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A HUMAN ECOLOGICAL APPROACH TO THE FORMATION OF A  
PROFESSIONAL HOME ECONOMIST IN A LIBERAL ARTS COLLEGE

SETTING

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Ann Gabriel Kilsdonk, IHM

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A HUMAN ECOLOGICAL APPROACH TO THE  
FORMATION OF A PROFESSIONAL HOME  
ECONOMIST IN A LIBERAL ARTS  
COLLEGE SETTING

By

Ann Gabriel Kilsdonk, IHM

A DISSERTATION

Submitted to  
Michigan State University  
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## ABSTRACT

### A HUMAN ECOLOGICAL APPROACH TO THE FORMATION OF A PROFESSIONAL HOME ECONOMIST IN A LIBERAL ARTS COLLEGE SETTING

By

Ann Gabriel Kilsdonk, IHM

This study aimed to determine the nature of a human ecological approach to the formation of a professional home economist within a liberal arts college setting. A final objective was to develop a curriculum model reflecting the response to the theoretical question.

The process of rational analysis and synthesis of documents of professional organizations and the writings of recognized authorities was used to examine the major constructs, namely, liberal education, professional education, human ecology, and the role of the home economist, inherent in the major research objective. The examination of the development of these constructs identified competencies to be developed in the learner, societal conditions affecting these competencies, and the relationship between the competencies and knowledge as a basis for curriculum decisions.

The analyses support the conclusion that unless the interrelationship among the proposed ends of undergraduate education, the concept of human ecology, and the purposes of the home economics profession were clearly established, conflicts in prioritizing curriculum components would continue. The problem intensifies with the expanse

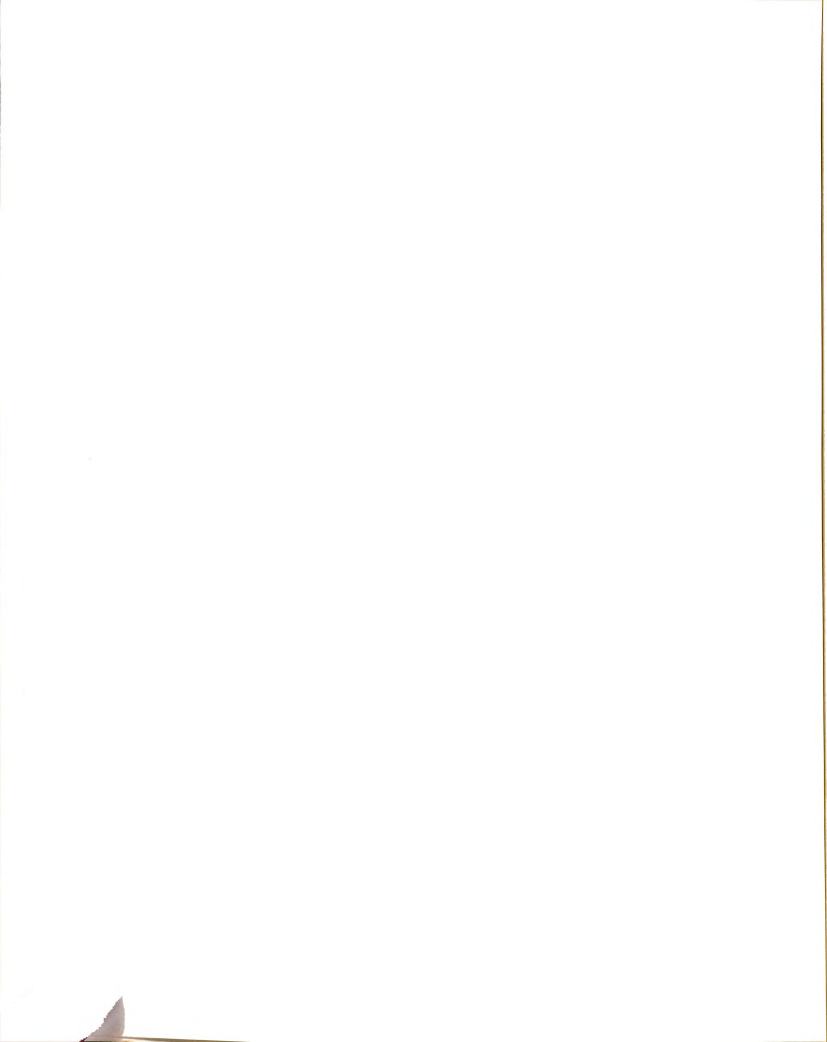
of knowledge and increased complexity of society.

Liberal education was defined as a process which frees a person by developing both an understanding of the world itself and the ability to participate in directing the world for the ultimate good of all humankind. The discourse established that the ends of liberal and professional education are interdependent, the latter a logical component of the former.

Human ecology, the study of the interdependency and interrelationship of human beings with their environment, was shown to necessitate the skills and knowledge leading to both a holistic view of the total human-environment interrelationship and an understanding of the interaction of the parts within the whole. Further, the comprehensiveness of human ecology necessitates defining an area for focused analysis and valuing collaborative methods in problem solving.

The study proposed that developing an understanding of human ecological principles would facilitate the integration of the desired ends of an undergraduate education and the knowledge needed to attain these ends, and would clarify the relationship of roles within the home economics profession. The development of this understanding, defined as a human ecological-family ecosystem approach, was shown to be consistent with the goals of a liberal arts college and the profession of home economics. The outcome was described as a professional home economist with a human ecological perspective, that is, a person who

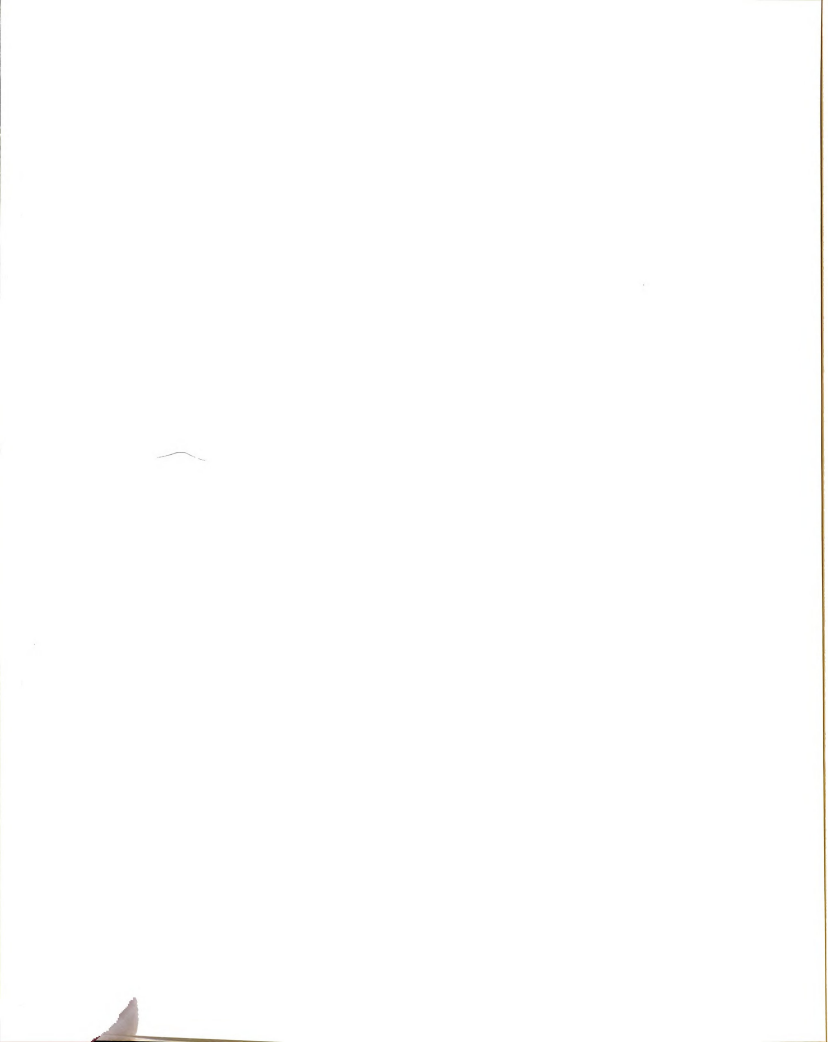
1. Manifests an understanding of the wholeness of the universe, the holistic nature of knowledge, and the interrelatedness of both of these in the resolution of human problems, and





2. Possessing a body of specialized knowledge (home economics philosophy and subject matter), applies this knowledge in a particular area of professional service within the total universal ecosystem and relates this service to the family ecosystem while maintaining as far as possible the ultimate good of the whole.

A theoretical curriculum framework was presented in support of this proposition. The framework was further developed into a concrete curriculum model having four major interrelated components: foundation courses selected from the basic arts and sciences, human ecology courses, supporting discipline courses, and electives. Central to the human ecology grouping is a core of courses focusing on human ecological principles, the family ecosystem as a pivotal transformation system within the whole, and how the interaction of systems affects the quality of human life. Segments in the major are based on the principles that ecological systems exist due to life sustaining and enhancing needs, all units of the universe must work together to satisfy human needs, and the professional's role is to facilitate the attainment of these needs.



TO  
those who have taught me  
and  
those whom I have taught

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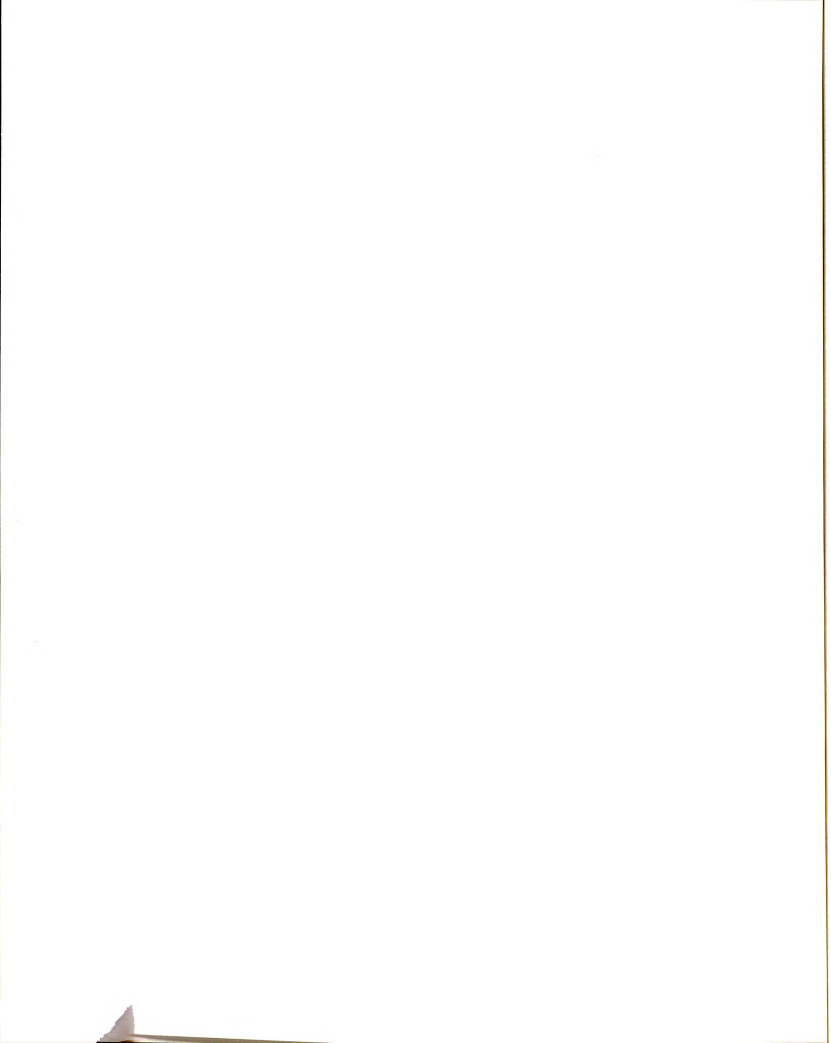
The Sisters, Servants of the Immaculate Heart of Mary, the religious congregation of which I am a member, for loving support through their words of encouragement, concern, and interest, their prayers, and their assistance in many practical ways.

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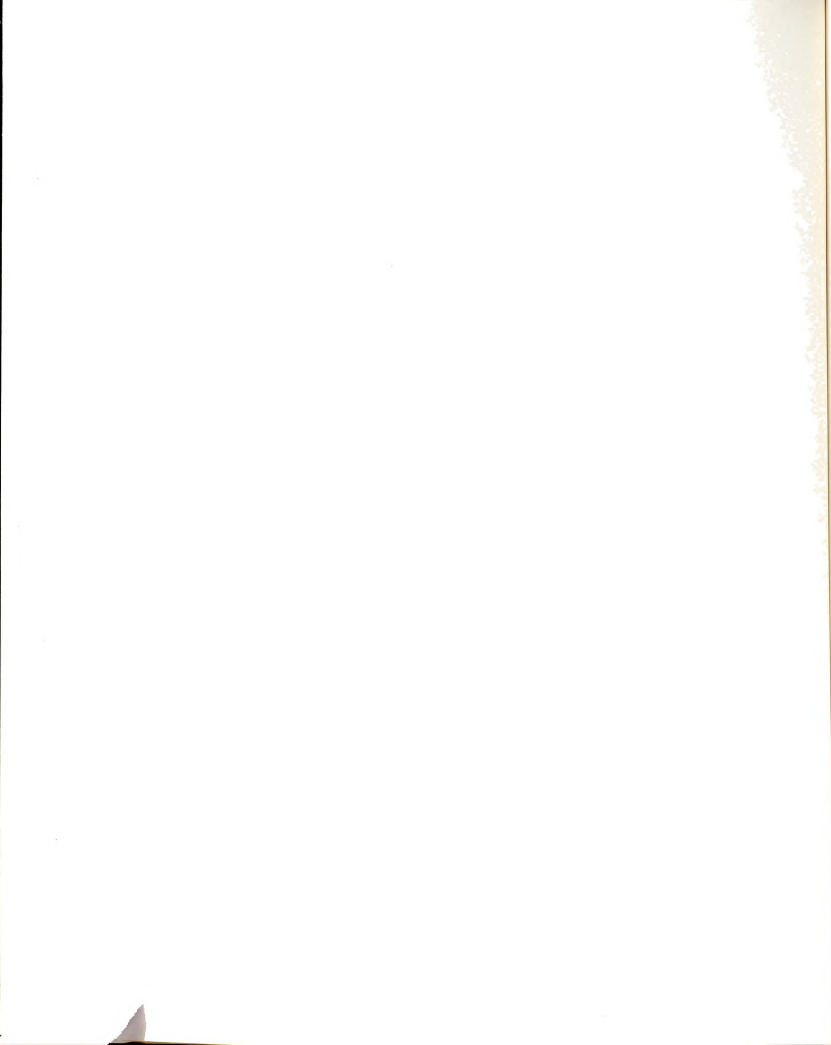


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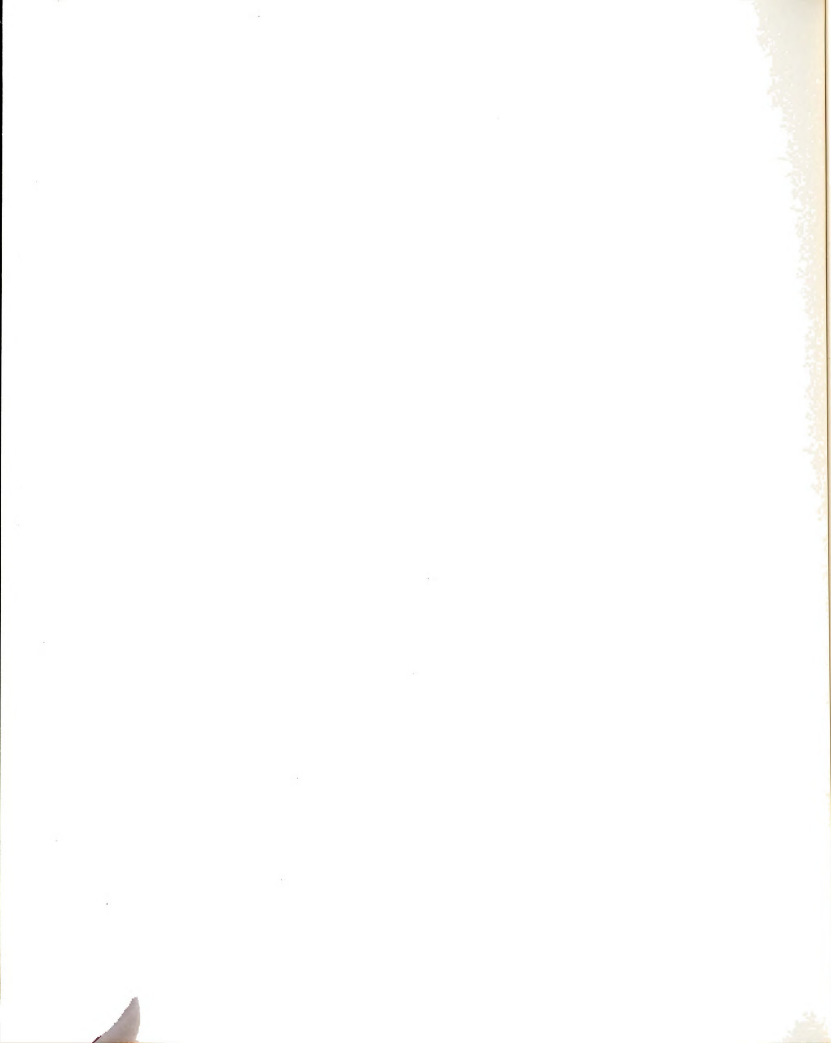


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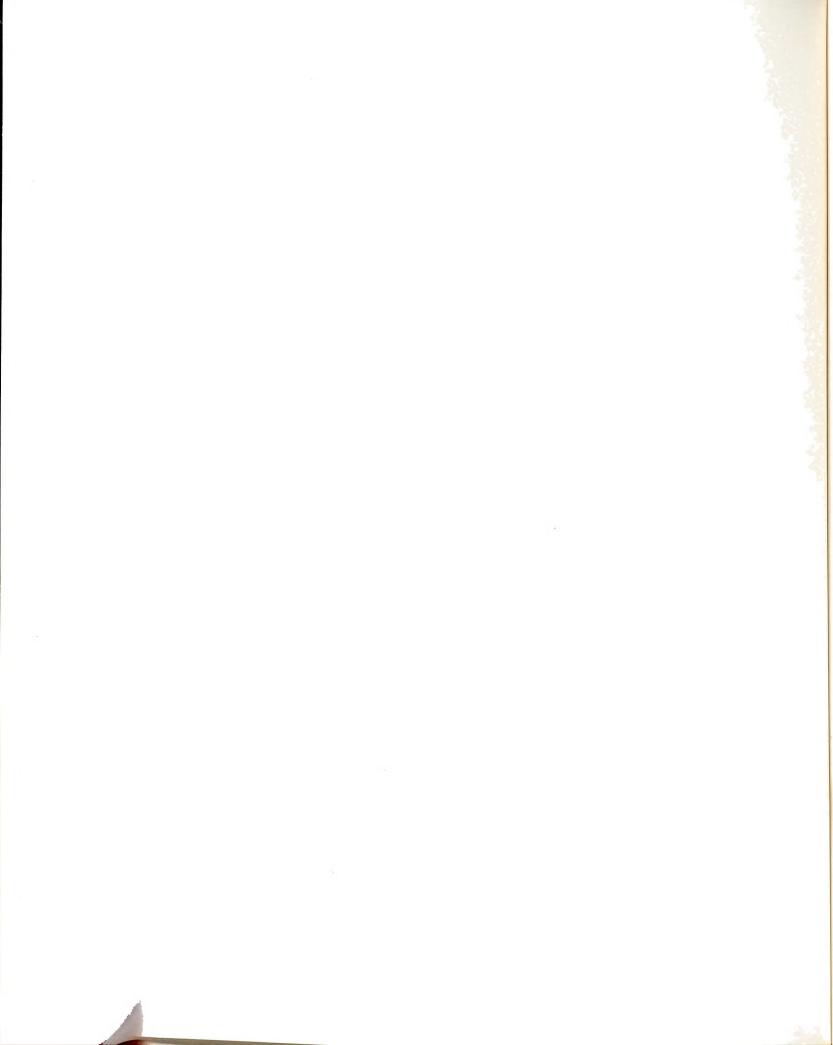


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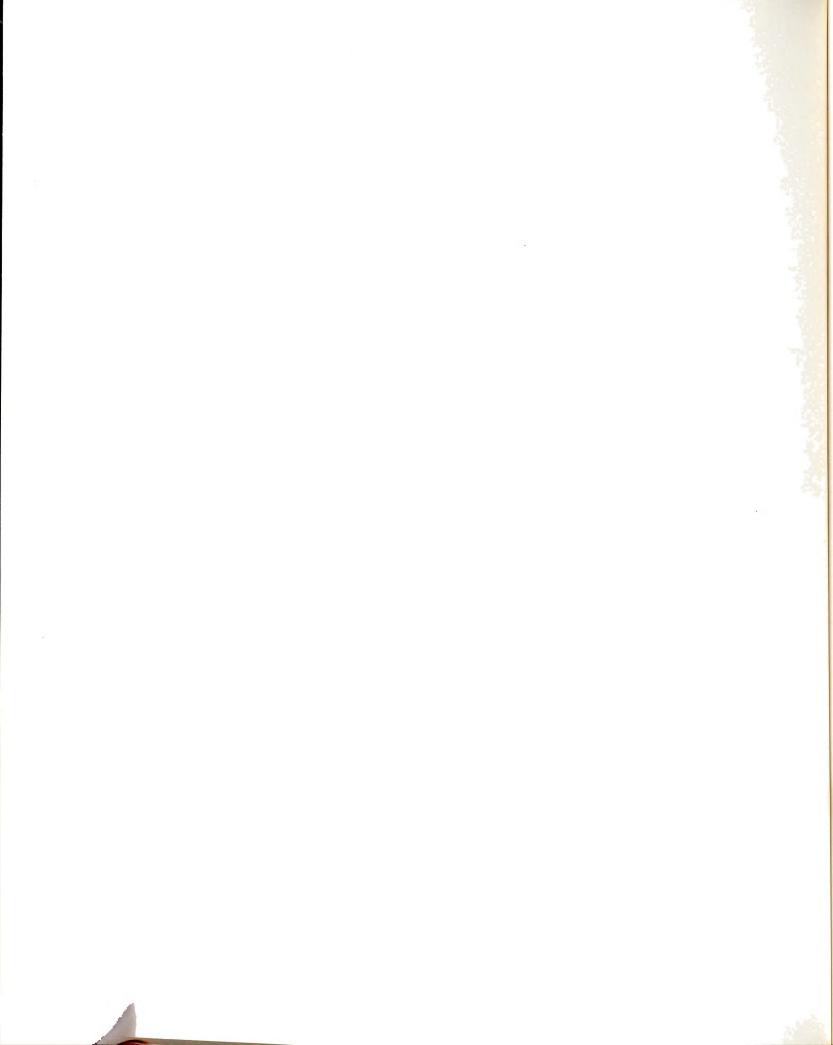


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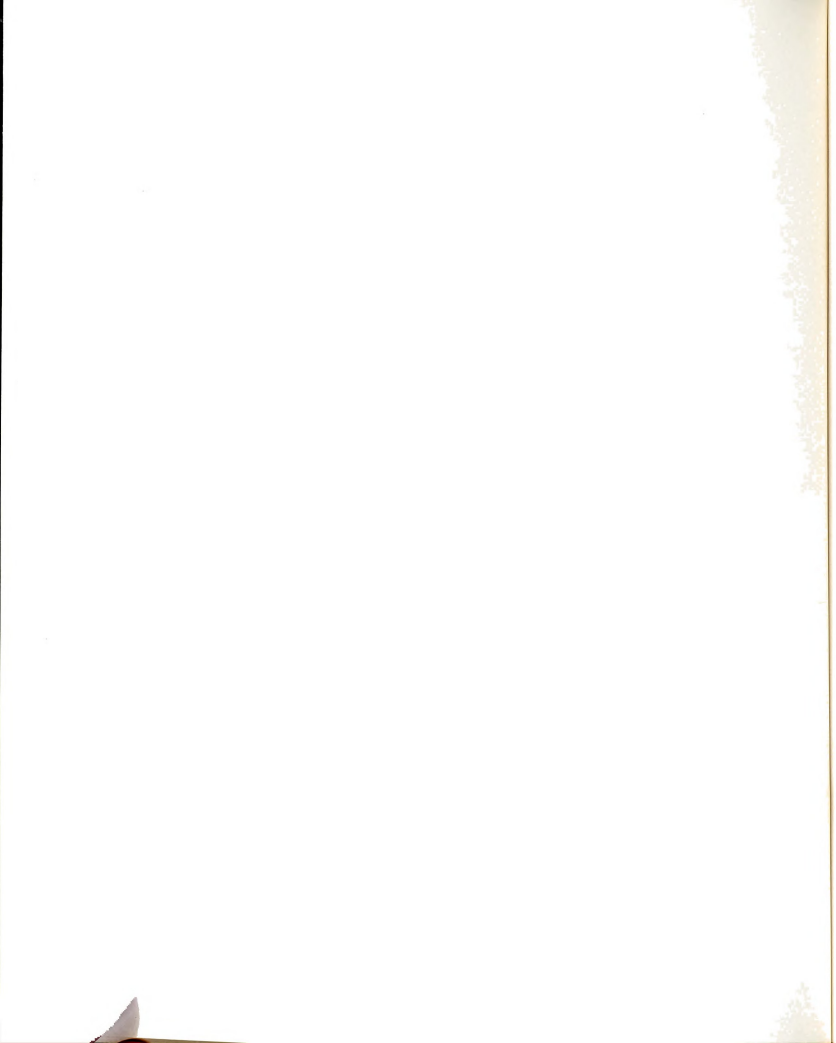
## CHAPTER I

### INTRODUCTION

All design is an evolvement. New ideas cause old forms to change. Educational programs, likewise, evolve. They come into being to further the good of a society and its members. New needs cause existing forms to be evaluated and new forms to be generated. Each new need has itself evolved from change in the larger society. This interdependency of change in an educational system and in the society being served determines the future nature of a society.

#### The Background and Social Context of the Problem

Education for the profession of home economics has not been immune to this evolvement and this interdependency. The development of a profession by this name emerged out of educational discussions in the late nineteenth century as the American culture was being affected by advancements in technology and related developments in the natural and social sciences. Simultaneously, the American nation was increasing in size, and its populace was becoming more cognizant of democratic ideals and the commitment to insure equal opportunities for each individual. Within this 19th century evolution of thought and technology, concern for improving the quality of life through the application of the principles of the evolving sciences to daily living and working environments came to the foreground. This focused the attention of





educational leaders on the relationship of the home environment to the physical and mental well being of persons of all ages. As a consequence, some visionary leaders came together to discuss their concerns and ask how the growing body of scientific knowledge might best be synthesized and applied to the family and the home. A series of annual conferences, later to be known as the "Lake Placid Conferences," ensued. Participants soon envisioned a group of dedicated, knowledgeable persons committed to this cause. Subsequently, in 1909 the American Home Economics Association was formed to promote interest, research, and the dissemination of knowledge in "home economics."

In the fifty years that followed these beginnings, higher education aimed to develop persons able to serve society by enhancing the quality of human living particularly as it emerged from and was affected by the home environment. History reveals that these professionals reacted to societal needs both by making curricular changes as new knowledge developed and by expanding into various kinds of services beyond the home and classroom which directly or indirectly affect the physical, social, and psychological well-being of persons. As a result, concern that diversity of roles might lead to a loss of unified purpose and mission for the profession permeates the more recent literature.

This concern became especially evident in the 1960s following a statement of New Directions by the American Home Economics Association in 1959 and a conference of educators held in French Lick, Indiana in 1961. Further, other societal groups, recognizing the impact of technology, urbanization, population growth, and the general knowledge



explosion on the quality of life became more involved in efforts to enable all people to live with respect and dignity. In the late 1960s educational leaders from outside the field identified the need for the home economics profession to clarify its focus and its relationship to other disciplines within the academic arena. Nearly every professional field or academic discipline claimed to be able to address a social concern that the home economics profession also claimed. The question of distinctive realm of interest and professional expertise needed answering. From both within and outside the profession this confusion of purpose was creating serious questioning.

A logical outgrowth of this confusion and questioning of identity was a re-examination of home economics curriculum goals and the means to achieve them in higher education. Self-studies prompted searches for a philosophical base to undergird curriculum decisions as well as for curriculum structures suitable for the increased rate of change that dominates society. At the same time, other philosophers and scientists, looking for common linkages in all bodies of knowledge, were developing a science of general systems theory. Thus, it was not surprising that contemporary home economists, in reviewing the thinking of the original founders, would regard as an ecological systems construct the definition of home economics formulated at the 1902 Lake Placid Conference. This definition focuses the study of home economics on the interrelationship of humans as social beings with the physical environment.

With this basic framework in mind, two universities, Cornell and Michigan State, restructured and revitalized their curricula in



home economics under the title of "Human Ecology" in 1969 and 1970 respectively. Since that time, although no exact data are available, other units of home economics have sought to emphasize ecological concepts in their program. By 1975, seven units explicitly indicated this emphasis by adopting the title of "Human Ecology" (Harper, 1976, p. 1). Further, the American Home Economics Association in its statement of New Directions II, promulgated in 1975, verified this conceptualization of the field in stating that "the core of Home Economics is the family ecosystem."

Inasmuch as this thrust toward the relationship of humans and their environment can be traced to the origins of home economics, one can question why it was not always so formally stressed. Some analysts say the original concept was lost sight of in the struggle to keep abreast with scientific and technical knowledge which created a need for specialized areas within the whole. Marshall (1973) asks if the original concept was not too sophisticated to be practical in this era of specialization. While recognizing the need for specialization and the effort required to develop areas within the whole, Lund (1973) states that the profession is now ready to more seriously examine the relations that exist among the components and determine the implications for professional action. In designing a curriculum, the question is how to encourage this examination. Is it really different from previous structures? Is it equally feasible in all types of institutions? Will the end product be a professional better able to serve society? Such questions have motivated this study.

Challenges, statements of purpose, and trends indicated in the



preceding discussion, place a commitment on all units of home economics to evaluate their role. Units in liberal arts colleges are faced with the further task of justifying the professional focus of their field with the overall goals of a liberal arts undergraduate curriculum. The traditional format of higher education until the late nineteenth century was the "liberal arts" curriculum. As institutions of collegiate level education for women developed, this format persisted (Rudolph, 1962, pp. 312-318). Some institutions also attempted to incorporate experiences significant to the responsibilities of women in the home (Bevier, 1924, pp. 87-89).

Following the Lake Placid Conferences (1899-1908) and the development of home economics as an academic area, this latter practice continued. Presently, of the 370 institutions granting a Bachelor's degree with a major in home economics, approximately one third are liberal arts colleges (Harper, 1975). The curriculum in these institutions influences the graduates in their professional activity, modes of thinking, and approach to problems. This, in turn, affects the impact on society of the profession of home economics.

Pertinent to this study, and in particular to the position of home economics in liberal arts colleges, is the fact that specific career preparation has gradually become an acceptable goal of a liberal arts college. Evidence examined by McGrath and Russell in 1958 indicated that liberal arts colleges throughout the country almost without exception had incorporated functions of professional, technical, and vocational education. Literature in the 1970s indicates continued pressure on the liberal arts colleges to provide graduates with





employable skills if they are to attract students in today's market of higher education (Scully, 1976). Educational systems cannot be freed from the economic systems of society, rather they are inter-dependent.

The growth in knowledge, technology, and population over the past 150 years is very vitally felt by all segments of society. The world itself has figuratively become smaller by complex communication linkages. The land-grant colleges designed initially to serve specialized population groups have become mega-universities attracting people from all segments of society and are generally being recognized as vibrant centers for learning and research. Across the country examples can be found of urban areas which have expanded from key centers for the exchange of marketable goods and services to large metropolitan areas with many pockets of production and exchange surrounding the original core. Today residential areas have practically obliterated the rural expanse which formerly separated major cities.

As a consequence of these changes, the small, private liberal arts college dedicated to the time-honored, Aristotelian concept that the liberally educated person best serves the needs of society has in recent years been confronted with the tasks of competing with the educational resources available in a large university; of maintaining the breadth necessary for a liberal education while providing the learner with the specialized knowledge and skills essential for becoming an independent person in society; and with balancing the increasing costs of higher education without the direct support of tax money.

All of these changes, expanding bodies of knowledge, society's



need for specialized services, the growth of the university, the interconnectedness of cities and nations, and the rising costs of living made more complex by a competitive job market have an impact on home economics units in all institutions and in a particular way upon those in small liberal arts colleges. Results of a study made in 1972 by the American Home Economics Association assessing changes in home economics units over the previous ten year period indicated that the name of twenty-two units had been changed to better identify its mission and conceptual base (Weis et al., 1974, p. 12). Organized data are not available on structural or philosophical changes made to adapt to societal demands but not reflected in a name change. At the same time, it is not intended to imply that every name change was indicative of curriculum changes based on a new or revised conceptual framework.

#### The Problem and Objectives of the Study

This particular study has developed from a desire to find the conceptual linkages that unify the various bodies of knowledge and modes of activity supporting preparation for the profession of home economics in a liberal arts college. Changing societal conditions and movements within the home economics profession have, as indicated above, suggested that the incorporation of a human ecological approach within the curriculum could provide an academically sound conceptual framework for curricular decisions. From this proposition two interrelated questions arise:

1. What is a human ecological approach to the formation of a



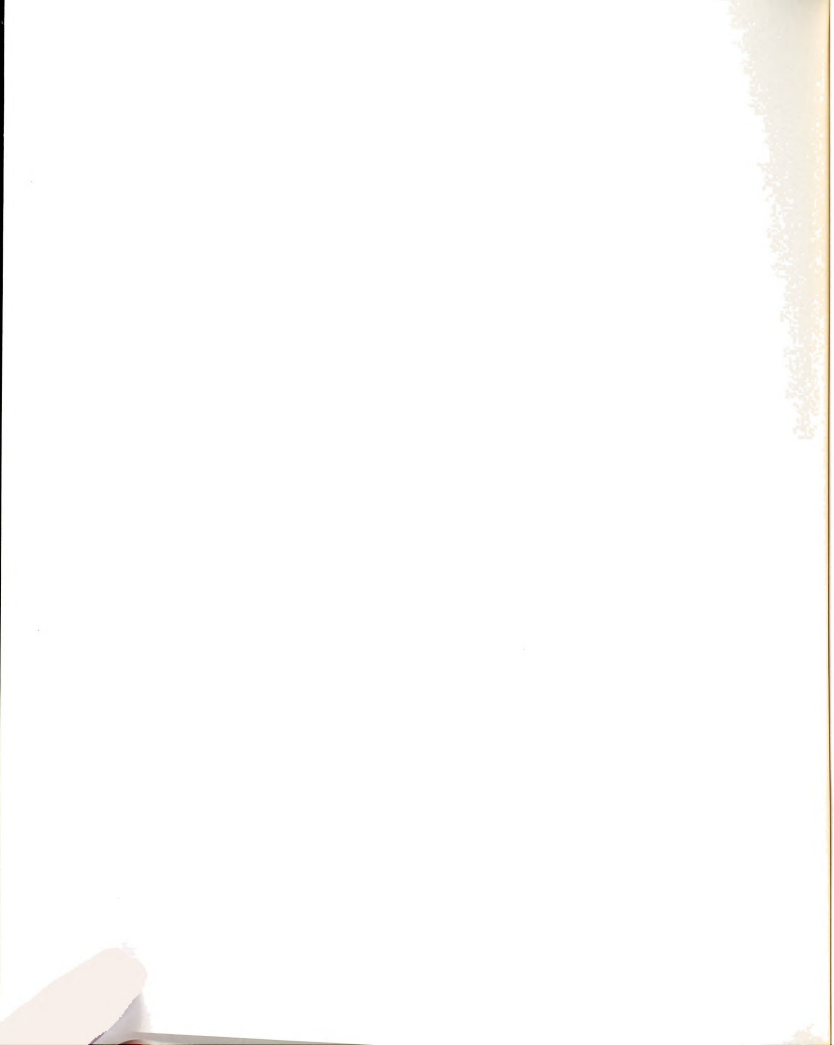
professional home economist?

