terms of accessibility-mobility? If local history is indicative of local, unique characteristics, what "sense" of history can be found in Shaftsburg? This case study, via the interview, will offer a limited, particular portrayal, in both quantitative and descriptive terms, of a rural-urban segment. The remainder of this chapter will present basic, prerequisite data about the population.

The Population. Fifty-one families with a total of 209 persons were included in the interviewing schedule. Forty-eight of these were family units (husband-wife), two were widows, and one was a widower. An age breakdown of residents in comparison with current Michigan census data shows that the figures for Shaftsburg correspond, in general, with the state figures except for the 5-13 and 45-64 age groups (see Table 2, Appendix B).[22] Shaftsburg has about ten per cent more than the state average in the 5-13 age group and approximately ten per cent less in the 45-64 group.

Residential Characteristics. Less than a tenth of the residents interviewed (8%; see Table 3) were renting their home. One-third (33%) of the families were buying and almost three fifths (59%) owned their dwellings.

One tenth (see Table 4) have lived as a family in Shaftsburg more than twenty years. Two-thirds of the families have lived in Shaftsburg

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[22]Tables 2 through 39, upon which the rest of this chapter is based, will be found in Appendix B.

ten years or less. Almost nine-tenths (88%; see Table 5) of the families, since marriage, have lived in other places before moving to Shaftsburg. These forty-five families have lived in a total of 114 residences outside of Shaftsburg. Over three-fifths (64%; see Table 6) of these 114 residences were in the Shiawassee-Ingham County area. Two-fifths (see Table 7) of these 114 residences could be classified as possessing urban characteristics. In other words, farm, country or village locations accounted for three-fifths of the previous residence locations. Shaftsburg, therefore, does not fit the fringe pattern of heavy migration from the urban center but indicates movement within the surrounding non-urban area of Lansing.

When asked why they had moved from previous locations, almost three-tenths (29%; see Table 8) of the responses were related to employment. When asked why Shaftsburg was chosen about one-third (32%; see Table 9) of the responses were related to residential costs (initial cost, financing, etc.) of Shaftsburg's location. Over one-quarter (27%) of the responses involved kinship ties in Shaftsburg.

When asked how they would feel if they had to leave Shaftsburg, only slightly more than one-half (55%; see Table 10) had definitely negative reactions to such a move. Over one-fifth (22%) were favorable to leaving the village, which could be expected in consideration of the number (23%) planning to leave the village (see Table 11). Kurtz, in a broader study of the Lansing fringe,[23] found that only 7.1% would not like to continue living in the area.

In summary, Shaftsburg is characterized by high home ownership, comparatively low residential satisfaction, predominantly rural residential history, high kinship ties influencing residence in the village and a significant selection of Shaftsburg because of low residential costs.

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[23]Kurtz, op. cit., p. 207. This study was based on a random sample (189) of farmers, part-time farmers and non-farmers.

Occupational Characteristics. By far, Lansing-East Lansing is the principal source of employment (71%; see Table 12) for heads of household. Including spouses (see Table 13), Lansing accounts for almost two-thirds (63%) of all employment of Shaftsburg residents.

"White collar" occupations (professional, proprietor, clerical) account for 29% of the employment of heads of household (see Table 14). (Kurtz, in his study of the Lansing fringe, found 23.2% were engaged in similar occupations.) However, of those employed in Lansing-East Lansing, over four-fifths (81%) are engaged in "blue collar" occupations.

Past employment history illustrates the continuous effect on present Shaftsburg families of Lansing employment opportunities. Almost two-thirds (65%; see Table 15) of all past jobs have been in Lansing-East Lansing.

Education. The summary of the educational levels of heads of household indicates that over one-half (55%; see Table 16) did not complete high school. However, every respondent had completed the eighth grade. The educational level does correspond roughly with the data of Kurtz's study of the Lansing fringe (Table 16).

Income. Few heads of household (12%; see Table 17) earned more than $6,000 in the year of 1958. Income from other members of the household did not contribute any substantial addition to family income (see Table 18). During 1958 fourteen spouses earned separate income. However, seven of these earned less than $1,000 for that year. Family gross weekly income ($92.03) was considerably less than reported by Kurtz ($107.65) in his Lansing fringe study.[24] Lansing is easily the major source of income for the labor force in Shaftsburg (see Table 19). Four-fifths of income in dollars is from Lansing which illustrates the dependency of Shaftsburg on Lansing for employment and income.

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[24]Ibid., p. 201.

Buying and the Obtaining of Services. In the seeking of the services (infrequent use) of a doctor, dentist, lawyer, hospital, credit and automotive garage, Lansing was indicated as the source of over two-fifths (42%)[25] of all responses (see Tables 20 through 25). It should be noted here that, with the exception of doctor, the dominant source of each of these services is also the closest (distance) point at which that service is available.[26]

Perry accounts for slightly more than one-third (34%; see Table 26) of all meat and grocery buying (frequent use: retail) compared with Lansing 29%) which is the only other major source of produce purchasing. However, the dominance of Lansing is illustrated in infrequent retail buying (which is a composite of drug and medicine, clothing, applicance, furniture, hardware and automobile buying). Lansing accounts for more than one-half (51%; see Table 27) of all such purchases. Perry is a distant second, accounting for about one-fifth (21%) of such buying.

Government. Since Shaftsburg is ruled by township government, it was attempted to gain some measurement of involvement in and perception of local government. Although the responses indicate little dissatisfaction (16% indicated poor or unsatisfactory job; see Table 29) with the administering of township government, only a small number (18%; see Table 30) thought that this government had an important, i.e., large, effect on their life in Shaftsburg.

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[25]It should be kept in mind that this and the following percentages of buying characteristics do not include splits in buying locations as listed in the pertinent tables.

[26]The closest source (in miles) at which a lawyer is available is in Lansing; dentist (Williamston); hospital (Lansing); bank (Perry); and there is an automobile shop in Shaftsburg. An osteopath is located in Shaftsburg.

Although township board meetings are held in Shaftsburg itself, only about one-half (51%; see Table 31) indicated ever attending a board meeting while living in Shaftsburg. Over three-quarters (78%; see Table 32) could name at least one township board member (at the present time, two board members live in Shaftsburg) but only 16% could name all the board members.

Visiting Characteristics. When asked how they happened to know the families with whom they visit in Shaftsburg, being "neighbors" was the outstanding (64%; see Table 33) response. Informal interaction seems to be organized more by spatial proximity than by any other factor that might be a contact for initiating such continuing visiting relationships.

However, visiting outside of Shaftsburg was predominantly (59%; see Table 34) directed by kinship ties. Employment (present or former fellow workers) is the source of another 12% of visiting outside the village. Such visiting is largely (85%; see Table 35) concentrated in the four county areas of Shiawassee, Ingham, Eaton and Clinton counties. Lansing is involved in a considerable (38%) proportion of informal interaction outside of Shaftsburg itself.

Organizational Membership. Male membership in organizations is principally confined to labor unions and the PTA which together account for 60% of organizational memberships (see Table 36). The fraternal organizations (Masons, Elks, American Legion), which meet outside Shaftsburg, are not attended with any regularity. Union membership is almost exclusively in Lansing and therefore largely accounts for the dominance of Lansing (53%; see Table 37) in location of member organizations.

Female membership in organizations is chiefly confined (78%; see Table 38) to church organizations and the PTA, both of which are consistently attended (Table 38). Consequently, the location of member organizations is predominantly in the village (75%; see Table 39).

# CHAPTER 6

## QUANTITATIVE ANALYSIS: THE TEST OF THE HYPOTHESES

In retrospect, Chapter 1 tried to portray a theoretical conception of space and what factors (or variables) have been emphasized, in differing proportion, as determinants in the modification of space as a useable concept. Chapter 2 was an effort at clarification or, at least, restatement of the nomenclature that has evolved in order to identify certain spatial observations. Around these conceptions theories have emerged to explain the use of land-space through the economic, ecological, and/or cultural conditions that have been considered active in this determination. The lack of consensus in these theories has been pointed out. Concluding reservations were made questioning the adequacy of "fringe" as an ecological and sociological concept. Chapter 3 has been intended to look at movement over space, i.e., transportation, as one particular ecological variable operative in the delineation of spatial areas and as affecting social interaction. In very broad terms, Chapters 4 and 5 have been involved both in emphasizing the necessity of understanding a locality and in the actual process of going about this task of studying a locality as viewed through the concepts of space, fringe, and movement. The objective in this chapter is the measuring of significance and nature of the relationship of the locality and the urban center as interacting spatial units.

### A. Space

Chapter 1 attempted to delineate some of the theoretical positions in understanding space. Supposedly, cultural and ecological theory have

developed differing interpretations of space. In the process, social theorists have tried to transcend this dilemma by more limiting and exacting definitions of the respective "realms" of culture and of ecology. Hawley (Chapter 1) was interpreted as viewing human ecology, not as the mere transposing of biological, physical principles to the area of human behavior, but as the study of structure, i.e., the describing of human behavior in its spatial organization. From this viewpoint cultural phenomena (values, attitudes, motivations, etc.) are admitted but they are something other than ecology. In other words, we can study the structure of human organization, i.e., what it is, as abstracted from other orientations (such as the cultural elements). To quote Hawley once again: "Human ecology studies the structure of organized activity without respect to the motivations or attitudes of the acting agents."[1] This close defining of culture and ecology is convenient as a conceptual tool in behavioral analysis. However, such a dichotomy, despite its convenience of separating the structural and the motivational, does not solve the problem of social action in determining spatial organization. The economic, symbolic, the cultural and other "noneconomic" factors still are to be related in the study of spatial determination. It seems that this is to say that ecology is to tell us what the structure is but why the structure is such remains to be answered. Therefore, insofar as this, and the next chapter, discuss the why of organization (and it seems legitimate to do so), it is recognized that this analysis is not wholly dependent on an ecological base.

## 1. Determinants of Occupancy

Fundamentally involved in this cultural-ecological relationship is one aspect which was discussed previously (Chapter 1) and that arose

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[1]Hawley, op. cit., p. 179.

again during the actual research. Again, requoting Hawley: "Regardless of the motive for the occupancy of a site, that occupancy involves certain costs which must be paid. If the family can pay the costs, then it may exercise any conceivable motive."[2] There seems to be the danger of interpreting costs which must be paid, whether economic or other "costs," as some form of cost efficiency. However, in this context, Hawley is referring to rent as a cost to be paid. If the paying of such costs are a condition ("an external limiting factor" for Hawley) for occupancy regardless of motive, then this seems to be saying that an economic condition or factor precedes the operation of motives and, therefore, is the prerequisite of spatial organization. To say that a family must have the capability to pay the costs before the exercise of a motive does not say that such a capability will be carried out. The operationalizing of that economic capability in itself requires the existence of some motivation or evaluation. The problem arises if it is assumed that costs which must be paid are paid because of rational, economically efficient reasons. Conceivably, necessary costs could be paid while operating from non-economic, cultural, "irrational," or economically inefficient motivation. Consequently, it appears fallacious to assume that the ecologist is equating costs which must be paid with economic efficiency and/or with economic determinism. And, on the other hand, it does not seem possible to say that the payment of such costs is actualized independent of and unrelated to a motivational framework or some hierarchy of values.[3] Of course, until necessary costs can be met, motivation must remain latent; however, at the point that this capability is realized, then

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[2]Ibid., p. 286.

[3]The attributing of this position to the ecologist has created a false issue. To study what is actualized cannot be assumed to imply, by negation, denial or irrelevance to any set of motivations.

the motivation of the individual affects what spatial occupancy will take place. Obviously, then, both economic capability and motivation modify organization. Hawley has stated the relationship of capability and motivation: ". . . the limiting influence of rent declines with increase in income. The very wealthy may locate their residences anywhere. . . ."[4] It seems to follow that the less wealthy although under increased limitation of rent possess alternatives of action not controlled by economic limits but by motivational factors. It might be stated therefore that limitations of cost and income are inversely related. The crux of the problem in relating the relative impact of cost and of any noneconomic factors in determining spatial organization is the measurement of income or "wealth" (for any population) as it actually influences occupancy. Such measurement seems to rest in the demonstration that alternatives of choice are actually available or not available at given income levels. As alternatives become available, then, supposedly, economic limitations[5] decrease in importance as determinants of land use and its organization.[6]

## 2. The Study Area and Residence Selection

The above framework is important in the description of the study area. Certain questions in the interview were directed to the conception of the area as space. The data in Chapter 5 has shown a strong orientation of Shaftsburg to Lansing for employment, income, buying, services, visiting, etc. In light of this urban orientation, it is questionable that location in Shaftsburg is adequately described as determined by economic

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[4]Hawley, op. cit., p. 286.

[5]That is, costs that must be paid.

[6]This is not to say that economic gain or efficiency are not operative in spatial organization; however, economic gain or profit or even efficient use of income as motives are other than necessary costs.

necessity, i.e., by the limiting influence of rent. True, necessary costs of occupancy must be met but locational alternatives other than in the urban periphery were available.[7] In Chapter 5 (see Table 9, Appendix B) responses were summarized to the question concerning the reasons for choosing Shaftsburg for occupancy. Of the seventy-nine responses thirty-six (46%) are not referable to the economics of the location (family in Shaftsburg, liked school, "liked" Shaftsburg, lived here before marriage, or good place to raise children). Forty-three responses (54%) refer to the economics of residence in Shaftsburg (low taxes and financial).

It might seem that as competition increases for land with increasing urban competition, more recent choices of Shaftsburg for residence would be increasingly determined by the economics of the location. However, in comparison to length of residence, such a trend is not the case (see Table 40). The distribution of economic/noneconomic factors does not change significantly when compared to length of residence.[8]

A comparison of reasons for selection of Shaftsburg for residence in relation to attitudes of residents toward leaving Shaftsburg indicates that, over time, social-cultural factors are more influential than economic advantages in maintaining Shaftsburg residence (see Table 41).

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[7]Closer classification and delineation of "fringe" areas could be achieved by more detailed demographic analysis. Despite adjustments between 1950 and 1958 figures, several census tracts in Lansing (1950) compare favorably in proportion in white collar occupations, proportion in manufacturing occupations, income, education, average size of household, and average age with Shaftsburg (1958). See Joel Smith, An Analysis of Selected Characteristics of the Populations of Lansing's Census Tracts (Michigan State College, March, 1955).

[8]It should be kept in mind that no controls were available over the recall of "economic" or "social" based answers. Admittedly, length of residence or attitude toward leaving could bias recall in stating reasons for selection of residence in Shaftsburg.

Table 40.--Classification of Reasons for Selecting Shaftsburg to Live in Relation to Length of Shaftsburg Residence.

| Reasons for Selection | Length of Residence (years) | | |
|---|---|---|---|
| | 4 or less | 5-10 | 11 or more |
| Economic Factors* | 17 | 9 | 17 |
| Social Factors** | 13 | 14 | 9 |
| $X^2 = 3.43$ $p = .2$ | | | |

*Accessibility to work, employment opportunity in Shaftsburg, low taxes, etc.

**Relatives in Shaftsburg, lived here before marriage, liked Shaftsburg, liked school in Shaftsburg, good place to raise children.

Table 41.--Classification of Reasons for Selecting Shaftsburg to Live in Comparison to Attitude Toward Leaving Shaftsburg.

| Reasons for Selection | Attitude Toward Leaving | | |
|---|---|---|---|
| | Positive | Indifferent | Negative |
| Economic Factors* | 13 | 9 | 21 |
| Social Factors* | 2 | 8 | 26 |
| $X^2 = 8.04$ $p = .02$ | | | |

*See Table 40.

Although the economics of Shaftsburg location (low taxes, accessibility to work, etc.) were predominant in the initial choice of Shaftsburg for residence, such economic factors are not as strong an influence over time in retention of residence in Shaftsburg. On the other hand, kinship and cultural ties appear important in forming attitudes toward Shaftsburg residency. Of the eleven respondents positive or favorable toward leaving Shaftsburg, only one had mentioned family or kinship as a factor in

choosing Shaftsburg residence. However, of the twenty-eight respondents reacting negatively to leaving Shaftsburg, fifteen had mentioned family as influencing their residential location. It is interesting to note that of these fifteen mentioning family influence (parents or relatives living in Shaftsburg, lived here before marriage, etc.) twelve had lived in other places outside of Shaftsburg since marriage. The influence of kinship and premarital, perhaps childhood, residence in a now fringe area is another aspect of an objection raised by Kurtz that fringe studies have neglected those residents having prolonged contact with the area.[9] The inclusion of long-time, "returned" residents points out the two-way relationship of the urban center and its periphery.[10]

Shaftsburg, a particular case, points out in a limited manner the interrelation of factors analytically classified as basically "economic" or "social." Walter T. Martin has emphasized the "social" perspective in a much broader and more comprehensive fringe study. He concludes (as quoted earlier in Chapter 2):

> The evidence presented is not completely free of discrepancies and inconsistencies, but, in general, the major working hypothesis seems to be tenable: adjustment of individuals to residence in the fringe area, and inferentially to attraction of the area for them, can be understood principally in terms of socio-psychological factors rather than the economizing nature of the location.[11]

The evidence for Shaftsburg does not completely support this opinion. However, the data does confirm that noneconomic factors are

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[9]". . . sociologists working in areas surrounding central cities have usually concentrated on recent arrivals, while ignoring long-time residents," Kurtz, op. cit., p. 170 (see Chapter 2).

[10]See M. W. Rodenhaver, "Fringe Settlement as a Two-Directional Movement," Rural Sociology, XII, No. 1 (March, 1947), pp. 49-57.

[11]Martin, "Some Socio-Psychological Aspects. . . ," op. cit., pp. 252-253.

more influential in long-term adjustment and satisfaction with present residence in the study area.

## B. Transportation and Rural-Urban Interaction

Ecologically, transportation is simply defined as movement over space. Chapter 3 discussed the characteristics of transportation especially in terms of primary attributes of accessibility and mobility (stemming from the concept of "friction of space"). Efficiency of transportation as providing degrees of accessibility or mobility is most observable and measurable in time and distance criteria. Supposedly, then, a lessening of "friction of space" brings an increased accessibility and mobility that is measured in time-distance terms. However, interwoven throughout the hypotheses presented in Chapter 4 is the concept that friction of space is an abstraction connoting more than physical or economic observations and measurement. If space itself can possess any symbolic, cultural, noneconomic value (by now, an obvious postulate of this paper), then subsidiary concepts (such as accessibility, mobility and friction of space) may also possess such characteristics.

### 1. The Hypotheses

In order to investigate what this case study might contribute to understanding the social aspects of movement over space (here, between periphery and urban center), certain data involving such movement has been grouped according to primarily economic (buying of goods and services, employment, etc.) and noneconomic (visiting, organizational membership, etc.) areas of behavior. The hypotheses are directly concerned with this limited analysis of friction of space and they will be treated through certain data concerned with relationships to the urban center.

For convenience and in order to comply with the pertinent hypotheses, the following tables are organized to illustrate the periphery-urban relationship, i.e., the interaction between Shaftsburg and Lansing. This relationship is concerned with the pattern or organization of activity, i.e., interaction over space taking place between Lansing, the urban center, and Shaftsburg. The data collected provides information concerning areas of activity that may be effective in developing patterns of action over space.

Fundamentally, the question being raised via the hypotheses is: Does the pattern of action over space between Shaftsburg and Lansing reflect a relationship of past and/or fixed patterns in intensity of interaction (i.e. recency and duration of contact) and present patterns of action. Certain variables have been selected that plausibly would give limited measurement of the influence of intensity in determining action patterns. For example, present employment in Lansing is a measurement of relatively fixed intensity. Such possible determinants of movement will be viewed through the hypotheses formulated in Chapter 4.

Hypothesis 1: Those families with past residence in the urban center will show significantly greater interaction with that center than those families never having lived in that center.

The testing of the hypothesis lies in the relationship of present intensity of activity in the urban center (Lansing) and residence or non-residence at some past point in time in this center. The intensity of activity or interaction here is defined in terms of specific variables, i.e., place of retail purchasing, place of obtaining services, place of employment, location of people visited, number of non-work trips to the urban center, and number of organizations of which at least nine meetings were attended during the past year.[12]

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[12]Although data was available concerning the location of entertainment and recreation, no information was obtained measuring the relative intensity of use of these facilities.

The effect of past urban residency could be more closely investigated if such residency was divided into time periods according to length and recency of urban residence. However, the collapse of such gradient categories was necessary since the numbers were insufficient to test for significant differences (see Tables 42 and 43).

Table 42.--Lived in Lansing[13] Since Marriage: Total Years

| Total Years | Number of Respondents |
|---|---|
| 5 years or less | 12 |
| 6 - 10 years | 2 |
| 11 years or more | 4 |
| Total | 18 |

Table 43.--Lived in Lansing Since Marriage: Years Ago

| Years Ago | Number of Respondents |
|---|---|
| 5 years or less | 6 |
| 6 - 10 years | 3 |
| 11 years or more | 9 |
| Total | 18 |

[13]Unless otherwise specified, Lansing is equated with Lansing-East Lansing throughout this chapter.

Visiting.[14] Visiting is one variable that could be indicative of the effect of past urban residence in maintaining urban contact. However, visiting connotes aspects not fitting activities that have voluntary alternatives (e.g., where groceries are purchased). Simply, visiting is the maintenance of informal face-to-face interaction with persons met and known initially from a specific source. Conceivably, for example, employment might offer a more immediate explanation of urban visiting than past residency if "fellow worker" was a major initial contact of people visited.

Table 44 illustrates the predominance of "relatives" as the initial contact of those with whom visiting is carried on in the urban center whether having lived or not in the center. It appears evident that the low number of former neighbors involved in visiting would indicate a minor role of sustained interaction in the neighborhood of former residence. However, it is necessary to be cautious of such a conclusion. The possible influence of relatives in the selection of an urban residence is unknown. Simply, relatives who were also former neighbors would most likely be mentioned in recall as "relatives."

It might be expected that those respondents who have lived in Lansing would show a higher number of different Lansing contacts with whom they visit. Table 45 compares past residence and contacts in Lansing and outside Lansing. As might be anticipated, the greatest

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[14]It must be emphasized that in this chapter "visiting" is used in terms of number of different persons visited. Therefore, this is not a measurement of visiting intensity, i.e., frequency of visiting. It seems highly assumptive to measure intensity in terms of number of visits over a specified period of time especially in the light of data giving type of initial contact, i.e., kinship visiting is a many faceted relationship. Therefore, it was necessary to assume that, in the process of a free answer to the interview question asking the location of people with whom visiting is carried on, recall would assure minimum standards of intensity that would provide a random distribution of error.

Table 44.--Type of Initial Contact Named in Visiting in Lansing According to Past Lansing Residence*

| Type of Initial Contact | Lived in Lansing Since Marriage | Not Lived in Lansing Since Marriage |
|---|---|---|
| Relatives | 66% | 58% |
| Fellow Worker or Business Contact | 17 | 14 |
| Former Neighbors | 7 | 6 |
| School (high school, college, etc.) | 2 | 6 |
| Other | 7 | 16 |
| Don't Know | 1 | -- |
| Total | 100% (N = 92) | 100% (N = 72) |

*This table is based on 41 families. Number and percent are above the sample base because some respondents gave more than one answer. In subsequent tables this situation will be indicated by the phrase "multiple answers."

Table 45.--Number of Contacts ($\bar{X}$) in Lansing According to Past Residence in Lansing*

| Residence | Contacts | |
|---|---|---|
| | In Lansing | Other than Lansing |
| Lived in Lansing Since Marriage (N = 17) | 5.41 | 5.18 |
| Not Lived in Lansing Since Marriage (N = 31) | 2.31 | 5.87 |

*Three respondents = no answer. Multiple answers.

(and only substantial) difference in average[15] number of contacts is between past residence/non-residence in Lansing. Those who have lived in Lansing show over twice the average number of contacts in Lansing than those respondents who have never lived in the urban center.

Table 46 shows that there is a significant association between past Lansing residence and the number of visiting contacts in Lansing. Past urban residence is a possible influence in the maintenance of visiting patterns between the peripheral area and the urban center.

Table 46.--Number of Contacts in Lansing According to Past Residence in Lansing*

| Residence | Number of Contacts | | |
|---|---|---|---|
| | 0 - 2 | 3 - 5 | 6 or more |
| Lived in Lansing Since Marriage | 4 | 7 | 6 |
| Not Lived in Lansing Since Marriage | 21 | 7 | 3 |
| Total | 25 | 14 | 9 |

$X^2 = 9.08^{**}$ $p = .02$

*Three respondents = no answer.

**Although the hypotheses assume directionality, it might be possible to use a test for this direction in order to be as statistically rigorous as possible. All tests are on this basis except Table 76 which involves a one-tailed test.

Employment. It might be expected that those with past urban residence in Lansing would show a higher proportion of employment in Lansing. However, although those who have lived in Lansing show a higher percentage (see Table 47) of employment in Lansing, there is not a significant difference between those with past urban residence and those never having lived in the urban center.

[15]Arithmetic mean.

Table 47.--Present Employment in Lansing by Past Residence in Lansing

| Residence | Employed in Lansing | Not Employed in Lansing | Total |
|---|---|---|---|
| Lived in Lansing Since Marriage | 72% | 28% | 100% (N=18) |
| Not Lived in Lansing Since Marriage | 58% | 42% | 100% (N=33) |

$X^2 = .53$ $p = .5$

Retail Purchasing. In Table 48 retail buying (frequent use) location is considered separately. From this table it is evident that those having lived in Lansing show a higher percentage of such goods obtained in the urban center (the direction of the hypothesis). However, this difference is not a highly significant one.

Table 48.--Percentage of Retail Purchasing (Frequent Use: meat, groceries) in Lansing by Past Residence in Lansing*

| Residence | Purchase in Lansing | Purchase Outside Lansing | Total |
|---|---|---|---|
| Lived in Lansing Since Marriage | 44% | 56% | 100% (N = 36) |
| Not Lived in Lansing Since Marriage | 25% | 75% | 100% (N = 62) |

$X^2 = 2.80$ $p = .1$

*No answer = 4. Multiple answers.

Retail buying (infrequent use) indicates (Table 49) that those having past Lansing residency procure a higher percent of such goods in Lansing. This table indicates a significant relationship between past Lansing residence and the place of purchase of infrequently sought goods. Conceivably, past Lansing residence has provided a familiarity with the urban area that has been influential in the continued purchase of such goods there.[16]

Table 49.--Percentage of Retail Purchasing (Infrequent Use: drugs and medicine, clothing, appliances, furniture, hardware, last car purchase) in Lansing by Past Residence in Lansing*

| Residence | Purchase in Lansing | Purchase Outside Lansing | Total |
|---|---|---|---|
| Lived in Lansing Since Marriage | 68% | 32% | 100% (N = 106) |
| Not Lived in Lansing Since Marriage | 50% | 50% | 100% (N = 181) |

$X^2 = 8.59$ $p = .005$

*No answer = 19. Multiple answers.

Services. Lansing is not indicated as a major source for banking service regardless of Lansing residential background (Table 50). As in the case of frequent retail purchasing, banking as a frequently used service is not indicated to be influenced by past urban residence.

Services which are generally considered infrequent in use do seem to be related (Table 51) to past urban residence. The place where these services are obtained does appear to be associated with past

[16]Familiarity with an area, as reducing friction of space, was not investigated.

Lansing residence. Again, it seems possible that former residence could provide knowledge of the urban center that would facilitate the obtaining of these services in that center.

Table 50.--Percentage of Banking (Frequent Use) in Lansing by Past Residence in Lansing*

| Residence | Obtain in Lansing | Obtain Outside Lansing | Total |
|---|---|---|---|
| Lived in Lansing Since Marriage | 28% | 72% | 100% (N = 18) |
| Not Lived in Lansing Since Marriage | 27% | 73% | 100% (N = 31) |
| $X^2 = .09$ $p = .8$ | | | |

*No answer = 2.

Table 51.--Percentage of Services (Infrequent Use: doctor, hospital, dentist, lawyer, automotive repair and service, credit need) in Lansing by Past Residence in Lansing*

| Residence | Obtain in Lansing | Obtain Outside Lansing | Total |
|---|---|---|---|
| Lived in Lansing Since Marriage | 55% | 45% | 100% (N = 106) |
| Not Lived in Lansing Since Marriage | 41% | 59% | 100% (N = 181) |
| $X^2 = 3.93$ $p = .05$ | | | |

*No answer = 19. Multiple responses.