2. Is such an approach philosophically consistent with the goals of a liberal arts college today?

As this study developed a final question surfaced and suggested a possible outcome.

3. Will the holistic concept of human ecology serve as an integrative linkage between the liberal and professional ends of education? This study searched for answers to these questions and their implications.

From the questions, the specific objectives and procedures for this study were derived. Within the questions, certain curriculum goals can be identified, namely the formation of a professional home economist, a liberally educated person, and a human ecological mode of thinking. The specification of end goals or objectives is the logical first step in all curriculum planning. Dressel (1968, p. 32) has indicated that these objectives should derive from three sources: the needs of society, the needs of the learner, and the authoritative statements of individuals, conferences, and professional organizations. A survey of data from the above sources could yield an unwieldy set of objectives which must in turn be synthesized and prioritized. Secondly, they must be refined to meet the specific needs and resources of an institution. Further, any program within an institution must be in keeping with the overall goals of the institution. Finally, in curriculum planning the specification of objectives is only the first step. The selection, planning, and organization of experiences to achieve these objectives; the integration of experiences; and the development of modes for the



evaluation of the program are equally important, sequential, and inter-related steps.

The objectives and plan of this research are based on the preceding principles of curriculum planning. The major focus, however, has been on the determination of curriculum objectives with the expectation that these, in turn, would identify the needed learning experiences. The ultimate goal was to develop a generalizable curriculum framework which would embrace a human ecological approach to the formation of a professional home economist in a liberal arts college setting.

#### Methodology and Design of the Study

The general method used in this research was one of conceptual analysis and logical discourse based on data gathered from the writings and research of recognized authorities. Through this process principles were derived that gave direction to the curriculum model proposed. In the development of guiding principles emphasis was placed on behavioral outcomes to be achieved in the learner and on the interpretation of a human ecological approach to achieving these outcomes.

The first step in addressing the overall problem of the study was to review literature giving direction to and evaluating home economics programs at the undergraduate level. The intent of this review was not only to give background and purpose to the study but also to identify data that would help justify, define, and give direction to a human ecological approach to the study of home economics in the context of a liberal arts college setting.

Given this background the second major step was to review the



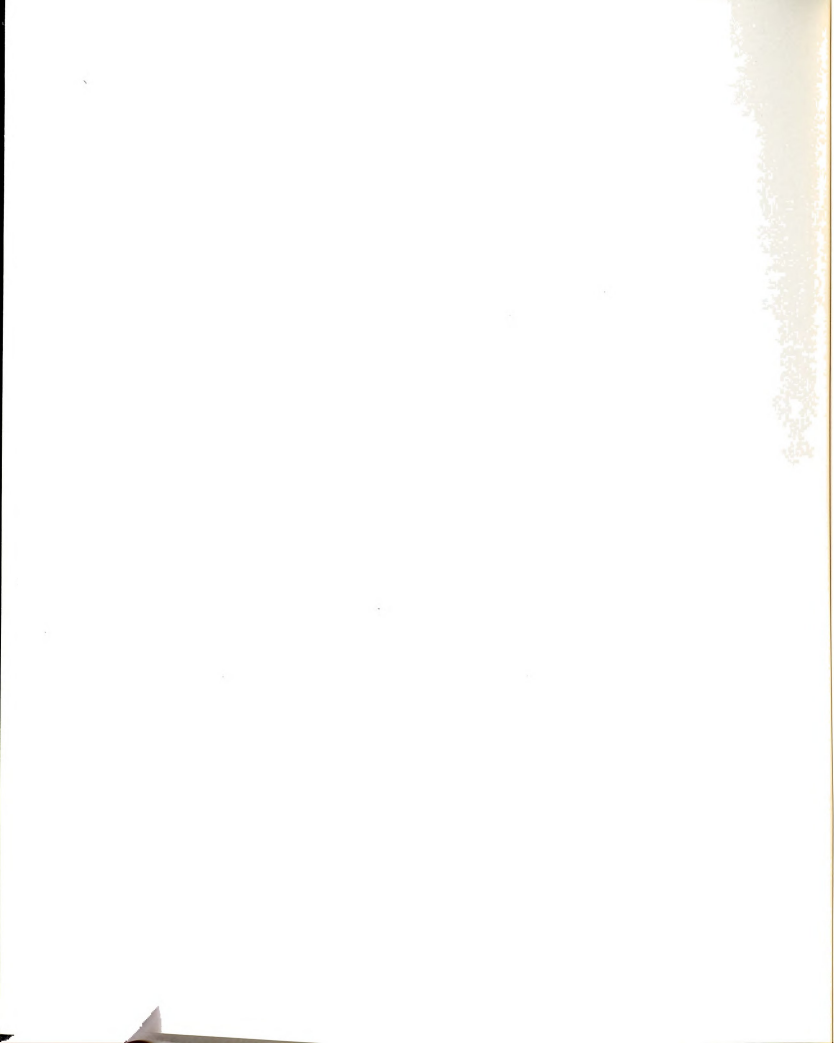


writings and research of recognized authorities in order to (1) clarify the major constructs in the statement of the problem and (2) identify the educational objectives embodied in each construct. The major concepts were identified as: liberal arts college, human ecology, and professional home economist. Through a conceptual analysis of these constructs and the impact of social change on their meaning, it was anticipated that the characteristics of a liberally educated person, a professional home economist, and a human ecological mode of thinking would evolve. Likewise, it was anticipated that limitations in achieving these objectives at the undergraduate level in a liberal arts college setting would surface.

At the onset of the study the third major step was identified as developing a curriculum model stating objectives, general areas of study, and the interrelationship of the components. The major intent of the model was to indicate how the competencies identified through the conceptual analysis would be achieved.

In actuality an intervening step had to occur before the model could be developed. This step was to clarify the relationship of the originally identified concepts in view of the conceptual analysis and their related educational goals with the basic research question of identifying a human ecological approach. This synchronizing step can be seen as developing the conceptual framework for the curriculum model. In so doing, both the commonalities and relationships in the objectives and underlying philosophy derived in the individual conceptual analyses were established.

Finally, following the development of the curriculum model the



actual feasibility of the model is demonstrated by applying its principles in the modification of the requirements for a human ecology major and the areas of concentration, and of course offerings within the major at Marygrove College in Detroit, Michigan.

As a supplement to this research a study was made of the evolution of the curriculum at Marygrove College with particular reference to the curriculum of the home economics/human ecology department (Kilsdonk, 1978). Marygrove College was identified for this not only because of the writer's association with the College but because it has traditionally supported that a liberal arts education is one which develops the whole person and in so doing enables the person to learn the arts of "how to live and how to earn a living" (Marygrove College, 1926-1976). Secondly, the title of the home economics department was changed to human ecology in 1971. It was the intent of the writer through this study to develop a basic philosophy that would be useful in supporting the existing curriculum structure and/or suggesting direction for change.

#### Summary and Overview of Study

In summary, this study is basically an in-depth conceptual analysis and synthesis for the purpose of establishing guidelines for a curriculum structure encompassing what is identified as a human ecological approach to the development of a professional home economist. Its importance derives from the clear statement by the home economics profession that the family ecosystem is the core of the study of home economics as preparation for professional roles. While a few



universities have restructured curriculums to achieve this emphasis, it is still in an experimental stage. This study aims to investigate the implications of the association of human ecology concepts with current societal expectations for a professional role, the concepts of a liberal education, the resources of a liberal arts college, and home economics as an area of study preparing for professional service.

In contrast to a descriptive study based on objective data of existing conditions and curricula formats, the intent of this study is to establish a rational framework for curricular decisioning based on what theoretically should exist. The process consisted of examining component parts of the educational system involved and establishing the interdependencies and isomorphisms of the parts in order to project in a curriculum model the dynamics creating a whole greater than the sum of its parts.

Inasmuch as each chapter analyzes concepts and synthesizes relationships, the particular process followed is described within each chapter and the ideas generated are synthesized in chapter summaries and conclusions. Viewing the study as a whole, Chapters II, III, IV, and VI could be considered predominantly as the analysis of the major concepts in the research question. Chapters V and VII can be viewed as dominantly synthesizing chapters aiming to achieve the integrated and holistic perspective of the curriculum goals. Chapters VII and VIII can be viewed as varying degrees of the application of the theory projected in Chapter V. The final chapter aims to summarize the total study in view of the findings.



### Preliminary Assumptions

At the onset of this study the following assumptions were made:

1. Education in its root meaning is the process of developing the potential of the person to give some control and independence in the world in which one lives and functions.

2. Each educational institution has a right to establish its own reason for being which is subject to the approval by the larger society through the acceptance of the charter and the mandate of commitment to it by legal action.

3. The goals of an institution of higher education are determining factors in justifying the inclusion and nature of a program of study and its immediate objectives.

4. The primary aim of an institution of higher education is to further the good of society through the cognitive development of the individual beyond the secondary educational level.

5. Cognitive development is not mutually exclusive from affective and psychomotor development.

6. A Liberal Arts College is one which directly or indirectly expresses as a primary goal the liberal education of a person.

7. The concept of "liberal arts" has a variety of interpretations when used to describe a curriculum or an institution of higher learning.

8. A program of study within an institution is appropriate if its goals are consistent with and contribute toward the end goals of the institution.

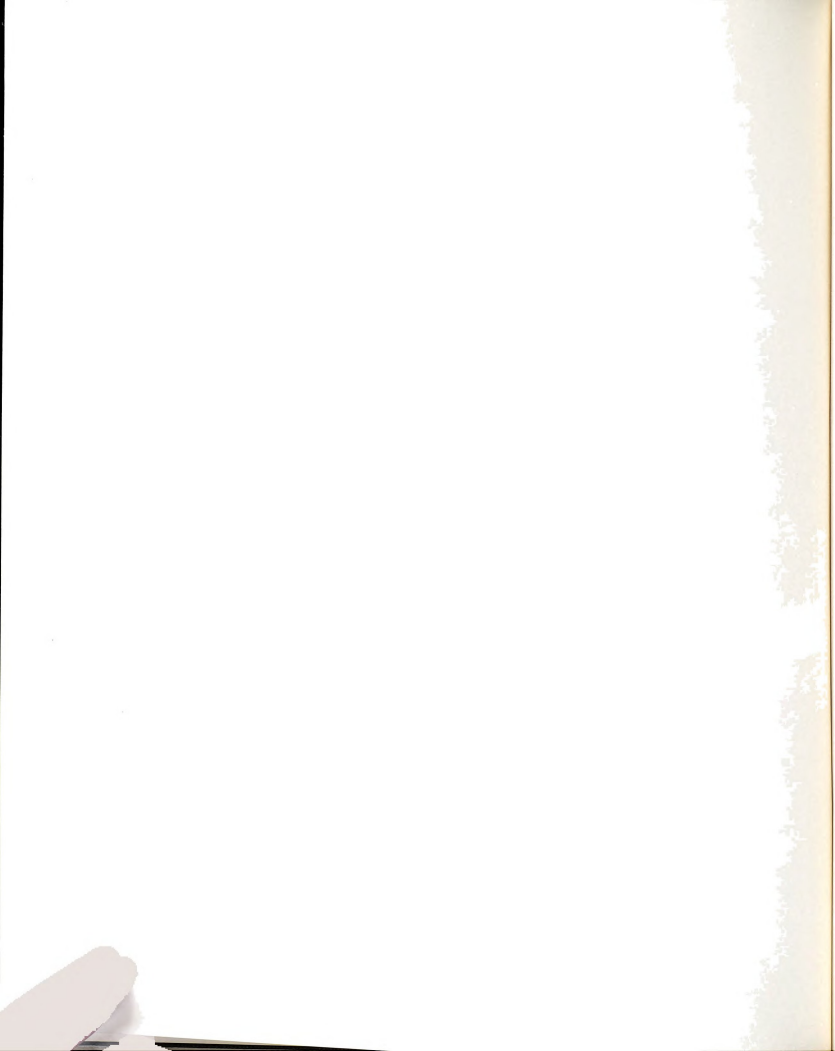




9. Home Economics is a profession.

10. The curriculum in a college has an effect on the future functioning of an individual.

11. A continuing task of an institution of higher learning is to adapt its educational program to changing societal needs while maintaining a consistency with its primary purpose(s) for being.



## CHAPTER II

### HOME ECONOMICS UNDERGRADUATE CURRICULA AN HISTORICAL REVIEW OF LITERATURE

#### Introduction

##### Objectives of Review

This review of literature is intended to provide background for understanding the evolution and present status of undergraduate curricula directed toward developing a professional home economist. Inasmuch as the total study is examining the nature and feasibility of a human ecological emphasis within the curriculum of a liberal arts college, this review seeks to identify resources which help define and give direction to such an approach as well as those which examine the relationship of home economics to the "liberal arts" concept of education. The review also identifies curriculum concerns that motivate assessment and change.

##### Classification of Curriculum Literature

Studies related to home economics curricula tend to fall into three general groupings. Some are primarily descriptive and present numerical data on existing programs at the time of the study (Kent, 1936; Brown, 1943; Surveys of the U.S. Office of Education and the American Home Economics Association, 1932-1976). A second group combines statistical data with an in-depth analysis based on the

philosophical groundings of the profession, societal needs, and/or current curricular problems (Spafford, 1949; Schneider, 1965; Lee and Dressel, 1963; McGrath and Johnson, 1968; Weis, 1974). A final significant body of literature explores what ought to be or could be in a curriculum in view of an analysis of the meaning of the discipline and the impact of the graduate on society. This philosophical type recognizes that an effective evaluation of an academic program judges the relationship of the underlying philosophy and proposed outcomes to the learning experiences within the program. Further, these studies emphasize the relationship of the program to both immediate institutional goals and the broader societal goals. This group, therefore, is highly significant in directing curricular structuring to clearly defined objectives (Scott, 1959; Miller, 1960; Brown, 1964; Henderson, 1965; Dressel, 1968; Brown and Paolucci, 1979).

#### Historical Origins of Home Economics Undergraduate Curricula

##### Prior to 1900

Many sources review the historical beginnings of home economics subject matter within the curriculum in terms of what, where, and how much was taught (Bevier, 1924; Craig, 1945; Lee and Dressel, 1963; Ferrar, 1964; Tate, 1973; Quigley, 1974). All researchers seem to agree that the introduction of home economics into higher education began through an effort to adapt the prevalent "classical" or "liberal arts" mode of education to the needs of women by providing knowledge and developing skills useful in the management and operation of a home.

Three dominant forces motivating these efforts were the growing demand for educational opportunities for women, the extension of public school systems, and the recognition that the evolving body of scientific knowledge had many applications toward improving the quality and productivity of human activities. In reality these forces were a part of the increasing momentum in the 19th century toward achieving the American democratic ideals of equality of opportunity and an educated populace. Proponents of home economics subject-matter content were seeking its introduction into the existing and long standing curricular patterns at the same time that the expanding bodies of knowledge in the natural science areas and their applied technological forms were seeking acceptance. Home Economics, thus, like the sciences was caught in the curricular debate of whether it was an extension of the liberal arts or an area apart as a practical or applied science. This question permeates the literature to the present day and its resolution by curriculum planners largely determines the nature and position of a home economics program within an institution of higher learning. A further association of home economics with the natural sciences exists in the fact that the very body of knowledge that was emerging as the applied field of "domestic science" was essentially the application of an evolving body of knowledge in the natural sciences to the environment of the home and the physical development of the person in such areas as sanitation, nutritional needs, improved equipment, and adequate light, heat, and water.



Lake Placid Conferences - 1889-1908

The first presentation, analysis, and discussion of curricular structures in home economics is found in the recorded proceedings of the Lake Placid Conferences, 1889-1908, which led to the formation of the American Home Economics Association in 1909. Other sources summarize these proceedings (Baldwin, 1949; Craig, 1945; Vaines, 1974). The Lake Placid Conferences gave the formalized, historical foundation to this area of study and professional endeavor. The records indicate that considerable time and thought were given to determining the essential nature of this evolving, broad scope of knowledge; what actual components and subcomponents comprised it; and how these were being or could be incorporated into curricula at various levels of learning. Time was also spent envisioning how this emerging area of knowledge could affect the lives of people through those who would carry the message to the homemaker and through those who would research and develop specialized areas of knowledge which would ultimately find application in improving or serving the home life of individuals and families. Of particular significance to this study were the efforts made at defining the field.

Definition of Home Economics as  
Area of Study - 1902

The 1902 Conference yielded a comprehensive definition which, particularly in recent years, has had a significant place in philosophical discussions. It is

Home economics in its most comprehensive sense is the study of the laws, conditions, principles, and ideals which are concerned on the one hand with man's immediate physical environment and on the other hand with his nature as a social being, and is the study specially of the relation between these two factors. (p. 70)

At the same Conference it was recognized that Home Economics in a narrow sense could be "given to the study of the empirical sciences with special reference to the practical problems of housework, cooking, etc" (p. 71). It was further stated that

In forming a complete definition, however, it may be possible to consider home economics as a philosophical subject, i.e., a study of relation, while the subjects on which it depends, i.e. economics, sociology, chemistry, hygiene and others, are empirical in their nature and concerned with events and phenomena. (p. 71)

#### Efforts to Interpret Ideal

Additional and supporting expressions of the underlying philosophy and objectives to be achieved through the teaching of home economics can be found in the papers presented at the Lake Placid Conferences by leaders representing different aspects of the emerging discipline. At the Sixth Conference, the ideas were capsulized when the term "home economics" was said to represent:

- The ideal home life for to-day unhampered by the traditions of the past.
- The utilization of all the resources of modern science to improve the home life.
- The freedom of the home from the dominance of things and their due subordination to ideals.
- The simplicity in material surroundings which will most free the spirit for the more important and permanent interests of the home and of society. (1904, p. 31)

Throughout the Conferences, likewise, various enumeration of subject matter, for example, sanitation, hygiene, dietetics, sociology of the



family, economics of consumption, house architecture, and the psychology of children, already existing in curricula provided another way of identifying home economics as a body of knowledge. The following comment made at the earlier 1902 Conference indicates the difficulty in conceptualizing the field and conveying its meaning to others:

If there is any fitness at all in the definition suggested, or if it even hints at the right way to consider home economics, i.e. as primarily a study of connections and relations between certain phases of man's nature, home economics might be introduced without offense in the most conservative even of eastern colleges, while more liberal institutions would have in their courses of study, as a subhead under home economics, courses which would make practical application of the empirical and technical sciences. Almost every school or college above the grade of high schools pretends to have departments of economics and philosophy as well as natural science. What is possible in such schools even, is something to connect and bind together into a consistent whole the pieces of knowledge at present unrelated. Such a binding together is what is meant by home economics. (p. 71)

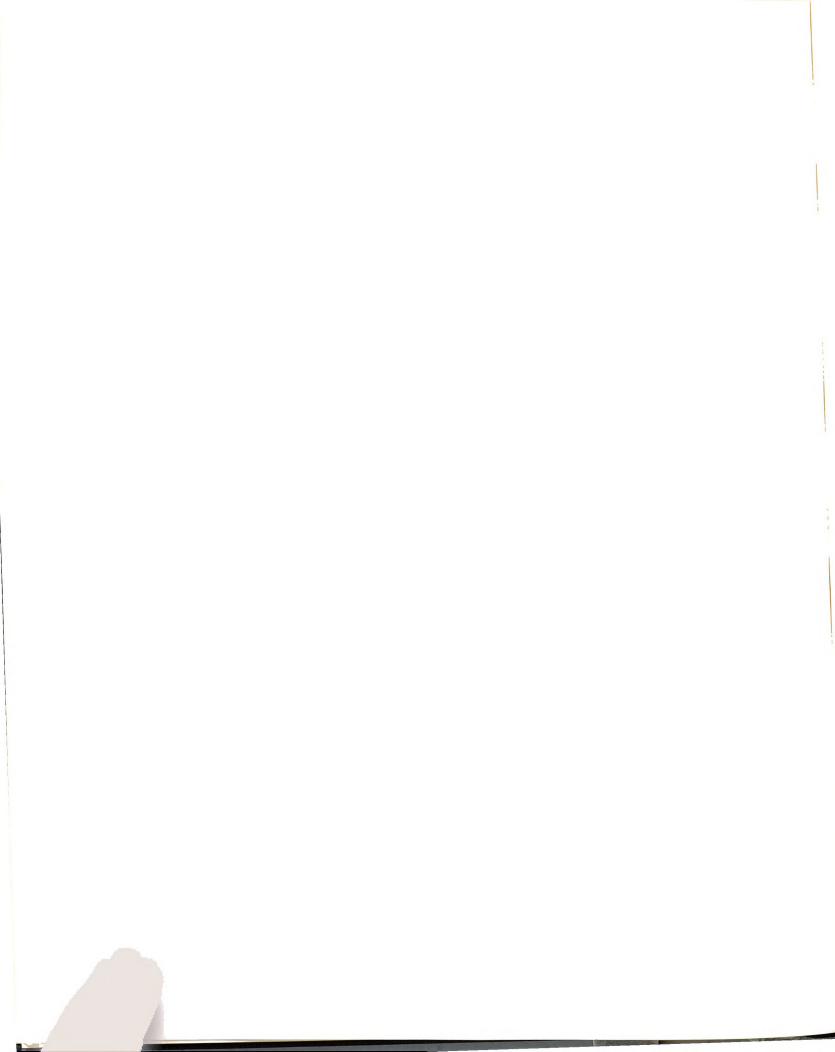
Appendixed to the report of the 1903 Conference (p. 65-71) is a treatise by Ellen H. Richards on "Home Economics in Higher Education." In this she declares, "There can be no question of the place in a liberal education of a study of man in relation to his environment." She supports this position by discussing the influence of the environment of humans, the various levels of concept learning, the relationship of the material and social elements in one's environment to the principles within the basic natural and social sciences, the significance of laboratory work, and the actual purposes of higher education in terms of human and societal development. This timeless treatise concludes with a suggested undergraduate curriculum in which about 25

percent of the work is in domestic science. The remainder has a high portion of the natural sciences plus over 30 percent in English, language, and history. Because it incorporated the then developed bodies of knowledge, this sample curriculum demonstrates the liberalizing and scientific philosophy undergirding home economics in the minds of the early conceptualizers.

#### Developments Within 1910 to 1960 Era

##### Review of Problems in Implementing the Ideal

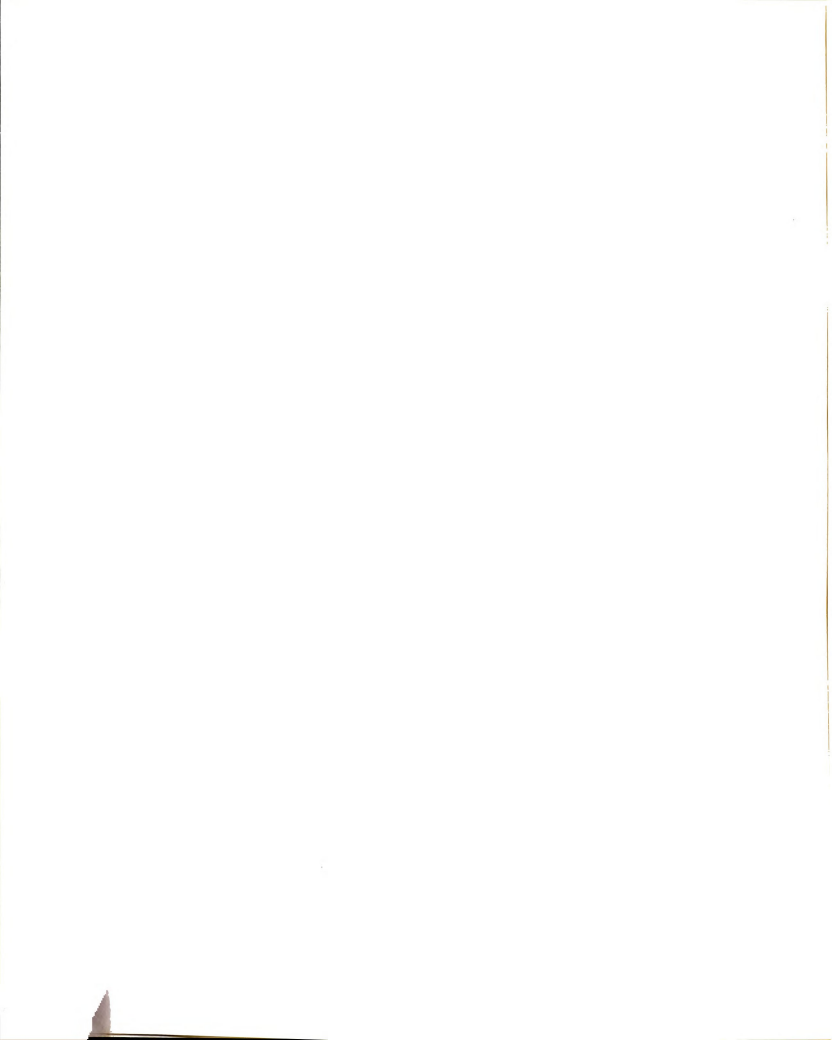
Since 1909 the American Home Economics Association together with leaders from the Land Grant Colleges have probably been the most influential in giving direction to curricular patterns. The Land Grant Act of 1862 had committed to these colleges the special task of promoting the "liberal and practical education of the industrial classes" (Rudolph, 1962, p. 249). Therefore, education to facilitate the tasks of the home through the application of science and the development of appropriate skills became an acceptable curricular goal for these colleges even prior to the Lake Placid Conferences. In these colleges as well as in the emerging private colleges for women, courses meeting this need were seen as an extension of the liberal arts and the adaptation of education to a woman's role in the home. With the thrust of the Lake Placid Conferences toward professionalism, debate over the acceptability of home economics courses within a liberal arts framework intensified and attitudes varied widely (Lee and Dressel, 1963, p. 28). At the same time, as the roles



for women with a background in home economics opened in teaching, in health fields, and in business, the offering of courses in home economics helped women's liberal arts colleges satisfy the growing need to provide occupational preparation. Studies conducted by the Institute of Higher Education in the late 1950s and early 1960s indicated that the interdependency of liberal and professional education was affecting the curricula in all types of institutions (McGrath and Russell, 1958). Ferrar (1964) traces the efforts of home economics educators to adapt the curriculum to changing societal needs and the growing bodies of knowledge and, at the same time, to maintain a significant mission for the profession based on a foundation in the arts and sciences. Research indicates that as curricula changed in the 1920 to 1960 era, technical and skill development courses were favored at the expense of the liberal arts. This seemed especially true at the larger colleges and universities (Ferrar, 1964, p. 16; Lee and Dressel, 1963, p. 30).

#### Curriculum Studies Sponsored by AHEA

As early as 1935 Effie I. Raitt, president of the American Home Economics Association, attempted to redirect the trend toward overtechnical programs by stating that professional education implies a "broad cultural foundation in general education and a philosophy which is a comprehension of purpose and relationship" (Ferrar, 1964, p. 21). This expression of thought exemplifies the concern of the profession manifested in studies in the next decade as the desirability, scope, and depth of subjects offered were examined (Ferrar, 1964, pp. 21-23;

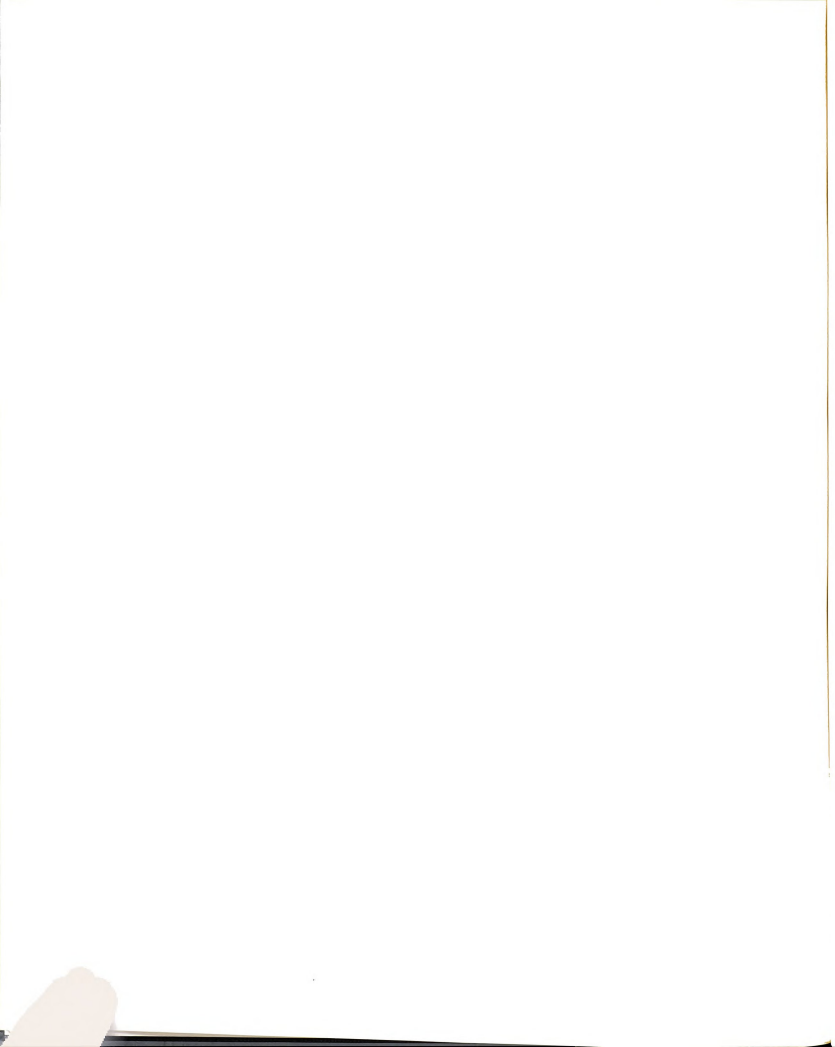


Brown, 1943).

During this period, the American Home Economics Association sponsored two studies of significance for this review. Brown's survey in 1943 of seventy-nine liberal arts colleges confirmed that the small college faced the acute problem of how to retain its liberal tradition and at the same time add sufficient professional training to enable its graduates to compete successfully with those of larger colleges and universities. The report of a committee established by AHEA to develop criteria for evaluating college home economics programs was published in 1949 (Spafford, ed.). The study based on visitations to sixty of the 371 institutions offering majors in home economics in 1944, included seven different types of institutions. Within the report, commonly known as the "blue book," the discussion on curriculum expresses the thinking of leaders in the field after finding that "most institutions of higher learning serve the triple purpose of educating for personal development, for family living, and for professional specialization" (p. 150). The report states:

The committee . . . believes that education for home and family life should be the first objective of a program of home economics in higher education. It believes that such education strengthens rather than weakens the professional preparation of students at the undergraduate level and that it gives meaningful focus to the total program of college education for home economics students.

The department of home economics should provide opportunities for all home economics majors to achieve a balanced and integrated program of general education. It should take major responsibility for the courses focused specifically on problems of family living. These courses should be a unifying core provided for majors in home economics and available to students throughout the institution who wish to select single



courses or groups of courses of interest and value to them. Such a core in home economics should form the foundation for all the professional curricula offered in the home economics department.

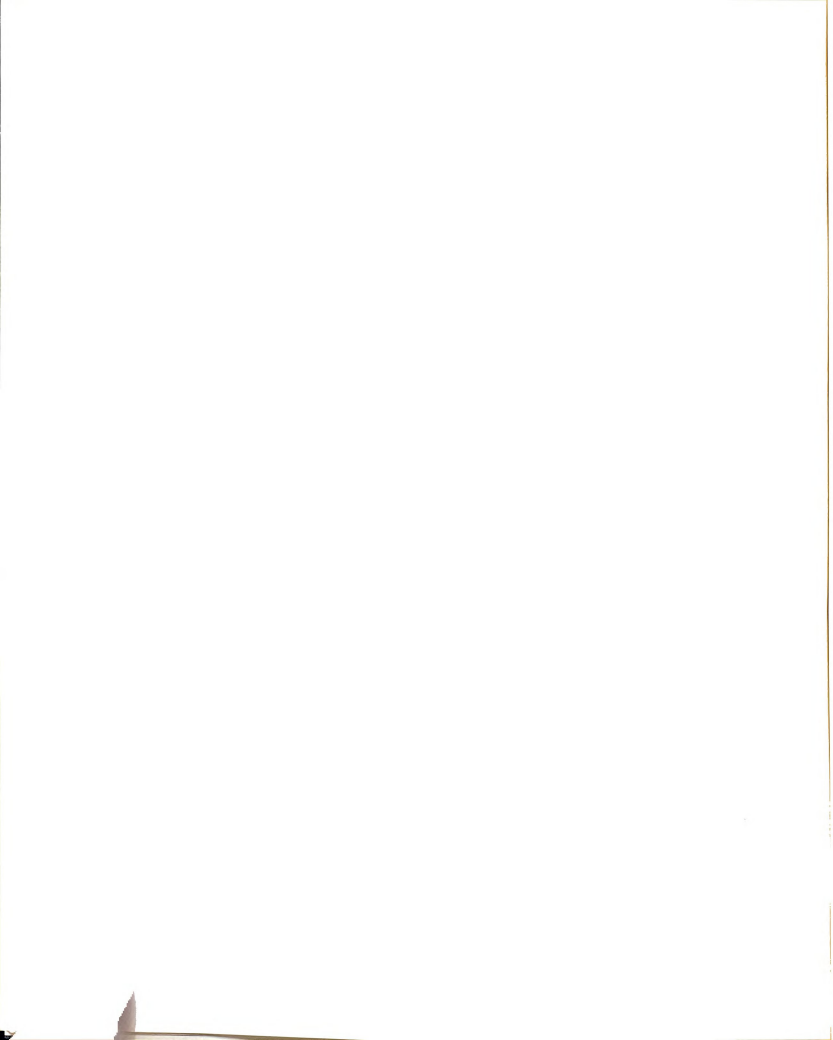
The general education of students majoring in home economics should include study in the humanities and in physical, biological, and social sciences, as well as in home economics. (Spafford, ed., 1949, p. 32)

This lengthy quotation and the subsequent criteria contained in the report for assessing a program in home economics affirm that understanding the home and family should be a primary objective of a home economics program, that the program should have a unifying core of subjects centered on the problems and responsibilities of the family and that the total program should be interrelated with other areas of knowledge. While making these affirmations, the study also recognized the importance of adapting a home economics program to the resources, academic climate and goals of a particular institution.

#### Evident Conflicting Curriculum Purposes

If one concludes that the idealism of this 1949 criteria report was accepted, the problems of how to achieve it and to gain public acceptance continued to exist. Further, as newer specialized occupational and research areas developed for home economists, the problems increased in complexity. A positive trend toward a more integrated curriculum occurred with the growing interest in the family and human development. Efforts were made to reverse the strong trend toward a diversity of required home economics courses and to incorporate interdisciplinary courses focusing on family-centered issues (Ferrar, 1964,





p. 28). At the same time distinctions occurring between the broad general programs desirable for teacher preparation and the more specialized programs needed for other occupations created many concerns about the extent of the core curriculum and the degree of professional preparation possible at the undergraduate level. Curriculum studies showed a variety of plans, each justifiable in terms of the department's concept of its purpose (Ferrar, 1964, pp. 27-30).