Membership in Organizations.[17] Involvement in organizations in the urban center could be indicative of sustained contact by former urban residents and mere continued voluntary memberships might be evidence of maintained urban relationships.[18] Table 52 indicates that past Lansing residence is not influential in maintaining organizational ties. In such analysis, union membership is generally considered a nonvoluntary (closed shop), employment related association. Past Lansing residence as effective in maintaining organizational ties does not support the hypothesis. It is interesting to note the lack of memberships in voluntary associations in Lansing by all Shaftsburg residents.[19]

Table 52.--Organizational Memberships in Lansing by Past Residence in Lansing*

| Organization | Lived in Lansing Since Marriage (N = 18) | Not Lived in Lansing Since Marriage (N = 33) |
|---|---|---|
| Labor Union | 12 | 12 |
| Church Member | 2 | 4 |
| Church (social club) | 0 | 2 |
| Fraternal (Elks) | 0 | 2 |
| Political Party (social club) | 1 | 0 |
| Lansing Competition Club | 1 | 1 |
| Law Enforcement Association | 0 | 1 |
| Young Executives' Club | 0 | 1 |
| Total | 16 | 23 |

*Two respondents = no answer.

[17]See Interview Schedule, Appendix C, for the list of organizations.

[18]For an analysis of difference in memberships in voluntary associations between central city and fringe residents, see Basil G. Zimmer and Amos H. Hawley, "The Significance of Membership in Associations," American Journal of Sociology, LXV, No. 2, pp. 196-201. Central city residents showed a higher proportion of memberships in such associations than did fringe inhabitants.

[19]This supports most findings concerning low income groups. For example, see Ronald Freedman et al., Principles of Sociology (New York: Henry Holt and Company, 1956), pp. 450-453.

Trips to the Urban Center. If past residence in Lansing is effective in increasing interaction with the urban center, it could be expected that unfixed, non-employment trips to the urban center would be proportionately greater among those with past Lansing residence. However, the data (Table 53) does not confirm a significantly close relationship between these factors.

Table 53.--Number of Non-Work Trips Per Week to Lansing by Past Residence in Lansing*

| Residence | Number of Trips | | |
|---|---|---|---|
| | None | One | Two or More |
| Lived in Lansing Since Marriage | 2 | 6 | 10 |
| Not Lived in Lansing Since Marriage | 10 | 11 | 10 |
| Total | 12 | 17 | 20 |
| $X^2 = 3.66$ $p = .2$ | | | |

*Two respondents = no answer.

Summary. Hypothesis 1 has attempted to discover the relationship between past urban residence and a number of variables that could be influenced by such former residence. The hypothesis has not been supported by all these variables considered. Present employment, the place of frequent retail buying and services, organizational memberships and non-work trips to the urban center, although in most cases in the direction hypothesized, cannot be significantly related to the urban center. The lack of retail purchasing and of services obtained (that are frequently used) in Lansing is consistent with ecological theory which postulates that such activity is more "localized" than infrequently used

retail and service outlets. On the other hand, visiting contacts, infrequently used retail buying and infrequently used service outlets are significantly associated with past urban residence.

Although the hypothesis is only partially upheld, past urban residence is indicated to be a possible influence in the organization of specific patterns of movement between the periphery and the urban center.

Hypothesis 2: Those who are employed[20] in the urban center will show more intense interaction with that place than those employed elsewhere.

Interaction, as in Hypothesis 1, refers to specific variables; in this case, these are place of retail purchasing, place of obtaining services, location of people visited, number of non-work trips to Lansing, and memberships in organizations. This hypothesis proposes to investigate the influence of urban employment, a constant interaction with the urban center, on other possible urban contacts that possess alternatives independent of place of employment.

Visiting. In Hypothesis 1 (Table 44) the major sources of visiting contacts were compared to the fact of past residence or non-residence in Lansing. The predominance of kinship contacts shown is again reflected in a comparison of visiting contacts and present employment/non-employment in the urban center (Table 54).

Families with whom visiting is maintained who were met through employment accounts for one-fifth (20%) of contacts among those presently employed in the urban center. However, visiting with relatives, among both those employed in Lansing or not employed there, accounts for over three-fifths of the number of visiting contacts in the urban center.

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[20]Employment in this chapter is equated with employment of head of household.

Table 54.--Type of Initial Contact Named in Visiting in Lansing According to Present Employment in Lansing*

| Type of Initial Contact | Presently Employed in Lansing | Not Employed in Lansing |
|---|---|---|
| Relatives | 63% | 64% |
| Fellow Worker or Business Contact | 20 | 2 |
| Former Neighbor | 6 | 7 |
| School (high school, college, etc.) | 1 | 10 |
| Other | 9 | 17 |
| Don't Know | 1 | -- |
| Total | 100% (N = 123) | 100% (N = 41) |

*This table is based on 41 families. Multiple answers.

Those presently employed in Lansing indicate a higher average number of visiting contacts in Lansing than those employed elsewhere (Table 55). It should be noted that both those employed and those not employed in Lansing show a higher average number of visiting contacts outside Lansing than in Lansing. Table 56 does not confirm the existence of a significant relationship between present Lansing employment and number of Lansing contacts. Such non-significance could be anticipated from the data in Table 54 which shows the relatively low (20%) number of visiting contacts resulting from Lansing employment.

Table 55.--Number of Contacts ($\bar{X}$) in Lansing by Present Employment in Lansing*

| Employment | Contacts (Mean) | |
|---|---|---|
| | In Lansing | Other than Lansing |
| Employed in Lansing (N = 31) | 3.97 | 5.19 |
| Not Employed in Lansing (N = 17) | 2.41 | 6.41 |

*Three respondents = no answer. Multiple answers.

Table 56.--Number of Contacts in Lansing by Present Employment in Lansing*

| Employment | Number of Contacts | | |
|---|---|---|---|
| | 0 - 2 | 3 - 5 | 6 or More |
| Employed in Lansing | 15 | 9 | 7 |
| Not Employed in Lansing | 10 | 5 | 2 |
| Total | 25 | 14 | 9 |
| $X^2 = .55$ $p = .8$ | | | |

*Three respondents = no answer.

Retail Purchasing. It could be expected that present urban employment would be effective in the organization of retail purchasing. Table 57 supports this expected relationship in the case of frequently used retail goods; the data supports a significant relationship between Lansing employment and frequently used retail buying. It should be noted that Lansing accounts for less than half (43%) of such purchasing.

The place of retail purchasing (infrequent use) also confirms a significant relationship between Lansing purchasing and Lansing employment (Table 58). Conceivably, present urban employment is a possible

influence in encouraging the procurement of infrequently purchased items in that urban center. Of those employed in Lansing, over three-fifths (62%) of such buying is done in Lansing.

Table 57.--Percentage of Retail Purchasing (Frequent Use: meat and groceries) in Lansing by Present Employment in Lansing*

| Employment | Purchase in Lansing | Purchase Outside Lansing | Total |
|---|---|---|---|
| Employed in Lansing | 43% | 57% | 100% (N = 64) |
| Not Employed in Lansing | 12% | 88% | 100% (N = 34) |
| $X^2 = 8.53$ p = .005 | | | |

*No answer = 4. Multiple answers.

Table 58.--Percentage of Retail Purchasing (Infrequent Use: drugs and medicine, clothing, appliances, furniture, hardware, last car purchase) in Lansing by Present Employment in Lansing*

| Employment | Purchase in Lansing | Purchase Outside Lansing | Total |
|---|---|---|---|
| Employed in Lansing | 62% | 38% | 100% (N = 191) |
| Not Employed in Lansing | 45% | 55% | 100% (N = 99) |
| $X^2 = 6.56$ p = .02 | | | |

*No answer/don't know = 16. Multiple answers.

Services. Although a higher percentage (Table 59) use Lansing for banking service among those employed there, this difference is not statistically significant. Banking service is sought closer to Shaftsburg by almost three-fourths (72%) of the respondents (see Table 28, Appendix B).

Table 59.--Percentage of Banking (Frequent Use) in Lansing by Present Employment in Lansing*

| Employment | Obtain in Lansing | Obtain Outside Lansing | Total |
|---|---|---|---|
| Employed in Lansing | 34% | 66% | 100% (N = 32) |
| Not Employed in Lansing | 15% | 85% | 100% (N = 17) |
| $X^2 = 1.28$ $p = .3$ | | | |

*No answer = 2.

The pattern of infrequently used services is compatible with the hypothesis. The data in Table 60 supports a statistically significant relationship between Lansing employment and the obtaining of these services in Lansing. It may be expected that legal, and especially medical, services would be related to employment. Less expected perhaps is that automobile service and credit would not be obtained locally since such services are available in the local area.

Membership in Organizations. Union membership is almost exclusively confined to those employed in Lansing (Table 61). If such membership is considered nonvoluntary, the insignificance of Lansing membership in voluntary organizations is once again emphasized. Obviously, Lansing employment does not foster membership in other organizations whether fraternal, social, or occupationally oriented.

Table 60.--Percentage of Services (Infrequent Use: doctor, hospital, dentist, lawyer, automotive repair and service, credit need) in Lansing by Present Employment in Lansing*

| Employment | Obtain in Lansing | Obtain Outside Lansing | Total |
|---|---|---|---|
| Employed in Lansing | 55% | 45% | 100% (N = 191) |
| Not Employed in Lansing | 29% | 71% | 100% (N = 99) |
| $X^2 = 16.96$ $p = .001$ | | | |

*No answer/not applicable = 16. Multiple answers.

Table 61.--Organizational Memberships in Lansing by Present Employment in Lansing*

| Organization | Employed in Lansing (N = 32) | Not Employed in Lansing (N = 17) |
|---|---|---|
| Labor Union | 23 | 1 |
| Church Member | 5 | 1 |
| Church (social club) | 0 | 2 |
| Fraternal (Elks) | 2 | 0 |
| Lansing Competition Club | 1 | 1 |
| Political Party (social club) | 1 | 0 |
| Law Enforcement Association | 1 | 0 |
| Young Executives' Club | 1 | 0 |
| Total | 34 | 5 |

*Two respondents = no answer.

Trips to the Urban Center. Non-work trips could be indicative of increased urban interaction brought about by urban employment. Table 62 indicates that such might be the case. A significant difference is confirmed in the number of non-work trips to Lansing between those employed and those not employed in Lansing.

Table 62.--Number of Non-Work Trips Per Week to Lansing by Present Employment in Lansing*

| Employment | Number of Trips | | |
|---|---|---|---|
| | None | One | Two or More |
| Employed in Lansing | 3 | 13 | 16 |
| Not Employed in Lansing | 9 | 4 | 4 |
| Total | 12 | 17 | 20 |

$X^2 = 11.24$ $p = .005$

*Two respondents = no answer.

Summary. Hypothesis 2 has tried to measure the relationship, if any, between employment location in the urban center and certain variables concerned with movement. The hypothesis has been almost completely supported by the variables tested. Retail purchasing, both frequent and infrequent use, and services of infrequent use have been shown to be possibly related to urban employment. Also there appeared a significant correlation between urban employment and number of non-work trips to the urban center. Only visiting contacts and organizational memberships in the urban center could not be shown to be related to employment in that center. Urban employment has not indicated that it is conducive to the formation of informal "ties" with the urban center either in joining organizations or in visiting with employment friends.

One important question arises here that seems crucial in the analysis of movement over space. If buying and obtaining services is significantly related to Lansing employment, could such a relationship be interpreted as economically efficient (despite frequency of use or closer available locations of these goods and services) since employment and buying/service trips could be combined? However, slightly less than one-third (31%) of those employed in Lansing mentioned combining work and other activity, i.e., buying, servicing, visiting, etc., in Lansing. It is more common to combine these other activities in a trip to Lansing (78% mentioned such combinations). Table 63 shows the distribution of automobile service in Lansing according to employment. This example points out that infrequently used services and buying are not distributed to the most efficient and closest location but a disparity of distribution appears based on employment location, at least in terms of Lansing employment which was tested here.

Table 63.--Automobile Service in Lansing by Lansing Employment*

| Employment | Obtain in Lansing | Obtain Outside Lansing | Total |
|---|---|---|---|
| Lansing | 41% | 59% | 100% (N = 32) |
| Other than Lansing | -- | 100% | 100% (N = 15) |

*Four respondents = no answer/not applicable.

In the light of such data, it might be proposed that greater mobility provided by employment will be reflected in greater mobility in other activity. Specifically, employment location as it extends further from Shaftsburg will tend to diminish the pattern of "localizing" the obtaining

of services and goods according to frequency of use. If mobility, i.e., miles traveled, increases as employment, i.e., miles traveled to and from work increases, then consequently, conformity to a pattern of movement based on frequency of use of service and retail facilities will be reduced. Hypotheses 5 and 6 will be concerned directly with these postulates.

Urban employment as a relatively stable, continuous fringe-urban relationship has been presented as a possible determinant influencing the intensity of fringe-urban interaction. Furthermore, length and recency of this employment are postulated as possible factors in the intensity of the relationship. Hypotheses 3 and 4 attempt to test this specific interaction.

Hypothesis 3: The longer and more recent the past employment in the urban center, the greater the continued interaction with that center.

Of the nineteen respondents who were not presently employed in Lansing, only six (32%) indicated past Lansing employment. It is apparent that past employment in Lansing does not provide sufficient data for analysis in terms of present activity. However, the lack of previous, discontinued employment seems to point out the present dependence and stability of the Shaftsburg population on the urban center for employment.

Hypothesis 4: The longer the present employment in the urban center, the more intense the interaction with that center.

Again, specific variables are to be viewed through employment activity and, in this case, through the length of present employment in the urban center. In Table 64 length of employment is compared to the distribution of Lansing/non-Lansing visiting contacts. In terms of the average (mean) number of contacts, the longer the Lansing employment the higher average number of Lansing contacts. However, Table 65 shows that this trend is not a statistically significant difference.

Actually, this lack of significance is a further confirmation (see Table 56) that employment is not consequential in urban visiting patterns.