Period of Re-Evaluation and Assessment  
1959-1970

Statement of New Directions - 1959

In 1959, the American Home Economics Association, following a three-year study, promulgated New Directions. This is a statement of purpose, goals and challenges for the professional. It clearly expresses that Home Economics is a field of both knowledge and service primarily concerned with strengthening family life through education, research, service, and the promotion of conditions and competencies conducive to better family living. It further states that home economics as an area of study has the task first to synthesize knowledge from the humanities, the arts, and the basic sciences, and secondly to apply this knowledge to improving the quality of life. This statement which has become a fundamental document for the profession re-emphasizes the close dependence of home economics upon the root sciences and arts. At the same time, it challenges curriculum planners to find ways to create a curriculum at the undergraduate level able to develop competencies in specialized areas and yet be

broad enough to relate family welfare to civic and community developments.

### Identification of Curriculum Strengths and Weaknesses

#### Selected Workshops and Seminars

In 1959 an AHEA sponsored workshop examined concerns of small departments of home economics. Considerable attention was given to the problem of how to achieve both the liberal and professional ends of education. Scott in enlarging on New Directions challenged the faculty in liberal arts colleges to strengthen home economics in higher education in two specific ways.

I hope you will explore and be able to demonstrate ways by which home economics instruction can contribute to and constitute a part of a liberal education. A review of our early history reminds us that the liberal arts first nourished home economics. President James A. McCain of Kansas State University has said, "Home Economics could become one of the first American Casualties of the Russian Sputnik . . . (due to) two regrettable conditions: widespread ignorance on the part of the general public (and too many educators) of what home economics is all about and failure on the part of the specialists themselves to keep home economics firmly grounded in the liberal arts . . . " . . .

The second way in which I believe smaller college departments can lead the way, is to demonstrate undergraduate curricula for home economics majors, which provide the breadth increasingly recognized as important preparation for living in tomorrow's world, yet at the same time provide some degree of what is considered professional preparation. (Scott, 1959, pp. 28-29)

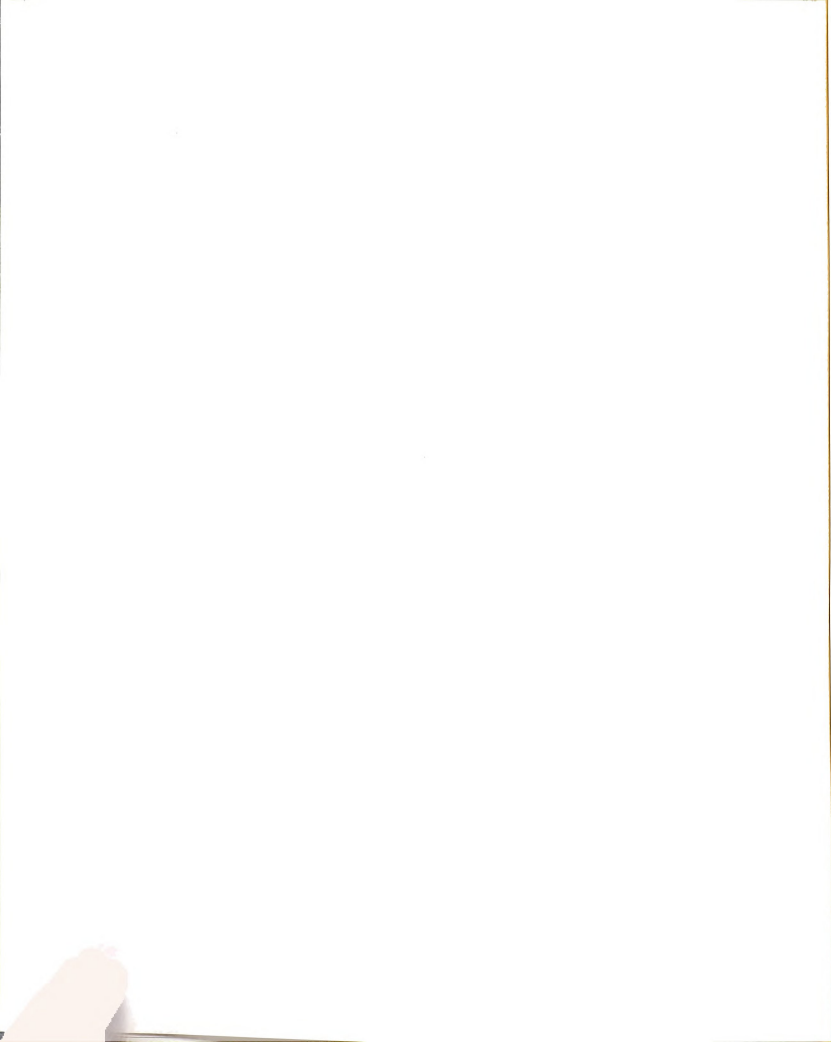
Both the promulgation of New Directions and this workshop represent attempts to gain unity of thought within the profession by a clear, historically based, contemporarily studied, and future orientated statement of focus. Yet, the practical implementation of this into



satisfactory curriculum frameworks remained unresolved. Literature of the 1960s continues to reflect the deep-seated concerns.

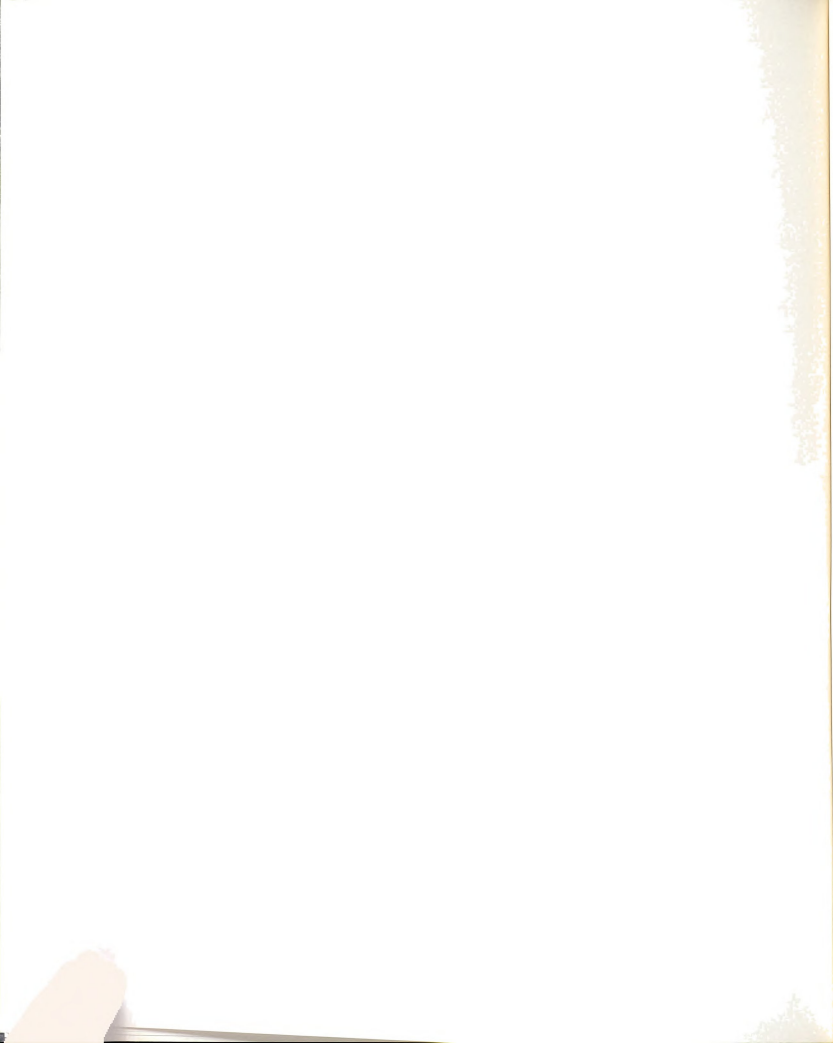
In 1960 as an outgrowth of a curriculum study at Michigan State University a small group of administrators met to discuss these concerns. Paul Dressel as a curriculum consultant and outside listener advised the group of the necessity to establish a clearly identifiable field of study in opposition to what appeared to be a grouping of specializations some of which were content oriented and others problem centered. Dressel gave support to the idea of replacing the traditional type of core curriculum made up of course work from various areas of specialization with a smaller core developed from the identification of concepts and attitudes common to all areas (Porter, comp., 1960, pp. 57-59).

The following year, 1961, a seminar sponsored by the Home Economics Division of the Association of State Universities and Land Grant Colleges was held in French Lick, Indiana with the intent of discussing problems of articulation and differentiation of home economics subject matter at various levels of teaching. As the planning committee pursued these goals, once again, the need, indicated previously by Dressel, of identifying key concepts and principles pertinent in the subject matter segments became evident. This approach to identifying a core structure of a discipline is supported by the writings of Ralph Tyler and Jerome Bruner (Home Economics Seminar, 1961, p. 2). The decision to begin this approach represented a significant turning point in the analysis of curricula in home economics.



Paul Dressel, consultant for this conference, explained (1) that all applied areas are heavily dependent upon a body of ideas and principles within the more basic arts and sciences, (2) that students must become aware of this relationship in order to develop ability in resolving problems in the applied areas, (3) that the expanse of knowledge can lead to fragmentation unless it is synthesized into larger significant concepts, (4) that the identification of key concepts applicable to several fields can link areas of knowledge giving a sense of wholeness, (5) that the same concept can be used with varying levels of sophistication which in turn can integrate knowledge, and (6) that if instructors do not develop the tools to integrate knowledge, for example, a common conceptual framework, the student's learning process will be slowed (Home Economics Seminar, 1961, pp. 7-10). In conclusion, Dressel encouraged the group to seek basic concepts which give unity to an area of knowledge and in turn facilitate curriculum planning by enabling an orderly progression from the simpler to the more complex concepts and unifying generalizations and principles (Home Economics Seminar, 1961, p. 21).

At the same conference James McCain challenged the participants to "view with concern the extent to which home economics had deviated from its original moorings in the liberal arts." He pointed out the weakness of teaching merely the "how" of doing things without the "why." McCain urged that home economics curricula in higher education be submitted to meticulous scrutiny in order to (1) make appropriate disposition of courses that teach only skills



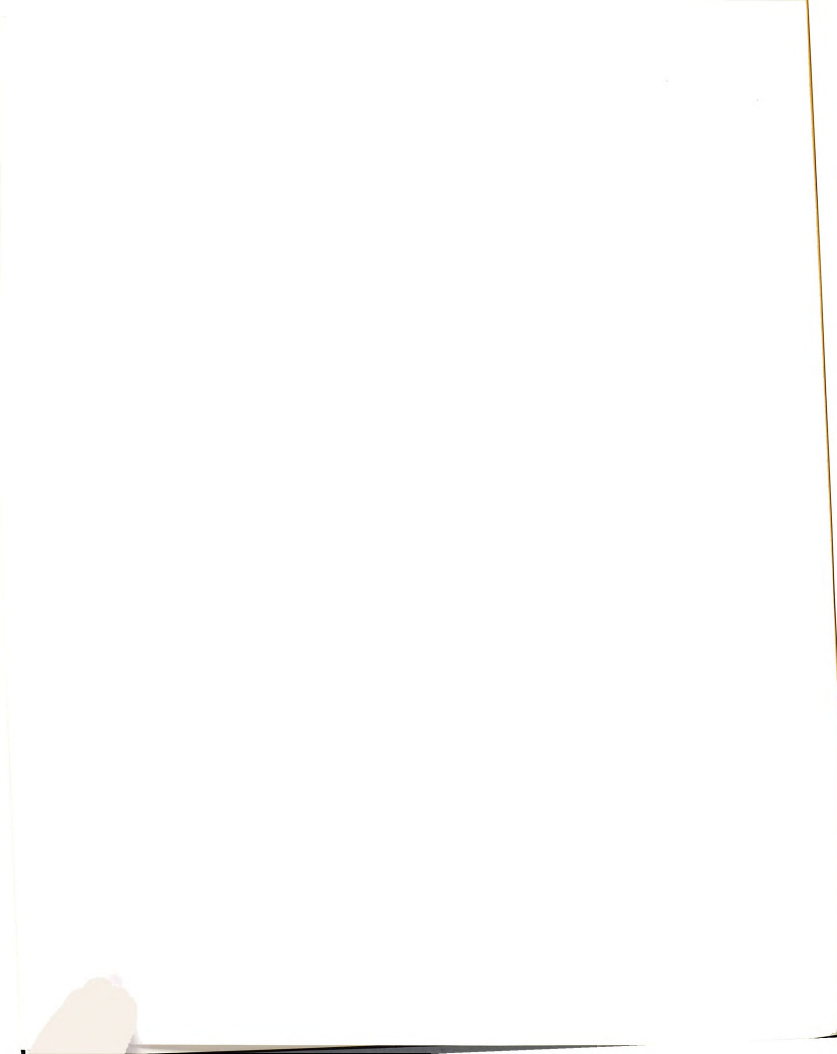


and that are, therefore, vocational in character, and of those that overlap and duplicate content, and (2) find ways to increase the humanistic and social science content of curricula for all fields of specialization within home economics. (Home Economics Seminar, 1961, p. 20)

As a result of the curriculum planning and evaluating principles presented by Dressel and McCain, the seminar participants identified the following tasks to be done, if, through educational systems, home economics were ever to move to a mature level as a professional field.

1. Exercise selectivity in subject matter content at all levels through defining precisely those intellectual ideas, concepts, and principles of the undergirding fields of knowledge as well as its own, which are significant and appropriate for today and around which it proposes to organize its professional component.
2. Be willing to discard the obsolete, the unimportant, the minutiae; eliminate proliferation, duplication, and overapplication.
3. Find ways of integrating its knowledge, and of relating and applying its principles and concepts to the problems which individuals and families confront.
4. Develop curricula at all levels of education that reflect a reasonable balance and interrelationship between general-liberal education and purely professional-technical specialization.
5. Liberalize the content of home economics courses and recognize that professional courses, taught with breadth and vision, can make an important contribution to the education of all university students.  
(Home Economics Seminar, 1961, pp. 21-22)

Inasmuch as this seminar and previous workshop brought together educational leaders, there can be little doubt that the principles enunciated and the challenges presented had an impact on curriculum changes in the 1960s. No assembled data are available that give a comprehensive view of the changes. Such data could be gathered from



the annual reports of specific institutions and through an analysis of catalogues.

#### Selected Studies

In addition to the principles elicited within the preceding described workshops and seminars of the early 1960s, three other studies of that decade are particularly significant in understanding trends and developing guidelines for curriculum planning in home economics as higher education adjusts to the needs of a rapidly changing society. Schneider (1965) traced the history of home economics in Catholic colleges all of which have a basic commitment to liberal education. The study showed that in 1963, the sixty three colleges offering programs in home economics, although influenced by the movement toward professionalism, listed preparation for home and family living as the primary objective and preparation for a profession as secondary. Trends in subject matter areas reflected changes brought about by technology, modifications in patterns of living, and a greater emphasis on consumer and management problems. In a discussion of the problems facing home economics departments in Catholic colleges, Schneider listed the continued questioning of their right to be within the framework of a liberal arts college and the ability to prepare students to serve the social needs of society in keeping with the teaching of the Church as contrasted to the more materialistic goals projected by professionalism. Schneider also listed the problems of cost in relation to small enrollments, heavy faculty teaching loads, providing for adequate professional specialization, insuring quality



of teaching staff and maintaining enrollments (Schneider, 1965, pp. 116-126).

At approximately the same time the Schneider study was being made, Lee and Dressel made an intensive investigation through the Institute for Higher Education of the relationship between liberal arts studies and professional courses in home economics curricula. The detailed report begins with a comprehensive, logical analysis by Earl McGrath defining and showing the relationship between liberal education and education for any profession. This is followed by a review of the fluctuating patterns in home economics curricula as the subject matter developed from a women-orientated education rooted in the liberal arts tradition to its recognition among the practical and technical arts and sciences to the current efforts to establish home economics as a valid professional discipline and body of knowledge.

Following this theoretical and historical background, the data obtained through a review of programs in eight universities were analyzed in an effort to identify the present practices and interacting forces affecting the balance of liberal and professional components of the home economics curriculum. The study showed a wide variation in the proportion of professional courses required in the programs examined. This fact influences the possible proportion of time for other components. Liberal arts requirements varied from 27 percent to 66 percent. The trend was away from skill orientation toward theoretical content orientation, reduced laboratory experiences,



emphasis on principles and concepts, and the development of courses with broad liberal overtones. The researchers also found considerable variation in conceptions of and support for a core curriculum (Lee and Dressel, 1963, pp. 63-65).

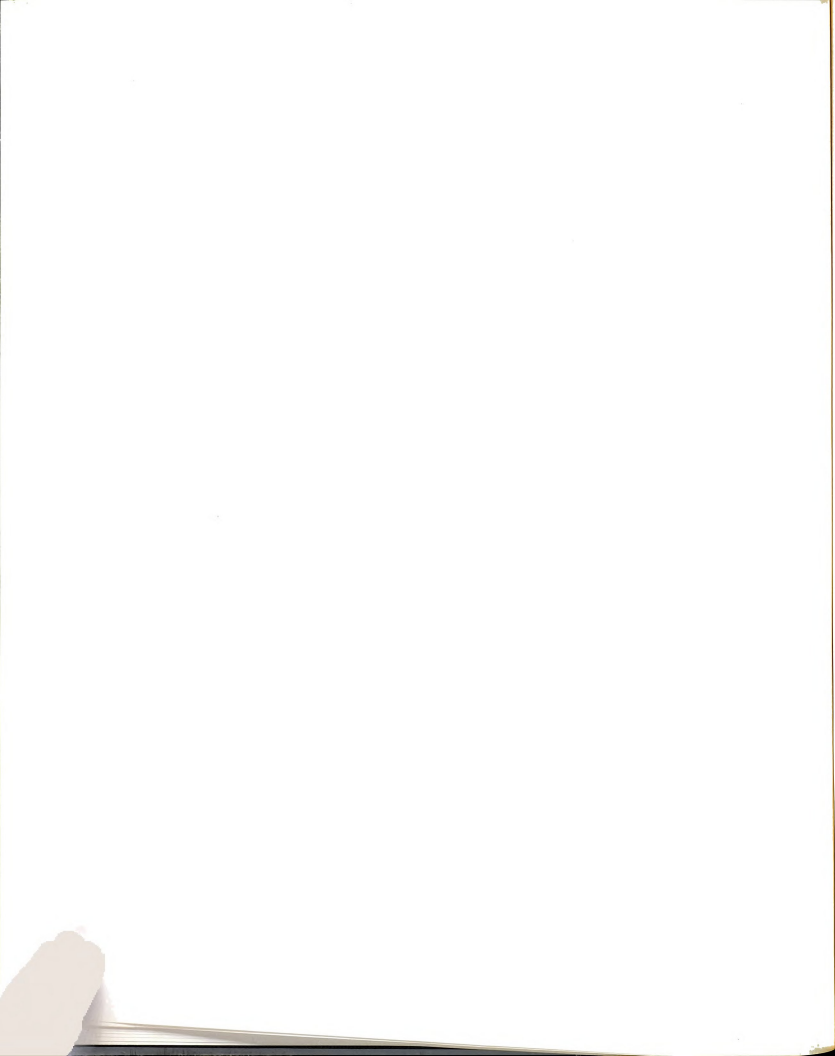
The identification of these trends is significant not only because of their relation to the tasks identified at the French Lick seminar but also because the larger universities have a greater influence on the direction of the profession and curriculum objectives than the smaller colleges due to the difference in the number of graduates within the total profession. The basic philosophy of a liberal arts college imposes a stronger and primary commitment to the goals of a liberal education. At the same time graduates must compete in the job market with graduates from programs within universities which are professionally orientated and often better known. Further, graduates from liberal arts colleges must feel adequately prepared to embrace a graduate program at a university. The faculty, as professionals, in both types of institutions have a basic commitment to understand and promote the basic values and philosophy of the profession itself. There is, therefore, an interdependency and inter-relatedness among all types of institutions of higher education influencing curriculum planning.

In view of the preceding stated relationship, the identification of critical issues and possible solutions in the Lee and Dressel report has strong implications for all institutions. They conclude that, if home economics is to emerge as a strong, unified field, there





must be a revision of courses and curriculum structures that is consistent with a clarification of the concept and professional role of home economics. The resolution of the basic problem, thus, must begin with the clarification of the concept of "home economics" which at the time of the study appeared to have three distinct interpretations, namely, (1) that it is a single field, (2) that it is a unified field made up of specialities with a unifying core, and (3) that it is a collection of specialities having some minimal traditional relationship but more forcefully linked in an educational institution by an administrative format (Lee and Dressel, 1963, p. 89). The interpretation of "home economics" in turn effects the presence and nature of a "core" of subjects within a home economics program. The study seriously questioned the capacity of any program to prepare a generalist in the traditional sense of one equally able in all areas associated with home economics except at a very low level of proficiency. This implies that an undergraduate major must have some specific focus to develop the depth component essential in a valid academic program. Further, the study stresses the need to determine and define those elements common to all aspects of home economics and to reexamine curricula in terms of the focus of these elements. Likewise, the term "home economics" should be questioned for its capacity to best describe the field. The enumeration of critical curricular issues stressed the importance of developing scientifically based bodies of knowledge for the key areas of concern, namely, food, clothing, shelter, and human relations in the context of family life. The study concludes with a listing of twelve generalizations

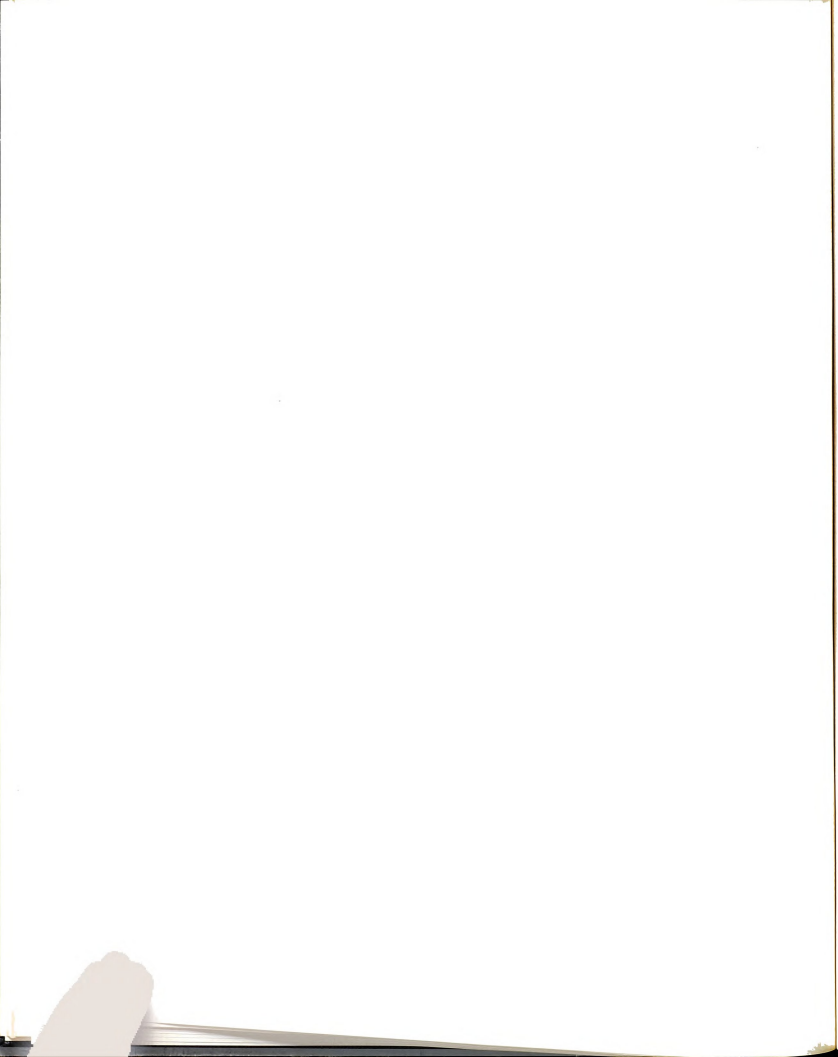


suggesting steps to be taken as a means of clarifying the relationship of home economics to the liberal arts (Lee and Dressel, 1963, pp. 106-107). Because the Lee and Dressel study attempts to relate an historical perspective, the existing situation, and principles of curriculum planning in higher education, its conclusions are not only a synthesis of data but also a fundamental tool for further curriculum development.

A third significant study of this decade was done by McGrath and Johnson and is actually an outgrowth of the Lee and Dressel study. This 1968 analysis sponsored by the Institute of Higher Education begins with an historical review and then proceeds to interpret data on existing programs obtained from a survey of the ninety-nine member institutions in the National Association of State Universities and Land Grant Colleges having programs in home economics. The two-fold purpose of the study was to determine the role through which home economics can serve human needs in the next generation in view of societal trends and to give guidelines for educational institutions in planning programs for research and the preparation of professionals. In seeming contrast to the Lee and Dressel report, McGrath and Johnson support the generalist major in saying

. . . home economics at the undergraduate level can best confirm its heritage and meet present challenges by retaining a strong generalist major, while expanding its interdisciplinary base in order to fully comprehend contemporary social problems and those of family life. (1968, p. 88)

In making this statement, the study does not deny the importance of some specialized majors but feels the generalist approach is the best



undergraduate preparation for the professional field of teaching, business, and community service. In giving guidelines for the implementation of this goal they state the curriculum

. . . must be systematic and interdisciplinary rather than a congeries of snippets of specialization.

Its instructional core ought to be the analysis of family structure and functioning; . . .

Its value orientation, that of assistance to families; and its goal, the creation and enhancement of viable family life.

These integrating principles provide the unity of concepts, skills, and values distinctive and necessary to the core of home economics. . . .

The scope of concern in the broad undergraduate major should range from human development to consumer economics.

This scope will require close integration with the basic analytic disciplines such as biology, sociology, and psychology. Indeed these disciplines must provide the grounding for the basic generalist major and for options within this major organized around certain integrative themes. . . .

If home economics is to move in the mainstream of professional education in the United States, it must broaden its basic undergraduate program through increased liaison with other academic disciplines. (pp. 88-89)

The rationale supporting these and other guidelines in this report together with the Lee and Dressel report provide important considerations for curriculum planning.

#### Selected Commentaries on Issues of Concern

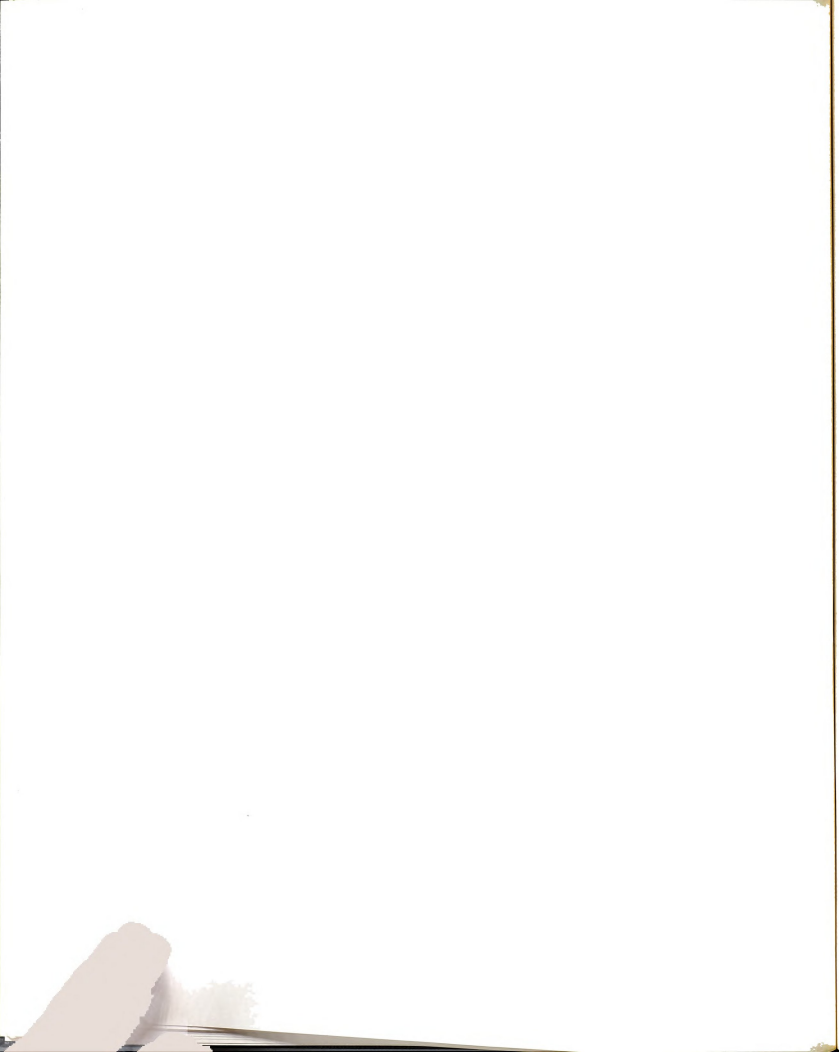
Concern for the academic credibility of college curricula as the foundation for the future professional who would, in turn, determine the strength and viability of the profession itself, is evident in the literature recording the analysis and planning for accreditation



of home economics curricula by the American Home Economics Association in the 1960s and reaching actualization with pilot studies in 1970. Pertinent to this study, Henderson (1965) listed six critical issues confronting home economics in colleges and universities. Of these she enlarged particularly on the issue of generalization versus specialization, observing that the diversity of preparation required by the specialized groups while threatening the unity of the profession is at the same time a result of the growth and development of the profession. This observation, however, does not deny that commonness of purpose is essential within diversity. Henderson (1965, p. 762) feels that this commonality is not to be found in the facts, principles, and skills of the specialization but in their mutually, socially significant purposes which need to be clearly identified and understood.

In a related article, Fleck (1965), drawing on ideas projected by Lee and Dressel (1963), emphasizes the concept of a core curriculum's ability to integrate and unify if the courses included provide the basic understandings and identification of interrelationships common to all home economists regardless of specialization. East, referring to the 1959 definition of home economics, maintained that home economists, although from a variety of specialized areas, have unity of purpose because all are to be concerned with "helping families shape both the parts and the whole of daily living" (East, 1965, p. 387).

During this same period of time some studies gathering descriptive data about existing programs were made (McKee, 1966; Griffith, 1966; Johnson and Swope, 1972). These supported the continued struggle

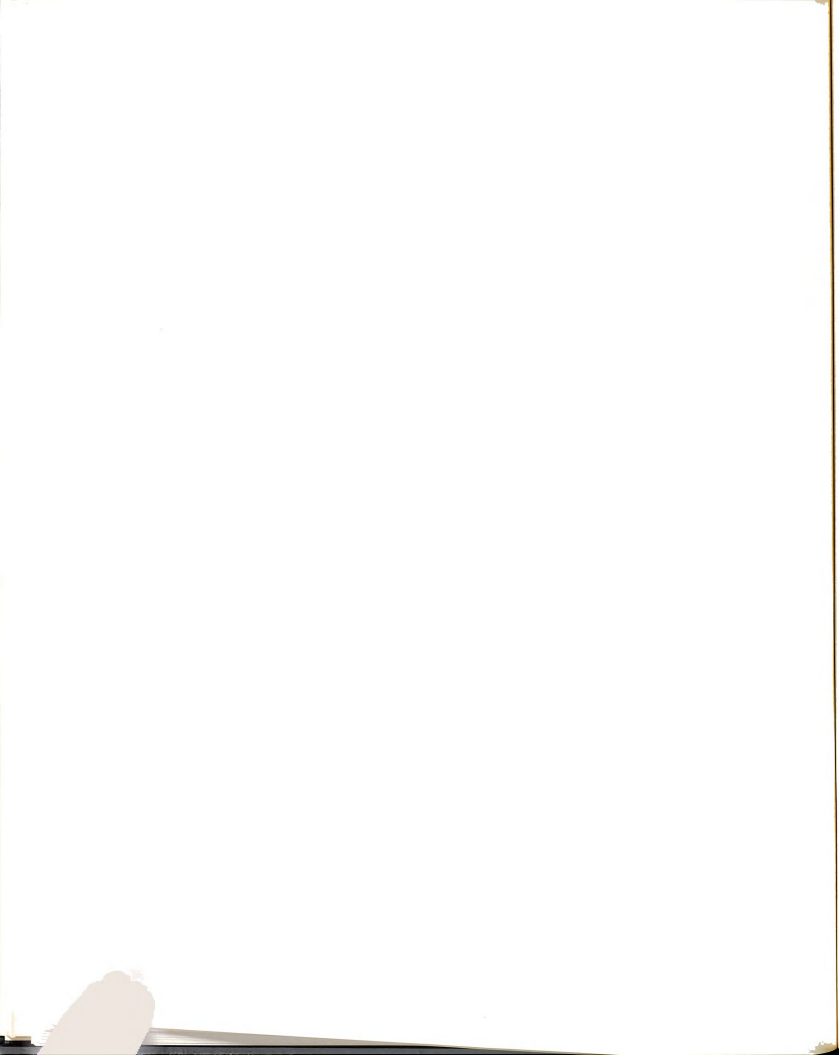




to resolve the problems already identified, namely, clarification of focus, discipline, and key concerns of the professional; diversity of roles and the increasing need for specialized knowledge; and the need for, or the question of an integrating force and/or unifying concepts. At the same time, data reflected efforts to adapt to new demands and to create stronger linkages through restructuring curricula and changing the name of the unit (Johnson and Swope, 1972).

Selected Commentaries on Concepts  
Basic to Home Economics

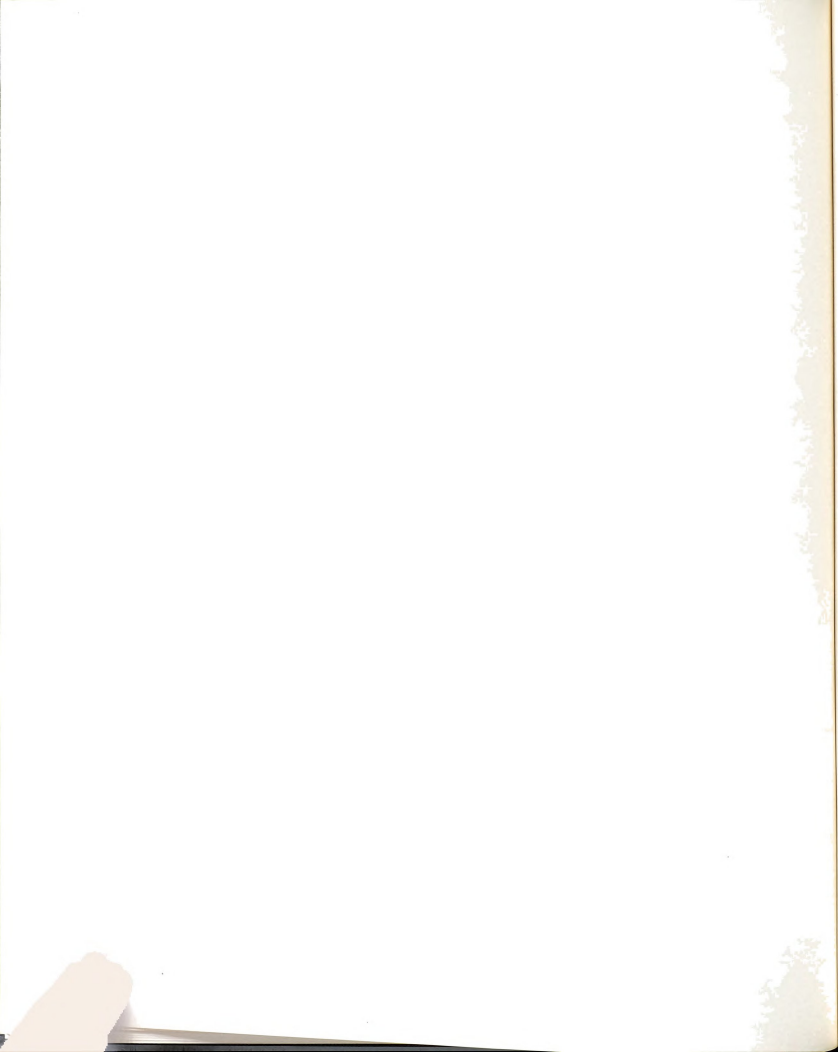
In 1960, Miller, speaking to a national group of administrators of home economics, explored various possible perceptions of home economics within a university and its curriculum. He expressed his belief "that the heart of home economics is in the relational system of the family" as studied in regard to the "physical, esthetic, social, economic and process variables" which converge to establish the functions of the family. He saw home economics as a professional pursuit insofar as it analyzed "several variables and/or technologies bearing upon the family" and, thus, is applying the arts and sciences; and a liberal pursuit insofar as it is "concerned with human implications of the family in society" (pp. 18-19). After giving the rationale for a suggested numerical distribution of a curriculum, Miller raised the question of the symbolism implied in the name "home economics" and suggested an evaluation of it. Finally, in closing, he challenged the group to rise above the scientific intrigue of focusing on the artifacts of the home, in order to "grapple with the humanness and



individualities and commonalities of the family" (p. 22).

In 1967, at the annual meeting of the Association of Administrators of Home Economics, Creekmore shared her ideas on concepts basic to home economics. Her perceptions reflected thinking generated by the "Committee on the Future" of home economics at Michigan State University and a review of historical definitions. Synthesizing this she defined home economics as the "study of man as a total being, his near environment and the interaction between them." She then explored the implications of this definition to curriculum development (Creekmore, 1968, p. 95). Reactors to Creekmore's presentation, while appreciating the historical roots of the definition, noted its failure to incorporate a professional service focus and commitment (Creekmore, 1968, pp. 99-102).

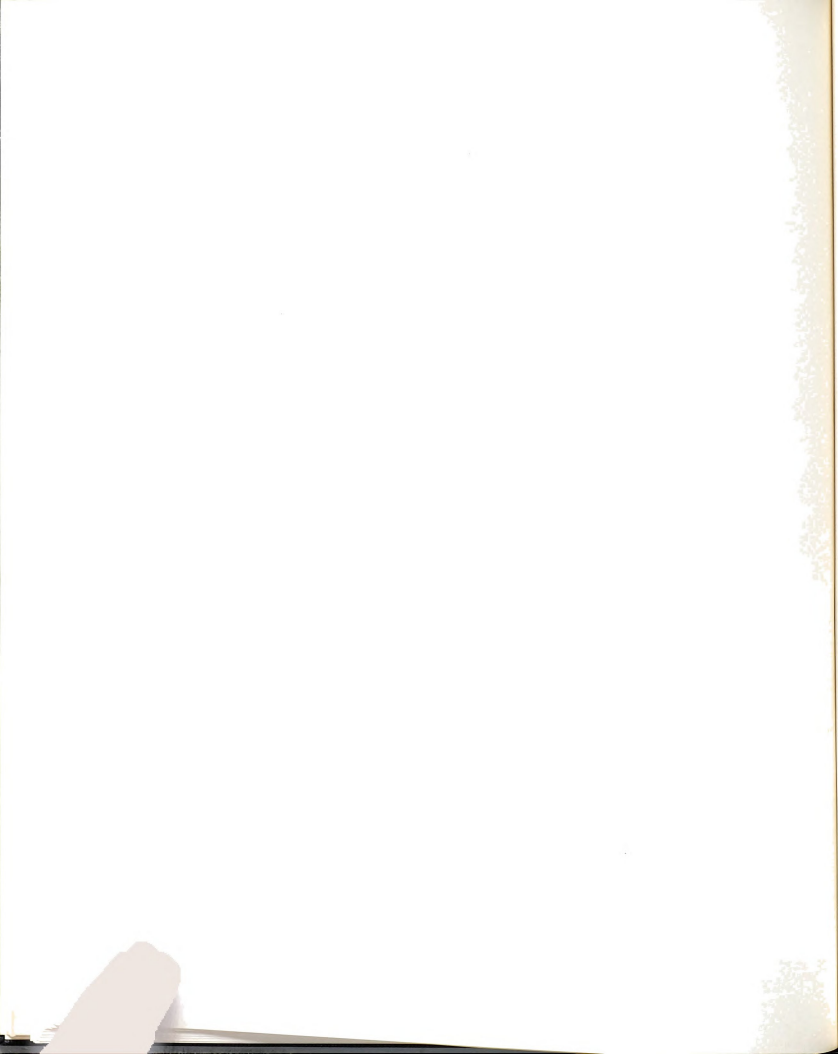
In 1969, Dressel, speaking to a similar group, again directed attention to the need to clarify the singular purpose of home economics and its relation to other disciplines as a basis for curriculum planning. Dressel, like Miller, examined ideas for the re-organization of home economics units. He, likewise, stressed that the good inherent in the discipline could be equally as well achieved and possibly better understood if given a new designation. Recognizing the need for an academic unit "concerned with the importance and enhancement of a viable family life," Dressel suggested "Human Ecology and Euthenics" as a comprehensive title for such a unit. In so doing, he emphasized the need to refine the comprehensiveness of this concept to the immediate environment of the family. He further suggested organizing a curriculum framework around the basic human needs of



food, clothing, shelter, affection and socialization as related to five values essential for human living. Dressel listed these as aesthetics, ethics or morality, hygenics or health, friendliness or happiness, and coherence or a sense of meaning. Implied would be a consideration of the processes essential to attain these values which Dressel listed as the allocation of resources, governance or decision making, education, production, and recreation. Dressel suggested that experimentation might lead to a creative way to integrate this trio of five essential needs, values and processes into a curriculum organization (Dressel, 1968).

As these curriculum analysts examine the issue, going back at times to the 1902 historical definition of home economics, and verbalize basic ideas, the concepts of "relationships" and "interdependencies" of the family or household unit come to the surface (Miller, 1960; Creekmore, 1968; Dressel, 1968). Likewise, there can be found in the literature the application of systems terminology and ecological concepts in developing models to express complex interrelationships related to areas of home economics (Magrabi, 1965; Young, 1968; Hook and Paolucci, 1970; Burke, 1970; Mannino, 1974; Holding, 1975). Although not expressed diagrammatically or in the same terminology, other articles express the growing importance of the interdependency of the home and society (LeBaron, Geyer, Deemer, Lyman, 1967; Ray, 1970; Hamilton and Girard, 1976; Walsh, 1976).

In addition to the ecological, relational, interactional, or interdependency concepts, emphasis on the managerial concept of resource development and its impact on the quality of life also permeates.



Byrd (1970) expressed this in defining home economics as the study of "human and material forces affecting homes and families and the utilization of knowledge for the benefit of mankind" (p. 414). Byrd arrived at this definition following a review of the 1902, 1959, and Creekmore definitions; the establishment of four criteria for a definition (the identification of a unifying theme, its spectrum of knowledge, its mission for research and service, and its relation to humanity), and an enumeration of projected societal developments affecting human needs to the year 2000 and having implications for the home economist.

#### Search for Future Directions of the Profession

In seeking future direction for the profession, the American Home Economics Association sponsored four inter-related activities. A "Lake Placid Conference" of selected representatives and leaders, preceded by a solicitation of opinions from a broader representation of the membership using the Delphi technique, was held in 1973. Following this conference, State follow-up meetings, and further discussion at the 1974 Annual Meeting of the Association, the statement of Home Economics - New Directions II was published in 1975. This statement of purpose identifies the family in its various forms as the focus of home economics and states that the professional works through the "family to affect an optimum balance between people and their environments" and "accepts the challenge to help people to adjust to change and to shape the future." It explicitly states that

The core of Home Economics is the family ecosystem: the study of the reciprocal relations of family to its natural and man-made environments, the effect of these singly or



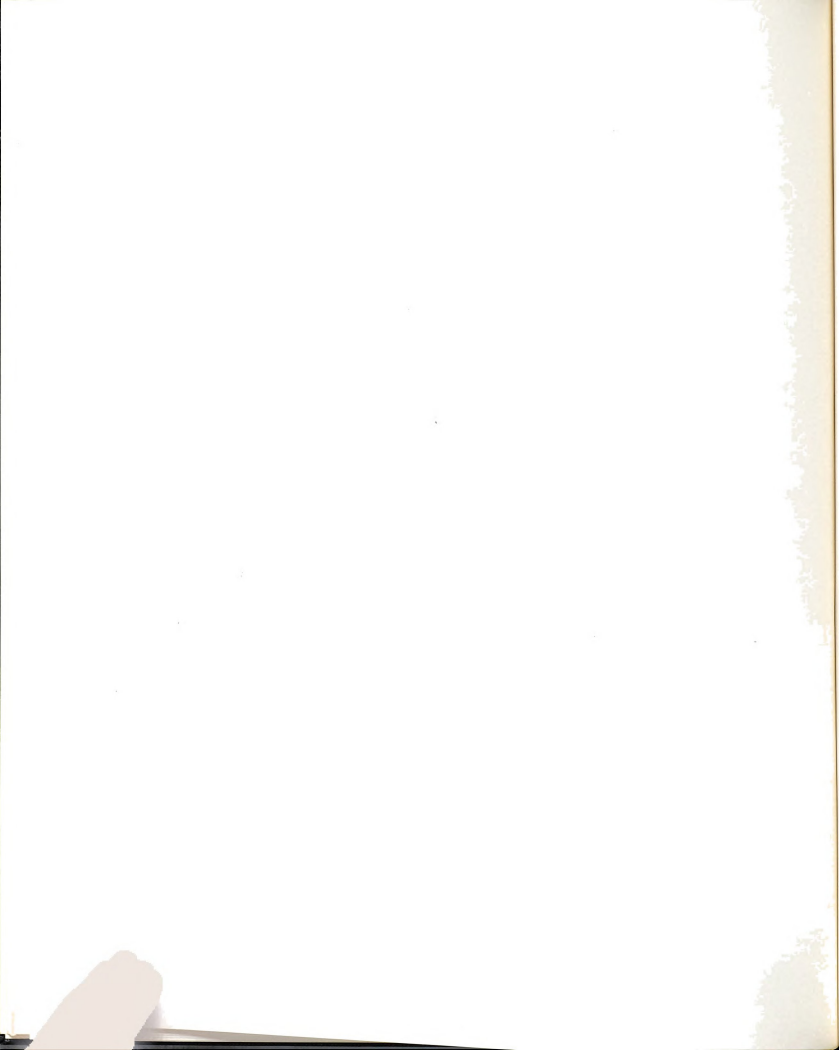


in unison as they shape the internal functioning of families, and the interplays between the family and other social institutions and the physical environment.  
(p. 2)

This statement, reflecting the efforts to obtain maximum input from the membership, was formulated by a special committee (St. Marie, 1974, pp. 32a-32d). The statement is founded on the assumption that the work of home economics professionals in business, education, and service programs is based on theory and research and includes an assessment of the implications of their activity on the family unit. It was not promulgated as a final statement but rather as the present perspective. Further, other than identifying five timely priorities for activity, the statement stresses the need for each professional to evaluate his/her work in the light of the statement and to innovate programs that attempt to respond to these goals (Bivens et al., 1975, p. 27).

The third project sponsored by AHEA to determine future directions was the Home Economics Image Study: A Qualitative Investigation made by Yankelowich in 1974. The results of this study, which interviewed seventy-nine persons among businesses, government agencies, legislature, secondary education, colleges and universities, and media, stressed again the need to clarify professional goals and identity as a basis for a much needed stronger emphasis on professionalism with a clear and consistent focus.

A fourth activity sponsored by the American Home Economics Association in its efforts to clarify the role of the professional home economist is currently in process. Commissioned by the Association, Marjorie Brown and Beatrice Paolucci formulated a definition of

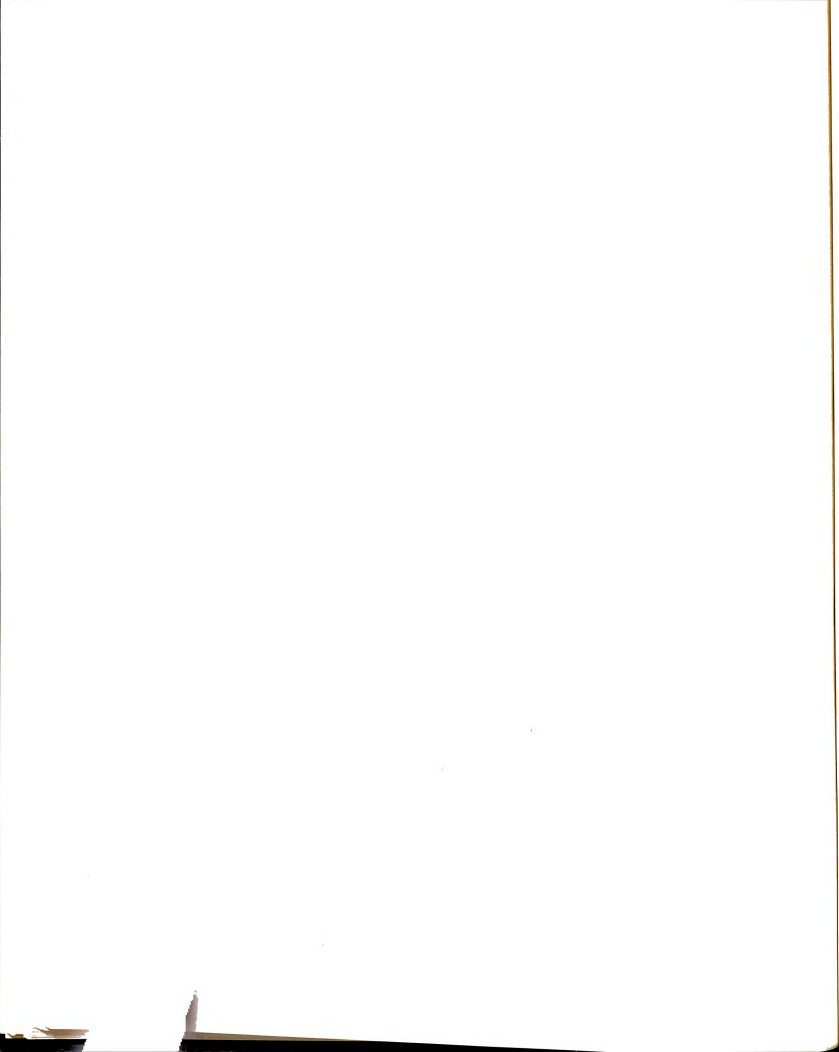


home economics through philosophical analysis based on the historical roots of the profession and the concepts of a profession and a science. The paper was distributed in 1979 for discussion by the membership at regional forms. The statement takes the position that home economics is a profession and a practical science concerned with the persistent problems of home and family. The paper emphasizes that the family is a determinant of the social character of both the individual and of society as a whole. From this position the following statement of professional mission was made:

The mission of home economics is to enable families, both as individual units and generally as a social institution, to build and maintain systems of action which lead (1) to maturing in individual self-formation and (2) to enlightened, cooperative participation in the critique and formulation of social goals and means for accomplishing them. (Brown and Paolucci, 1979, p. 23)

It is expected that this paper will stimulate self-examination and rational discourse among the members of the Association and influence the future direction of professional activity.

One way of assessing the impact of the preceding efforts to examine the purpose, focus and image of the profession is to observe trends in college curricula changes. A study made in 1973 to determine the reasons for, the extent and results of unit structural or name changes since 1962 indicated that a structural change had occurred in about 40 percent of the 214 units replying whereas only 10 percent or twenty-two indicated a name change (Weis, Manning, and East, 1974). In the 1974-75 bi-annual survey of home economics enrollments and degrees granted, of the 355 units surveyed, 11 percent or forty-one units indicated a title other than "Home Economics" for the unit. A



wide range of titles were used with "Human Ecology" representing the largest single group (7 units) (Harper, 1975, p. 1). The early study by Weis, et al. indicated seventeen different titles in the twenty-two indicated changes. The frequent use of the concepts of human, consumer, family, resources, and ecology in titles indicate an emerging emphasis (Weis, et al., 1974, p. 12). One could make a similar conclusion from the data in the 1974-75 Harper report.

### Conclusion

This preceding review of literature indicates that both historically and in the present there has been confusion regarding the purpose of the profession of home economics which in turn makes curriculum structuring based on clearly defined goals difficult. Questions of how to balance between general and specialized goals, liberal and professional ends, traditional time-honored values and contemporary needs, scientifically proven facts and technology, and philosophically based ideals and an awareness of human needs continue to be discussed to the present day (Trotter, 1975; Bonde, 1976; Spitz, 1976; Brown and Paolucci, 1979). The literature does indicate that the family in some form is a key concern of the profession but the complex nature of today's society and the evolving impact and changes on the family create an uncertainty in structuring a curriculum true to professional ideals while at the same time satisfying immediate societal needs. These latter needs continue to foster the movement toward specialized career preparation for the undergraduate. There remains, therefore, a continued concern and search for a unifying



force that will permeate the thinking and, in turn, create a uniqueness in problem solving and mission that would characterize a professional home economist. The intent of this research is to explore the concept of human ecology as a possible effective link between the goals for the preparation of a professional in the field of home economics and the goals of liberal education in curriculum planning.





## CHAPTER III

### THE LIBERAL ARTS COLLEGE THE INTEGRATION OF LIBERAL AND PROFESSIONAL EDUCATION

#### Introduction

The development of a professionally orientated curriculum within the context of a liberal arts college demands a clear understanding of the meaning of "liberal arts" as well as the objectives of the professional area under consideration. Before one can examine the compatability of liberal and professional education and determine the ratio allowed each, if considered distinctive, in a total baccalaureate program, it is logical to define the terms in view of origin, basic purpose, and contemporary usage. The objective of this chapter is, therefore, to define and examine the interrelationship of the two terms, "liberal" and "professional" commonly used today to describe or convey ideas regarding a college or curriculum in higher education. A secondary objective is to clarify the meaning of "liberal arts" as used in this dissertation to describe an educational setting.

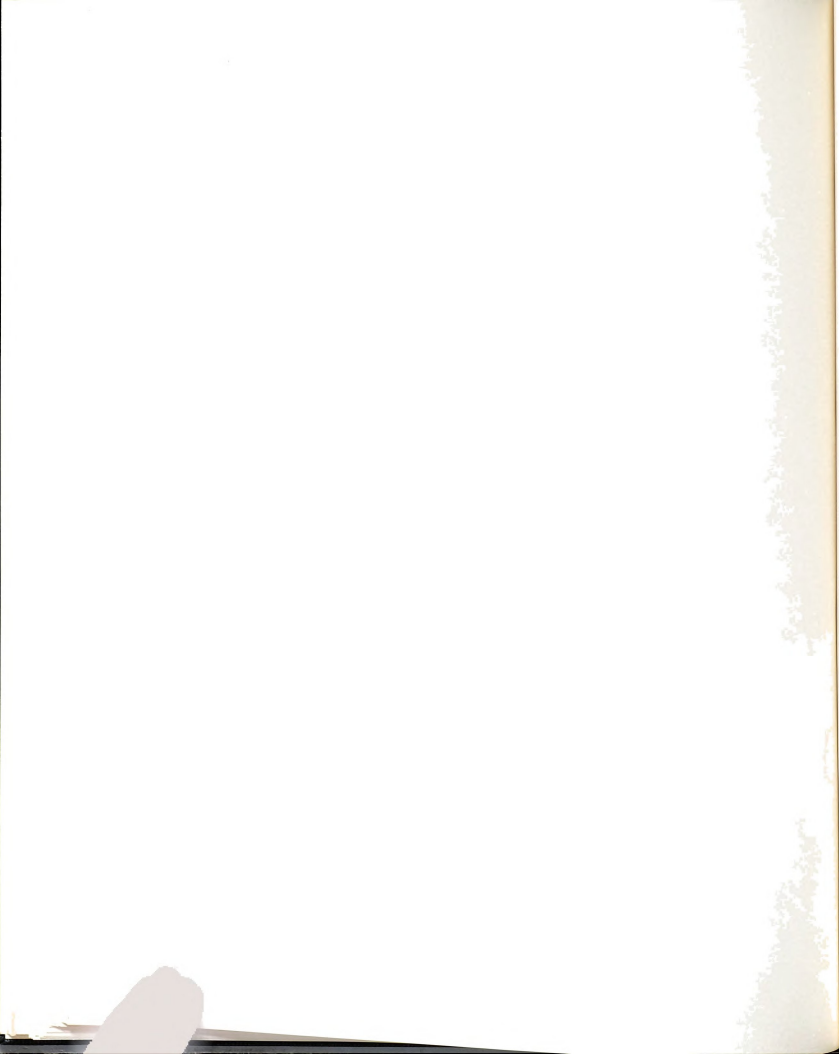
#### Origins of the Descriptor "Liberal" in Education

The roots of "liberal" as a descriptor of education lie deep in the past. Both the derivative of the term and its purpose can be traced to Greek and Roman times. In derivation the term "liberal" refers to the education provided for the free men, that is, the



"liberi," in ancient Greece. The purpose of this education was to cultivate the arts and skills or abilities considered necessary to find meaning in life and to prepare for responsibilities and leadership in the existing aristocratic democracy of the Greeks (Martin, 1926, p. 29). The skills of critical thinking and expression as well as the ability to understand and enjoy the known world were cultivated through opportunities to practice these skills and to receive through interaction with others an understanding of the then existing bodies of knowledge. From a subject matter perspective the Greek education found structure in the trivium (grammar, rhetoric, and logic) and the quadrivium (arithmetic, astronomy, geometry, and music). Inasmuch as this grouping of subjects served the Greek society well and the ancient Greek culture became a model for many future generations, the educational format became the model and basis for the majority of subsequent educational formats through the 19th century. Of particular significance to this study is the fact that the long respected model was originally developed to serve a useful purpose.

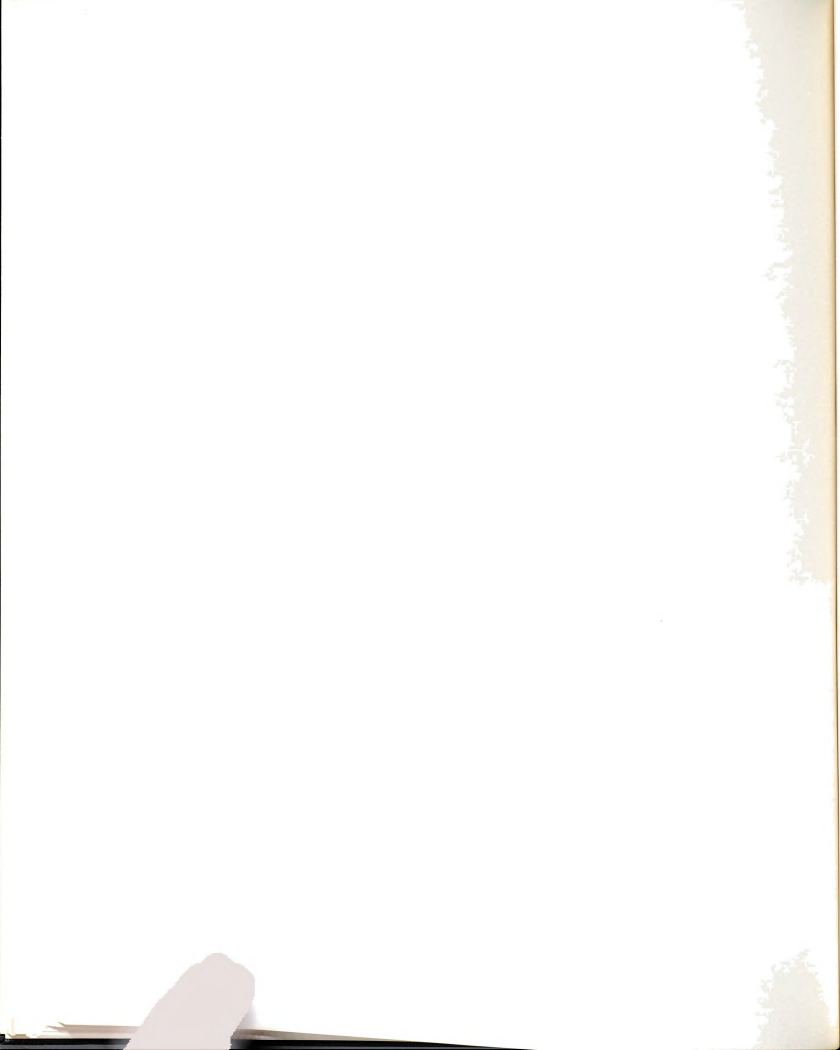
As time progressed, more knowledge about the known world accumulated and was gradually added to the accepted courses of study. Likewise, the study of languages and various modes of human expression and reaction to the world were progressively included. By the 19th century these bodies of knowledge had expanded to such a degree that it became necessary to limit what could be included in the then established four year curriculum. This need for limitation became a serious curriculum problem for institutions of higher learning because of the increasing realization that time for in-depth analysis in a



specialized area of knowledge was essential to further the understanding, management, and enjoyment of the universe.

Over the years, as diverse needs and goals were perceived, differing types of educational institutions developed. The term "liberal arts" was used to designate those institutions which continued to pattern their curricula on the classical format derived from the Greek.

Unfortunately, some educators interpreted this classical format literally and considered the basic content areas identified by the Greeks as the scope of education. Consequences of this thinking did not become evident until the more specialized bodies of knowledge developed and sought a place in the college curriculum. Resolution of the resulting time distribution conflict frequently was achieved by compartmentalization of content-orientated courses into special programs such as a bachelor of science program versus a bachelor of arts program, and a professionally oriented or "practical arts" program. This problem continues to the present day and poses problems of interpreting values of an education for today's society. Efforts to resolve the problem rest in focusing on the identification of the desired competencies to be developed in the learner rather than primarily on traditionally specified bodies of content. It is in this context that a "liberal arts" college should be defined.



### Goals of a "Liberal Arts" College

If one accepts the fact that the concept of a "liberal arts" college derives from the ideal of developing a person with skills that qualify for leadership rather than subordination in a society, then one must begin by asking what are these skills perceived necessary for the present and future social milieu of people. Inherent in this assumption is the fact that freedom or independence implies some type of control over the social and material situation one is in rather than being controlled or dominated by the situation. Thus, the concept of "liberal" means not only education for the free persons of a society versus the non-free, but more profoundly it means an education which frees or liberalizes a person by developing both an understanding of the world itself and the powers that enable directing the world for the ultimate good of all humanity. It was in this context that the "classical" curriculum was conceived. The curriculum prepared students for the learned professions recognized at the time and "assumed an interdependence between 'liberal' and 'useful' education" (Cheit, 1975, p. 8). Proceeding from this premise, a "liberal arts" college can be defined as one which conceives its primary purpose to provide a liberalizing education.

### Origins of the Descriptor "Professional" in Education

With the expansion of knowledge, technological developments, and the need for people with specialized skills as well as the need for a person to have a specialized ability in order to achieve some





type of economic security in the modern society, there have been many efforts to define the ends of education and in particular the goals of the undergraduate degree. As already indicated conflict occurred when educators were confronted with the need to satisfy pragmatic, close range demands of society. Consequently, since the nineteenth century a distinction has existed in educational language between liberal and professional education. The former has generally been considered to provide a broad scope of knowledge and to focus on the development of cognitive skills. The latter has tended to be interpreted as centering on the development of specialized and technical skills to give proficiency in a specific area of knowledge essential to satisfying a specific need of society. As these specialized needs of society increased, the value of a broader education has been questioned. An examination of the meaning of "liberal" and "professional" can demonstrate that they are compatible and not mutually exclusive terms. Considered as integrated they can be the foundation for a basic curriculum framework intended to prepare people for not only current but also future personal and societal needs.

#### Defining Liberal Education

The aim of all education deriving from the root meaning of the term, education, is to lead or draw out from the individual his potential or powers as a human being. Educationalists have classified these as cognitive, affective, and psychomotor (Bloom, ed., 1956, pp. 1-9). The word "liberal," meaning free, connotes an education which frees an individual by developing those powers which will give



control over what might otherwise dominate the individual. The ideal would be genuinely to free a person through education from all that would restrict one physically or psychologically from living fully and abundantly (Adams, 1975, p. 341).

In order to achieve this freedom many recognized authorities have examined the question and proposed what should be studied and what methodology should be used. The writings of Plato and Aristotle in ancient times are considered basic. John Henry Newman, Henry Tappan, Justin Morrill, John Stuart Mill, Daniel Gilman and George Elliot are among those of the 19th century whose ideas shaped liberal education programs. Currently one can examine the writings of Robert Hutchins, George Schmidt, William Cunningham, Earl McGrath, Mark Van Doren, Paul Dressel, Thorstein Veblen, and Alfred Whitehead.

In 1973, five national higher education associations banding together in an action-research project for the renewal of undergraduate liberal education synthesized various opinions on the historic meaning of education and, as quoted by Cheit, defined it as

Not only the mastery of bodies of information and knowledge but coherence among them . . . (enhancing) personal development and a philosophy of life and providing understanding, appreciation, and competence in the shaping of the physical and social world. (Cheit, 1975, p. 11 quoting from Change in Liberal Education, 1973, p. 2)

In interpreting this Cheit states, "Liberal education sought in short to develop those energies of the mind that directed skill."

#### Objectives of Liberal Education

In the light of these comments, those of other scholars of the subject, and personal experiences, a liberal education can be defined



in terms of broad outcomes to be attained in the individual. These would be the ability:

1. To think, that is, use one's mental capacities to formulate ideas
2. To organize, analyze, and synthesize knowledge
3. To understand and communicate with others
4. To make choices and direct change that will serve the good of oneself, others, and society as a whole
5. To appreciate the existing society for how it came into being, for what it is, and for its future potential
6. To conceive man as a complex, thinking, feeling, aspiring, and physical being
7. To envision the interrelatedness of nature and its component parts with man and society
8. To satisfy one's own need throughout life for growth and a sense of self-worth

#### Knowledge as a Component of Liberal Education

It will be observed that none of the above goals or outcomes specify directly the learning of a definite body of knowledge, however, none of these outcomes can be realized without some basic core of knowledge. The broader the knowledge, the more opportunities will there be to use abilities and skills that go beyond the capacity of recall and imitation; and the clearer becomes the interrelatedness of groups of knowledge and appreciation for the complexity of the universe



and the total potential of human beings. For this reason both breadth of knowledge and the capacity to increase understanding are essential to the development of a liberally educated person. Traditionally, a very basic goal of education has been to expand an individual's body of knowledge. Formal education programs should enable this expansion to take place at a faster rate than would normally occur.

#### Definition of Knowledge

Webster defines knowledge in terms of what an individual possesses as "all that has been perceived or grasped by the mind." In terms of what is known he defines it as "the body of facts accumulated by mankind." Bloom and others make a distinction among (1) a knowledge of specifics and isolated bits of information, (2) knowledge of ways of organizing, studying, judging, and criticizing the specifics, and (3) knowledge of the major schemes and patterns by which phenomena and ideas are organized. These latter are the larger structures, theories, and generalizations which dominate a subject area and are generally used in studying the phenomena or in solving problems (Bloom, ed., 1956, pp. 201-204). These distinctions represent three levels of kinds of knowledge. Each is interrelated with the other two. The expanse of knowledge a person has can grow horizontally at each of these identified levels or it can grow vertically from one level to the next. Although one cannot arrive at the third level without some specifics, one level of knowledge acquisition does not need to be expanded before another begins. The whole process of assimilation of specifics from stimuli and the subsequent accommodation





into an increasingly more complex schemata or structure in the mind, as explained by Piaget, attests to this (Wadsworth, 1971, pp. 9-17). If growth in knowledge, therefore, by society as a whole or by an individual, is understood to be through recognizing new relationships, then growth is limited only by the limit of possible relationships. No one can truly measure the human potential for this capacity.

Liberal education, therefore, in relation to knowledge can be thought of as that which

- sets into action the powers of seeking knowledge and organizing and reorganizing it into action for specific purposes;
- gives a person a sense of joy from the use of these powers;
- motivates one to develop through the use of these powers in the search for truth; and
- frees one through the use of these powers to experience the joy of human growth.

Such a definition of liberal education could be narrow in perspective and selfish in objective unless one perceives purposes, the search for truth, and the joy of human growth in the sense of understanding the universe, the people who inhabit it, and the delicate art of maintaining the promotion of both. A truly liberal education would move one toward those levels of human development which Kohlberg describes as the "autonomous or principled" and "cosmic perspective" levels (1973, pp. 497-499).



### Bodies of Knowledge as "Disciplines"

Closely related to the question of the position of the knowledge component in higher education is the practice of organizing knowledge into related areas that have become known as "disciplines." It is understood that the more one knows in a specific area of knowledge the more complex reasoning or finer analysis one is able to do in solving problems related to the knowledge area. The "disciplining" or training of the mind to critical thinking, thus, has become associated with mastering the content of developing or already recognized groups of knowledge. Certain groupings such as the natural sciences, economics, mathematics, and philosophy have, in the course of time, gained the recognition of being the basic disciplines because it appeared that by understanding these bodies of knowledge one gained an understanding of the basic principles necessary for resolving more complex problems. With the growth of knowledge the question of what is basic becomes difficult to resolve. Likewise, it becomes essential for one to define clearly the basis for a division of knowledge into the identified "disciplines." As Dressel concludes, a "discipline develops from the rules of procedure which define its scope and modes of inquiry." He further adds that "the identification of disciplines is difficult and unanimity cannot be expected" (1968, pp. 41-42).

### Bodies of Knowledge as "Liberal Arts"

As a description of education, the concept, "liberal arts," conveys to many a grouping of subject matter areas that over the course of time have come to be recognized as valuable bodies of



knowledge each person should have. In this sense the "liberal arts" are closely linked with the concept of "basic disciplines" just addressed. This interpretation of "liberal arts" does have some historical foundation. As already indicated, the concept of "liberal arts" originated with the Greeks as a descriptor of an education intended to develop skills or abilities considered necessary for effective living. According to Grange a "liberal arts" education or the "classical curriculum" was also understood as the means whereby "human beings were provided with an integrated view which would free a person from a one-sided interpretation of life and its existence" (1974, p. 364). Such an objective does reinforce the fact already mentioned that the need for breadth of knowledge is essential if the ultimate goal of freedom is to be achieved. Unfortunately, this liberalizing end is often submerged due to preoccupation with seeking only breadth of knowledge.

Others say that "liberal arts" refers to the "seven" liberal arts, the trivium and quadrivium, used by the Greeks to train for accurate thinking and to provide the tools to symbolize one's thoughts (Henderson, 1960, p. 60). This concept of using "subjects" or knowledge areas to develop the critical thinking and communicative person, although philosophically sound, has frequently evolved into an emphasis on the comprehension of subject matter content as the primary purpose of higher education rather than maintaining the greater goal of developing the higher cognitive and valuing powers of the individual. Through a review of the Aristotelian goals which led to the content areas selected in ancient times, the justification of the choice made

can be appreciated and adapted to contemporary needs. (The reader is referred to Books VII and VIII of Politics by Aristotle for his rationale.)