Table 64.--Number of Visiting Contacts ($\bar{X}$) in Lansing by Length of Employment in Lansing*

| Employment in Lansing[21] | Number of Visiting Contacts ($\bar{X}$) | |
|---|---|---|
| | In Lansing | Other than Lansing |
| 5 years or less (N = 3) | 3.0 | 5.2 |
| 6 - 10 years (N = 10) | 3.5 | 4.6 |
| 11 years or more (N = 18) | 4.2 | 5.2 |
| Total ($\bar{X}$) | 3.8 | 5.0 |

*One respondent = no answer. Multiple answers.

Table 65.--Number of Visiting Contacts in Lansing by Length of Employment in Lansing*

| Employment in Lansing | Number of Contacts | |
|---|---|---|
| | 0 - 2 | 3 or More |
| 10 years or less | 7 | 6 |
| 11 years or more | 8 | 10 |
| Total | 15 | 16 |

$X^2 = .02$ $p = .9$

*One respondent = no answer. Multiple answers.

[21]The limited dispersion of the universe does not fit the statistical requirement except in terms of 10 or less and 11 or more years of Lansing employment.

Retail Purchasing. The hypothesis is not supported by retail buying (frequent use). Table 66 would indicate that length of employment does not bring increased use of Lansing for the purchasing of these goods.

Table 66.--Retail Purchasing (Frequent Use: meat, groceries) in Lansing by Length of Employment in Lansing*

| Employment in Lansing | Purchase in Lansing | |
|---|---|---|
| | None or One Items | Both Items |
| 10 years or less | 8 | 6 |
| 11 years or more | 11 | 7 |
| Total | 19 | 13 |
| $X^2 = .02$ $p = .9$ | | |

*Multiple answers.

The available data concerning retail buying (infrequent use) and length of Lansing employment is inconclusive (Table 67). Although the data conforms to the trend hypothesized, it is inadequate to subject to a statistical test.

Table 67.--Retail Purchasing (Infrequent Use: drugs and medicine, clothing, appliances, furniture, hardware, last car purchase) in Lansing by Length of Employment in Lansing*

| Employment in Lansing | Purchase in Lansing | |
|---|---|---|
| | 0 - 3 Items | 4 - 6 Items |
| 10 years or less | 5 | 9 |
| 11 years or more | 5 | 13 |
| Total | 10 | 22 |

*Multiple answers.

Services. Table 68 does not affirm a significant relationship between service (frequent use) and length of Lansing employment.

Table 68.--Service (Frequent Use: banking) in Lansing by Length of Lansing Employment.

| Employment in Lansing | Obtain in Lansing | |
|---|---|---|
| | No | Yes |
| 10 years or less | 8 | 6 |
| 11 years or more | 13 | 5 |
| Total | 21 | 11 |
| $X^2 = .27$ $p = .7$ | | |

The distribution of infrequently used services also does not substantiate the hypothesis (Table 69). No dependence is illustrated between these services and length of urban employment.

Table 69.--Services (Infrequent Use: doctor, hospital, dentist, lawyer, automotive repair and service, credit need) in Lansing by Length of Employment in Lansing*

| Employment in Lansing | Obtain in Lansing | |
|---|---|---|
| | 0 - 3 Items | 4 - 6 Items |
| 10 years or less | 9 | 5 |
| 11 years or more | 11 | 7 |
| Total | 20 | 12 |
| $X^2 = .14$ $p = .8$ | | |

*Multiple answers.

Membership in Organizations. As shown earlier (Tables 52 and 61) the number of memberships in Lansing organizations is too small to test for any relationship to length of Lansing employment. Table 70 gives the distribution of such memberships. This distribution does not suggest any support of the hypothesis.

Table 70.--Memberships in Organizations in Lansing by Length of Employment in Lansing.

| Employment in Lansing | Number of Organizations | | |
|---|---|---|---|
| | None | One | Two or More |
| 10 years or less | 2 | 10 | 2 |
| 11 years or more | 3 | 11 | 4 |
| Total | 5 | 21 | 6 |

Trips to the Urban Center. It might be expected that, since non-work trips to Lansing and Lansing employment were possibly related (Table 62), that length of employment would also effect non-work trip patterns. However, on the basis of the data in Table 71, this is not confirmed. No significant relationship is shown between these factors.

Table 71.--Number of Non-Work Trips Per Week to Lansing by Length of Employment in Lansing

| Employment in Lansing | Number of Trips | |
|---|---|---|
| | None or One | Two or More |
| 10 years or less | 8 | 6 |
| 11 years or more | 8 | 10 |
| Total | 16 | 16 |
| $X^2 = .13$ $p = .8$ | | |

Summary. The hypothesis is rejected. In addition, the possible contrary hypothesis that "the longer the employment, the less intense the interaction" is also rejected. Therefore, the null hypothesis that length of employment in the urban center is unrelated to the intensity of interaction in that center must be accepted on the basis of the variables used.

Hypothesis 5: As employment mobility, i.e., miles traveled in work connected trips, increases, the average miles traveled in other than work connected trips will also increase.

Hypothesis 6: The distance traveled for retail goods and services will increase as the distance to work increases.

Hypothesis 5: In Hypothesis 2 it was shown that employment and certain activities are possibly related although Hypothesis 4 indicates that the length of this employment is not significant in intensifying this interaction. Hypothesis 5 attempts to generalize this relationship of work-activity to all employment whether urban or non-urban. Miles traveled to work per week is compared to non-work trips to Owosso, Lansing, Perry, Laingsburg and Williamston (these locations were the only destinations to which at least one trip per week was made by any respondent). Tables 72 and 73 offer descriptions of this data which indicate that such a relationship may exist.

Table 72.--Average ($\bar{X}$) Miles Traveled Per Day in Non-Work Trips* According to Miles Traveled Per Day in Work Trips**

| Work Trips | Non-Work Trips ($\bar{X}$) Miles |
|---|---|
| 25 miles or less (N = 9) | 8.2 |
| 26 - 30 miles (N = 26) | 10.4 |
| 31 miles or more (N = 8) | 15.0 |

*To Lansing, Owosso, Perry, Laingsburg and Williamston.
**Based on 43 respondents. Two respondents = no answer; six = unemployed or retired.

The heavy weighting of the 126-150 mile category in Table 73 is accounted for by the predominance of Lansing employment.

Table 73.--Miles Traveled Per Week in Non-Work Trips* by Miles Traveled to Work Per Week**

| Work Trips | Non-Work Trips | |
|---|---|---|
| | 80 Miles or Less | 81 Miles or More |
| 125 miles or less | 7 | 2 |
| 126 - 150 miles | 15 | 11 |
| 151 miles or more | 1 | 7 |
| Total | 23 | 20 |

*To Lansing, Owosso, Perry, Laingsburg and Williamston.

**Based on 43 respondents. Two respondents = no answer; six = unemployed.

Table 74 shows that there is not a statistically significant relationship between work and non-work travel. For this test the hypothesis was stated as follows: The number of persons who exceed the mean number of miles traveled to work per week will be higher when they have also exceeded the mean number of non-work miles traveled per week. This test indicates that there is not a significant relationship between employment and non-employment mobility.

Table 74.--Miles Traveled Per Week in Non-Work Trips* by Miles Traveled to Work Per Week**

| Work Miles Traveled $\bar{X}$ = 141.35 | Non-Work Miles Traveled $\bar{X}$ = 75.56 | | |
|---|---|---|---|
| | Lower | Higher | Total |
| Higher | 15 | 19 | 34 |
| Lower | 6 | 3 | 9 |
| Total | 21 | 22 | |
| | $X^2 = 1.45^{22}$ | | |

*To Lansing, Owosso, Perry, Laingsburg and Williamston.

**Based on 43 respondents. Two respondents = no answer; six = unemployed.

Hypothesis 6. A test of Hypothesis 2 indicated strong affirmation of the postulate of more intense interaction with Lansing among those employed there also. If such intensity is true, it might be generalized then that the "localizing" pattern based on frequency of use would be expected to diminish. A theoretical pattern of buying and servicing based on use frequency would show a gradient pattern of increasing distance as frequency of use decreases and the service or product is more specialized. Variations in such a theoretical model supposedly would be to locations of equal or greater efficiency than a pattern based on distance-use. However, in this case study, variations from this model have not been

[22]Although $X^2$ does not meet all the assumptions (i.e., a theoretical cell minimum of 5.0), it is not significant at .05 level. Fisher Exact Probability Statistic yields a p = .205, giving further substantiation to the judgment made on the basis of the $X^2$. See Sidney Siegel, Nonparametric Statistics (New York: McGraw-Hill Book Co., Inc., 1956), p. 96.

clearly assigned to economically efficient variables.[23] Especially so is the case of inconsistency with a distance-use pattern characterized by correlation with employment location but involving separate non-work trips to obtain the good or service (see Hypothesis 2). Hypothesis 6 simply postulates that employment will act as an intervening variable that will distort a pattern of buying and services based upon distance-use frequency. This hypothesis does not assume or postulate that the proposed pattern will be more or less economically sound or efficient. Therefore, the test of this hypothesis rests in demonstrating that employment distance is a possible variable bringing distortion in the distance-frequency of use pattern of organization.

Table 75 arbitrarily divides distance to work by 10 miles or less (Perry, Williamston, Haslett, Shaftsburg) and 11 or more miles (Lansing, Owosso). A total of 19 different locations, i.e., cities, villages and rural, were mentioned as destinations in obtaining these various goods and services. Although Table 75 presents an admittedly imprecise measurement, it raises the suspicion that a relationship, worthy of more exact testing, might be present. This comparison of composite means of types of activity seems, in the light of the earlier hypotheses where significant relationships were found, to lead to a questioning of this classification, i.e., frequent-infrequent. Perhaps certain of these activities in particular will more precisely indicate the relationship of work and buying-service distances.

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[23]An inadequacy of the data makes reservations necessary concerning the "economizing" nature of such behavior. Information revealing the combinations of purchasing in a single trip or trip sharing was not sufficiently delineated. See Question 52, Interview Schedule, Appendic C.

Table 75.--Miles ($\bar{X}$) Traveled to Obtain Selected* Goods and Services by Distance to Work**

| Distance to Work | Distance ($\bar{X}$) for: Retail Frequent Use | Retail Infrequent Use | Service Frequent Use | Service Infrequent Use |
|---|---|---|---|---|
| 10 miles or less (N = 10) | 4.5 | 11.3 | 6.0 | 10.5 |
| 11 miles or more (N = 33) | 9.2 | 12.0 | 8.6 | 11.8 |

*See Tables 48-51.

**Based on 43 respondents. Two respondents = no answer; six = unemployed or retired. Multiple answers.

Table 76 presents a critical testing for this relationship. For purposes of this test the hypothesis can be stated that: the mean distance traveled to obtain a particular good or service for those persons employed ten or less miles from Shaftsburg will be less than the mean distance traveled to obtain the same good or service by those persons employed more than ten miles from Shaftsburg. The hypothesis is partially supported by this test. In six of the fifteen items tested there was a statistically significantly relationship in accord with the hypothesis. Included in these six items are the three (grocery, meat purchasing and banking) items that have been classified as of frequent use. Table 76 indicates that, in addition to specific correlations within the contention of the hypothesis, there also may exist other trends in the direction of the hypothesis. In fact, tests of each item indicate that in ten of the fifteen items the direction is as hypothesized.

Summary. The obvious intention of these two hypotheses was to demonstrate in some manner the plausibility of employment distance and the mobility thus incurred as being effectual, in general, on mobility of

Table 76.--Miles Traveled to Obtain Selected Goods and Services by Distance to Work (Mean Comparison)

| Goods or Service | $\Sigma \bar{X}$: Mean Distance Traveled to Obtain 10 or Less Miles to Work | 11 or More Miles to Work | t* |
|---|---|---|---|
| Clothing | 15.2 | 14.2 | 2.04 |
| Drugs and Medicine | 8.0 | 10.8 | -1.87 |
| Appliances | 12.2 | 14.5 | - .62 |
| Furniture | 12.2 | 12.6** | - .27 |
| Hardware | 6.0 | 6.6 | - .38 |
| Last Car Purchased | 14.5** | 13.6** | .69 |
| Doctor | 8.6 | 12.2 | -1.91 |
| Hospital | 17.0** | 15.5 | .94 |
| Dentist | 11.8 | 10.6 | 1.13 |
| Lawyer | 16.0 | 15.3 | 1.27 |
| Automobile Service | 1.5*** | 7.7*** | -2.38 |
| Credit | 7.0 | 9.5 | -1.52 |
| Groceries | 3.6 | 9.6 | -3.70 |
| Meat | 5.3 | 8.6 | -1.79 |
| Banking | 6.0 (N = 10) | 8.6 (N = 33) | -1.68 |

*One-tailed test; significant if $t < -1.68$. $\alpha = .05$
Assume $\sigma_1^2 = \sigma_2^2$

**One respondent = no answer/not applicable.

***Two respondents = no answer/not applicable.

any type and, specifically, on mobility assumed by a theory of distance-use frequency in goods and service satisfaction. The possibility of employment acting as such a variable seems to be tenable. The resulting pattern of movement over space under the effect of employment does

not carry the implication that such a pattern is a more efficient, rational organization. In fact, the possibility that such a pattern of movement admits a degree of economic inefficiency, especially in the procurement of goods and services, is also considered tenable.

## 2. Summary and Analysis

These hypotheses have been concerned principally with employment and past residence as variables modifying patterns of movement over space. Obviously, employment has been greatly emphasized. Employment is viewed as the one variable that involves an activity over space relatively fixed and constant over time. The stability of employment in the case study has been shown (Hypothesis 3). If the hypotheses have shown an influence of employment location and distance as a determinant of movement patterns, such influence has not emerged as bringing increased efficiency but as showing relationships of possible inefficiency in movement over space.

Kinship patterns have also emerged as a partially unknown determinant of spatial movement that cannot be adequately investigated from the data available. The effect of kinship has been shown in urban visiting but its effect in determining past urban residence, residence in the city near relatives or as influencing urban employment remains unknown.

However, these hypotheses were constructed primarily to investigate the concept of transportation as movement which has been reiterated earlier in this paper. The hypotheses, in showing the correlation of increasing mobility in employment and increasing mobility in other activity, raises the question of past mobility as effectual in present mobility patterns. Another question, of perhaps more theoretical importance, is the relationship of the data to the ecological concept of transportation as presented herein.

The question of past mobility cannot be adequately investigated from the data collected. Past employment mobility is known only for the time lived in Shaftsburg. Past residential history since marriage was obtained and might be viewed in relation to other residential data (see Chapter 7). Frequency of change of residence as a measurement of present mobility patterns would have to assume characteristics of past mobility that are simply not available. However, past residential movement will be considered more appropriately in Chapter 7 as a factor in fringe area stability.

The hypotheses in their formulation were aimed at studying the importance of transportation as a concept basic to ecology. The intention was to view transportation through such basis attributes as mobility and accessibility as explained in Chapter 3. This thesis does not pretend to add any revolutionary features to this concept. The underlying objective seems rather obvious, that is, to investigate (especially through the above hypotheses) transportation and movement as possessing aspects related to the ecological concept of movement over space. The ecological organization and cultural structure of space movement are seen as related and, it is contended, inseparable in the understanding of "fringe" development. Within this relationship of ecological and cultural organization the study's validity rests, in that, through this relationship "fringe," as more firmly delineated through peripheral social structure, has a theoretical base.

The ecological organization of space from the data and hypotheses indicates high movement from Shaftsburg to Lansing. Lansing is accessible as a work place for a high number. Apparently work in Lansing brings an increase in other independent trips to Lansing. In fact, work mobility in general seems to bring an increase in other movement as well. However, this increase in general movement does not follow completely an economically efficient organization. On the other hand,

this non-work interaction pattern was not strengthened by how recent or prolonged has been the employment in the urban center. Also interaction appears related to past residence in the urban center. Employment, past residence and kinship emerge as related to periphery-urban interaction. Such an interrelating cannot be explained strictly in terms of mobility and accessibility to the urban center since ecologically the urban center is equally accessible to all Shaftsburg residents. It seems that at this point, a knowledge of the cultural (motivational or attitudinal, if preferred) contributes to an understanding of this ecological pattern, especially, the differential in mobility.

The hypotheses have shown that certain variables (employment, etc.) are interrelated in a pattern that is not consistent with the specialization of activity or use-frequency models. If such a distorted pattern exists, whether it be "irrational," cultural, etc., it involves a conception (or "attitude") toward space, movement over space, accessibility and mobility, i.e., a conception that allows the paying of the costs involved in such movement. Admittedly, this "conception" is outside the ecological structure itself but it is integral to that structure. Transportation requires an expenditure of time and energy. Time, even if perceived as minimal, is an absolute with definite and specific physical limitations from the efficiency of the transportation facility. However, it is held that energy as an expenditure has both physical and cultural properties. Employment, a relatively constant movement, is repetitious over space. Repetition reduces the expenditure of energy and thus reduces the friction of space. Frequency of movement then is considered a factor in the expenditure of energy, i.e., in the costs paid. Such movement, at some point, received an evaluation but frequency of movement exists aside from any motivation or evaluation and performs as a part of the ecological organization, i.e., as an integral dimension of the concept of "friction of space." The frequency of movement therefore is postulated as operating as both an evaluative and ecological concept in spatial movement.

# CHAPTER 7

## QUALITATIVE ANALYSIS: THE ESSENCE THAT IS SHAFTSBURG

### A. Shaftsburg as a Rural-Urban Fringe Settlement

A case study, such as this one, can do nothing more than assume that this is not a unique situation. Therefore, it is suggested that this is but one description of a type of fringe development far from unique--a former rural trade center, i.e., an economically independent area, that has shifted for economic sustenance to an urban center of which it is now a "tributary" area. The underlying position throughout most descriptions of fringe is the transitional, dynamic nature of fringe development. To discover a mixture of supposedly contradictory, competing land uses and social structures seems to bring the temptation to assume change will continue. Such an assumption does not seem to be justified from ecological theory. Competition brought about by urban invasion does not reject a period of static conditions over time.[1] The case of Shaftsburg presents certain characteristics within the "fringe" designation that may or may not conform to the trend in social theory to define fringe as a "transitional" area.

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[1]Areal differentiation in terms of urban expansion, whether viewed theoretically as a cyclical or linear process, implies stages or levels of development and adjustment. Ecologically, adjustment at any stage or level does not necessitate immediate or even delayed succession as an inevitable process. Amos H. Hawley in an unpublished paper, Theory and Research in Human Ecology, n.d., discusses the contemporary theoretical uses of "succession" in ecology. He concludes that ". . . the failure to specify the criteria for the identification and verification of stages or cycles renders the succession theory of change at best an imprecise research tool." P. 21.

1. Transition

The study's conclusion does not warrant any prediction of extensive development, whether residential or industrial. Despite Shaftsburg's accessibility to the urban center, it is not in the path of immediate expansion of the center. The fact of mixed rural and urban land uses within the township confirms that change from rural to urban dominance may be taking place. However, it seems accurate to describe this land use pattern as a "static mixture" of land uses. A continuum, transitional mixture as an on-going process, which is a common interpretation applied to all peripheral areas, seems to be undemonstrable.

2. Selectivity

Although certain built-in costs limit residence in Shaftsburg, the income level indicates that a flexibility in residence location could be exercised. Within these limits of the ability to pay the necessary costs, the range is wide enough to allow a willingness to pay the costs of residence and transportation as a selective factor in Shaftsburg residence. A willingness to pay the costs, although outside the ecological structure itself, is indicative of the social structure. The nearness of relatives, the minimizing of locational costs, the rural-like or "country" atmosphere, etc., are factors operative that illustrate cultural decisions as part of the process of selection (see Determinants of Occupancy, Chapter 6).

3. Kinship

Kinship has recurred throughout the study as an important factor in the social structure of Shaftsburg.[2] Kinship appears to operate not only in this selection of Shaftsburg for residence but as a deterent to

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[2]At least fourteen respondent families are known to be interrelated.

migration from the area.[3] The mutual assistance among related residents could be an economic as well as a cultural factor.

4. Residential History

Shaftsburg's residents have lived in a total of 114 previous residences since marriage (see Table 6, Appendix B). Of this number almost two-thirds (63%) have been in the Shiawassee-Ingham County area. Only one in eight residences (12%) has been outside the state of Michigan. Three-fifths of these residences (60%) have been of a non-urban type (farm, country non-farm or village); the remainder were either in a city or suburb (see Table 7, Appendix B). In a digression from the "qualitative" analysis of this chapter, the relationship of these characteristics to residential mobility is investigated in Tables 77 and 78. Neither type or location (actually distance) of past residence seems to be effective as an indicator of residential mobility. Only five respondents (11%) have lived previously only in places outside the Shiawassee-Ingham County area. The pattern of residential locations and type of residences of those composing the Shaftsburg population indicate high mobility (and familiarity) within the two county area. Shaftsburg does not fit the conception of a type of fringe principally composed of marginal (socio-economic) in-migration.

## B. Perception of the Area

1. Perception of Change

Change is important in the outlook of residents. Descriptively, the attitudes expressed could be said to range from moderately optimistic to grandiose. In terms of "growth" no respondents thought

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[3]See Table 9, Appendix B, and The Study Area and Residence Selection, Chapter 6.

Table 77.--Past Residential Mobility by Type of Previous Residence*

| | | Non-Urban Only** | Urban Only*** | Both Urban and Non-Urban |
|---|---|---|---|---|
| Number of Residences Per Years Married ($\bar{X}$ = .292) | Higher | 6 | 5 | 6 |
| | Lower | 11 | 8 | 9 |
| Total | | 17 | 13 | 15 |
| | | $X^2$ = .07 | | |

*Based on 45 respondents who have lived outside Shaftsburg since marriage.

**Village, farm or country non-farm.

***City or suburb.

Table 78.--Past Residential Mobility by Place of Previous Residences*

| Number of Residences Per Years Married | Shiawassee or Ingham County Only | Other Than Shiawassee or Ingham County Only |
|---|---|---|
| .041 - .192 (low third) | 10 | 5 |
| .200 - .300 (middle third) | 9 | 6 |
| .308 - 1.000 (high third) | 7 | 8 |
| Total | 26 | 19 |
| $X^2$ = 1.35 p = .6 | | |

*Based on 45 respondents who have lived outside Shaftsburg since marriage.

Shaftsburg would get worse.[4] The responses ranged from "remain the same" to "big change." It seems the real significance of such predictions lies in that almost four-fifthe (79%) of Shaftsburg's families viewed their area as growing, changing. The anomaly of such a prediction is that, in looking at present-day Shaftsburg, respondents did not see this change taking place. To proceed a step further back in time, in describing the past history of Shaftsburg the perception was actually one of decline. The future was viewed in terms such as "big opportunity," "Lansing is coming this way," "grow slowly," "Lansing will swallow us up," "stay the same," "there will be a factory here," "we will be a part of Lansing" or "suburb of East Lansing," "grow tremendously," etc. Such predictions are interesting in the light of evaluations of the present stage of development.

Present-day or contemporary growth was considered almost exclusively in terms of the new school, highway improvement, or the new telephone system. Growth in terms of what was predicted for the next ten years was not considered as actually beginning to take place. More exactly, when asked to describe Shaftsburg; the descriptions were in terms of solitude, isolation, and insignificance, for examples, "all by itself," "dull," "sleepy little village," "friendly," "isn't progressive," "out in the country," "little village off the highway," etc. Shaftsburg then is looked upon as a rural, country-like village with intimate, face-to-face relationships and having a prosperous, growing future as a non-rural area.

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[4]Nine respondents (17%) thought the area would remain about the same in the next ten years; 26 (51%) saw slow, gradual change taking place during that period and 14 (27%) predicted rapid growth for the area. (Two respondents = don't know.)

2. The Perception of Local History

The history of Shaftsburg that was related by long-time residents, whether fact or legend, describes the village as isolated but "active" in the past. The period "before it was so easy to get to Lansing" is looked at as one of prosperity and commercial activity for the village. The "lumbering days," "when all the trains used to stop here" and "when all the farmers came to town" are identifications used to describe the trade center period in the history of Shaftsburg. The "decline" of Shaftsburg is explicitly attributed to certain factors that either happened or failed to happen: the building of the highway (thus, moving the "main road" out of Shaftsburg), no industry located here, refusal of people to subdivide land, rural free mail delivery, the end of the interurban railway from Owosso to Lansing (via Shaftsburg), and the closing of the railroad depot. Each of these factors is viewed as having necessitated travel out of Shaftsburg (e.g. for employment) or as having made travel to Shaftsburg unnecessary (e.g. rural free mail delivery). A causal relationship is not assigned among all these factors in diagnosing the decline. In fact, one of these factors is frequently expounded as the "key" to what happened. For example, one respondent said simply: "The day R.F.D. started, the town went down" or another would single out the point that "no factory ever located here" as the factor.[5]

Despite the apparent contradictions in the past, present and future perceptions of Shaftsburg, transportation as a symbol of accessibility is involved in the interpretation. The past fortunes of Shaftsburg are viewed as fluctuating with the available access to and from the village.

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[5]Interestingly, some ideas of what Shaftsburg was before it "went down" are rather glorified. One respondent mentioned "a factory once in Shaftsburg"; another, "about eight beer gardens here once"; another, "big hotel here"; and another mentioned "the great lumbering days here." However, there never was a factory in the village, more than three taverns at any one time, and the "big hotel" is a two-story brick building yet standing. Likewise, there is no evidence that lumbering ever was on a large scale in the area.

The railroad brought economic prosperity to the area but rail traffic declined as the highway provided accessibility to the city. The railroad and interurban had never generated commuting as a substitute for migration. Today, the ease of movement via improved highway facilities seems to compensate for the inadequacy of the present-day Shaftsburg. The predicted future prosperity of the area is again closely linked with the accessibility of the area to Lansing and, thus, a predicted flow of migrants and development to the area. Therefore, it seems that within the value structure, transportation (through its attributes) symbolizes a facility of change and of compensatory mobility.

3. Beliefs

During the course of the study certain beliefs, values, myths, etc., emerged in both the social and economic areas of behavior which, to the writer, form an integral part of the cultural perspective of the study area. It is difficult not to assume that these orientations could also be assigned to areas similar to Shaftsburg in social structure and in present and future economic conditions. The former rural trade center, now depleted, and dependent upon an advancing urbanized area is not atypical in Michigan, especially in the upper regions of the State.

"The place of political immunity." Consistent with the perception of Shaftsburg as "out in the country" is the belief that residence in such an area frees the dweller of political scrutiny. Taxes are low, such laws that are present in areas of high population density are nonexistent, and government itself appears distance and noninterfering. Attitudes range from a concept of township government as representing "good, sound" conservative government to a conception that township government is really not government at all. Such evaluations are contrasted to the urban and suburban areas where the "government is always after your money, higher taxes, etc." while out here "they let us alone."

"Progress is inevitable." Although the past was more prosperous for this area and not much is happening now in developing the area, the future is viewed as bringing change and growth. This attitude seems to stem from a belief that Lansing must expand, we are in the path of expansion, so it will come. We lived here and work in Lansing so it is inevitable that many more will do likewise. The prospect that urban expansion may by-pass or escape Shaftsburg[6] is not acceptable. To hold such an opinion is to show a lack of real foresight.

"The singular remedy." In a similar manner as the suggestion of a singular factor bringing the decline of Shaftsburg, a simple solution is proposed to "build up Shaftsburg" again. The panacea may be considered merely a reversal of one of the factors bringing decline, or, a new solution. A factory is suggested as "what Shaftsburg needs" or "if we had a couple more stores" people would be attracted to the area. Solutions for development are not viewed in an economic perspective encompassing several factors that are necessary for economic change.

"A belief in local loyalty." Closely related to many "keys" of growth and progress is a vague confidence in local unity. "If somebody here opened another store, we'd trade there." The assumption seems to be that people really want to trade locally anyway and that people in the area would feel obligated to be "loyal" toward efforts to promote and develop Shaftsburg. Such a belief persists despite the actuality of several stores opening and eventually going out of business in Shaftsburg within the past ten years.

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[6]In the light of present urban residential and industrial patterns this might well be the case (see Figure 3, page 52). These patterns are indicating established directions of residential, industrial and commercial development that are concentrated away from the Shaftsburg peripheral area. Such established patterns, in themselves, illustrate barriers to change in the study area.