### "Liberal Arts" as Liberalizing Skills

Although confusion exists in interpreting the "liberal arts," it is most appropriate and logical to consider them not as content areas but as skills. In reviewing the origin of the concept, Van Doren states,

The right reference in the word "liberal" is to a family of arts which also have their history and meaning. . . . The liberal arts, whether or not the fact is known, are specific arts, clearly distinguished from other arts and performing necessary human functions. . . . are but a few of the arts which anyone possesses or may possess. . . . are the specifically intellectual arts, and therefore are keys to all of man's operations as man. . . . Their activity is assumed in the useful and fine arts. . . . The liberal arts are the liberating arts. They involve . . . and call for dexterity of both mind and hand. Without these powers no mind is free to be what it desires. (pp. 71-79)

Following this rationale, a "liberal arts" college, therefore, as previously stated, would concentrate on the development of basic liberating skills. In response to current questioning of the relevance of a "liberal arts" college and education, Bernard Coughlin, president of Gonzaga University, has listed the following timeless skills or arts.

The liberal arts are mental arts . . . The skills that are included are: the art of reading, observation and listening, the art of classification and comparison of data, the art of reasoning upon and understanding relationships between data and between ideas, the art of critical analysis and synthesis of data and ideas, the art of drawing conclusions from and presenting ideas, the art of dialogue. The liberal arts as an educational device, therefore, are not a prescribed curriculum or



educational program; rather, they are various tools and educational processes for achieving mental skills. (1976, p. 589)

Pelikan also considers "liberal arts" synonymous with "liberation arts" contributing to a "freedom cum discipline" mode of living. He lists as four of the liberation arts, "historical remembrance" or liberation through knowledge of the action and wisdom of other times and places; "critical reflection" or the careful analysis of a situation versus acceptance as it is; "morale resolve" or the possession of well thought out values to direct one's life; and "thoughtful reverence" for the wholeness of the universe and for the potential of each human being (1973, p. 293). Other authorities can be identified who list similar skills giving support to and illustrating the interpretation of "liberal arts" as liberalizing skills. Actually these abilities can be developed through all levels of education and within a variety of subject matter content. Frequently these skills and the varying levels of development compare to the powers of cognitive thinking already referred to and enumerated by Bloom and others in the Taxonomy of Educational Objectives.

The preceding references may tend to emphasize the "liberal arts" as primarily mental skills. The concept, however, can be, and was in ancient times, extended to include the development of affective and psychomotor skills needed to maintain a sense of independence in contemporary society. Given this premise, a liberal education defined in terms of powers to be developed which foster freedom through understanding the world and the ability to function effectively and fearlessly within it, is an education in the liberal or liberalizing arts.



The question remains how to structure a curriculum that insures this development.

### Interrelationship of Liberalizing Arts and Knowledge Areas

Powers or skills cannot be developed and tested in a vacuum. Rather, they must be used in relation to something. This fact, together with the need for an "integrated view of the multi-dimensionality of human existence" and the world, and the other enumerated goals of liberal education form a basis for the identification of subject matter in a curriculum. At the same time the growth of knowledge, concern for newer concepts and modes of investigation, and the impact of technology and social change can lead to problems of course proliferation and fragmentation. There is, consequently, always a need for some criteria for selecting and organizing knowledge (Dressel, 1968, pp. 41-42). Accepting that any classification of the total realm of knowledge must be arbitrary, a system which allows focus on understanding certain segments of the universe simultaneously with understanding and developing certain ways of inquiry and thinking is particularly helpful. Such an approach frequently divides the modes of knowing and inquiry into three groupings: humanistic, scientific, and behavioral scientific. To this can be added the modes of communication or symbolic expression. Finally, although it is actually incorporated in the humanistic mode, philosophical thought as a mode of abstract and integrative thinking can be used (McGrath, 1959, pp. 20-25; Phenix, 1964, pp. 60-61).

Understanding the various possible modes of thinking through

an exploration of various defined branches of knowledge while at the same time examining knowledge to see relationships contributes to the development of the established ends of a liberal education. Further, it helps the individual realize that all people do not think or arrive at a principle in the same way; gives the individual a greater flexibility in his own thinking; and facilitates functioning in an applied area because the majority of problems encountered today involve diverse segments of knowledge reached by different modes of inquiry.

In summary, the relationship of "liberal arts" to "liberal education" rests on the premise that all education should lead to the development of powers within a human being. Those powers which help one understand the world and function effectively in it have a liberalizing effect on the individual and, thus, can be identified as the liberalizing powers or arts. Their development is an essential objective of a liberal education. Factual knowledge of the varied dimensions of the world and the principles which govern it is essential before human powers can be used in relation to it. Thus, subject matter content is part of any purposeful curriculum. The decision of content incorporation is facilitated by identification of the powers to be developed and their correlation with content areas while preserving the need for breadth of knowledge. The breadth dimension carefully devised can provide a multi-dimensional perspective of the universe and the ability to appreciate and use the diverse modes of inquiry and varying forms of expression within the human potential.



## Liberal Versus Professional Education

### Historical Perspective

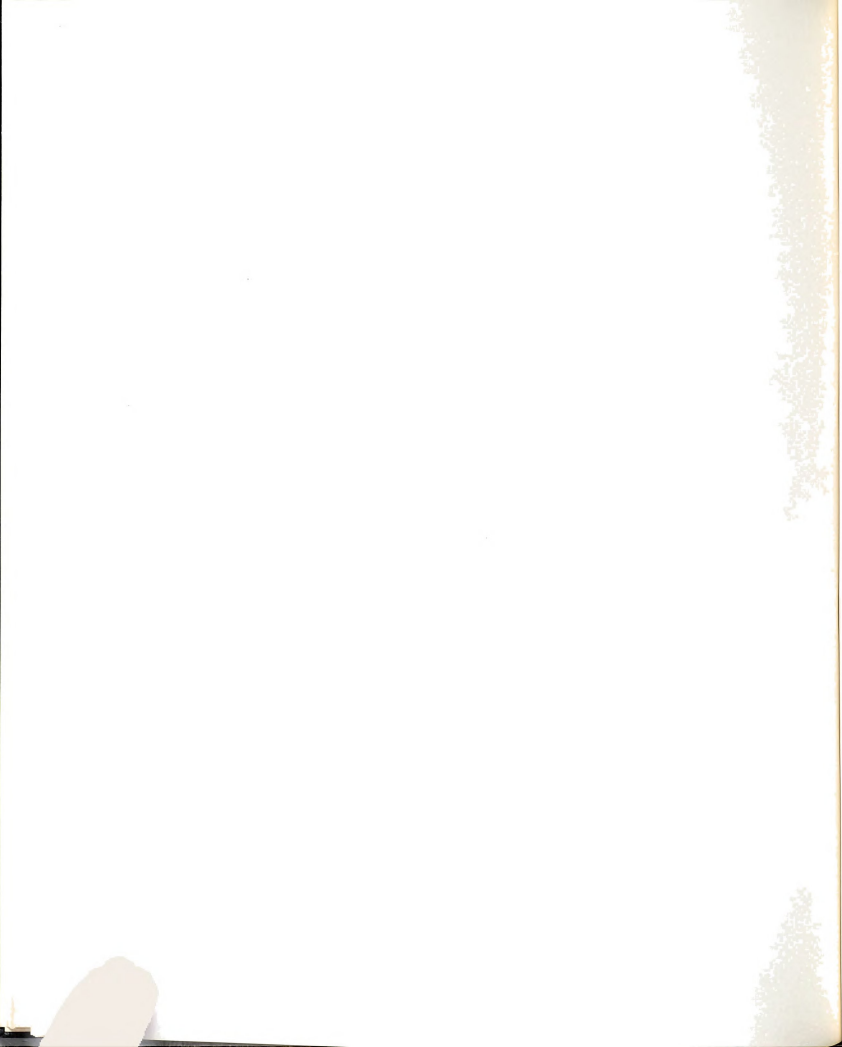
If one accepts the fact that liberal education is the development of the powers needed by an individual for freedom to function effectively in society and to find continued meaning in life, it should be evident that for today's economically based society such an education must develop abilities needed to maintain economic security. Yet, this integrated approach of the useful and the noble has caused considerable tension in education resulting in polarities of views. The question is closely linked with the question of relevance in education which has gained increased attention in recent years. The question, however, is not new. Aristotle asked it over two thousand years ago.

Existing practice is perplexing; no one knows on what principles we should proceed. Should the useful in life, or should virtue, or should the higher knowledge be the aim of our training? All three opinions have been entertained. (p. 412)

Aristotle continues his discussion and concludes that the answer of what is liberalizing in education rests in the primary purpose or objective within the individual.

The object also which a person sets before him makes a great difference. If he does or learns anything for his own sake . . . or with a view to excellence, the action will not appear illiberal; though if done for the sake of others, the very same action will appear menial and servile. (p. 413)

It would appear that Aristotle makes a distinction between education which has a useful purpose and that which does not, and that the freedom he speaks of as the end of education comes from seeking



nonutilitarian ends. It is not, however, that he does not value the useful but rather that he values more highly the dignity of the human being and, therefore, reasons that this dignity merits in life more than utilitarian ends. The following excerpts from "Politics" should attest to this:

. . . parents should train their sons, not because it is useful or necessary, but because it is liberal or noble.  
 . . . But to be always seeking after the useful does not become free and exalted souls. It is clear too that in education habit must go before reason, and the body before the mind. (Aristotle, p. 415)

The citizen should be molded to suit the form of government under which he lives, (p. 411)

In this latter excerpt Aristotle not only identifies the useful end but also the fact that the needs of the existing society should determine the educational format.

#### Contemporary Needs and Attitudes

In a recent examination sponsored by the Carnegie Commission of the relationship of professional preparation to liberal education Cheit points out

In the classical curriculum, there was no problem about the place of professions. The curriculum prepared students for the learned professions and assumed an interdependence between liberal and useful. (1975, p. 8)

He emphasizes this point by quoting Van Doren.

All education is useful, and none is more so than the kind that makes men free to possess their nature.  
 (Van Doren in Cheit, p. 8)

In his introduction, however, to his total discussion on the relationship of the useful and liberal arts, Cheit speaks to the change in educational belief and practice.



Although it was long assumed that liberal education was the paradigm of higher education, the continuing growth of higher education actually masked the fact that this assumption may not have been true for many years. Today . . . that assumption is so at variance with current experience that it no longer informs or serves as a guide. (p. 8)

Contributing to this disparity is the lack of a common understanding, already noted, of the essential meaning of "liberal education" as well as the complexity and confusion caused by rapid changes in society, the growth of knowledge and technology, and the expectations placed upon educational systems. These factors are inter-related as Aristotle recognized when he asserted that educational systems are intended to serve the needs of a society. In more recent years the discussion has gained momentum and renewed interest as the economic and social mobility conditions of our country have, of necessity, placed emphasis on "career education." Cheit concludes

. . . what had been a theoretical argument about the aims of education has now become a practical matter for most students, faculties, and institutions. (p. 3)

In the nineteenth century when much of this controversy started, the crucial question was how to adapt a system to specialized and individual needs. In this recent period of concern the question has changed from how does one fit the "useful" into the curriculum to how does one maintain the "liberal" component (Cheit, 1975, p. 136). On the surface, this change of direction can be said to be caused by the societal conditions focusing around "careers" and "vocationalism" in education. But, more accurately, the urgency of the question is both the need for persons who will be, and the desire of persons to be of service to society in resolving some of its vital problems such as food





limitations, environmental quality, population growth, diminished natural resources, technological impact, social responsibility, and economic growth. The complex dimensions of these problems have challenged both academic and professional groups to respond. The challenge, moreover, is so great that it causes both the academic and professional domains to interface as they seek solutions. Such a situation by its very nature helps to re-focus educational direction on competencies to be developed in the learner rather than primarily on specified bodies of content. This dissertation rests on the theory that only in the first context, that is, competencies to be developed, can the academic positions of "liberal" and "professional" education rightfully be examined and integrated.

As already established, a liberal education should help a person develop a sense of self-worth. Humans are social beings. Consequently, persons cannot develop the powers inherent in their potential or have access to the means to attain them apart from some linkage with a social group. This need for being a part of a group, that is, a society, has a reciprocal response in that a person is motivated to serve and be served. Not to do so hinders the development of self-worth. Subsumed, therefore, in this broader goal of maintaining a sense of self-worth is the need to develop powers that enable a person to serve and share with others. A basic definition of a professional is a person having specialized knowledge and skill and using this in the service of others according to their need. By accepting the relationship of the end goal of self-worth with the concept of a professional, professional education can be subsumed in

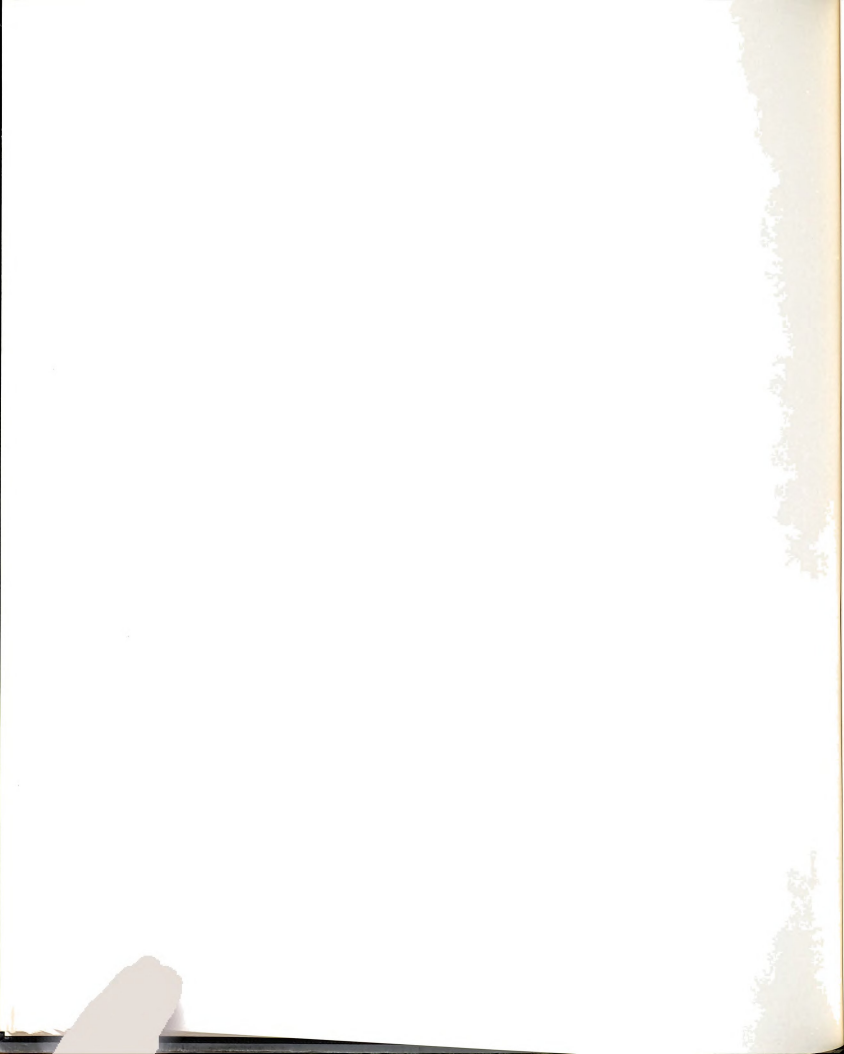


the broader concept of liberal education. This relationship will be further clarified through an examination of the role of the professional in today's society in order to identify needed competencies. This will be followed by a consideration of the knowledge base implied by the competencies. From this analysis curriculum planning principles will be derived.

### Education of the Professional

#### Role of Professional in Today's Society

The fact that we are living in a society of rapid change is readily accepted. Not so readily understood, however, is how this change affects the institutions a society has created to achieve its ends. One such institution is the role of a "professional." The title, "professional," implies one who professes to know more about something than the majority of the people. Society, therefore, looks to such a person to make wise and knowledge-based decisions on crucial issues. Since crucial issues normally center around the maintenance and meaning of life, the traditionally accepted professions are those which develop, maintain, and give meaning to human life by focusing on the human being and/or environmental factors and/or the interaction of the two. Typical professions, therefore, are various aspects of medicine and health, law and diplomacy, teaching, theology, engineering, architecture, social welfare, international relations, and business management. Within each of these major groupings there can be many sub-groupings. In summary a professional can be described as:



One who having sufficient understanding of a body of knowledge is recognized as being able to make or guide decisions which will better the individual and society. The professional role, therefore, embodies service and commitment based on knowledge, or the application of knowledge to human needs.

Educational systems in the course of time have been developed by society for the purpose of helping individuals acquire the knowledge needed by the professional and to affirm that the person is qualified to make judgements using this knowledge for the best interests of humankind. Implied, therefore, is not only the specialized knowledge but also an understanding of the human condition and the capacity to make reasoned decisions.

If one accepts the above description, so, too, must one accept that as human and societal needs change so will the specifics of the professional's role. As the role changes, there are implications for the educational preparation for the role. Historically the major purpose of all higher education was to prepare people to serve society in the specialized ways now known as the professions. The very specialized knowledge needed for the specific area of expertise was acquired through individual guidance and actual practice while studying and working with someone already serving society in a similar role. This experiential period of development was preceded by an education in the already identified classical tradition. It was not until the expanse of knowledge in the nineteenth century, continuing via research and technological developments through our present day, that it was



felt necessary to intensify the rate at which this specialized knowledge was acquired through formalized learning situations. During this same period of time a more democratic approach to education as well as the continued growth in population have increased the number of people seeking to be educated as well as those needing the services of people with specialized skills. The history of education at all levels during the past 100 years is a record of the human effort to adapt to these changing needs and the efforts of institutions of higher learning to develop and adapt programs in order to fulfill its commitment to give society qualified professionals. The judging of the effectiveness of the adaptations rests in what is really intended by the attribute, "qualified."

Schein has made a careful study of the role of the professional today in order to determine implications for the future education of the professional. His work in the early 1970s is part of a long sequence of efforts dating back to the often quoted writings of Flexner in the early 1900s. (Flexner's work focused primarily on the medical profession but has become a standard against which other professionally directed educational formats have been assessed.)

The findings of Schein verify and expand what McGlothlin pointed out in 1960. McGlothlin recognized that the expanse of knowledge, the population increase, and the increased use of technology have collectively contributed to the increased complexity of the professional role, to the increased level of knowledge and skill required to be a practitioner, to increased professional opportunities, and to increased competition for students (McGlothlin, 1960, p. ix).





### Societal Changes Related to Professional Education

#### Expanse of Knowledge

There is no question that the expanse of knowledge demands a more intense preparation in the professional area of specialization. The curriculum question is whether this knowledge base should be obtained by extended time of preparation or a curtailment of other facets of the educational program or a combination of these or some alternate method.

By its very nature, the expanse of knowledge leads to an increasing differentiation of professional areas into specialties and sub-specialties. In turn, this creates more professional and supporting occupational roles. Subsequently, more opportunities exist for specialization in educational programs. Such differentiation can lead to isolation in analytical thinking and the application of principles. Further, it can create a perspective which fails to understand, appreciate, and consider factors of the human dimension affected by the specialized area. As Lyman of Stanford University stated in an address in 1973

If ever there was a danger that a narrowly professional view would make people insensitive to the needs of all outside their professional enclosure, there is such a danger now. (Lyman as quoted in Cheit, 1975, pp. 14-15)

In spite of seemingly obvious anti-humanistic results of single-minded pursuance of the useful, societal pressures toward individual development, employability, and economic security can cause people to lose sight of larger social ends and responsibilities. Thus, there exists the need to explore the integrated nature of all knowledge and



professional services.

A second complexity resulting from the growth of knowledge is the continual need to be aware of current developments in a professional field, to evaluate implications for existing knowledge and practices, and to share experiences with others if the professional is to bring to the analysis of a problem the most valid, present expertise. These needs require the continual search for truth coupled with the abilities to analyze data and to interact with other professionals as a means of renewal and self-development.

Growth in Population

The growth in population means not only more people to be served but also a wider range of specialized needs. In order to coordinate the specialist with the specialized needs of people, the ability to diagnose needs and identify resources for resolving them is necessary. Such an ability requires understanding a range of human needs, the function of varying societal institutions, and human support systems; and the ability to interact and collaborate with others.

The need for these abilities is further substantiated by the actual work settings within which many professionals function today. Changes in both knowledge and population have created a shift from the professional as an autonomous practitioner working directly with a single client to one working with a group and often removed from the individuals who are actually influenced by the professional decisions. Frequently, the professional is only one of a team within a complex system having vertical and horizontal dimensions contributing to



satisfying the needs of individuals. To be one specialist among many demands respect for the expertise of others, the ability to see the commonalities and the interrelatedness of roles and ideas, and an appreciation for various perspectives and dimensions of a problem.

This movement away from less direct relations with a client and greater dependence on collaborative efforts alters the traditional support for a professional's self-image and sense of self-worth. The significance of the interdependency of roles, the ability to find self-satisfying rewards in collaborative efforts, and the importance of individual responsibility needs to be emphasized. Further, since the traditional mode of interaction with a single professional over an extended period of time is frequently non-existent, the professional must develop within the client a sense of confidence in the system.

#### Other Interrelated Factors

Due to the unique linkage of knowledge and service in the professional role, a change in one societal factor affects another. This is seen in the increased delineation of qualifications for entrance into a professional area, in the increased number of specialized occupational roles, and in the complexity of the social issues the professional person is expected to help resolve. The educational preparation must not only satisfy specified qualifications, but must also enable the individual to move vertically or horizontally in a broad professional area to accommodate varying interests, abilities, and



changing societal demands.

Problems such as poverty, resource distribution, environmental quality, physical and psychological health, and the humane applications of technology cannot be resolved through the expertise of one professional area alone. Rather, the resolution of problems today must begin with the ability to identify and examine interacting forces contributing to the situation. This must be followed first by the analysis of each force and, secondly, by the weighing and synthesizing of the data unveiled. To accomplish this both proficiency in the specialized area and the ability to integrate the interacting forces are necessary. Schein concludes that

As specialization increases, it becomes harder for professionals to work together on interdisciplinary teams because greater differentiation of fields and specialization leads to sets of attitudes and concepts that can be easily shared only with fellow practitioners in the same or in a related discipline. (1972, p. 39)

To off-set the conflict between societal problems needing interdisciplinary action and the uni-disciplinary focus of the professional, the professional requires interdisciplinary skills, or the appreciation of them in others, for the sake of interaction within the realm of specialty and across professional areas. Such interaction calls for collaborative working skills. In addition, so important is this need for a cross-disciplinary method of problem solving, that there is a renewed demand today for the general practitioner in the profession. The objective here would be one who could make initial diagnosis and, then, if necessary, refer the client to a more specialized person, as well as one who has the skills necessary to weld together teams representing varying channels of problem solving.





Summarizing the impact of change on the role of the professional, Shein stated

. . . as society is becoming more differentiated and complex, the work roles of professionals are becoming more varied and complex. This complexity generates forces toward differentiation of the professions into more specialties, creates jurisdictional problems among professions and among specialties within professions, forces new definitions of the proper role of the professional and his proper responsibility to clients, and creates the need for more integrators to coordinate the efforts of different specialists. (1972, p. 20)

One can add to this the complex nature of problem solving confronting professionals today. Sagen enumerates the conditions contributing to the complexity of this task as

. . . conflicting values about goals and acceptable solutions, . . . the need for multi-disciplinary rather than single disciplinary approaches, substantial modification of principles and the invention of ad hoc solutions to fit particular situations, incomplete information, and limits of time and other resources. (1973, pp. 509-510)

In the preceding discussion on societal changes, implications for the education of the professional have been suggested. An attempt to summarize these as the basis of a definition of professional education will now be made.

#### Objectives of Professional Education

Previously a professional was defined as one who having sufficient knowledge is recognized as being able to make or guide decisions that will better the individual and society. Webster states that a professional is one who professes to have acquired some special knowledge and uses it for instructing, guiding, advising, or serving others in some way. Schein states that in essence the task of the professional



is to deliver a service in response to a client need (1972, p. 31). In each of these definitions the key ideas of knowledge-based service and satisfying a human need are intrinsic.

For the individual's ultimate good, satisfying his needs must be weighed against the impact on the larger society. Further, there are often alternate ways of achieving the same end. These, likewise, must be identified and weighed. The capacity to service the client in this broader perspective is characteristic of a higher level of professional activity.

A second key consideration is that each person at some time is dependent on others for needs. Different individuals in one's social milieu satisfy different needs. Likewise, each individual has capacities to be of service to others. Consequently, at varying levels and in varying situations one is interchangeably a "professional" and a "client."

The direction of this discussion has been on the higher levels of professional activity, that is, on the capacity to give a service based on a high level of knowledge and skill. Institutions of higher education are expected to facilitate the ability to provide this level of human activity. According to McGlothlin, professional education is expected to "set the student on the start" toward achieving:

- a. Competence to practice his profession with sufficient knowledge and skill to satisfy its requirements;
- b. Social understanding, with sufficient breadth to place his practice in the context of the society which supports it, and to develop capacity for leadership in public affairs;
- c. Personality characteristics which make possible effective practice;



- d. Zest for continued study to steadily increase knowledge and skill needed for practice, and
- e. Competence in conducting or interpreting research so that he can add to human knowledge either through discovery or application of new truths.  
(1960, p. 7)

By enlarging on these competencies in order to incorporate competencies suggested by the expectations of a professional today, it can be said that professional education should enable a person:

- 1. To provide with competence a service requiring specialized knowledge and skill
- 2. To work both directly and indirectly in relating the service one is capable of giving to others if and when it is needed
- 3. To use one's special knowledge and skill as a primary source of income, if necessary
- 4. To attain recognition by others as capable of giving this service
- 5. To respect the dignity of each person
- 6. To understand and appreciate the varying needs of people and society
- 7. To work both independently and collaboratively in resolving problems related to one's area of proficiency
- 8. To be instrumental in bringing about change for the good of society
- 9. To understand the interdependence of social systems
- 10. To place the larger goals of society above self-centered goals in decision-making related to one's professional field



11. To integrate both convergent and divergent forms of thinking

12. To relate and integrate one's expertise with others both within and beyond one's professional field

13. To find motivational satisfaction that fosters commitment in the service of others

14. To maintain quality in and to improve one's area of service through self-development

15. To adapt one's service to changing patterns of human needs

Although each of the above competencies is listed separately, none is mutually exclusive of another and all interrelate to achieve in the person the capacity to give knowledge-based service in response to human needs.

Certain things should be apparent in the preceding list. First, knowledge as an end in itself is not listed but is either inherent to achieving ends listed or is identified as a means to an end. Secondly, each quality listed demands the development of certain subordinate skills. Thirdly, the above skills and the implied subordinate skills equate with, extend, or provide a concrete expression of the previously enumerated ends of liberal education.

#### Knowledge as a Component of Professional Education

In relating the above competencies to knowledge Schein identifies the commonly accepted elements of professional knowledge as:

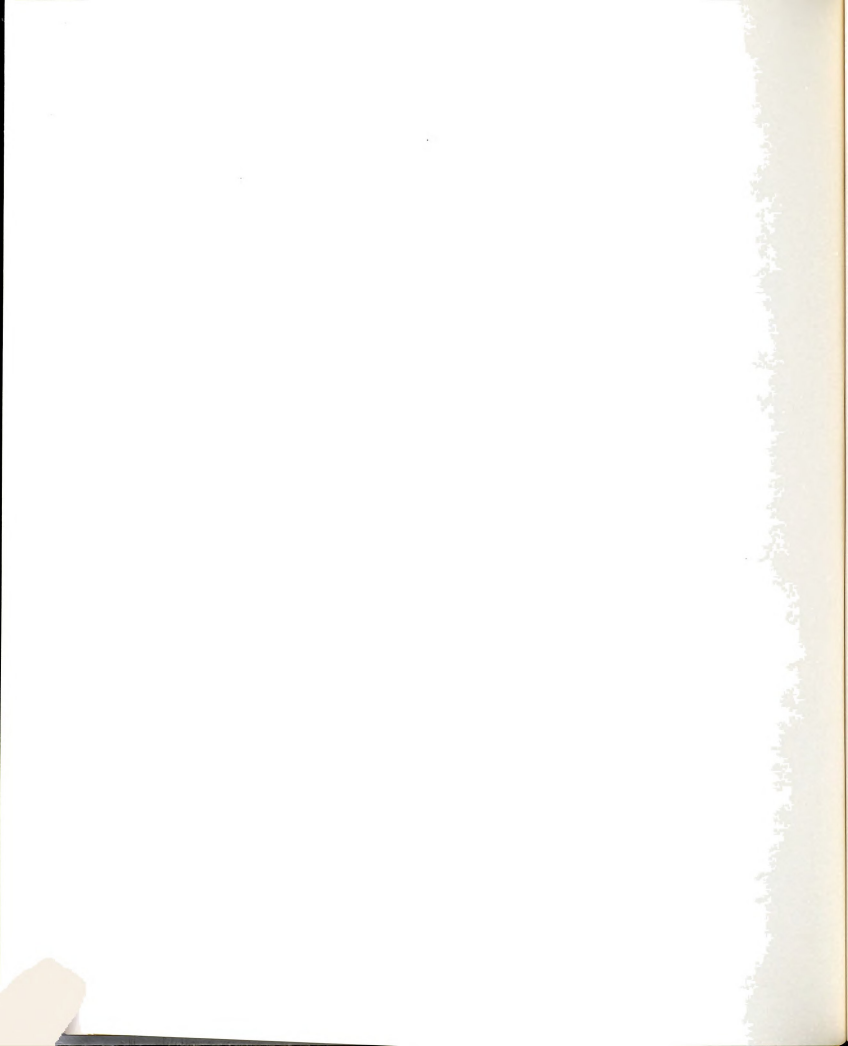




1. An underlying discipline or basic science component upon which practice rests or from which it developed
2. An applied science or "engineering" component from which many of the day-to-day diagnostic procedures and problem solutions are derived
3. A skills and attitudinal component that concerns the actual performance of services to the client, using the underlying basic and applied knowledge. (1972, p. 43)

In view of the changing demands made upon the professional today, Schein advocates that as these components are structured into a curriculum there is the need for (1) more flexibility in programs than in the past to permit paths leading to a variety of careers, (2) more transdisciplinary curricula that integrate several disciplines to facilitate greater ability to respond to social problems, and (3) the "complete integration of the behavioral and social sciences into professional curricula at the basic and applied skill level"(p. 70), and (4) the use of modules which integrate the basic, applied, and skill components of knowledge (p. 149). Cheit feels professional education of quality today should provide the student opportunities to (1) analyze and deal with complex problems and (2) gain competence in organizational theory, legal reasoning, policy analysis, systems analysis, and operations research (1975, p. 140). This latter coincides with Schein's conclusion that both independent and collaborative work today requires the development of managerial skills (p. 136).

Although the definition of a professional emphasizes specialized knowledge, the fact that authorities who have examined the contemporary role of the professional are stressing the value of

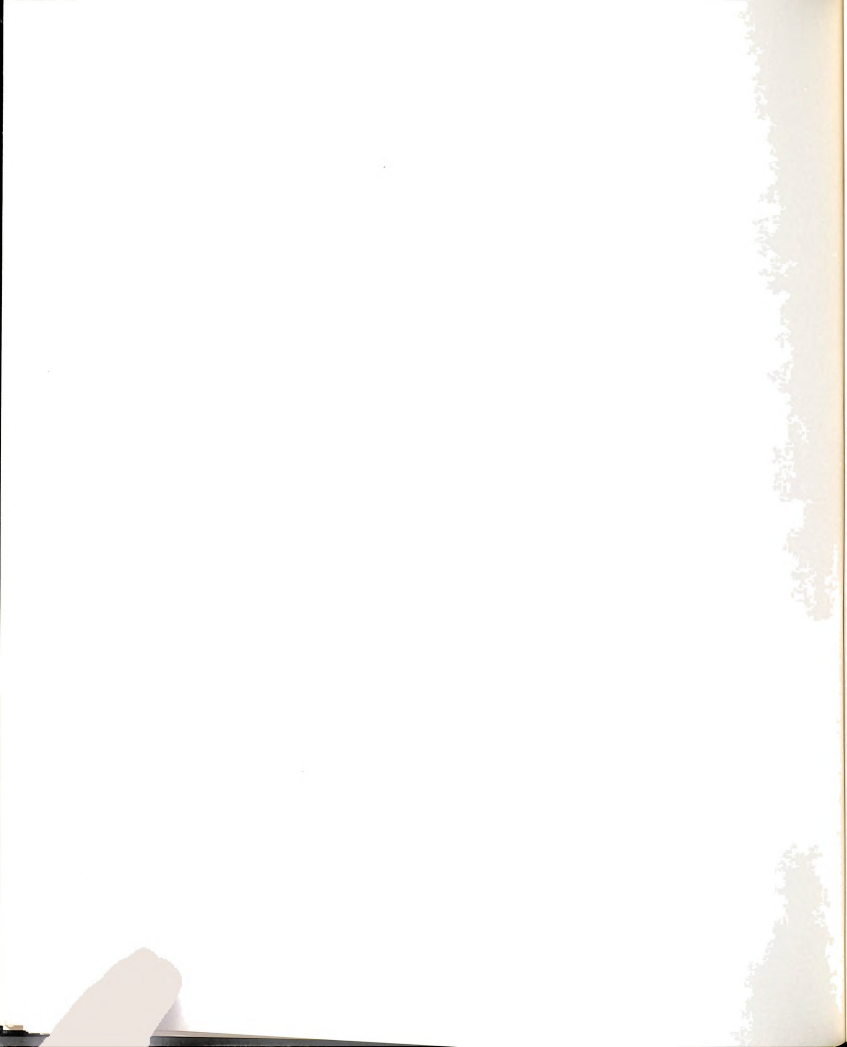


interdisciplinary approaches and the ability to integrate broad areas of knowledge in problem solving, and, in turn, relate this integrated knowledge in a more specific manner within a complex range of human needs, emphasizes the need for breadth of knowledge as well. In the concluding section of this chapter an attempt will be made to show that many of the content and skill demands of the education for a professional coincide with the enumerated ends of a liberalizing education and the need for certain kinds of knowledge. The attaining of one end of education, thus, is interdependent with the attainment of the other.

#### Interdependence of Liberal and Professional Educational Goals

It would be difficult for anyone today to question the value of any of the preceding knowledge and skill oriented foci within a curriculum. The problem occurs when the curriculum planner tries to fit all desired goals into the four year undergraduate time limit. It, thus, becomes necessary to prioritize outcomes and to limit expectations. More important is it necessary to try to see the interdependency of desired outcomes and their related means as components of a curriculum. Problems of balance occur when this interrelatedness is not sought out or when the focus is on a single educational competency, such as ability to give service based on specialized knowledge and skill.