"The ambiguity of leadership." Since government is viewed as distant and/or ineffective and the people in business are not considered aggressive, leadership becomes difficult to identify. "Progress" for the area is possible "if some of the people who run things" would take the initiative or "if those in charge would do something." Leadership is seldom explicitly identified but residents emphasize that it is there. The more explicit evaluations are negative ones such as "that township board will never do anything." One interpretation of such a belief complex might be that, in imputing leadership to inaccessible, unspecified persons, unknown to the respondent, he feels justified in that, since he does not know the people "who run things," he is freed of personal involvement and responsibility in initiating any sort of change that he might admire. Whatever the validity of this interpretation, the evasiveness of leadership is seen as functional in the local social structure.

"The inviolate leisure." The older and long-time residents criticize the younger people for never wanting to cooperate in "community" activities or in getting to know other people. They reflect on the "old days" when everyone did a lot of visiting in the evenings, there were dances every Saturday night, etc. From the interviewing itself, it was learned that "visiting" now is primarily a daytime, housewife activity among nearby neighbors. Evening or week-end interaction between husbands or even families is usually limited to "get-togethers" among relatives in the area. Non-work hours are reluctantly given over by the men to extra-home activities whether these are church, school, club, etc.[7] A tavern, which is a common social meeting place for such a male socio-economic class, does not exist in the village. A resentment toward the violation of non-work hours[8] is expressed as an infringement

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[7]The lack of organizational memberships supports this contention (see Table 36, Appendix B).

[8]Observable in the completion of the interview schedule.

on "their time" which may mean the time when "I get a chance to be with the family," "just sit down and relax," "getting a few things done around the house," etc. Extra-familial, "community" activities, even if not explicitly evaluated, are viewed as unattractive intrusions.

4. Toward a Patterning of Values

From these beliefs or values, a more generalized and comprehensive value orientation, chiefly economic,[9] can begin to be abstracted (or implied, i.e., not consciously expressed).[10] One observation within this orientation can be made. A persistent pattern of belief based on personal and/or collective economic optimism appears to operate in several specific, expressed beliefs. A faith in the economic system and in government to provide individual and collective prosperity or, at least, sustenance, both as a capability and a responsibility, is implicit. Also underlying the economic perspective of the area is a belief in "development" as a good per se. Development is understood to mean more of something--people, housing, industry, stores, etc. In equating such development with "progress," the mere occurrence of

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[9]Noel Gist provides another orientation for generalization: "Aside from economic motives, many have left the city because the open country represents, to them, an idealized way of life." Noel P. Gist, "The New Urban Fringe," Sociology and Social Research, XXXVI, No. 5 (May-June, 1952), p. 298.

[10]An analysis and ordering of value systems within a culture has been a major concern of anthropologists. Kluckhohn and Benedict, among others, have attempted to show that values can be operative in various social groups in patterns or configurations outside the awareness or consciousness of the participants. See Clyde Kluckhohn, "Patterning as Exemplified in Navaho Culture," in Language, Culture and Personality: Essays in Memory of Edward Sapir, Leslie Spier and others, editors (Menasha: Sapir Memorial Publication Fund, 1941), pp. 109-30; also Ruth Benedict, Patterns of Culture (New York: The New American Library, 1957). These works are classic studies of cultural patterning.

this development is of primary importance. The ordering or discouragement of certain types of development is viewed as backward, restrictive, hindering, etc. The relatively poor economic level of the township in general makes any type of invasion appear as a benefit. A concept of planning as a protection of present development against marginal development before the fact is uncommonly held among respondents and is viewed as an infringement on the individual's rights to dwell and live as he pleases.

## C. Life Style

Within the context of the suggestion earlier in this paper that fringe is an ambiguous concept, the "life style" of this study area does not conform to post investigations of "fringe" areas. If it is accepted that "fringe" means different things to different researchers, then such variations are to be expected. Perhaps such discrepancies could be alleviated by closer analytical study of the value systems or patterns of values underlying the variety of attitudes, beliefs and "choices" attributed to a range of spatial areas under the category of "fringe." One objective in the "quantitative and qualitative" description of this case study has been to illustrate the combination of movement characteristics, social choices and resident values present in a particular urban peripheral area.

The very perfusion and diversity of literature prohibits a comparative analysis of this study with the many previous descriptions of fringe. The validity of such a comparative approach in itself is questionable considering the imprecise delineation of spatial areas. However, the empirical data has provided a set of attitudes centering around visiting, leisure time, "neighboring" and community participation. This data seems compatible, as illustrating a life style, with particular

research generalizing to a classification of life styles. Bell, in an analysis of suburban life styles,[11] provides a classification which appears useful for this case study. The classification distinguishes life styles by main emphasis on family pursuits (familism), career pursuits (career) or consumption goals (consumership) in living patterns. The study area description supports the conclusion that "familism" would best categorize the life style implied in the attitudes observed. "By familism is meant a high valuation on family living; . . ."[12] The evidence in this study (Shaftsburg) did not produce high emphasis on career (upward mobility, high income or education, high community and organizational participation) or on consumership (high extra-familial expenditures or pursuits). On the other hand, activity is strongly concentrated in family occupations. Leisure time and visiting are family centered. Community, organizational and governmental participation, in general, are excluded. A strong familistic life style, as the expression of a value pattern, in certain peripheral areas may be an important, but overlooked, insight into understanding the more immediate and obvious problems of fringe area perception, adjustment, identification and residential choice.

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[11]Bell, op. cit., pp. 225-247.

[12]Ibid., p. 227.

# CHAPTER 8

# CONCLUSION

## A. The Urban Periphery and Fringe Research

There is a tendency in social theory to equate fringe and periphery. The danger and even the fallacy of the unrefined equating of what is primarily a concept of social organization and another which is principally an ecological delineation has been a problem of urban theory and research. In fringe research there is a necessity for closer definition of the universe in order to build a body of data and thus a thorough theoretical approach.

A geographical area on the urban periphery can be or become "fringe" under varying states and conditions. It is necessary to know these conditions. Primarily, this seems to be a problem of ecology and of the utilization of available ecological theory. This is a matter of knowing the demographic characteristics of the population, understanding the specific peripheral area, including its history and past relationship to the urban center, and in tracing the area's development over time. This development is conceptualized through basic ecological concepts of invasion, succession, competition, migration, etc. Then, it can be asked, what kind of peripheral area is present? Fundamentally, this is a problem of movement as a pattern of interaction. Such an obvious approach, perhaps neglected, seems to be a valid empirical, inductive methodological tool for social research. Then, the social structure as it is studied has an ecological context, so to speak. Frequently, fringe (as a study of social structure) is used assuming invasion, competition (perhaps, conflict), disorganization ("anomie"), degeneracy, etc. Certainly these phenomena are observable in the particular case. However, this is not a

deductive procedure to be divorced of ecological data. Ecological theory does not demand that periphery (or fringe) be conceived and defined in terms of invasion as a sine qua non condition.[1] Expansion of the urban center as an orbit of economic interdependence can connote both or either centrifugal or centripetal movements[2] when the periphery is considered as the "frontier" of this orbit.

If expansion is conceived within such a framework, then a rural-urban continuum as a model breaks down. A gradient invasion, geographic or ecological, is not always the case. The paying of the costs involved in spatial movement cannot be arbitrarily imposed on varying geographic and topographic, land use, ecological and political conditions. To hold all such conditions constant makes a rural-urban continuum, at the least, a misleading construct in guiding empirical research.[3]

## B. The Case Study

This study has tried to observe and describe one peripheral area according to the methodological principles outlined above. Shaftsburg, an illustration, it is proposed, of one type of fringe, is a spatial entity defined by location and movement--movement possessing a pattern--over an area having a specific history and development pattern, i.e., factors which are integral to present movement and behavior organization.

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[1]Diekema, op. cit., treated this issue in terms of migration and commuting.

[2]Hawley discusses commuting as a substitute for migration. See Hawley, Theory and Research . . . , op. cit., p. 28.

[3]Kurtz, op. cit., rejects the conceptual validity of a rural-urban continuum (see pp. 8-11).

Adjustment, selectivity and beliefs, as expressing a culture, have been interpreted as modifying this movement pattern.

Although a classification of fringe types is not within the scope of this paper, a cursory review of Shaftsburg points out the inadequacy of equating periphery with fringe as implying parallel sets of characteristics. Shaftsburg is a relatively isolated, unincorporated residential village surrounded by principally idle farm land, dependent on Lansing for employment, income (80% of gross income), goods and services. The area is characterized primarily by centripetal movement of principally a non-urban population in residential history possessing strong kinship ties to the area. Shaftsburg persists, not significantly as a recipient of migration and invasion from the urban center, but as a substitute for migration of a population possessing kinship, premarital and cultural ties to the area.[4] Social disorganization, although increasingly generated by a yet minority of new migrants, is predominantly a problem of conflicting values between generations in the interpretation of social integration and political involvement within the area. Shaftsburg, until about 1935, was a rural trade and service center supplying a marginal agricultural area, an area topographically limited for agricultural development. The automobile and especially the new Lansing-Flint highway in the early nineteen-thirties provided accessibility to an industrial center and, consequently, the gradual recession of a local agricultural and commercial economy. The classification of Shaftsburg as fringe rests in a particular economic transition brought about by a series of interrelated and interdependent conditions.

From this study it is proposed for further consideration (on the evidence of the hypotheses) that the employment pattern will be a reliable

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[4]Shaftsburg's continued persistence for some time as such an area is highly probable. Transition, as a rural-urban phenomenon, cannot be consistently attributed to this and similar areas of urban dependence.

measurement of the trading area in peripheral movement. The hypotheses support the proposition that employment location will modify a frequency-use pattern of goods and services purchasing. The data did not verify that nearby facilities would be used for frequently needed goods or services if employment (even if a greater distance) was via opposing routes and, especially, if toward or in the urban center.

An implication contained within this study, but, however, an hypothesis undemonstrable within its scope, is a rejection of the position that the urban center, despite a declining employment level, will generate increased movement and consumption in the center if facilities for services, goods, entertainment, etc. are maintained or improved (such as civic centers, shopping plazas, etc.). To the contrary, it is proposed that as employment patterns are revised away from the urban center to the industrial or "satellite" suburbs, the ceasing of frequent, constant trips to the center (formerly necessitated by work) will bring a general decline in urban center interaction from the residential suburb and periphery. The willingness to pay the costs decreases because, as this paper proposes, there is an increased expenditure of energy (costs) as such trips become less frequent.

## C. Fringe: An Inadequate Concept

Fringe has been used to imply several, not necessarily co-existent, abstractions merely as relative to the urban center. Urbanization has been conveniently conceived as implying graded, adjacent areas of development increasingly incorporating a mixture of rural-urban orientation and values. Prediction has too easily been prone to assuming gradual and inevitable transition within the urban orbit in land use succession and in social structure change. The conclusion here is that it is a misconception to use "fringe" as implying a continuum incorporating a contiguous

gradation of characteristics of urban to rural--economically, ecologically or culturally. Shaftsburg, the case at hand, illustrated economic transition not accompanied by simultaneous, relatively equal transition in social and political structure. The loose application of fringe as a residual category has, by that fact, made this concept of limited utility in rural-urban theory.

Fringe research must sharply delineate what relationships are present between the urban and rural and, once this is determined, what other economic, ecological or social conditions can be assumed. Fringe, an inadequate concept, has been used to label "fringe" studies examining the periphery having kinship only in being peripheral. Universality and replication, basic to scientific research, can be approached only by more detailed and refined definition and classification of the urban periphery.

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# APPENDICES

# APPENDIX A

## THEORETICAL NOTE: THE STUDY OF URBANIZATION

Even a crude synthesis of sociological theory, pertinent to a particular study, requires the accumulation of certain insights. In a sense, these insights are preprequisites to handling and assimilating any explanation of behavior and fitting this explanation into a workable composite of theory.[1] The problem of understanding the non-urban community, i.e., small, local community (a limited, incomplete, but it seems, sufficient definition for the purpose at hand) must be included in this theory of urban expansion, urban change, etc. Within this scheme the current concept of "fringe" must be brought into question.

Particular methodological prerequisites seem to be readily apparent. First of all, understanding the small community and the change over time that occurs cannot be properly understood or explained divorced of an urban setting. Deliberately, then, the small community as a completely "closed system" (if and when it existed) is not within the realm of consideration here. The statics and dynamics of such a closed system (with all behavior internally explained) is considered as abstracted from the question of urban theory at hand. If such an abstraction is not valid then the definition (and existence) of any "closed system" remains in question. From the present point in time, the maintenance of any "closed system" whether local or national or regional can be seriously questioned.

The second point that should be kept in mind in comprehending available urban theory is the lack of an important characteristic of any scientific explanation; i.e., universality. This is the central theme that Sjoberg, in a recent article,[2] was trying to convey. Urban theory has failed to be sufficiently comparative, i.e., cross-cultural, and as a

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[1]For a basic and brief introduction to the study of urbanization see National Resources Committee, "The Process of Urbanization," in Reader in Urban Sociology, Paul K. Hatt and Albert J. Reiss, Jr., editors (Glencoe: The Free Press, 1951), pp. 133-146.

[2]Sjoberg, op. cit.

consequence, lacking in universal application. Urban theory that has been developed and based on generalization and research in the United States, Great Britain, France, Germany, etc., must be considered as such, i.e., theory developed in specific areas each with a particular culture, history, geography, resources, etc. Admittedly, cross-cultural studies have been made but few would consider the present state of research as being sufficiently developed to support a general cross-cultural theory.

A third point that should be kept in mind in an analysis of urban theory is the rather obvious point that this theory has been developed over a definite time span and under particular, varying conditions of research--political, social, and academic. On the other hand, not to view urban theory historically is to avoid a perspective that will hinder the acquiring of a sound composite of urban theory, or of any sociological theory for that matter. Perhaps to elaborate a point that Sjoberg makes in concluding his article[3] concerning obstacles to research in urban sociology, urban theory, considered historically, will bring to light these obstacles or conditions as existing throughout theoretical research. (Perhaps all research is confronted with these problem-solving approaches and the exigencies of bureaucratic needs and pressures.) To conceive our present accumulation of urban theory as not influenced by particular research, bounded to definite geographic areas, or by governmental and agency needs and pressures, or by individual[4] or institutional "empire building," is sufficient to question the usefulness of any composite of theory thus assimilated. For example, the ecological theory of Park, Burgess, etc., cannot be viewed with any sound theoretical

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[3]Ibid., pp. 356-359.

[4]Reinhard Bendix, Social Science and the Distrust of Reason, (Berkley: University of California, 1951). Publication Series in Sociology and Social Institutions, Vol. I, No. 1. Bendix makes the point of individual "pet theories."

perspective unless it is seen in its historical setting, its later criticism, and its continuous refinement. To reject all "human ecology" as merely another form of determinism and a false analogy, would be as naive as it would be to accept such a variable as an all-inclusive explanatory principle of human behavior. The gradual adjustment of ecological theory to social theory in general, must be seen historically as a tentative explanation of urban change in a particular geographic situation with a limited refinement in the body of correlative social theory available at that specific time.

A fourth point, that is offered as a prerequisite to analysis, is suggested in the example stated above. Every hypothesis put forth suggesting some explanation of behavior, by its very nature, is an abstraction from that behavior. Behavior is observed, change is noted; variables important in this change seem manifest to the observer, and apparent patterns of behavior and its changing character are thus abstracted by the social scientist. In the process of abstracting relationships and patterns from human behavior (and, for some, thus "building" theory) the social scientist must inevitably be selective in the abstractive relationships he constructs. In this process, he must concentrate on variables he sees as important, generally, at the expense of other variables influencing human conduct which he may or may not consider equally worthwhile. The human ecologist is susceptible to understating, or neglecting, variables that do not fit his scheme. To accuse him then of ignoring the impact of sentiment, power, culture, etc., in his theoretical scheme can regress to merely a matter of diagnosing his intention. The social theorist is continually faced with the dilemma of asserting a hypothesis or series of hypotheses centering around a variable or set of variables at the expense of not giving "equal time" to other factors that may also be assumed to be effective in isolating operative elements in behavior analysis. The refinement of social theory rests

in the synthesis of those variables that are applicable to an area of social research. Consequently, in the study of urbanization in general or in the study of one particular aspect of urbanization (as in this particular case study undertaken here, of the effects of urban expansion on the small, rural community), the selectiveness from a body of several possible and perhaps valid variables must be viewed in perspective. Simply, there is a selectiveness in variables from which hypothesis construction must be extracted. The decision to approach urbanization in the rural-urban fringe primarily through spatial organization narrows the range of variables to be utilized but also brings inherent problems relative to the nature of space that cannot be avoided.[5] This study of urbanization was formed upon a structure that was intended to be selective in scope but also cognizant of the "prerequisites" outlined herein.

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[5]A recent study of occupational residence patterns was faced with this problem. See Arnold S. Feldman and Charles Tilly, "The Interaction of Social and Physical Space," American Sociological Review, XXV, No. 6 (December 1960), pp. 877-84.

# APPENDIX B

# TABLES

Table 2.--Population By Age Group (Percentage)

| Age Group | Shaftsburg | Michigan* |
|---|---|---|
| Under 5 | 15.79 | 12.46 |
| 5 - 13 | 28.71 | 18.64 |
| 14 - 17 | 5.74 | 6.12 |
| 18 - 20 | 1.43 | 3.62 |
| 21 - 44 | 32.54 | 32.02 |
| 45 - 64 | 9.57 | 19.59 |
| 65 and over | 6.22 | 7.55 |
| Total | 100.00 | 100.00 |

*Derived from "Estimates of the Civilian Population of Michigan and U.S. by Broad Age Group," July 1, 1958, United States Bureau of the Census, Current Population Reports, Series P-25, No. 214, March 24, 1960.

Table 3.--Tenure Status

| Tenure Status | Percent |
|---|---|
| Renting | 8 |
| Buying | 33 |
| Own | 59 |
| Total | 100 (N = 51) |

Table 4.--Length of Residence In Shaftsburg (Years)

| Years | Percent |
|---|---|
| 4 or less | 35 |
| 5 - 10 | 31 |
| 11 - 20 | 24 |
| More than 20 | 10 |
| Total | 100 (N = 51) |
| Median: 7.8 years | |
| Mean: 9.7 years | |

Table 5.--Lived as a Family Outside of Shaftsburg Since Marriage

| | Percent |
|---|---|
| Yes | 88 |
| No | 12 |
| Total | 100 (N = 51) |

Table 6.*--Places of Previous Residence

| Previous Residences | Percent |
|---|---|
| Woodhull Township (Shaftsburg) | 18 |
| Other Shiawassee County | 15 |
| Lansing - East Lansing | 17 |
| Other Ingham County | 14 |
| Other Metropolitan Michigan City | 6 |
| Other Michigan | 18 |
| Out of State | 12 |
| Total | 100 (N = 114) |

*This table is based on the 45 respondents who have lived outside Shaftsburg since marriage. Multiple answers.

Table 7.*--Previous Residences (Type of Community)

| Type of Community | Percent |
|---|---|
| City | 33 |
| Country (non-farm) | 21 |
| Farm | 20 |
| Village | 19 |
| Suburb | 7 |
| Total | 100 (N = 114) |

*This table is based on the 45 respondents who have lived outside Shaftsburg since marriage. Multiple answers.

Table 8.--Reasons for Moving from Previous Residences*

| Reasons | Percent |
|---|---|
| Employment Related (lack of work, employment opportunity elsewhere) | 29 |
| Residence Related (unsatisfactory, forced to move, etc.) | 23 |
| Tenure Related (wanted to buy or build house) | 16 |
| Health Related (change of climate, etc.) | 9 |
| Family Related (to be nearer relatives, death in family, etc.) | 7 |
| Other (military service, financial loss or gain, etc.) | 16 |
| Total | 100 (N = 121) |

*This table is based on the 45 respondents who have lived outside Shaftsburg since marriage. Multiple answers.

Table 9.--Reasons Shaftsburg Selected for Residence*

| Reasons | Percent |
|---|---|
| Financial (house "cheap," low payments, etc.) | 32 |
| Family (relatives living there, lived here before marriage) | 27 |
| Liked Shaftsburg ("out of city," "country like," etc.) | 12 |
| Accessibility to Work from Shaftsburg | 10 |
| Other (low taxes, school, employment in Shaftsburg, etc.) | 19 |
| Total | 100 (N = 79) |

*This table is based on the 45 respondents who have lived outside Shaftsburg since marriage. Multiple answers.

Table 10.--Attitude If Necessary to Move from Shaftsburg

| Attitude | Percent |
|---|---|
| Negative to Leaving | 55 |
| Indifferent to Leaving | 23 |
| Positive to Leaving | 22 |
| Total | 100 (N = 51) |

Table 11.--Planning to Leave Shaftsburg in Future

| Plan to Leave | Percent |
|---|---|
| No | 73 |
| Yes | 23 |
| Don't Know | 4 |
| Total | 100 (N = 51) |

Table 12.--Place of Work of Head of Household*

| Place | Percent |
|---|---|
| Lansing - East Lansing | 71 |
| Shaftsburg | 18 |
| Other (Owosso, Haslett, Perry, Williamston, Port Huron) | 11 |
| Total | 100 (N = 45) |

*This table is based on the 45 heads of household who are employed.

Table 13.--Place of Work of Spouse

| Place | Percent |
|---|---|
| Shaftsburg | 67 |
| Lansing | 22 |
| Owosso | 11 |
| Total | 100 (N = 9) |

Table 14.--Type of Work of Head of Household*

| Type | Percent |
|---|---|
| Professional and kindred workers | 2 |
| Proprietors, managers and officials | 16 |
| Clerical, sales and kindred workers | 11 |
| Craftsmen, foremen and kindred | 35 |
| Operatives and kindred | 27 |
| Unskilled laborers | 2 |
| Service workers | 7 |
| Farmers | 0 |
| Total | 100 (N = 45) |

*This table is based on the 45 heads of household who are employed.

Table 15.--Locations of Past Jobs of All Family Members While Living in Shaftsburg*

| Location | Percent |
|---|---|
| Lansing - East Lansing | 65 |
| Other Ingham County | 3 |
| Woodhull Township (Shaftsburg) | 8 |
| Other Shiawassee County | 20 |
| Other | 4 |
| Total | 100 (N = 71) |

*This table is based on the 43 persons who indicated that they have held past employment. Multiple answers.

Table 16.--Education: Head of Household

| Last Grade Completed | This Study (Percent) | Kurtz Study* (Percent) |
|---|---|---|
| 7th grade or less | 0.0 | 7.7 |
| 8th grade | 21.6 | 26.5 |
| 1st to 3rd grade of high school | 33.3 | 18.2 |
| High School Graduate | 33.3 | 28.8 |
| Some College | 5.9 | 5.6 |
| College Graduate or over | 5.9 | 7.4 |
| No answer | 0.0 | 5.8 |
| Total | 100.0 (N = 51) | 100.0 (N = 189) |
| Median (Kurtz): 3.13 years of high school | | |
| Median (this study): 3.69 years of high school | | |

*Derived from Kurtz, op. cit., p. 200.

Table 17.--Yearly Income: Heads of Household (1958)

| Income (in dollars) | Percent |
|---|---|
| Less than 1000 | 7 |
| 1000 - 2000 | 6 |
| 2000 - 3000 | 6 |
| 3000 - 4000 | 11 |
| 4000 - 5000 | 31 |
| 5000 - 6000 | 21 |
| 6000 - 8000 | 6 |
| 8000 - 10,000 | 4 |
| 10,000 - 20,000 | 0 |
| Over 20,000 | 2 |
| No answer | 6 |
| Total | 100 (N = 51) |
| Median: $4,656 | |

Table 18.--Yearly Income: Family (1958) (Heads of Household and Other)

| Income (in dollars) | Percent |
|---|---|
| Less than 1000 | 2 |
| 1000 - 2000 | 6 |
| 2000 - 3000 | 2 |
| 3000 - 4000 | 15 |
| 4000 - 5000 | 27 |
| 5000 - 6000 | 14 |
| 6000 - 8000 | 18 |
| 8000 - 10,000 | 6 |
| 10,000 - 15,000 | 2 |
| 15,000 - 20,000 | 0 |
| Over 20,000 | 2 |
| No answer | 6 |
| Total | 100 (N = 51) |
| Median: $4,786 | |

Table 19.--Income: Head of Household by Place of Employment

| Income (in dollars) | Shaftsburg | Lansing | Other | Retired |
|---|---|---|---|---|
| Less than 1000 | 2 | - | - | 2 |
| 1000 - 2000 | 1 | - | 1 | 1 |
| 2000 - 3000 | - | - | - | 2 |
| 3000 - 4000 | 1 | 3 | 2 | - |
| 4000 - 5000 | 1 | 14 | 1 | - |
| 5000 - 6000 | - | 10 | 1 | - |
| 6000 - 8000 | 1 | 2 | - | - |
| 8000 - 10,000 | - | 2 | - | - |
| 10,000 - 20,000 | - | - | - | - |
| Over 20,000 | - | 1 | - | - |
| No answer | 2 | - | 1 | - |
| Total | 8 | 32 | 6 | 5 |

Table 20.--Location of Doctor

| Location | Percent |
|---|---|
| Lansing - East Lansing | 39 |
| Williamston | 21 |
| Woodhull Township (Shaftsburg) | 12 |
| Owosso | 6 |
| Perry | 6 |
| Perry, Lansing and/or Owosso | 6 |
| Other | 6 |
| No answer | 4 |
| Total | 100 (N = 51) |

Table 21.--Location of Lawyer (when needed)

| Location | Percent |
|---|---|
| Lansing - East Lansing | 59 |
| Owosso | 25 |
| Corunna (Shiawassee County) | 10 |
| Owosso - Lansing | 2 |
| No Answer - Don't Know | 4 |
| Total | 100 (N = 51) |

Table 22.--Location of Hospital (when needed)

| Location | Percent |
|---|---|
| Lansing - East Lansing | 72 |
| Owosso | 14 |
| Lansing, Owosso and/or Ann Arbor | 4 |
| Other | 4 |
| No Answer - Don't Know | 6 |
| Total | 100 (N = 51) |

Table 23.--Location of Dentist (when needed)

| Location | Percent |
|---|---|
| Williamston | 53 |
| Lansing - East Lansing | 27 |
| Owosso | 6 |
| Other | 10 |
| No Answer - Don't Know | 4 |
| Total | 100 (N = 51) |

Table 24.--Obtain Credit (when needed)

| Location | Percent |
|---|---|
| Perry | 47 |
| Lansing - East Lansing | 33 |
| Other | 16 |
| No Answer - Don't Know | 4 |
| Total | 100 (N = 51) |

Table 25.--Location of Automobile Service

| Location | Percent |
|---|---|
| Woodhull Township (Shaftsburg) | 49 |
| Lansing - East Lansing | 25 |
| Owosso | 6 |
| Other | 12 |
| No Answer - None | 8 |
| Total | 100 (N = 51) |

Table 26.--Location of Meat and Grocery Purchasing

| Location | Percent |
|---|---|
| Perry | 34 |
| Lansing - East Lansing | 29 |
| Woodhull Township (Shaftsburg) | 16 |
| Other | 16 |
| No Answer - Don't Know - None | 5 |
| Total | 100 (N = 102)* |

*This table is based on a total of two responses from each of the 51 respondents.

Table 27.--Location of Drug and Medicine, Clothing, Appliances, Furniture, Hardware Purchasing and Place of Last Car Purchase

| Location | Percent |
|---|---|
| Lansing - East Lansing | 51 |
| Perry | 21 |
| Williamston | 7 |
| Owosso | 6 |
| Other | 10 |
| No Answer - Don't Know - None | 5 |
| Total | 100 (N = 306)* |

*This table is based on a total of six responses from each of the 51 respondents.