Earl McGrath, former United States Commissioner of Education and the director of many Carnegie sponsored studies, has been



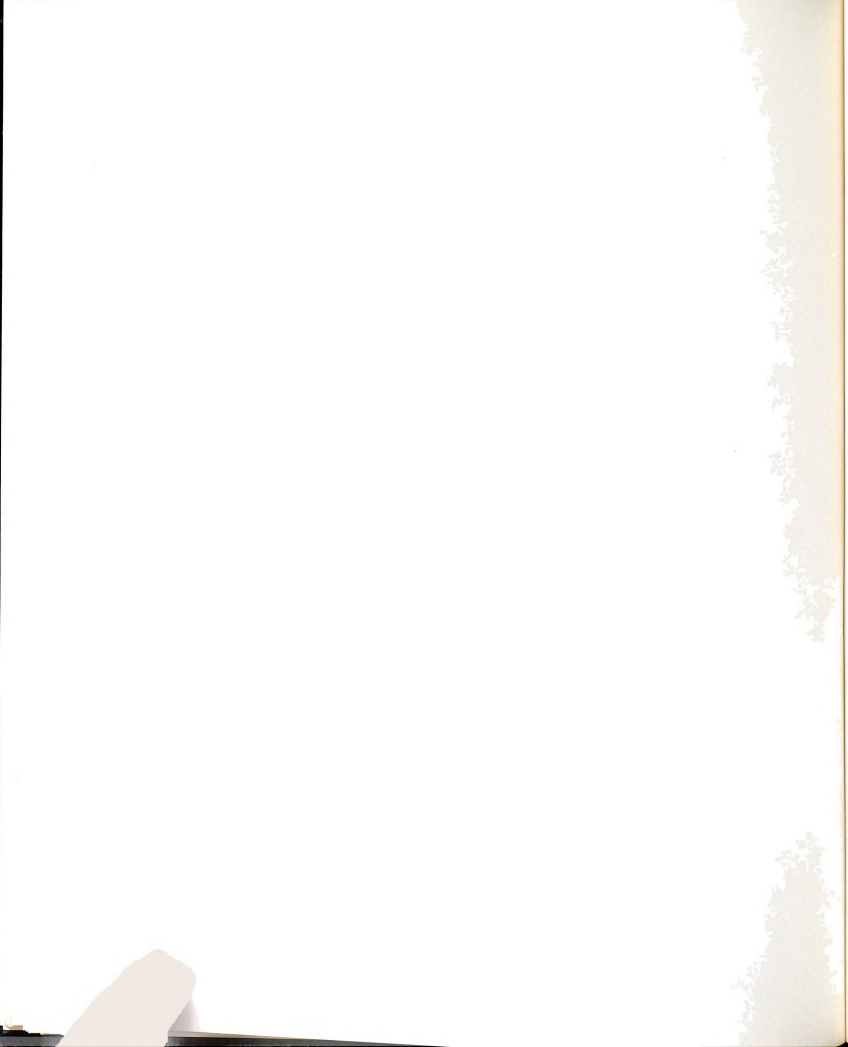
examining the evolution of higher education for over twenty years. He responds to this question of balance by regarding undergraduate education as only the beginning of a continuing growth process.

Questions concerning the purposes of professional education cannot be answered in the abstract. They must be considered in terms of the vast bulk of modern knowledge, its rate of growth and change, the time available to the average student for preemployment training, and especially the proper purpose of initial education in a vocation. As these various factors which irresistibly shape professional education are analyzed, the dominant principle in curriculum construction is thrown into high relief. It becomes axiomatic that the student can be, and in principle should be, given only such basic specialized instruction as will qualify him for initial gainful employment. (McGrath, 1959, p. 35)

After referring to the opinions of leaders in the professional fields he goes on to say

Cogent reasons have similarly been advanced by leaders in all the professions to support the view that an undergraduate curriculum should embrace only those learning experiences necessary to orient the student broadly in his chosen occupation without aiming to cultivate a high degree of competence in any of its specialized branches. (p. 36)

In addition to this basic orientation to the profession, McGrath feels the undergraduate program should develop flexibility of mind and personality that enables one to adapt to new problems and demands; emphasize broad principles, key ideas, and overarching generalizations rather than detailed facts or techniques; and cultivate attitudes and motivations which are not the sole concern of any subject matter field but the responsibility of all (McGrath, 1959, pp. 36-41). Such educational goals reinforce the need for the basic liberalizing skills or objectives of a liberal education as an integral



part of a well thought out educational preparation for a profession or career in today's world. In addition to these basic cognitive and valuing skills, McGrath emphasizes the need for breadth of knowledge. In his estimation, highly specialized undergraduate instruction does not provide the person with the flexibility necessary to adapt to varying business structures and policies as well as to changes that will occur due to technological advances and the consequent changing societal needs and values. This flexibility requires not only a breadth of general and specialized knowledge but also intellectual skills and an appreciation of the evolving nature of societies (p. 37). McGrath feels strongly that emphasis on premature specialization at the undergraduate level will not allow for the development of the powers of thinking, valuing, decisioning and broadness of view that are needed for future and/or more intense development (p. 39).

More recently as McGrath senses the thrust toward vocationalism and the liberal arts college questioning its position, he has again expressed the need for an integrated approach to undergraduate education.

In a four year college period, a good beginning can be made in both career and general education. Considering the tempo of social change today to hope for more is visionary. Indeed, it is delusive to cultivate the view among students that at graduation they have concluded their preparation either for the special activities of a particular job or for the fuller responsibilities of personal and public life. (McGrath, 1974, p. 288)

In addition to the need for powers that enable flexibility and continual self-development, all current literature on the role of the professional today emphasizes the need for social awareness due

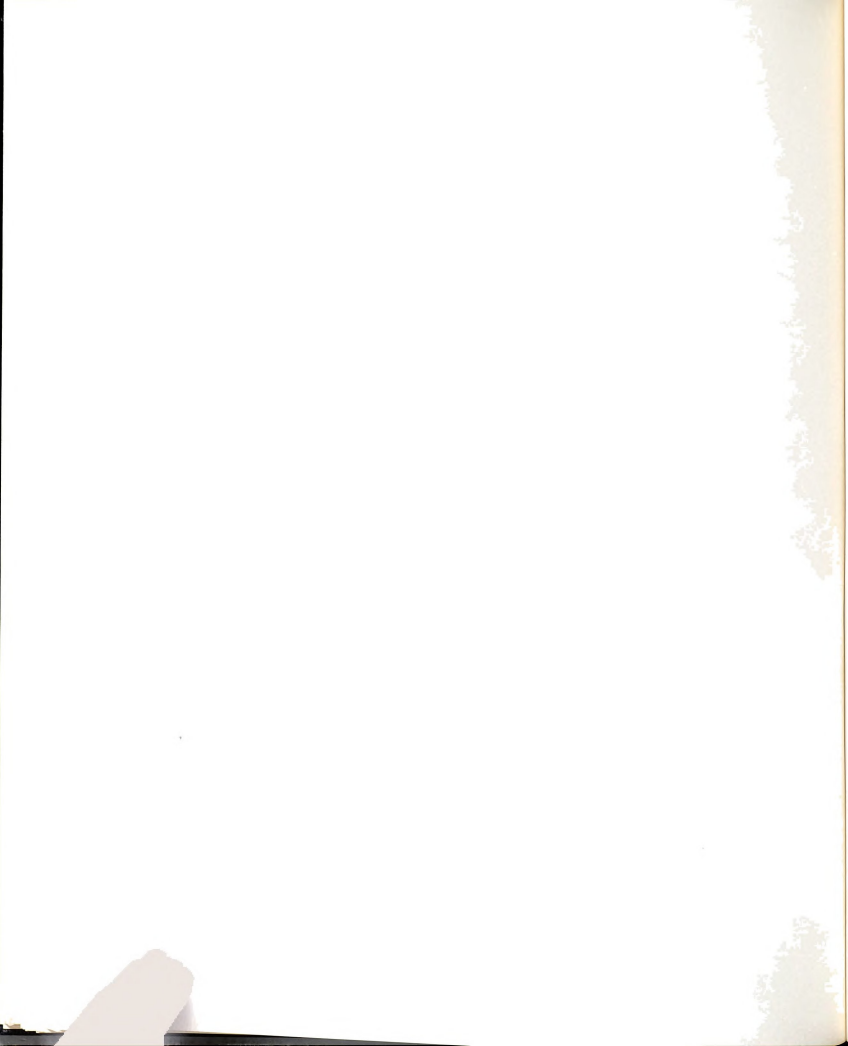




to the nature of the issues facing society today that the professional and all the citizens are being called upon to resolve. Schein's evaluation of the situation gives added support to the need for a broad and integrated education.

The professions are so specialized that they have become unresponsive to certain classes of social problems that require an interdisciplinary or interprofessional point of view. (p. 59)

Finally, a broad integrated background helps to prepare the professional for the work-setting of today. As already indicated, the professional today seldom works alone and often works removed from the individual client. Effective interaction among team members can occur only when members understand and esteem each other. A broad knowledge base and an understanding of how people justifiably approach problems according to their experience and perspective will reduce tension and encourage interaction because there will be a recognition of and appreciation for the needs of various points of view in resolving problems. Further, it will help the future professional understand why it takes time and thought to arrive at effective solutions to complex problems. Schein found these skills often lacking in the modern professional and yet sees them to be essential as a result of the societal trends that move the professional from an autonomous specialist to a member of a team expected to work collaboratively with fellow professionals and with clients (1972, p. 60).

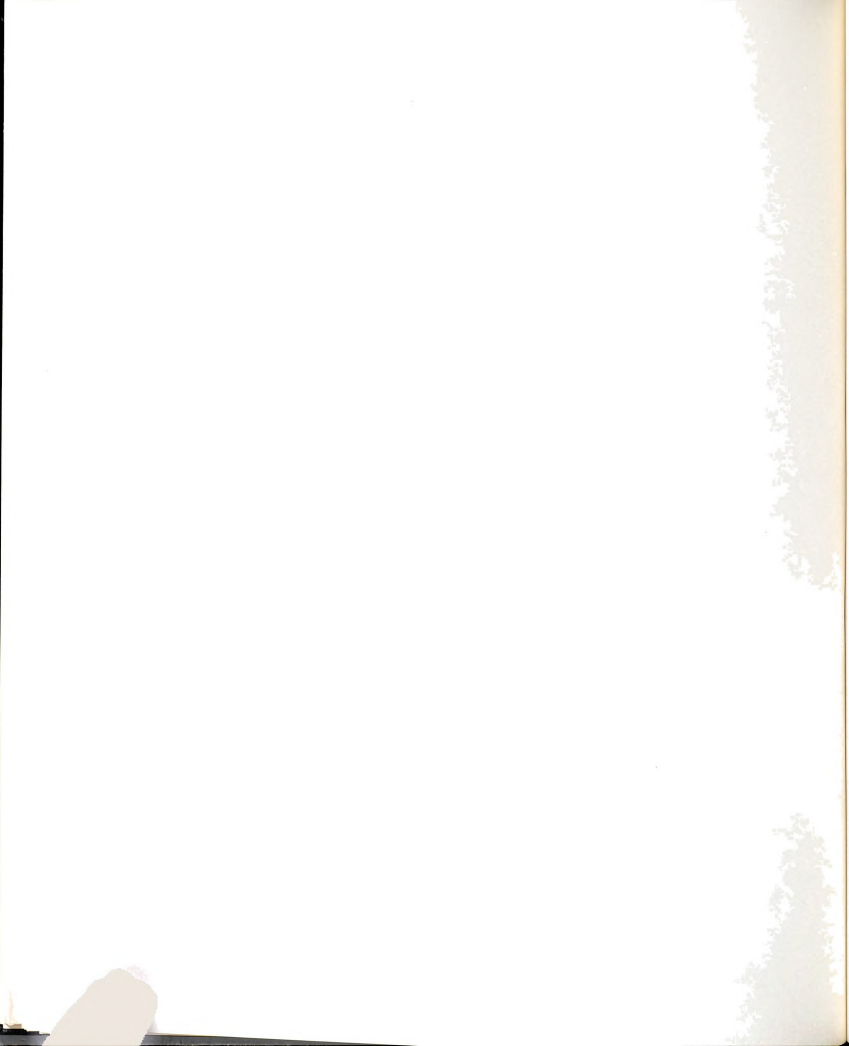


### Conclusion

If one moves from the original premise that a liberal arts college is one committed to developing the liberalizing powers or skills an individual needs to function as a responsible and contributing person in today's society, the task is to structure a curriculum that will foster the above broad ends. Although they are fundamental, an individual needs more today than the cognitive skills of clear and creative thinking. Both from a liberalizing point of view and from an applied knowledge perspective, a broad range of knowledge and an understanding of the human condition are important. To accomplish these goals a curriculum which aims at having the ends of liberal education as listed on page 51 permeate all teaching; which develops a breadth of knowledge dimension on the principle of disciplines defined as modes of knowing and related to specific content areas; which gives emphasis to social interactional needs through an understanding of the behavioral sciences; which promotes a view of the macro- and the micro-culture as a system supporting human needs; and which allows time for an in-depth study wherein cognitive, judgmental and decisioning skills are applied within the context of a limited knowledge area would simultaneously achieve the ends of a liberally and professionally oriented education. A curriculum of this kind would, thus, bring about a merging of these two seemingly conflicting but actually interdependent ends of education and would actualize the ability to apply knowledge and skills as a liberalizing art. The task presented here is not new. The challenge to achieve it increases in urgency as society changes and the wealth of knowledge



continues to grow. The solution rests in finding means toward synthesis and integration while allowing for the specific needs of today's students, tomorrow's professionals, and the future good of society.



## CHAPTER IV

### HUMAN ECOLOGY: MEANING AND USAGE

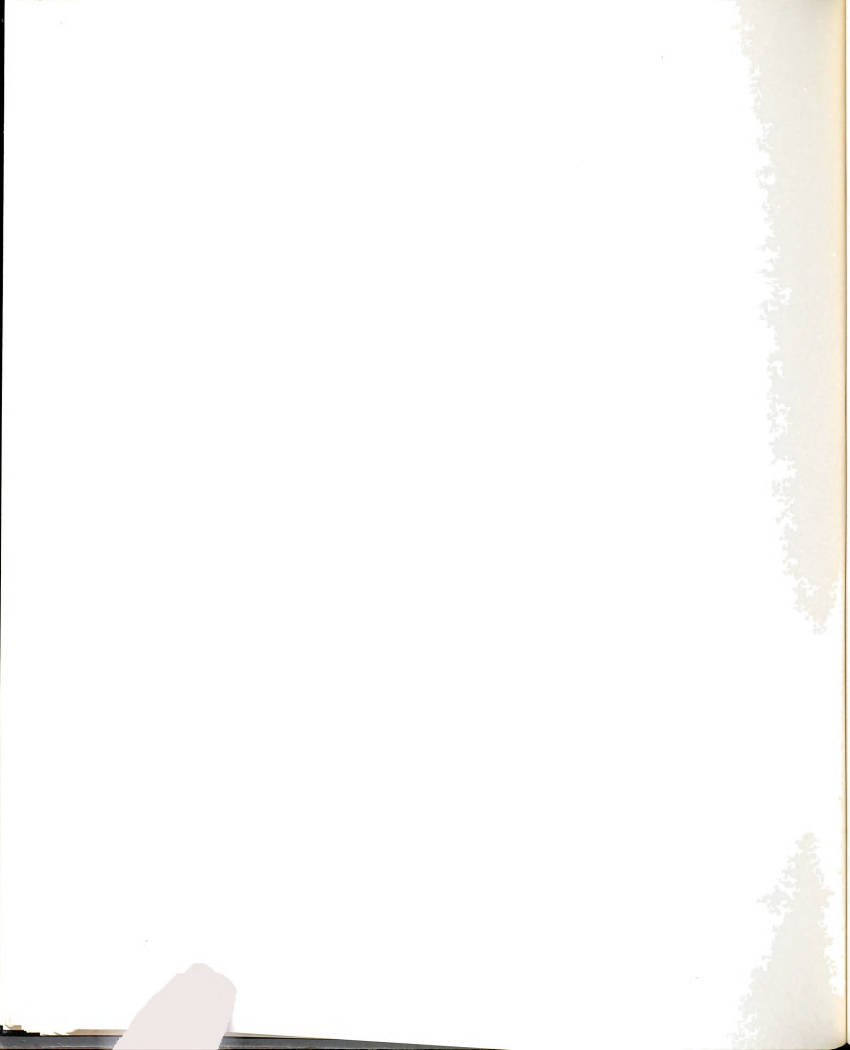
#### Introduction

The incorporation of a "human ecological" approach into a curriculum framework necessitates an understanding of the meaning of "human ecology." The objective of this chapter is to probe this meaning as a basis for identifying curriculum outcomes.

The term ecology itself is commonly defined as the interrelationship and interdependency of an organism and its environment. The descriptive term "human" defines the organism as "homo sapiens" and limits "human ecology" to the reciprocal relationships and interdependencies of people and their environments. This very comprehensive concept could embrace the total spectrum of knowledge insofar as all knowledge contributes to an understanding of the universe and how people can effectively live within it for the good of the whole.

By examining the origins of the concept of human ecology, the evolved interpretation over the course of time, and the current resurgent usage of the term, it can be deduced that a human ecological perspective is one that gives a unified view to the reciprocal relations of human beings and their environments by causing a person to focus not only on the entities involved but also on the totality produced by the interaction and the interdependency of the identified



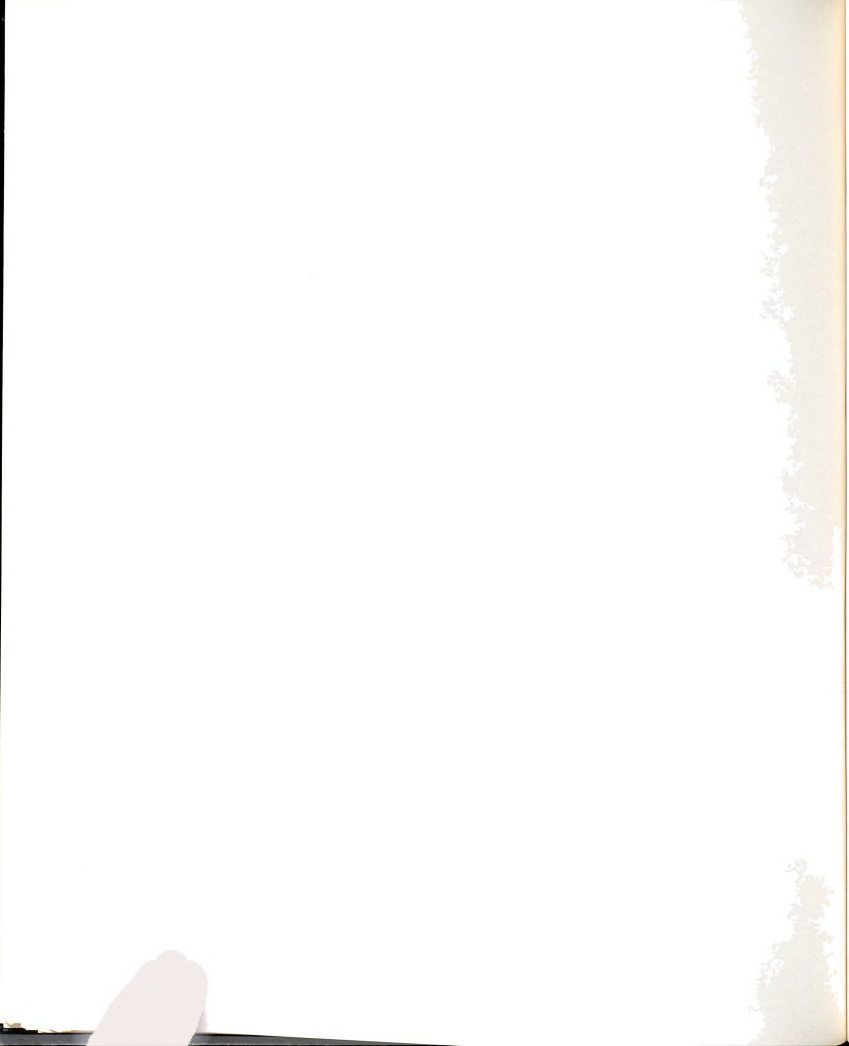


components. Further, the use of models and the terminology currently used to describe this relationship is consistent with the terminology used by researchers in the evolving general systems theory which has as its goal to establish a structure capable of synthesizing knowledge from many, if not all, of the sciences. This, in turn, indicates a close relationship of "ecological" and "systems" thinking. Finally, through a closer look at current research and commentaries, the utilization of an ecological systems framework to describe the interdependencies of the micro-environment of individuals as they seek to satisfy needs through resources in the home and marketplace can be seen as an effective tool for enabling a holistic, synthesizing, integrated perspective. Lastly, and somewhat implied, "human ecology" cannot be understood apart from the concepts of "ecology" and "ecosystem."

### Origins of the Concept

#### Greek Language and Literature

The term "ecology" derives from the Greek "OIKOS" meaning house and "LOGUS" meaning knowledge. In this sense it can be interpreted to mean the study of the immediate house or habitat of a living object, or, if spelled OEKOS, it is interpreted in the broad universal meaning as the study of the house or habitat of every living object, that is, the total environment (Clarke, 1973, p. 40). The term "economics" also derives from this same root word combined with "NEMEIN" meaning to distribute or manage. Modern concepts of economics did not take form until the eighteenth century, although



the application of many of its basic principles can be found in the classic Greek thesis of about four hundred B.C. by Xenophon entitled "Oeconomicus." Herein are discussed the principles and art of estate and household management (Capps, et al., ed. 1923). "Ecology," although basically a broader term than economics, came into use in the nineteenth century with the development of specializations in the sciences. As will be seen, the concern of "ecology" for maintaining a balance in nature relates it in meaning to the managerial or distributive concept contained in "economics."

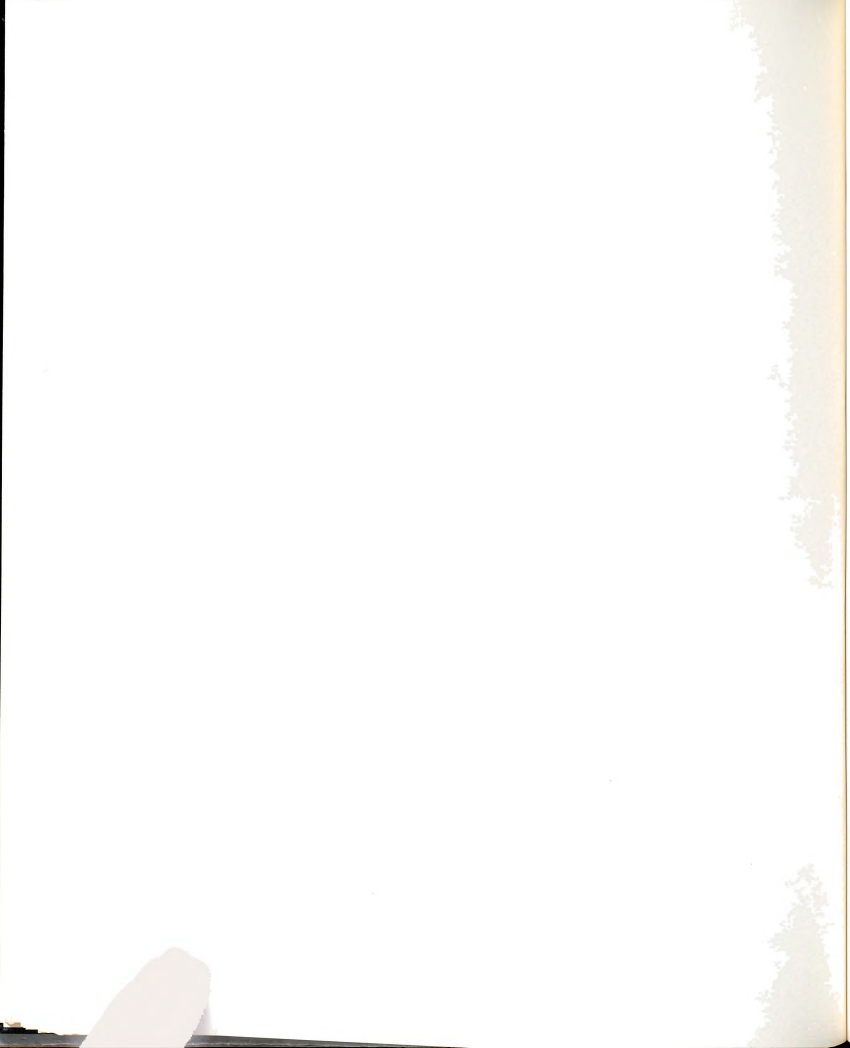
#### "Ecology" -- 19th Century

Knight gives this description of the origins of the term "ecology" in the nineteenth century.

In 1859, Geoffrey Saint Hilaire used the term ethology to refer to the study of relationships between the organism and the environment, but the term was never generally accepted by the earlier ecologists. . . . Nine years later, Reiter introduced the term oekologie derived from the Greek oikos meaning "home" and logos, a "discussion or study." Ernst Haeckel is often falsely credited with the derivation of the term because he defined it in the literature a year later. The term has since been anglicized to "ecology." (1965, p. 8)

Others credit Thoreau with the first use of the term in 1858 in reference to persons studying in an area of natural science (Levine, et al., 1975, p. 1). Although possibly not the first user of the term, authorities do credit the German biologist Haeckel with the first clear definition of "ecology" in about 1868 or 1870 when he stated

By ecology we mean the body of knowledge concerning the economy of nature--the investigations of the total relations of the animal both to its inorganic and to its

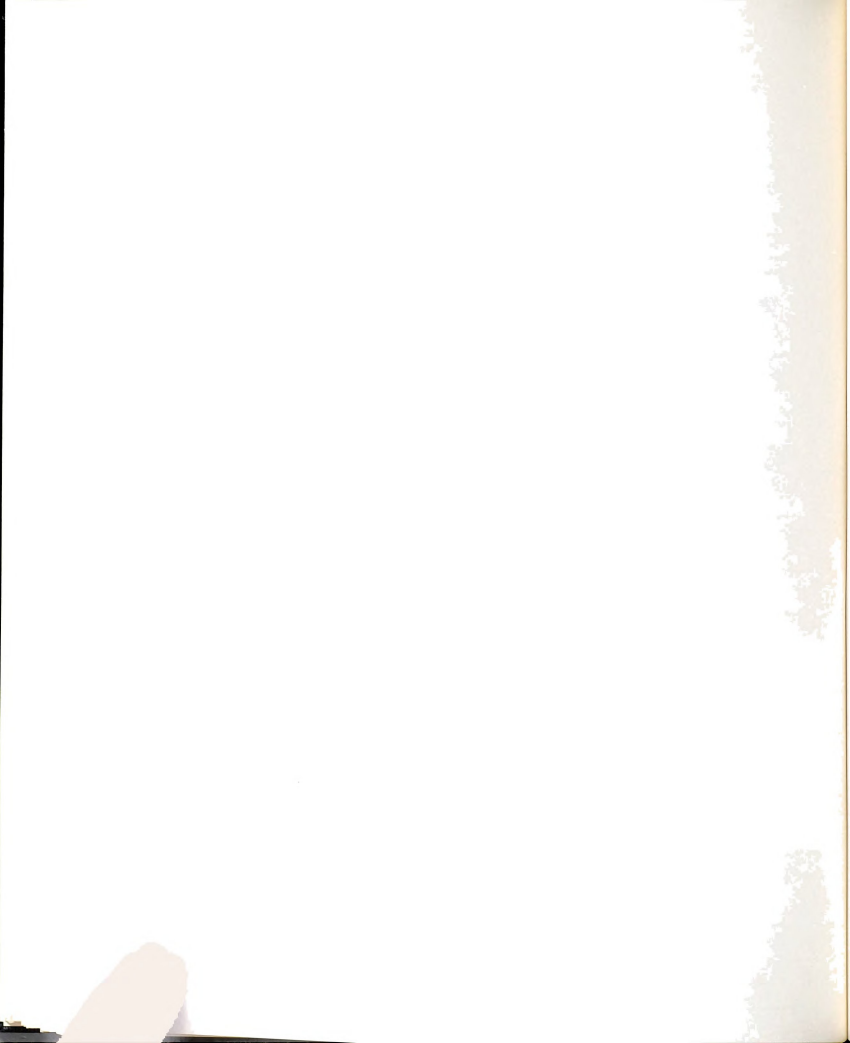


organic environment, including above all, its friendly and inimical relations with those animals and plants with which it comes directly or indirectly into contact --in a word, ecology is the study of all the complex interrelations referred to by Darwin as the conditions of the struggle for existence. (Haeckel as quoted in Levine, et al., 1975, p. 1)

or, at a later date in the History of Creation, written in 1876, he stated

The oecology of organisms, the knowledge of the sum of the relations of organisms to the surrounding outer world, to organic and inorganic conditions of existence: the so-called "economy of nature," the correlations between all organisms living together in one and the same locality, their adaptation of their surrounding, their modification in the struggle for existence...(Haeckel as quoted in Black, 1970, p. 2)

From these excerpts can be extracted some basic ecological concepts: complex interrelations, inorganic and organic environment, sum of relations, balance or economy of nature, adaptation, and struggle for existence. At the same time it will be observed that Haeckel's focus was biological and that his particular concern was the evolution of plant and animal life. His work is influenced by the extensive studies of Darwin and the maturing of the natural and physical sciences. This latter evolvement was occurring particularly in Germany in the middle nineteenth century with the development of universities and the pursuance of knowledge as an end in itself (Rudolph, 1962, pp. 222-235; 356). Because of Haeckel's basic biological-natural science interests, he did not concern himself directly with the impact of the environment on the human being. The studies germinating from his concern of the organism-environment relationship, however, influenced the work of later biologists and the formation of ecosystem theories applicable to the human being.



"Home Oekology" -- 1870-1910

While scientific studies were developing intensely in Europe in the 19th century, the United States was immersed in both territorial growth and the expansion of industrial and business enterprises. The new nation, molding to the needs and aspirations of an increasing and diverse population, was changing in economic, educational, and cultural patterns. Industries grew out of expanding bodies of technical-scientific knowledge and caused heavy concentrations of complex industrial-business-residential areas to develop. In turn, disease and poor health caused by air and water pollution became a civic concern.

In this milieu Ellen Swallow Richards, an 1870 graduate of Vassar College, recognized the need to find ways to control the human use of the environment in order to make it conducive to human health and ease the human struggle for existence. By overcoming social barriers she was admitted as the first woman student at Massachusetts Institute of Technology and later was accepted as a valid instructor there. As a scientist she was aware of Haeckel's definition of "Oekologie" but her focus was on what humans needed to know and what they could do to maintain an environment conducive to human life and well being (Clarke, 1973, p. 114). Her investigations relating water, soil, and food science to the human condition evidence her concern. Consequently, Robert Clarke, a recent biographer, has called her the "woman who founded ecology." An earlier biography by Caroline Hunt (1912) brings forth Ellen Richards' deep social awareness as she promoted "euthentics." By 1892 Richards had gained recognition for progress in both science and the education of women. Clarke summarizes





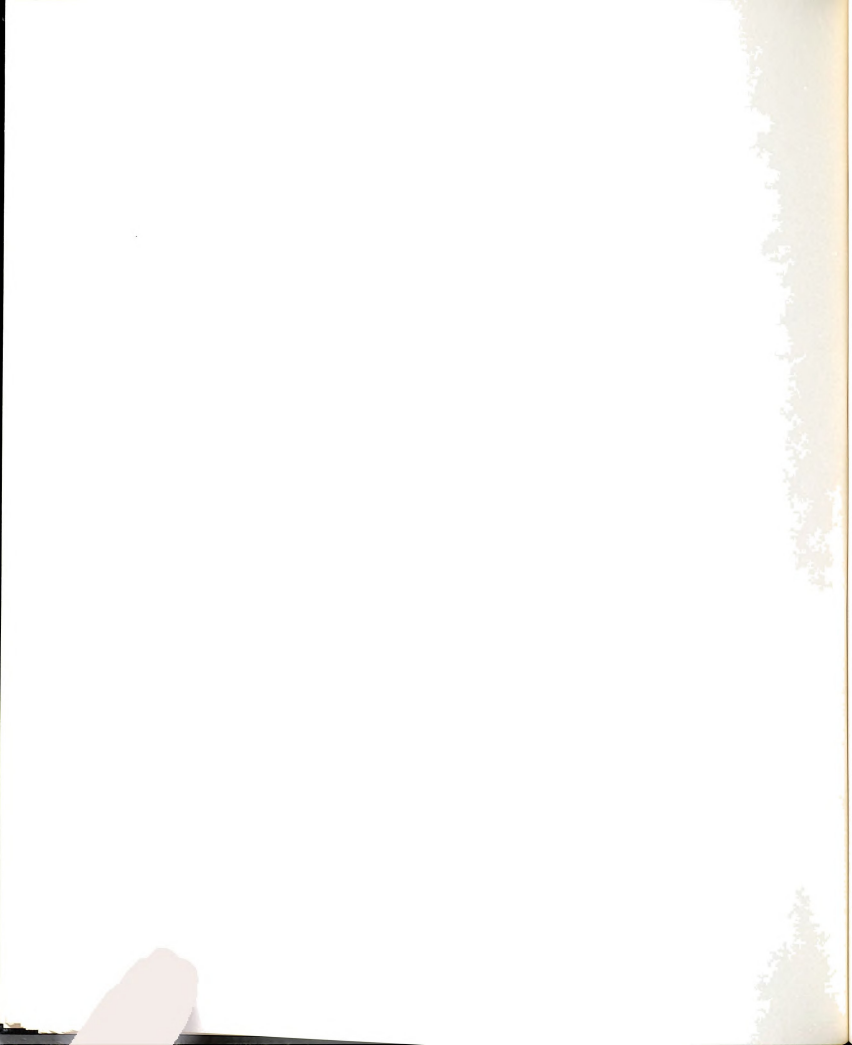
this, stating:

Ellen Swallow had worked at an unbelievable pace to develop the interdisciplines of an environmental science she believed the next 100 years required. She knew work alone was no guarantee of permanence for the knowledge she had pulled together. If anything, the changing world--specialized, mechanical, cosmetic--seemed to take things apart.

The world is whole, like the environment. But in working with that world, the specialists of science and technology, government, and industry were fragmenting it. Focused on their own individual fields, burying deeper and deeper in their respective niches they seemed oblivious to the environment around them.

The first Lady of Science had gone in the opposite direction putting sciences together to nurture the roots of environment. But to perpetuate her conglomerate body of knowledge and its applications, a permanent structure was required. Ernst Haeckel had been right when he suggested the name for a science of everybody's home. Ellen Swallow began to fill the void that accompanied Oekologie's 1873 proposal with her collection of old knowledge cross-fertilized with new to build "home science" for environment and life within it. (1973, p. 113)

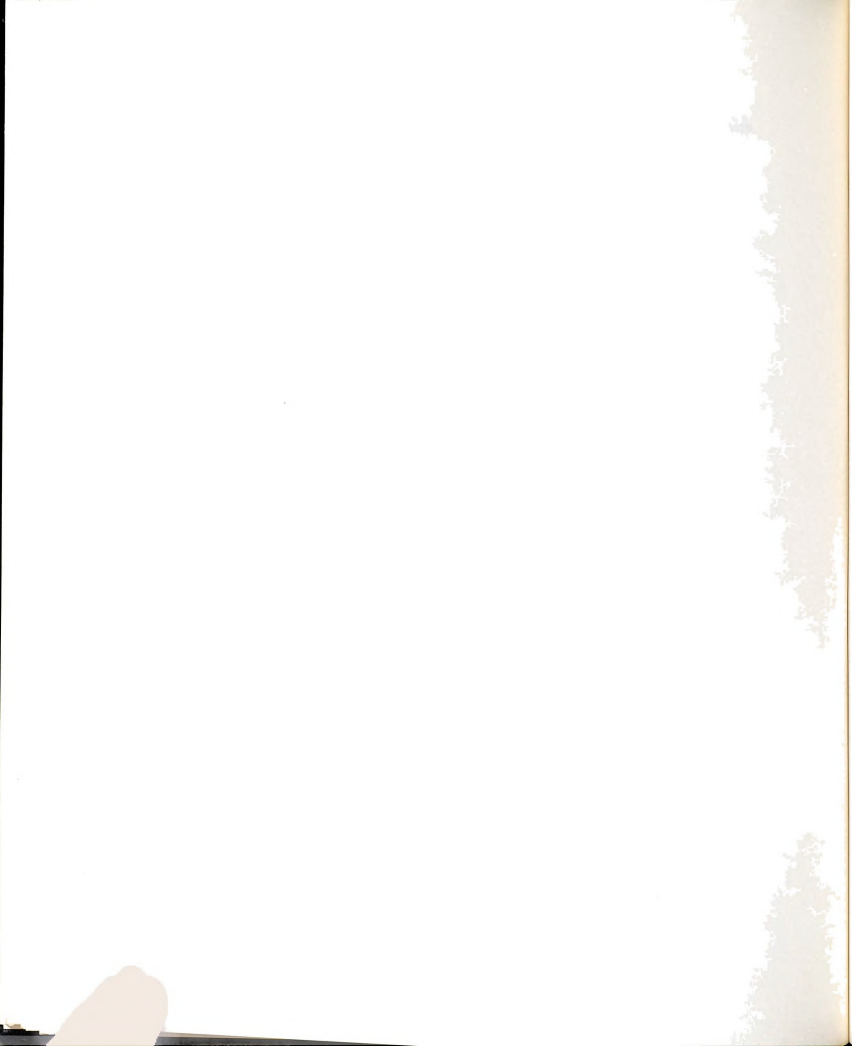
Ellen Richards recognized the need for a science that would focus primarily on the immediate home environment of people and become the particular body of knowledge every homemaker should have. She regarded the home as the place where not only physical life but also the basic principles of life were nurtured. Convinced that humankind is both the "provider and product" of its environment, she felt humans must accept the responsibility for controlling the shaping and changing of the environment. She wanted to call this proposed science "Home Oekology" to express the reciprocal influence of the immediate environment of a person's activities on the total environment of humans. She expressed this relationship in comments such as "people learn to grow up and create more of the same kind of



environment in which they learned" (Richards quoted in Clarke, p. 118). Or, " . . . science has to apply its knowledge to (improve) that unit of the community, the home, for upon the welfare of the home depends the welfare of the commonwealth" (Richards quoted in Clarke, p. 141). On the evening of November 30, 1882 she set forth her ideals and called for more emphasis in environmental knowledge in a speech to a group of distinguished Boston industry and business people in stating

For this knowledge of right living, we have a new name . . . let Oekology be henceforth the science of [our] normal lives . . . the worthiest of all the applied sciences which teaches the principles on which to found healthy . . . and happy life . . . (Richards quoted in Clarke, p. 120)

In the 1970s the exploitation of natural resources, and the importance of the attitude of each individual to help regain an ecological balance seems quite evident. But in the 1890s the public was not ready for Ellen Richard's vision, and scientists were engaged in developing single areas of science. Consequently, the concept of an integrated pattern of scientific knowledge lost prominent focus. At the turn of the century Ellen Richards proposed to a group of concerned followers and educators the name "Home Oecology" for an area of academic study (Clarke, p. 116-xv). The group, however, chose to call the area "Home Economics" (Lake Placid Conference, 1899, p. 4). With this action, until recent years, the concept of "ecology" has been the domain of the natural and social scientists. Ellen H. Richard's ideas are preserved in her writings (see listing, Clarke, pp. 256-259) and eventually focus on "euthenics" which she defined



as the science of controllable environments (Richards, 1910).

"Human Ecology" -- 1920s

As has been indicated the development of ecology as a biological science began in the 1870s and focused primarily on principles common to all life as observed in the environmental impact on plants and animals. Not until more recent years have the natural scientists related the condition of the physical and natural environment to the human condition as Richards tried to do. Interest, however, in the development of human communities and their adaptations to their environments emerged with Darwin's theory of evolution in the nineteenth century. As demographic data on population growth, spatial patterns of economic activity, geographic conditions and urban locations accumulated, the study of determinants of land use and the effect on humans became the concern of sociologists. In this context the concept of "human ecology" was first popularized by Robert L. Park and his associates in the 1920s. Park began to correlate the principles of community, succession, and distribution as they were being developed in the biological sciences with the actions of human beings (Michelson, 1970, p. 8). Amos Hawley credits Roderick McKenzie with being the first sociologist to present a definitive statement on human ecology (McKenzie, edited by Hawley, 1968, p. xi). In 1924 McKenzie wrote

The young sciences of plant and animal ecology have become fairly well established. Their respective fields are apparently quite well defined, and a set of concepts for analysis is becoming rather generally accepted. The subject of human ecology, however, is still practically an unsurveyed field, that is, so far as a systematic and



scientific approach is concerned. To be sure, hosts of studies have been made which touch the field of human ecology in one or another of its varied aspects, but there has developed no science of human ecology which is comparable in precision of observation or in method of analysis with the recent sciences of plant and animal ecology. (McKenzie, p. 3)

Having appraised the situation, McKenzie, working from a basic biological definition of ecology defined human ecology as a study of the "spatial and temporal relations of human beings as effected by the selective, distributive, and accommodative forces of the environment." He further enlarged on this saying, "Human ecology is fundamentally interested in the effect of position in both time and space upon human institutions and human behavior." (p.4.).

In summary, therefore, the concept of human ecology, although based on the Greek word "oikos" meaning house, derives its meaning from its usage in the biological sciences as defined by Haeckel, in the home oekology/home economics literature as defined by Richards, and more specifically as "human ecology" in the field of social sciences.

#### Development of the Concept

Since the 1920s the most abundant body of literature designated as "human ecology" is in the social sciences. The physical and biological sciences have used the single term "ecology" to continue to explore the effect of all aspects of the natural environment on living organisms. Until more recent years, the concerns identified by Ellen Richards as "home oecology" have been submerged in the development of home economics or remained within the realm of the





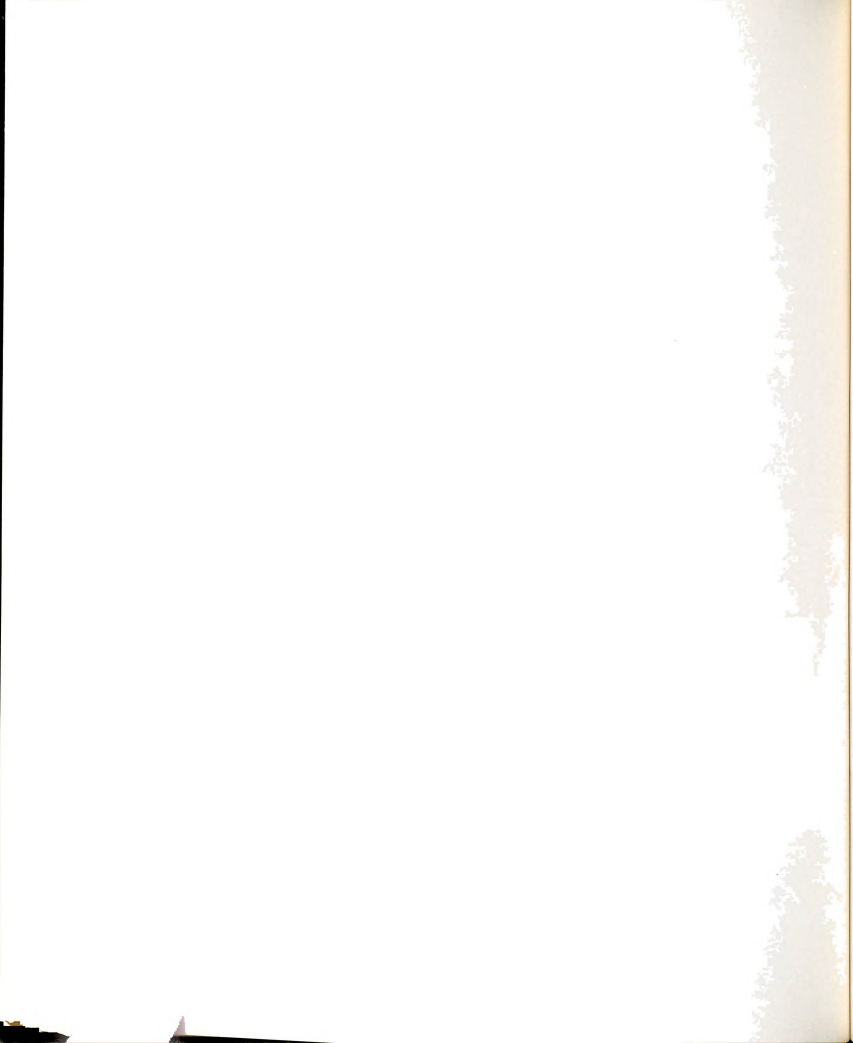
natural sciences. By an examination of the evolution of the term in the natural and social sciences, it should be possible to identify the distinctive human ecological concerns of these sciences and the relationship of these concerns to home economics.

#### In the Natural and Biological Sciences

According to Odum, a biologist, "ecology" is regarded as a division of biology; the functioning of the community and non-living environment together form an ecological system or ecosystem; and ecosystem, as a more technical word for nature, conceptualizes "ecology" as the study of both the structure and function of nature. The biologist uses the term "population" to identify a single kind of organism. "Community" refers to all populations or kinds of organisms in an area (Odum, E., 1963, pp. 3-4). In relating ecology to humans, Metress states "human ecology . . . considers the effects of man's biophysical environment upon him and the effects he has on his environment" (Metress, 1971, p. 5). Based on this premise, the natural scientist would examine the impact of climatic and terrain conditions, and the quality of air, water, and food sources on human living as well as the ways humans have modified the natural environment. In an ecological context the primary concern is with the ability of the human organism to adapt to its environment and/or adapt its environment to facilitate survival.

#### In the Social Sciences

In contrast, the sociological perspective of human ecology has



traditionally placed emphasis on localized or territorially delimited social structures and social phenomena. This has given community a central focus in sociological human ecological literature (Wirth, 1945 in Theodorson, 1961, p. 73). Many studies classified as "human ecology" focus on objective descriptions of the social interaction and change of communities and regions. Often these studies tend to be geographical in nature and fittingly are classified as "human geography."

Although the writings of Park, Burgess, and McKenzie are generally credited with establishing the original scope of human ecology as a sociological study, subsequent theoretical writings by Park, Wirth, Hawley, and Quinn indicate confusion and the continual need to clarify the scope of human ecology and to distinguish it from other areas as geography, anthropology, and social and cultural ecology (Park, 1952; Quinn, 1950; Hawley, 1950; Theodorson, 1961). In a review of the literature Theodorson states,

In the sociological study of human ecology an initially rapid development and expansion was followed by a period of severe criticism and re-evaluation which seemed . . . to mark the decline of human ecology . . . The last decade, however, has seen a marked revival of interest . . . and certain disagreements as to the proper definition and emphasis of the field. (1961, p. vi)

In both the natural and sociological sciences, theorists, thus, struggled with the broadness of the concept of "human ecology" and sought ways to delimit it without losing the focus of interrelationships and interdependencies inherent in Haeckel's original definition of ecology. An effort will now be made to search for consensus of thought and principles as the concept continued to develop.



### Refinement of the Concept

#### In the Natural and Biological Sciences

Because the natural sciences by definition deal with objective realities, the early ecological studies focused on the interdependency of plants and animals with the environment. Eventually broad areas subdivided into the study of specific groups of organisms and large bodies of observable data accumulated. This data base became the foundation for studies relating the biophysical environment to the human species. The expanded life span and decreased infant mortality rates evidence the extensive strides these sciences have made in controlling factors which threaten the survival of the human organism. (Control or balance of nature, adaptation, and struggle for existence were among the basic concerns of the organism-environment interrelationship identified by Haeckel.) Traditionally, the focus has been on the organism adapting to or finding a more life sustaining environment. In more recent years the complexity of the human and nature interdependency, that is, human ecology, has been more fully recognized because of the human ability to control and consciously manipulate the ecosystem. This is a sociological concept (Sargent II and Shimkin, in Metress, 1971, pp. 20-28). Moreover, neither the individual nor the environment are uniform and stable, and both can be viewed in themselves as complex systems. In recognition of these factors, ecological studies to be effective must embrace knowledge derived from many specialized disciplines and aspects of science (Lewis & Taylor, 1967, p. 2; Bresler, 1966, introduction).



The natural scientist when examining the ecological aspects of the human condition has discovered the need to include the social-cultural context. Sargent II, a natural scientist, expresses this in stating

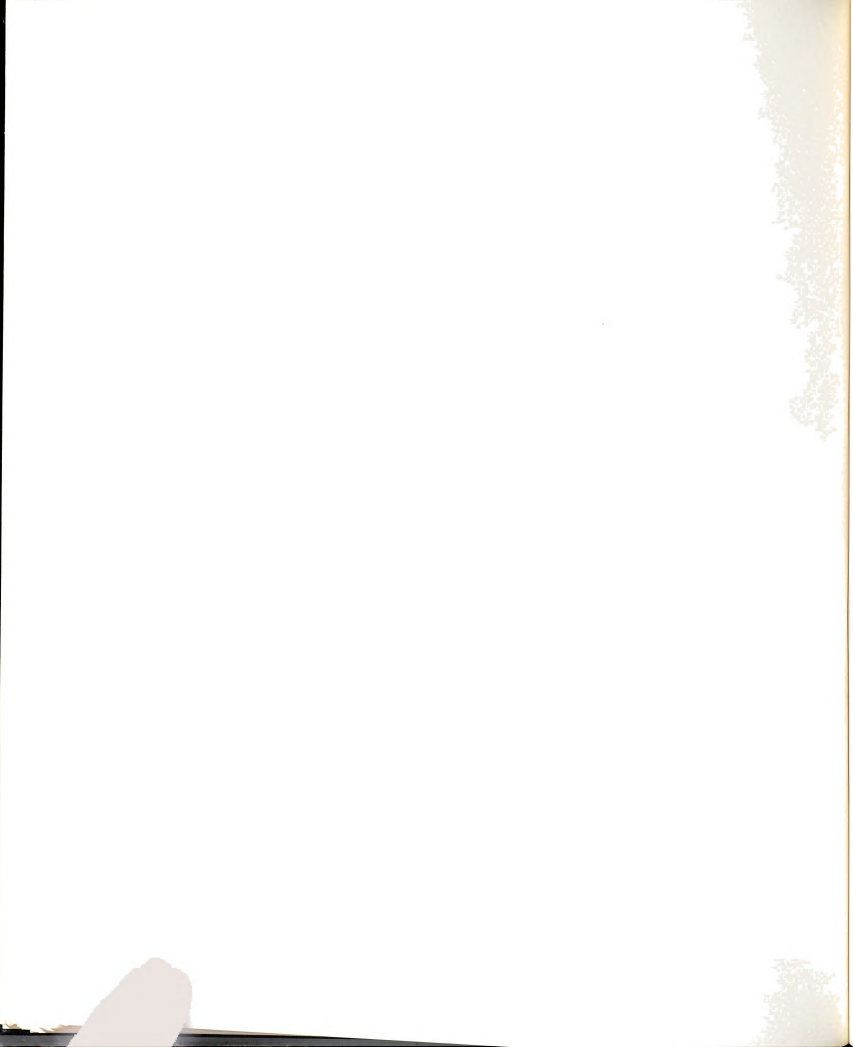
In essence, human ecology seeks to understand man and his problems by studying individuals and populations as biological entities profoundly modified by culture and by studying the effects of environment on man and those of man upon his environment. The environment in which man has his being is complex. It embraces physical, biological, and socio-economic components. Human ecology observes man in these contexts in terms of his physiological and behavioral tolerances and the genetic and social mechanisms that provide continuities, feedback stabilities, and progressive adaptations of biological and cultural evolution. (1974, pp. 1-2)

In summary, at this present time the concept of human ecology in the natural sciences is generally limited to the interrelationship of humans with the physical environment. In limiting, however, it is recognized that human ecology is the study of a high level, complex ecosystem involving the need for a multidisciplinary analysis within the natural sciences, to interrelate the natural science findings with the social sciences, to accept the inseparateness of the organism and environment, and to depend upon cybernetic systems terminology for the expression of both the interrelatedness and the evolving characteristics of its components as well as the total system.

#### In the Social Sciences

As noted, the natural scientist originally tended to study individual organisms and environmental factors as separate entities and has progressively moved toward a more ecological, holistic approach. In contrast, "human ecology" as a social science began more



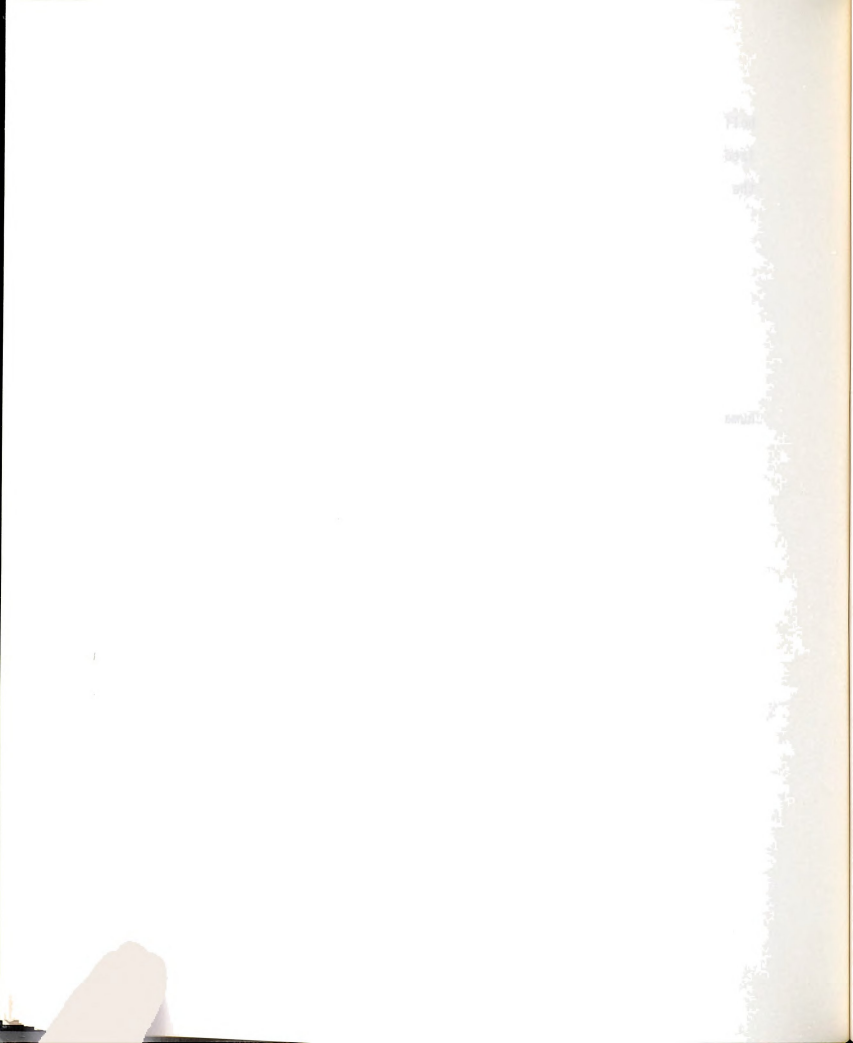


holistically and has subsequently been broken down into more specialized areas. According to Wirth, Park conceived "human ecology" in the early twenties as

. . . not a branch of sociology but rather a perspective, a method, and a body of knowledge essential for the scientific study of social life, and hence, like social psychology, a general discipline basic to all the social sciences. He recognized its kinship to, and derivation from, geography and biology. (Wirth, 1945, in Theodorson, 1961, p. 72)

Park emphasized that "human ecology" differed from biology in that the latter was concerned more with the relationship of the human being with the habitat, whereas human ecology in a sociological sense was concerned with the relationship of humans to humans as affected by the habitat. Park and his followers set limits by confining the ecological study of human relations largely to observing the struggle for space and, thus, the sociological approach was concerned with studying the supremacy of humans over animals in their ability to shape space or the environment (Wirth, in Theodorson, p. 72). These early human ecologists used the terms "competition" and "cooperation" to describe this human to human and space relationship. They also did not distinguish between community and society, and, thus the transmission of cultural ideals and its impact was not within their scope of investigation. In the classical or original concept of human ecology as reviewed by Theodorson

Human society is seen as organized on two levels: the biotic and the cultural. The biotic level involves basic, nonthoughtful adjustments made in the struggle for existence. This level is subsocial and is based on the organization of symbiotic relationships. The struggle for existence, based on competitive co-operation, . . . also determines the spatial distribution of



persons. The spatial distribution is therefore seen as reflecting the organization of the biotic level of society. The cultural level of society, based on communication and consensus, is seen as a super structure resting upon the biotic level. . . . The biotic level of human organization is regarded as the proper field of investigation for human ecology, and therefore cultural factors are excluded from ecological investigations. (1961, pp. 3-4)

McKenzie, although a close follower of Park, did not exclude cultural influence completely. In 1926, he listed the factors causing changing spatial relations as geographic, economic, cultural and technical, and political and administrative (McKenzie, edited by Hawley, 1968, p. 23). Like Park, McKenzie accepted "competition" as the basic ecological process and focused attention on why communities organized or took the form they did (Theodorson, p. 4). McKenzie's later writings reveal his fascination by the capacity of technology and culture to expand the territory accessible to human organizations, and, in turn, the impact of this expansion on the culture. Mindful of the expansiveness of the environment of humans, McKenzie, like Park, recognized the breadth of the human ecological concept. McKenzie felt human ecology defined a problem that subsumed the parameters of all other disciplines. Upon reviewing McKenzie's writings in the light of newer knowledge, Hawley states

The emphasis falls upon the system as a whole . . . This breadth of conception is one of the great virtues of human ecology and also the source of its major difficulties. A holistic as against a fragmentary view of man's collective life casts a much clearer light on the meaning of specific events and offers a closer approximation to realism. (1968, p. xiv)

McKenzie's awareness of the nature of the human community and dynamic character of the culture upon the physical environment is



further reflected in the following excerpts from his writings.

None of the specialized disciplines views the community as an organic entity in which human elements are bound together in an intricate and ever changing web of life. (p. 103) . . .

The human ecologist . . . unlike . . . workers in the biological sciences must always take cognizance of the cultural complex in which the symbiotic relations manifest themselves. (p. 104)

Even though the above excerpts illustrate that "human ecology" was viewed as a holistic, integrative concept by this early and prominent theorist, the major focus by sociologists has been the nature and development of community structures which represents a "deliberate limitation of the subject." Hawley discusses the need for this. "Too often," wrote Hawley in 1950, "ecology is viewed as an all-inclusive point of view--a study of life in relation to all of environment . . . To have substance, ecology must have bounds" (p. v). Seeing human ecology as a "logical extension of the system of thought and techniques of investigation developed in the study of the collective life of lower organisms to the study of man," Hawley defined human ecology as "the study of the form and development of the community in human population" (1950, p. 68). This he regards as a central problem of sociology but feels an ecological analysis would focus both on the developmental process of community by drawing on demographic and geographic data and on the functional relationships of the community organization. The scope would be limited by the statement of the problem and the scientific tools of analysis. In summary Hawley states



The question of how men relate themselves to one another in order to live in their habitats yields a description of community structure in terms of its overt and measurable features. It does not provide explanations of all the many ramifications of human interrelationships, though it may serve as a fruitful source of hypotheses concerning those aspects of the community. (p. 74)

Twenty years later, in a retrospective view of the development of human ecology as a social science, Michelson (1970) concludes that human ecology has failed to achieve its expected goals for society because of limitations it directly or indirectly imposed. In the effort to base it on the scientific analysis technique of the biological sciences, human ecology became engrossed in definable patterns of community organization. In so doing, researchers emphasized specific variables. At first many of these were statistics, for example, demographic data. Later, more process orientated variables were examined. Other researchers, using a methodology in social area analysis, related social rank, urbanization, and segregation to a dependent social organization variable.

A third approach, identified by Theodorson (1961) as social-cultural, emphasizes deep-rooted cultural values rather than economics as a primary cause of community organization and re-organization. In Michelson's critique, the sociologically orientated human ecologist, although using valid scientific methods, has not explicitly related the physical environment with the many variables of social science. Michelson definitely recognizes that human ecology is a linkage of the social and physical sciences. He, thus, creates the challenge to find ways to maintain this linkage in human ecological analyses (1970, p. 16).





Summary of Efforts to Refine  
Concept of Human Ecology

The preceding discussion on the development and refinement of the concept of "human ecology" in the natural and social sciences shows that while each science found it necessary to limit concerns with the former focusing more on the biophysical relationships of humans and their environment and the latter on the social-cultural relationship, each science is continually confronted with the inadequacy of findings and continues to search for ways to more fully explain the relationships and interdependencies. With the evolution of ideas in both areas the terms "system" and "ecosystem" came to the foreground. Secondly, each area indicates the need for the data of the other in order to achieve a truly ecological interpretation of phenomena.

As this evolvement was occurring particularly in these two areas of science and their related sub-areas, recognition of the weaknesses inherent in specialization in the sciences was causing concerned scientists to seek a framework to synthesize knowledge derived from the many advances in the analytical research of all the sciences. Consequently, attention was given to "wholes" or "systems" of interrelated components. It is within this evolvement that the term "ecosystem" came into usage and can be defined. Before examining the more current usage of and reflections on "human ecology" as a perspective for integrative thinking, therefore, an examination of the term "system" in reference to holistic thinking as appropriate.



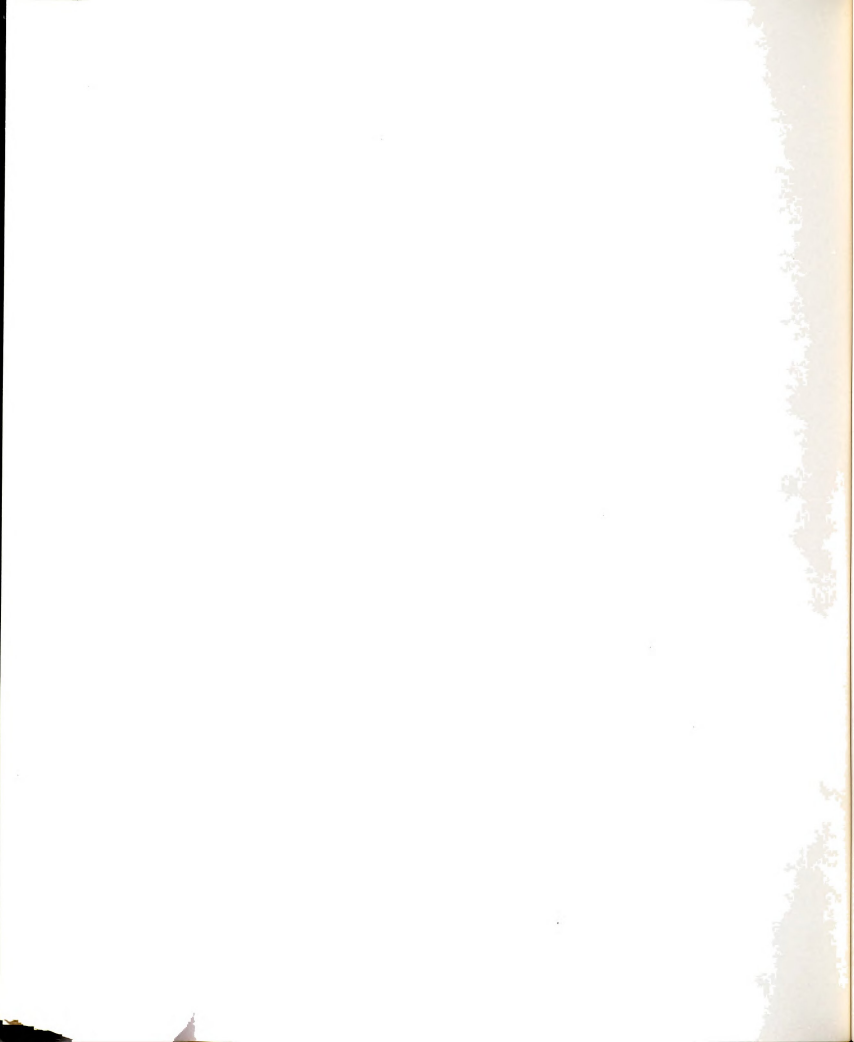
### Human Ecology and Systems Theory

#### Origins of Systems Theory

##### Recognition of the Need for a Holistic Perspective

The recognition of the need for "wholeness" in thinking and problem analysis is not new. The basis of philosophy and the later more empirical sciences originated when the early Greeks began to recognize in the world "an order or kosmos which was intelligible and, hence, controllable in thought and rational action" (Bertalanffy, 1975, p. 149). Aristotle is credited among the first to state the basic principle, "the whole is greater than the sum of its parts." In development both historically and within an individual, however, scientific thought tends to move from the analysis of organized simple objects, to a study of the parts of recognized complexities seemingly organized, to the challenge of recognizing, and then investigating for understanding, the organization of the complexities of many parts (Blauberg, et al., in Gray and Rizzo, 1973, p. 246). Or, another way of expressing this is to say that only gradually is it realized that an understanding of the whole is not achieved solely through an understanding of each part and that an understanding of the whole is essential to an understanding of each part (Churchman, 1968a, p. v). For these reasons the scientific investigation of wholes is comparatively new in modern scientific techniques. It is developing into a "systems science" aiming to identify in an organized manner various types of systems and modes of analysis.

The empirical-inductive method of scientific inquiry developed



in the physical sciences where the use of the controlled experiment and the analytical method have contributed extensively to our knowledge of causal relations of physical phenomena in a linear manner. As scientists attempted to apply these analytical techniques of the physical sciences to living organisms they were confronted by the realization that understanding the phenomena observed came through a perception of the whole rather than the parts alone. A living organism was seen to be a complex whole. It can be understood through a knowledge of the parts that comprise it and its structure can be described, but its actions are determined by how its inner components interact. Furthermore, an organism is subject to change as a result of this interaction and, thus, can be studied in terms of its past, present, and anticipated development. Experimentation has shown that a living organism cannot be broken down and then reassembled, and, thus, is more than the mathematical sum of the component parts. When the scientist attempts to investigate the relationship of the non-living environment and/or other living organisms to the living organism of concern, he further realizes he is dealing with the interaction of complex wholes within a larger whole. The ecological scientist, thus, is confronted with seeking ways to perceive and understand the "whole." Ways of doing this are being generated by a cross-disciplinary group of scientists.

#### Development of System Science Theory

An awareness that following the methods of analytical research, that is, the separating of problems into as many sub-elements as



possible and attempting to explain events in causal, mathematical laws was not yielding an understanding of the wholeness of things as defined above, caused researchers in the biological and human sciences in various parts of the world to reflect (Bertalanffy, 1975, p. 150).

Bertalanffy, a German biologist, was among the first to suggest in the 1930's the need to go beyond the investigation of single parts and examine the "coordination of parts and processes." He suggested the need for a "system theory of the organism" (1975, p. 152) which later became known as "general systems theory." Researchers in other fields were thinking similarly as is indicated by this excerpt from a message of the American economist, Kenneth Boulding, to Bertalanffy.

I seem to have come to much the same conclusions as you have reached though approaching it from the direction of economics and the social sciences rather than biology-- that there is a body of what I have been calling "general empirical theory" or "general systems theory" in your excellent terminology which is of wide applicability in many different disciplines. (Bertalanffy, 1975, p. 155)

James Miller, a psychologist, records events starting in 1949 at the University of Chicago in which a group of scientists began to wonder if a "sufficient body of facts existed to justify developing an empirically testable general theory of behavior." In reference to the biological and social fields involved, this group coined the word, "behavioral sciences" (Miller, 1955, p. 513).

In the mid 1950s in Switzerland, Erwin Laszlo, a philosopher, was seeking a way to combine "philosophical astuteness with scientific information." His research led him to Whitehead's "philosophy of organism" and then to a formulation of his own "Theory of Organic Relations" (Laszlo, 1972, pp. vii-viii). In the 1960s while in America,

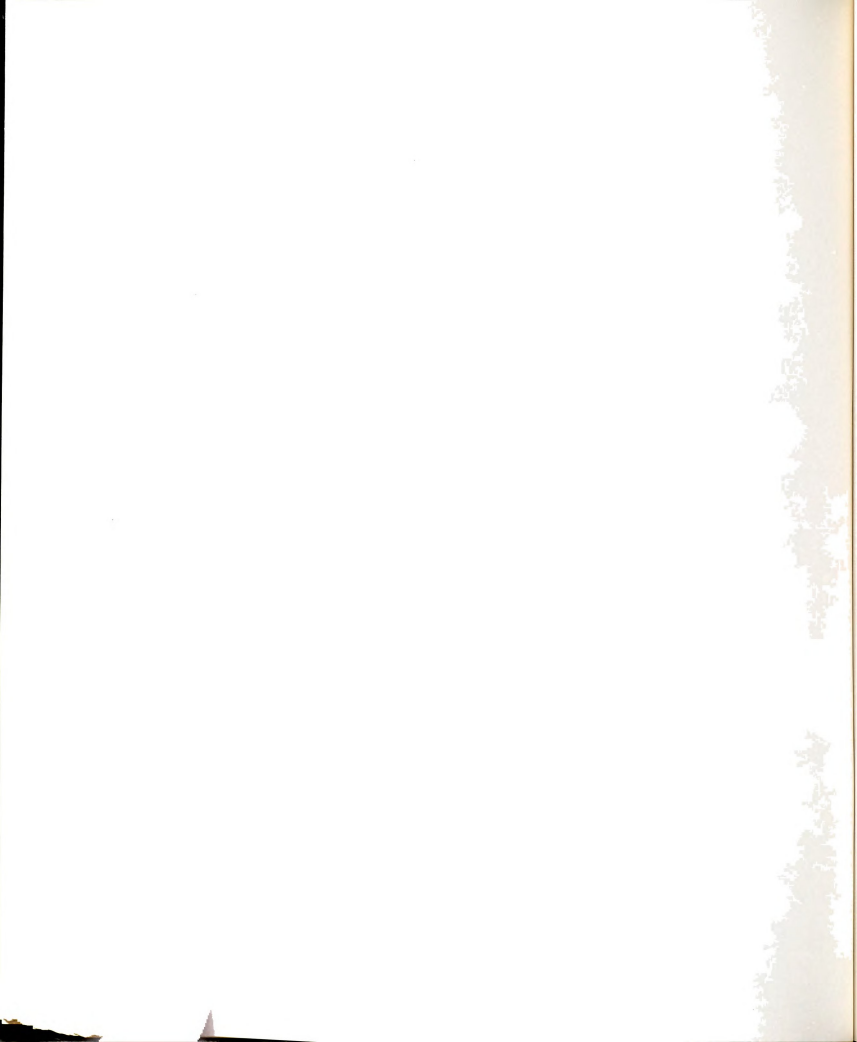




Laszlo encountered the writings of Bertalanffy, recognized the mutuality of their concerns, and, as a philosopher, was quick to characterize Bertalanffy, although a biologist, as an integrative thinker and philosopher (Laszlo, 1972, p. viii).

In each of their respective areas these scholars saw the weakness of increased emphasis on specialized knowledge and phenomena without relating this to the total sum of knowledge humans have about the universe. They saw the need to re-establish the importance of synthesis, wholeness, and integration in the perspectives of science, human beings, and the world. Bertalanffy's way of doing this was to seek out the commonalities in all sciences as each science explored the "systems" within its traditional domain of inquiry. Boulding, in retrospect, describes "General Systems Theory" as the response for a systematic theoretical level of thought that would identify the similarities in the systematic analysis of different disciplines and, thus, establish a common base for communication (Boulding, 1956 reprint in Buckley, pp. 3-4, 1968).