Table 28.--Location of Bank

| Location | Percent |
|---|---|
| Perry | 53 |
| Lansing - East Lansing | 25 |
| Morrice | 6 |
| Other | 12 |
| No Answer - None | 4 |
| Total | 100 (N = 51) |

Table 29.--Opinion of the Way Township Board Is Doing Its Job

| Opinion | Percent |
|---|---|
| Good Job | 31 |
| Satisfactory Job | 26 |
| Unsatisfactory Job | 12 |
| Poor Job | 4 |
| An Answer - Don't Know | 27 |
| Total | 100 (N = 51) |

Table 30.--Opinion of Effects of Township Government On Your Life in Shaftsburg

| Opinion | Percent |
|---|---|
| Large Effect | 18 |
| Some Effect | 35 |
| No Effect | 29 |
| No Answer - Don't Know | 18 |
| Total | 100 (N = 51) |

Table 31.--Attendance at Township Board Meetings While Living in Shaftsburg (Not as a Board Member)

| Number Attended | Percent |
|---|---|
| None | 45 |
| One - Three | 23 |
| Four - Six | 14 |
| Seven - Ten | 6 |
| Eleven or more | 8 |
| No Answer | 4 |
| Total | 100 (N = 51) |

Table 32.--Knowledge (By Name) of Township Board Members

| Number Able to Name | Percent |
|---|---|
| None | 18 |
| One | 18 |
| Two | 17 |
| Three | 17 |
| Four | 10 |
| Five (All) | 16 |
| No Answer | 4 |
| Total | 100 (N = 51) |

Table 33.--Visiting in Shaftsburg (Five families with whom visit the most): How Did Families Meet (Initial Contact)

| Initial Contact | Percent |
|---|---|
| Neighbors (adjacent residents, in immediate vicinity including relatives within this area) | 64 |
| Other Relatives | 11 |
| Through Business | 9 |
| Through Church | 5 |
| Through Organization (PTA, Boy Scouts, etc.) | 4 |
| Other (through work, former neighbors, etc.) | 7 |
| Total | 100 (N = 205)* |

*This table is based on the 48 families who indicated that they did visit in Shaftsburg. Responses are multiple (1-5 responses per family). Two families = no answer.

Table 34.--Visiting Outside Shaftsburg: How Did Families Meet (Initial Contact)

| Initial Contact | Percent |
|---|---|
| Relatives | 59 |
| Former Neighbor | 9 |
| Fellow Worker | 8 |
| School (high school, college friends) | 6 |
| Former Fellow Worker | 4 |
| Other (through church, relatives, club, army, business, etc.) | 13 |
| Don't Know | 1 |
| Total | 100 (N = 434)* |

*This table is based on answers from 48 respondents. Multiple answers. Three families = no answer.

Table 35.--Locations of Visiting Contacts Outside Shaftsburg

| Location | Percent |
|---|---|
| Lansing - East Lansing | 38 |
| Williamston | 8 |
| Other Ingham County | 8 |
| Perry | 8 |
| Woodhull Township (Shaftsburg) | 7 |
| Other Shiawassee County | 10 |
| Other Metropolitan Michigan City | 5 |
| Clinton County | 4 |
| Other Michigan | 11 |
| Out of State | 1 |
| Total | 100 (N = 434)* |

*This table is based on answers from 48 respondents. Multiple answers. Three families = no answer.

Table 36.--Organizational Memberships: Males Over Eighteen Years of Age (Type of Organization)

| Type of Organization | Percent | Average Number of Meetings Attended Last Year (1958) |
|---|---|---|
| Professional and Occupational (labor unions 41%) | 47 | 5.9 |
| Fraternal and Social | 21 | 3.5 |
| Education (P.T.A.) | 19 | 6.6 |
| Youth Serving (Boy-Girl Scouts) | 10 | 11.8 |
| Church Related | 2 | 12.0 |
| Political | 1 | 2.0 |
| Total | 100 (N = 58)* | |

*This table is based on 36 respondents. Seven families = no memberships; two families = no answer. Multiple answers.

Table 37.--Organizational Memberships: Males Over Eighteen Years of Age (Location)

| Location | Percent |
|---|---|
| Lansing - East Lansing | 53 |
| Shaftsburg | 31 |
| Perry | 7 |
| Other | 9 |
| Total | 100 (N = 58)* |

*See Table 36.

Table 38.--Organizational Memberships: Females Over Eighteen Years of Age (Type of Organization)

| Type of Organization | Percent | Average Number of Meetings Attended Last Year (1958) |
|---|---|---|
| Church Related | 39 | 13.4 |
| Education (P.T.A. | 39 | 6.3 |
| Fraternal (Auxiliary) and Social | 17 | 9.8 |
| Political | 5 | .5 |
| Total | 100 (N = 36)* | |

*This table is based on 27 respondents. Multiple answers.

Table 39.--Organizational Memberships: Females Over Eighteen Years of Age (Location)

| Location | Percent |
|---|---|
| Shaftsburg | 75 |
| Lansing | 8 |
| Other | 17 |
| Total | 100 (N = 36)* |

*See Table 38.

# APPENDIX C

## INTERVIEW SCHEDULE

SHAFTSBURG INTERVIEW

Residence Classification: Single Family _____ Multiple Dwelling _____

Multiple Use _____

Farm Operation: Part-time _____ Commercial _____

Good (morning, afternoon). My name is _____, and I am from Michigan State University. We are doing a study of the Shaftsburg community. You have been selected as one of the families to be interviewed. I would like to talk to you about some of your impressions of community life in Shaftsburg. Your answers will be strictly confidential and will be used for research purposes only.

1. Would you tell me how many people are living here? _____

2. We would like to know how each of these people is related to the head of the household (such as wife, son, daughter, parent, lodger, etc.) and their age, education, and marital status (married, single, widowed, Divorced).

| Relationship to Head of Household | Age | Sex | Education (highest grade) | Marital Status (married: no. of years.) |
|---|---|---|---|---|
| 1. HEAD | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |

3. How long have you lived as a family in Shaftsburg? _____

4. Are you renting _____, buying (mortgage, etc.) _____, or do you own your home? _____

5. Have you and your family lived some place other than Shaftsburg?

   Yes _____ No _____ (if answer is no, skip to question 8)

6. (If answer to question 5 is yes) Would you please tell me the places where you have lived (since you have been married) (since this marriage) and about how long you lived in each place?

| Place | Type of community (city, village, farm, suburb) | Dates | Why Moved |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |

(continue on back of sheet)

7. (If answer to question 5 is yes) Would you tell me why you moved from each of these places? (enter answer in table, question 6)

8. Looking back, could you tell me why at the time you moved you chose to live in Shaftsburg?

9. If, for some reason, you had to leave Shaftsburg, how would you feel about it?

10. Why would you feel this way?

11. Do you plan right now to leave Shaftsburg some day?

    Yes _____ No _____ (If answer is no, skip to question 14)

    Don't Know _____ (If answer is DK, skip to question 14)

12. (If answer to question 11 is yes) About when do you plan to do this?

13. (If answer to question 11 is yes)

    a. Where do you plan to live?_____

    b. Why do you plan to move?

14. Is there another community in the area where you would prefer to live?

    Yes _____ Where ? _____

    No _____ (If answer is no, skip to question 16)

    Don't Know _____ (If answer is DK, skip to question 16)

15. (If answer to 14 is yes) Why would you prefer to live in

    _____?

16. Where are members of your (family) (household) employed?

| Person | Where (name of employer and place) | How Long | Kind of work (full/part time) |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |

(continue on back of sheet)

17. What kinds of work do they do? (Enter answers in table, quest. 16)

18. While living here in Shaftsburg, have members of your (family) (household) worked at other jobs or in other places than their present employment?

| Person | Where (name of employer and place) | How Long | Kind of work (full/part time) |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

(continue on back of sheet)

19. If someone would ask you who you know in Shaftsburg, who would be the first five people you would think of?

    1. _____ 4. _____

    2. _____ 5. _____

    3. _____

20. If you were stopped on the street by a complete stranger and asked to describe Shaftsburg, what would you tell him about the community? (probe)

21. In thinking back over the time you have been in Shaftsburg, could you recall the things that have happened (important events, decisions, changes, etc.) that you think have been important in making Shaftsburg what it is today? (PROBE)

22. In most communities the old-time residents talk about certain things that have taken place in the community. Are there some such events or things that have happened that you have heard from people who live in Shaftsburg? (PROBE)

23. Are there certain services or improvements that you would like to have in Shaftsburg?

24. Years ago, in the old hotel building and later at other times, there has been a tavern in Shaftsburg. What do you think about a tavern again being established in Shaftsburg?

25. Have you ever attended township board meetings in Shaftsburg?

Yes _____ No _____ DK or No Answer _____

26. (If answer to question 25 is yes) To about how many would you say you have gone? (Not as a board member)

_____

27. a. Do you know anyone on the township board? Yes _____ No _____

b. (If answer to 27a is yes) Can you give me the names of any of the members of the township board?

1. _____ 4. _____

2. _____ 5. _____

3. _____

28. What is your opinion of the way the township board is doing its job?

29. What effects do you think the township government has on your life here in Shaftsburg?

30. Do you happen to know the name of the county seat of this county?

31. What newspapers do you take? (PROBE for places of past residence)

32. What are your impressions of the development that has taken place in the township in the past few years?

33. How do you think the development in this area compares with that in other areas around here?

34. To some people visiting means going to other peoples' homes for an evening, to others it means just talking in the backyard, dropping in for coffee, etc. Would you tell me the five people with whom you visit most in Shaftsburg?

| Person or Family | Relationship | How long lived in Shaftsburg | Occupation |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |

35. How long has each of these people lived in Shaftsburg? (Enter answers in table, question 34)

36. Where do the people live with whom you visit outside of Shaftsburg?

| Place (each person or family) | Relationship | Time Known | Occupation |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |

(continue on back of sheet)

37. What is your relationship with each of the people you visit both those living in Shaftsburg and outside Shaftsburg? (relative, fellow worker, former fellow worker, neighbor, former neighbor, fellow church member, former fellow church member, etc.) (enter answers in appropriate table, questions 34 and 36)

38. What is the occupation of each of the people you visit both those living in Shaftsburg and outside Shaftsburg? (Enter answers in appropriate table, questions 34 and 36.)

39. About how long have you known each of the people with whom you visit outside of Shaftsburg? (Enter answers in table, question 36)

40. (If visiting is completely outside of Shaftsburg) Do you think that your visiting will be with the same people in the future?

    Yes _____ No _____ Don't Know or No Answer _____

    Why do you think this will be so?

41. Looking ahead what do you think will happen to this area in the next ten years?

(QUESTIONS 42-47: Change = last change while living in Shaftsburg)

42. Where does your doctor have his office? _____

    Has this changed? _____
    (place-when)

43. Where do you buy your drugs and medicine? _____

    Has this changed? _____
    (place-when)

44. Where do you go for hospital care? _____

Has this changed? _____
(place-when)

45. Where does your dentist have his office? _____

Has this changed? _____
(place-when)

46. Where would you go if you needed a lawyer? _____

Has this changed? _____
(place-when)

47. Where do you usually go to church? _____
(PLACE - DENOMINATION)

Has this changed? _____
(PLACE - WHEN - DENOMINATION)

48. Where do your children go to school? (If none, skip to question 49.)

| Child | Where |
|---|---|
| 1. | |
| 2. | |
| 3. | |
| 4. | |

(continue on back of sheet)

49. Where do you most often buy the following items or obtain these services?

Meat _____ Fuel _____

Groceries _____ Auto service _____

Clothing _____ Banking _____

Appliances _____ Credit _____

Furniture _____ Hardware _____

Where did you buy your last car? _____

50. Except for vacations, where do the members of your family usually go for entertainment or recreation?

| Person | Place |
|---|---|
| 1. | |
| 2. | |
| 3. | |
| 4. | |
| 5. | |

(continue on back of sheet)

51. What are the average number of trips per week that members of your family make to:

Lansing _____ Owosso _____ Perry _____ Laingsburg _____ Williamston _____

52. When making these various trips, what kinds of activity do you try to do together on one trip and how do you travel (alone, family, with friends or workers, etc.)

| Work | Visiting | Shop-ping | Profes-sional | Orgn. Meetings | Children to school | Enter-tainment | Other |
|---|---|---|---|---|---|---|---|
| Work | | | | | | | |
| Visiting | | | | | | | |
| Shopping | | | | | | | |
| Profes-sional | | | | | | | |
| Orgn. Meetings | | | | | | | |
| Children to school | | | | | | | |
| Enter-tainment | | | | | | | |
| Other | | | | | | | |

53. To what organizations do members of your family belong? (Enter answers in Supplement A)

54. INCOME (Enter answers in Supplement B)

## SUPPLEMENT A

## ORGANIZATION MEMBERSHIP

| ORGANIZATION | Member (Who) | Officer (Past or present) | No. of Meetings Attended Past Year | Location |
|---|---|---|---|---|
| 1. Church | | | | |
| 2. Parent-Teacher Association | | | | |
| 3. Political Party (worker) | | | | |
| 4. Union | | | | |
| 5. Professional Organizations | | | | |
| 6. Rotary | | | | |
| 7. Kiwanis | | | | |
| 8. Optimist | | | | |
| 9. Lions | | | | |
| 10. Masons | | | | |
| 11. Moose | | | | |
| 12. Elks | | | | |
| 13. Odd Fellows | | | | |
| 14. Eagles | | | | |
| 15. American Legion | | | | |
| 16. Farm Bureau | | | | |
| 17. Farm Grange | | | | |
| 18. Farmers Union | | | | |
| 19. Cooperative | | | | |
| 20. Extension Club | | | | |
| 21. Other (Specify) | | | | |

# SUPPLEMENT B

## INCOME

Please check the proper column for the approximate earnings of your family during the year of 1958.

| | Husband | Wife | Other Adult | Other Adult | Other Adult |
|---|---|---|---|---|---|
| Less than $1000 per year | _____ | ____ | _____ | _____ | _____ |
| $1000 to $2000 per year | _____ | ____ | _____ | _____ | _____ |
| $2000 to $3000 per year | _____ | ____ | _____ | _____ | _____ |
| $3000 to $4000 per year | _____ | ____ | _____ | _____ | _____ |
| $4000 to $5000 per year | _____ | ____ | _____ | _____ | _____ |
| $5000 to $6000 per year | _____ | ____ | _____ | _____ | _____ |
| $6000 to $8000 per year | _____ | ____ | _____ | _____ | _____ |
| $8000 to $10,000 per year | _____ | ____ | _____ | _____ | _____ |
| $10,000 to $15,000 per year | _____ | ____ | _____ | _____ | _____ |
| $15,000 to $20,000 per year | _____ | ____ | _____ | _____ | _____ |
| Over $20,000 per year | _____ | ____ | _____ | _____ | _____ |