The seeking of a common theoretical language as a means of unification is not a new idea. In the scientific world, Anatol Rapoport, a mathematician, recalls that until the middle of the 19th century, physics, the study of the physical objective world, encompassed several branches of inquiry dealing with what appeared to be unrelated phenomena such as mechanics, light, sound, heat, electricity, and magnetism. However, by expressing the cause and effect relationships of the variables observed in mathematical terminology, the objective realities were raised to an abstract level capable of creating a



common theoretical framework. When the scientist tried to extend the unifying principles of the analytical method and language of mathematics to living organisms and processes, the method provided only a partial explanation and limited the capacity to anticipate outcomes. Further, in ecological studies within both the social and biological sciences, it became necessary to use terms descriptive of complex units and processes such as "organism," "life," "adaptation," "development," "species," and "selection." An understanding of the minute parts of these wholes, although contributing, does not describe the significance of the functioning of the parts together in the whole unit. In the world about us can be found a continuum of organized wholes or systems ranging from basic mechanical models to complex organic models. In the Newtonian mechanical model the whole is the sum of the parts (Deutch, in Buckley, 1968, p. 388). As the continuum of systems moves toward complexity, wholeness becomes more than the sum of parts and is dependent upon a complex integration of the parts. As evidence of this, much of man's understanding of events is attained by perception of "whole" expressed in words such as "personality," "man," "culture," "society," and "environment." To describe and explain how this integrated wholeness exists and evolves in the widest variety of systems and in relation to all systems has been the motivating force generating general systems theories. To achieve this end, theorists have built upon constructs descriptive of less complex systems. From their efforts have come classifications of systems, a vocabulary descriptive of varying characteristics, and conceptual models useful for describing



processes, degrees of variance, interacting factors, and continuums of predictability. As a final integrative goal, theorists have sought to develop a paradigm for transdisciplinary synthesis. If human ecology is considered the study of the human ecosystem, these developments have implication for use in expressing a human ecological perspective.

### Organizing Principles of System Theories

#### Definition of "Whole" as a System

Recognition that the world is a "whole" in itself and, in turn, made up of a series of subordinate "wholes" each affecting the whole of which it is a part is fundamental to the various modern system theories. In these theories the term "system" is not used in the vernacular or organizational sense to convey "systematic" or orderly progression but rather as a synonym for a "whole" which functions as a whole by virtue of the interdependence of its parts (Rapoport, in Buckley, 1968, p. xviii). Likewise, Webster defines a system as a "set or arrangement of things so related or connected as to form a unity or organic whole." Kuhn adds to these definitions in stating that a "system is any set of interrelated or interacting components . . . . To say that two components interact means that a change in one component brings about or induces some change in the other" (Kuhn, 1975, p. 10). The Kuhn definition focuses on the effect of changes in the variables in determining the nature of this complex whole, whereas, the Rapoport definition tends to focus on the action of a complex whole in itself. Both of these foci are essential to



understanding ecological interdependencies and human ecosystems.

### Dimensions of a System

Basic to the search for an understanding of "wholeness" by system scientists is the ideal of viewing complex entities as "systems" rather than a configuration of parts. To assist analysis theorists have identified within a complex system three dimensions each of which can be examined separately but together comprise the integrated whole. These dimensions are the structural or "domain" dimension of a system existing at the moment of analysis; the behavioral or "dynamic" dimension which describes the system's evolution or gradual development; and the "ecological" dimension which describes the system's relationship with or way of responding to inputs from its environment or other systems (Sutherland, 1975, p. 99; Rapoport, in Buckley, 1968, p. xvii). It is the ecological aspect in particular that distinguishes the complex systems from the linear, mechanical systems and limits the capacity to predict outcomes (Sutherland, 1975, p. 110).

Kuhn states that the analysis of complex systems leads to both a "body of knowledge" and a "particular way of organizing knowledge".

As to the latter, it is a way of looking at many different kinds of things so that their similarities are more readily apparent. If successful, it enables us to understand a wider variety of things with a smaller bundle of basic principles. (Kuhn, 1975, p. 10)

### Systems Vocabulary

As a "body of knowledge" system analysis has developed a





vocabulary applicable to the specialized systems studied in the smallest segment of the world of knowledge while at the same time and using the same vocabulary segments interacting in a system of systems of any size can be described. For example, the use of the term ecosystem encompasses an understanding of terms such as input, output, boundary, throughput, feedback, transformation, interdependency, sub-system, components, interface, closed, open, loop, finality, differentiation, and similar terms many of which originated in the field of cybernetics. These same terms are also used to indicate components of theoretical models which are used as a way of "organizing knowledge."

#### Theoretical Model Building

In addition to yielding a unifying vocabulary, the analysis of existing systems has resulted in theoretical frameworks or models demonstrating the interrelationship of system concepts. The development of models has been a basic goal of system theorists to facilitate the explanation of interrelated concepts, the components of a system, and/or the causes of variance in a system in a manner that is comprehensible to a cross disciplinary audience. Boulding confirms this goal in defining "general systems theory" as the name given to a "level of theoretical model building which lies somewhere between the highly generalized construction of pure mathematics and the specific theories of the specialized disciplines" (Boulding in Buckley, 1968, p. 3). Bertalanffy, likewise, emphasizes the importance of models in stating that a "system" in general system theory is a "model of



a general nature that is a conceptual analog of certain rather universal traits of observed entities" (1975, p. 159). Further, he considers the models produced through the various system theories as particularly concerned with multivariate problems which are not only interdisciplinary, but, moreover, "transcend the conventional fields of science" (Bertalanffy in Buckley, 1968, p. 14).

The models developed by system theorists have been arrived at by one of two general methods of research or a combination of both. The empirical-inductive method takes the world as it is found, examines the various systems in it, and draws up statements about the regularities observed to exist. Bertalanffy says this "empirico-intuitive" method "remains close to reality and can be easily illustrated and even verified by examples" but "lacks a mathematical elegance and deductive strength" often highly valued (in Buckley, p. 15).

The second method, hypothetical-deductive, considers a set of all conceivable systems and then reduces the set to a more reasonable size by establishing and defining generic terms. The difficulty in this deductive process is whether the fundamental terms are correctly chosen and how readily they will be accepted by other theorists (Bertalanffy in Buckley, p. 17). Sutherland (1975) in describing the analytical tasks of the system theorists emphasizes the complementary nature of these two methods. In his estimation, the empirical-inductive modality of analysis, although adaptable to those systems whose properties are observable and amenable to quantification and experimental manipulation, cannot be applied initially to complex, organic systems. For these, Sutherland states the scientist must begin with a



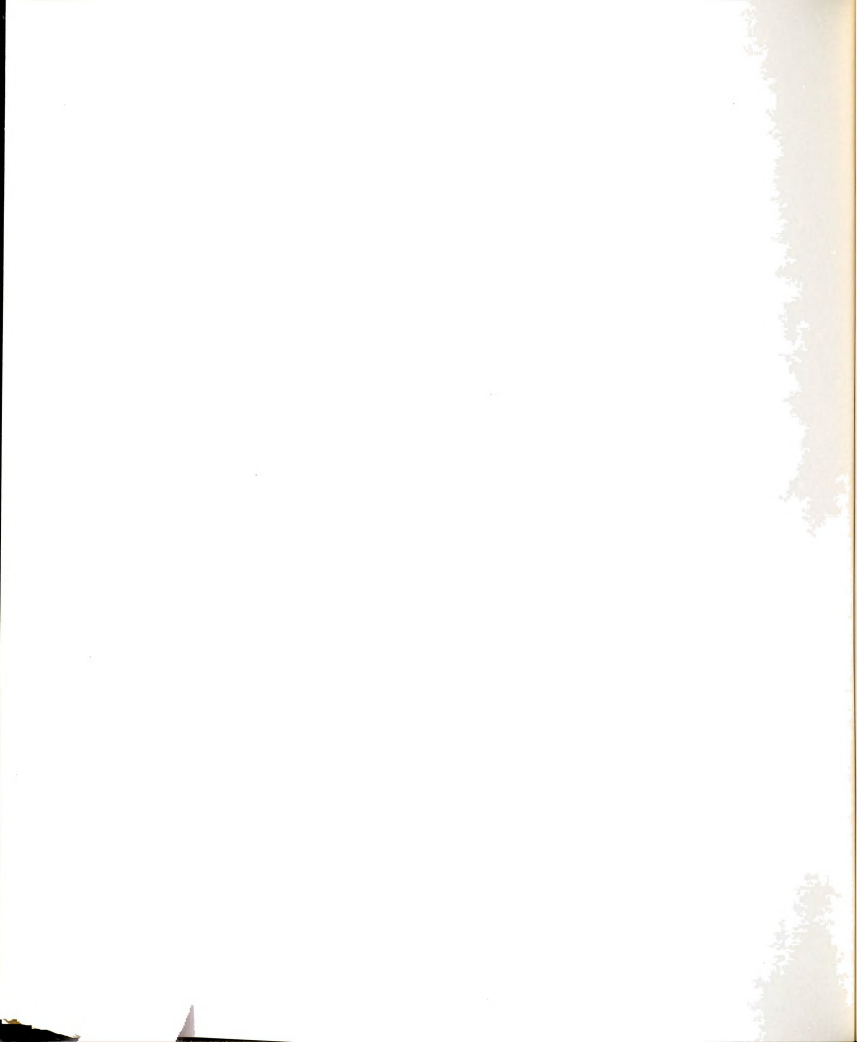
hypothetical-deductive methodology (p. 8). To accept, therefore, the challenge to examine complex wholes, the scientist must be willing to move away from the exactness of empirical analysis.

The alert system scientist will suggest that there is a relatively significant class of phenomena (i.e., essentially "organic" systems) that simply . . . are not proper targets for empirical-inductive analysis. In treating such systems as these, the scientist is forced to adopt an analytical modality that does not depend for its significance on the availability of a high quality data base . . . the hypothetico-deductive modality. (Sutherland, p. 10)

In considering the above statement the inductive and deductive methods should not be seen as competitive ways of science but rather complementary.

. . . the deductive approach is employed only when we lack the predicates for the inductive, and is employed in the thought that hopefully our operations on the deductive dimension will ultimately allow us to employ the more precise and generally more accurate inductive methods. In short, in the face of extremely complex phenomena, the hypothetico-deductive modality is not a substitute for the inductive, but a prerequisite. (Sutherland, p. 12)

In opposition to criticism of the thrust of systems theory toward the use of conceptual models, Bertalanffy states, "Its aim is not . . . hazy analogies, it is to establish principles applicable to entities not covered in conventional science" (Bertalanffy in Buckley, p. 20). As already indicated the exploration of "wholes" and "wholeness" is a primary goal of general systems theory and the models produced. The user of the models generated must accept the fact that no model can reproduce the total of reality but rather can mirror only facets of it. Further system theorists seek "to classify systems by the way the components are organized (interrelated)



and to derive the "laws" or typical patterns of behavior for the different classes of systems singled out by the taxonomy" developed (Rapoport in Buckley, 1968, p. xvii). System theory is not a new scientific method but rather a new emphasis. It has developed from synthesizing scientific concepts derived by analysis and is intended to transcend and unify specialized disciplines. For this reason, an understanding of the basic models and the related concepts becomes an effective tool and frame of reference for anyone examining human ecological relationships and relating concepts from various bodies of knowledge to a specific situation.

#### Basic Models and Concepts

Structural Dimension Concepts. The most frequently used model in systems science is that demonstrating a system as a causal sequence of input being transformed into output by some process.

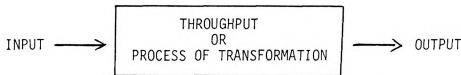


Figure 1: Basic Systems Causal Sequence Model

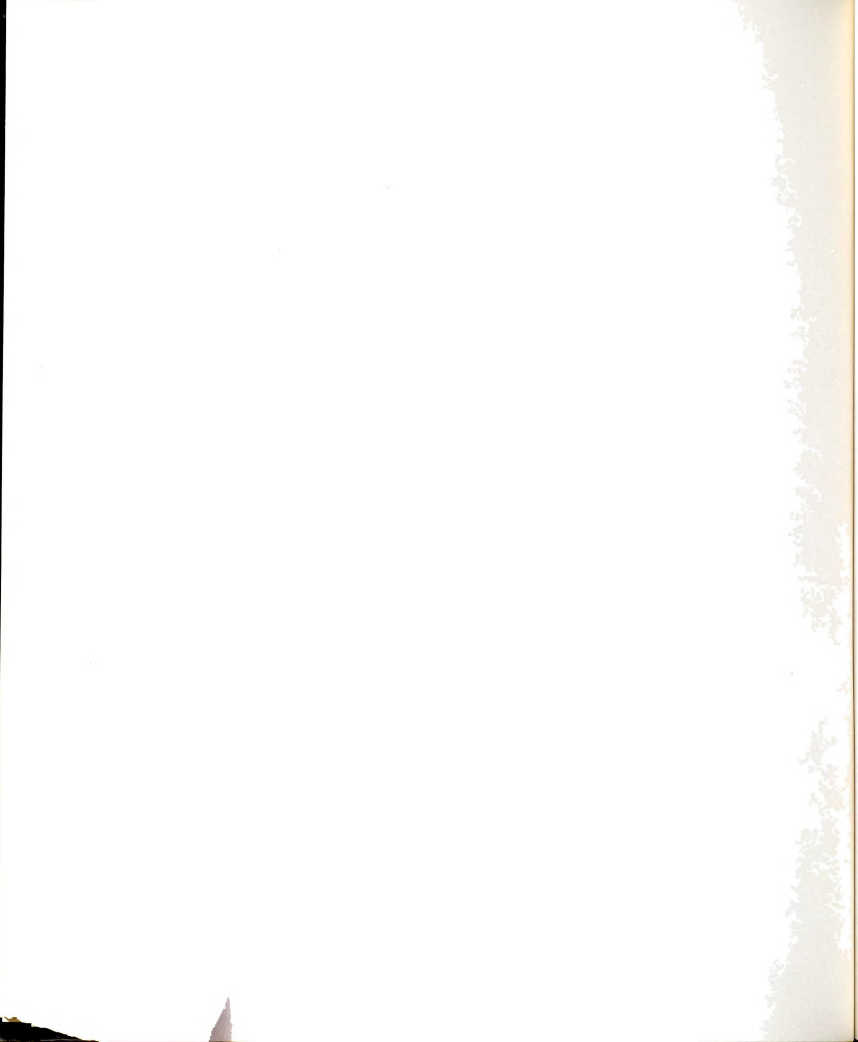
This is applicable to simple, mechanistic systems but when the scientist moves to more complex systems subject to a variety of environmental impacts and evidencing the dynamics of change more must be considered. Such is any system with an ecological dimension. The analysis of such systems, however, begins by examining the structural dimensions, that is, its boundary or spatial limits, its major



components or subsystems and their distribution within the system, and the influence of the interaction among the components.

Virtually all systems can be described as developing by either "segmentation" or "differentiation." In a fully segmented system all components are alike structurally and functionally, thus the task of unification or integration and control of the whole is minimal. In comparison, a system which has developed through differentiation will ultimately have components that are each structurally and functionally unique. On the interim continuum would be varying degrees from similarity to uniqueness in structure or function or both. The greater the uniqueness of components, the more complex the system. A human ecological system will be seen to reflect this uniqueness of components and, thus, to have developed by differentiation.

This leads to the recognition that ecological systems are basically "organized complexity." The scientist, therefore, can seek to identify patterns of organization. Because "hierarchical" arrangement is most commonly found in both natural and human systems, a basic classification is "hierarchical" and "non-hierarchical" systems. As the word implies, a hierarchy is an assembly of components that may be looked at in terms of levels. A level may be one or many component elements and is often defined as a sub-system or sub-set. In turn, the influence of one level upon another becomes a mode of classifying hierarchical systems. From the study of hierarchical organizations, it has further been observed that the different levels within a hierarchy often merit different descriptions (Sutherland, 1975, p. 54). In the non-hierarchical organization would be the partially and fully segmented



systems and social organizations in which each segment functions fairly independent of another. Figure 2 suggests basic models of hierarchical and non-hierarchical organizations.

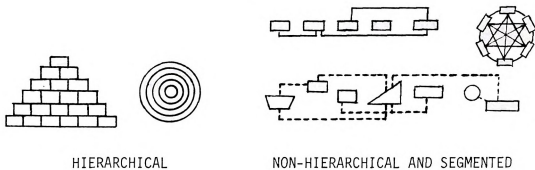


Figure 2: Basic Models of Systems Organization

Another distinction among simple and complex systems is the degree of influence by exterior forces. A closed system is one which is minimally dependent upon outside influences or whose "internal properties are well buffered against external intrusions" (Sutherland, p. 41). No system could survive if completely open. So, for the system scientist, an "open" system is generally defined as one that is "highly dependent upon external events or operators, or one whose growth of survival depends on a constant interchange with environmental factors" (Sutherland, p. 41). The presence of the third key dimension of a system, the ecological aspect, by definition implies a degree of openness in the system. The capacity to diagram this will vary with the complexity of both the system and the environment in which it resides and with which it interfaces. Figure 3 compares the open and closed system.

According to Sutherland, the study of an open system demands

that the scientist have a more "open" or wider perspective than a non-system scientist might be expected to have. The study becomes one focusing on interactions and complex causal sequences (p. 43).

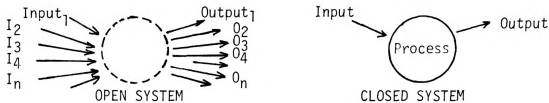


Figure 3: Basic Open and Closed Systems Models

Another dimension considered in a basic systems model is that of "feedback" which is closely related to the concepts of "open" and "closed." A system that has the capacity to react and change as a result of changes in its environment responds to "feedback" and is known as a "closed-loop" system. Further, it has within it some monitoring or decisioning sub-system which controls the degree of reaction. Thus, the basic model in order to convey this reaction to the environment which is a primary characteristic of an ecological system changes to:

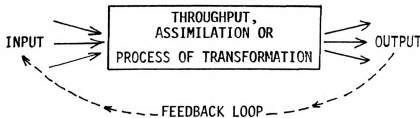


Figure 4: Basic Input-Output Model with Feedback Loop

In considering the degrees of complexity, a system can be



classified as discrete or continuous, and linear or non-linear. Complex ecological systems will be continuous, that is the variables are constantly in a state of change and, thus, point values cannot be obtained. Complex ecological systems will also be non-linear, that is the components functioning together as a whole are more than their additive sum. This is the concept of synergy which is essential to understanding an integrated system holistically (Sutherland, pp. 30-31).

Dynamic or Behavioral Dimension Concepts. The foregoing terms are primarily used to describe the structural dimension of a system. The degree of similarity or distinctiveness of the parts of a system influences the behavioral dimension. In viewing the dynamic or behavioral dimension the concern is to depict change that occurs in the course of time. More specifically, the dynamics of a system encompass what a system does. This includes purpose, process, change and achievement or what can be classified as "functional analysis." In some systems as functions occur the structure remains or can be assumed to remain the same. The scientist, in turn, is concerned with qualitative and quantitative changes or differences occurring between two points. This Sutherland describes as a "macro-analysis" (pp. 64-65). If, in contrast, the structure of the system changes in the dynamics of time, a micro-analysis must be used. Thus, a micro-behavioral analysis is generally associated with the study of human systems or those which are non-stationary, that is, the structure will eventually change. Behaviorally, the system scientists have tended to



classify systems as "steady state," that is, the system exhibits a constant single mode; or "finite state," that is, one exhibiting different characteristics over a period of time but "each starting state gives sufficient information to determine what the concluding state will be" (Sutherland, p. 74); and varying degrees of multifinality, that is, those which "given any set of starting-state conditions will have two or more concluding-state conditions" (Sutherland, p. 79). Complex ecological systems will come into this latter classification. Models used to describe the changing dynamics of systems are basically graphs depicting change over a period of time.

Ecological Dimension. As this consideration of systems moves from the simple to complex systems, so, too, does the consideration of each succeeding dimension gain in significance. Consequently, at the more complex levels, the concern must be for all three dimensions: structure, dynamics and ecological relationships. To embrace and express this three dimensional framework, it becomes necessary to move to higher levels of abstraction. The complex system is the type of system the general system theorist has focused on and is of particular importance in this study because of the ecological dimension of human systems, that is, systems which respond to inputs from surrounding systems and in turn are modified. In summary of the preceding, a model of an ecological system would indicate characteristics of complexity, development by differentiation, having a degree of openness, reacting to feedback, emphasis on interaction, complex causal sequences, change over the course of time, non-linearity, and having





two or more possible concluding state conditions. Because of the number of variables that could exist in each of these characteristics, models need to be very theoretical and consequently, unless understood, may appear simplistic.

#### Basic Characteristics of a Systems Scientist

The preceding discussion examining the manner in which system theorists have tried to establish models to explain wholeness or integrated and ecological systems leads to the identification of certain characteristics of a systems approach to problems. The problem solver would :

1. Focus on holistic concerns
2. Search for opportunities to make linkages between  
systems
3. Tend to comprehend complexity before contemplating  
action
4. Not be restricted to a particular academic discipline
5. Appreciate an interdisciplinary approach to an  
analysis
6. Value synthesis higher than analysis
7. Be more problem oriented than tool oriented
8. Not be "a priori" committed to either quantitative or  
qualitative analysis
9. Recognize that the analytical method to be used must  
be determined by the problem at hand
10. Be familiar with both inductive and deductive processes

100

100

100

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11. Be able to meld concepts from both quantitative and qualitative analysis

12. Seek for isomorphisms, that is, a property that is shared between two or more superficially different systems that allow us to approach them as a defined class phenomena, and

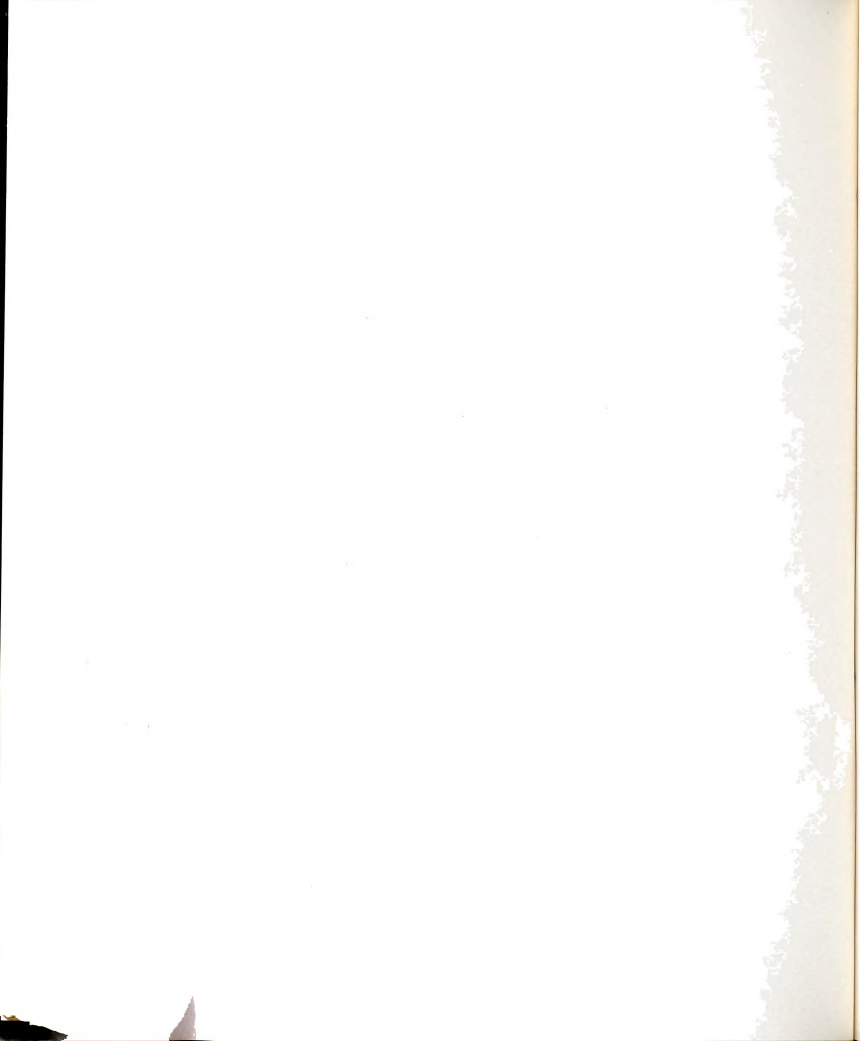
13. Exert strong efforts to solve problems completely, not just a piece at a time or for some short period

The listing suggests both the characteristics of an educational program using a human ecological approach in the formation of a professional home economist, and the characteristics one would expect in the product of the program.

#### Systems Concepts Applied to Human Ecology

The preceding examination of systems concepts and the identification of the basic characteristics of both an ecological system and of a person approaching an analysis in an ecological systems manner brings this study to the transitional step of relating the above principles to human ecology.

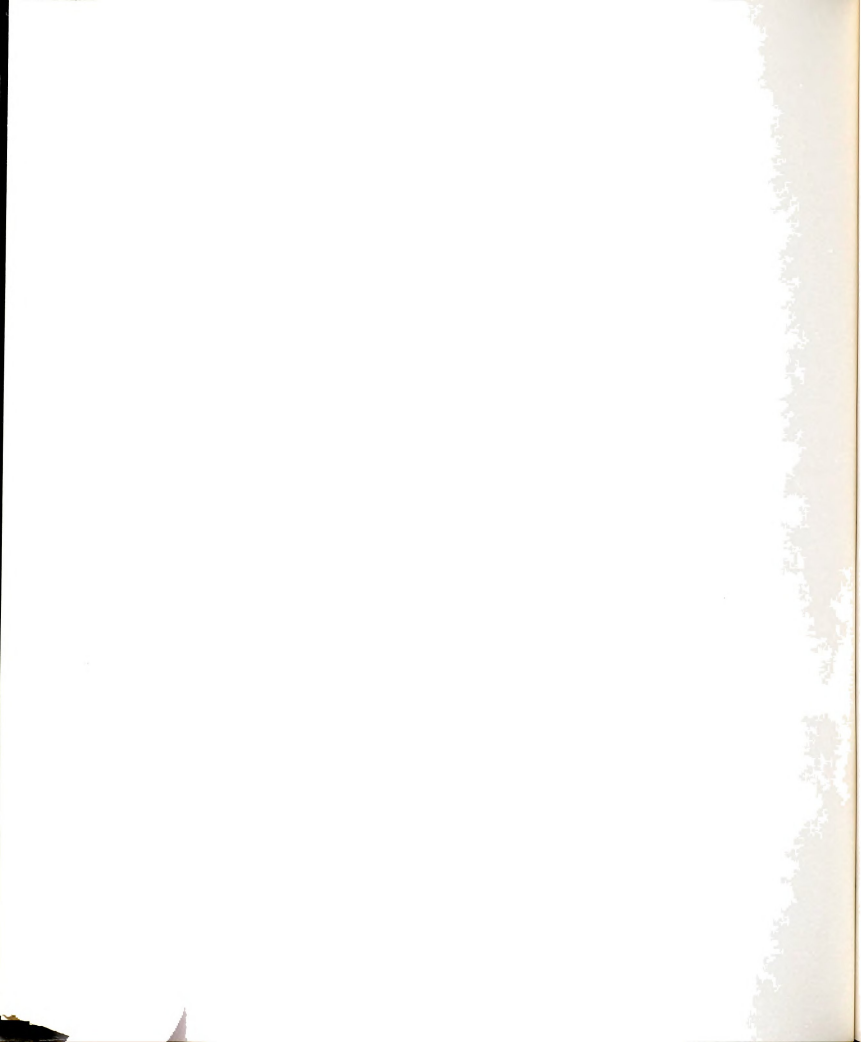
If a system is a set of interrelated components forming a unity or a whole and if ecology is the study of the interrelatedness and interdependency of the two components, organisms and environment, then an ecosystem can be considered to be a specific kind of system involving the interaction and interdependency of both living and non-living parts within a defined whole. In turn, human ecology becomes the study of human ecosystems. This has been affirmed by the usage



of the term in the natural and social sciences both of which, like all sciences, aim to contribute to the understanding of the human being, the universe, and the relationship of the two through the analysis of specific data (Caws, 1965, pp. 5-6).

The application of systems concepts to the human-environmental interplay in view of the synthesizing purpose of systems theories should simplify the comprehension of the whole and the ability to relate specific facets of the interplay to the whole. To accomplish this the identification of the structural components and the interfacing of these components or their intra-ecological action must become a part of the analysis when applying systems concepts to the interaction of humans with their environment (or human ecology) and the significance of each to other human needs.

The significance of analyzing human ecosystems from a holistic perspective is related to the complexity of both the universe itself and the totality of humanity which together impact the immediate and extended human condition. The ability to identify the variables and the significance of each to other human needs is essential to the resolution of any problem related to the human condition. The world today is confronted with problems that transcend the primary concerns of any single science or area of knowledge. Further, because the ultimate objective should be the quality of the human condition, these complex problems of resource availability, pollution, human physical and psychological health and safety, communication linkages, and the development of the human potential must be



viewed in the context of the dynamics of human life with a realization of the interdependency of human behavior and subsequent environmental conditions.

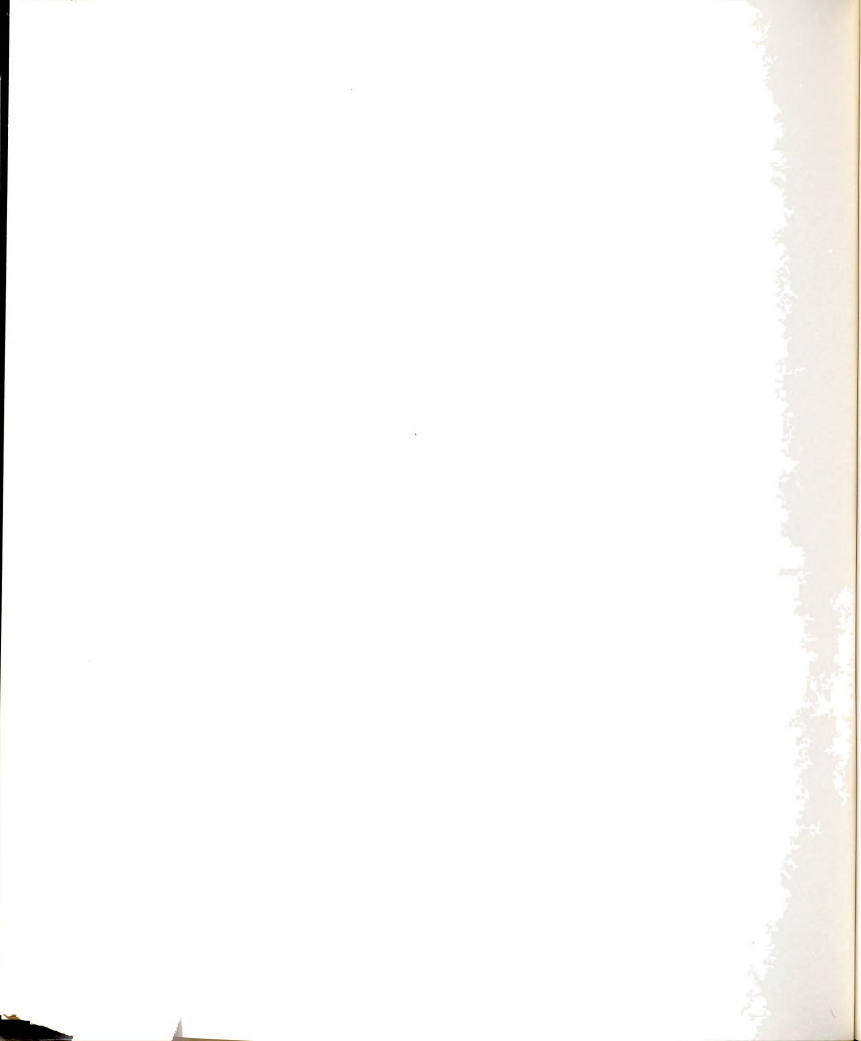
Micklin (1973) identifies the tendency to resolve issues by examining isolated aspects or subordinate issues and proposing immediate, short-range, pragmatic solutions without seeing the isolated issues in relation to other issues or a more comprehensive long range view (p. xiv). The utilization of systems models and concepts is a proposed way of overcoming this weakness by envisioning an isolated problem in relation to other problems and in relation to a larger view of the human environment. To do this the commonalities of issues must be identified by raising the description of the issues from concrete to abstract terminology.

Using this tactic, Micklin (1973) seeks to reduce the complexity of multiple issues and variables to the comprehensive terminology of social organization and process when he states

. . . the relationship among the raw materials of human ecological systems--i.e., populations and their environments--are mediated through and largely determined by certain aspects of social organization. The primary question to be explored involves the identification and the delineation of the social processes through which human aggregates adapt themselves to the exigencies and contingencies of particular demographic and environmental conditions. (p. xiv)

Implied in this statement is the basic pragmatic problem motivating interaction in any system, that is, the survival of the parts. In an ecological system, it is the survival of the organism without losing the means to survive. Logically, therefore, the ultimate objective motivating action in an ecosystem is maintaining the



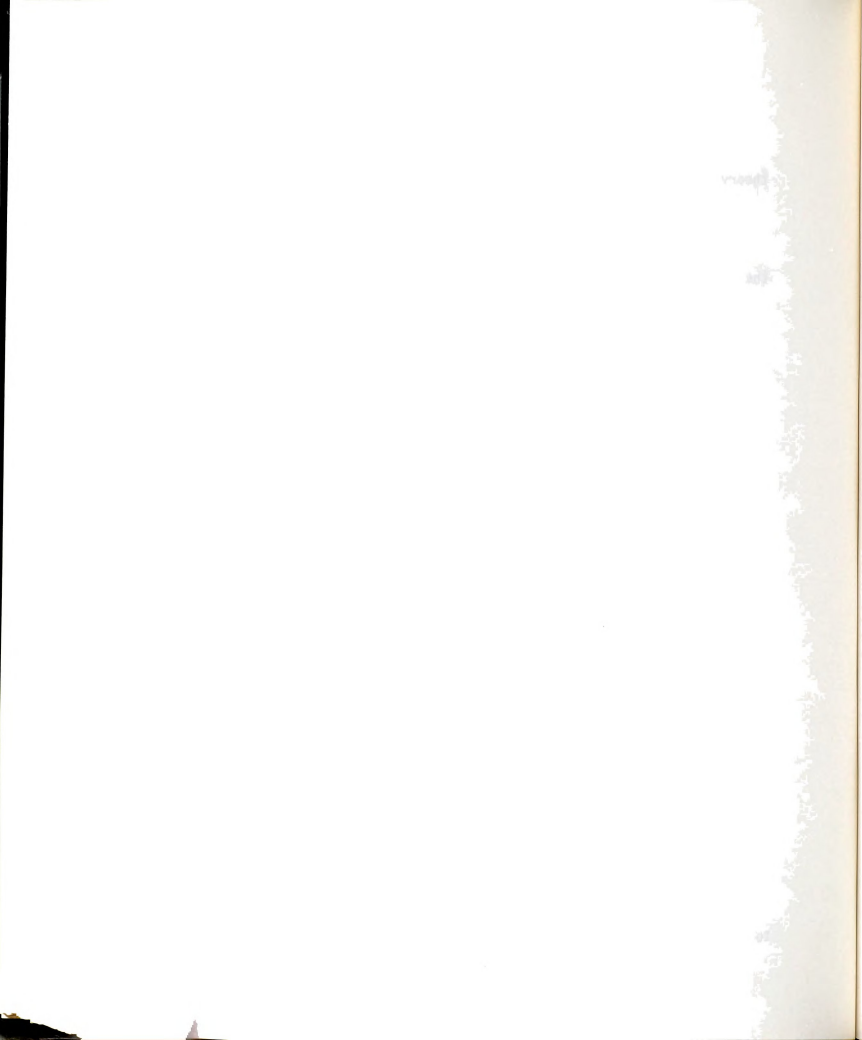


interdependent parts.

Given these key dimensions, the application of systems theory to human ecosystems is seeing the environment as the "input"; the manner in which the user adapts to the environment as the "throughoutput"; and the "survival" or fulfillment of human needs as the primary "output" which together with excess materials will affect the nature and quality of the total environment. A human ecological analysis would be made by first identifying both the population or human aggregate of concern and the environment or system which surrounds it. This would be followed by the identification of the processes the individual or aggregate is capable of using in adapting to the environmental input, and by defining the environmental conditions to which the human aggregate is responding. In the final analysis the change occurring or "output" would be observed and evaluated.

#### Contemporary Usage of the Concept of Human Ecology

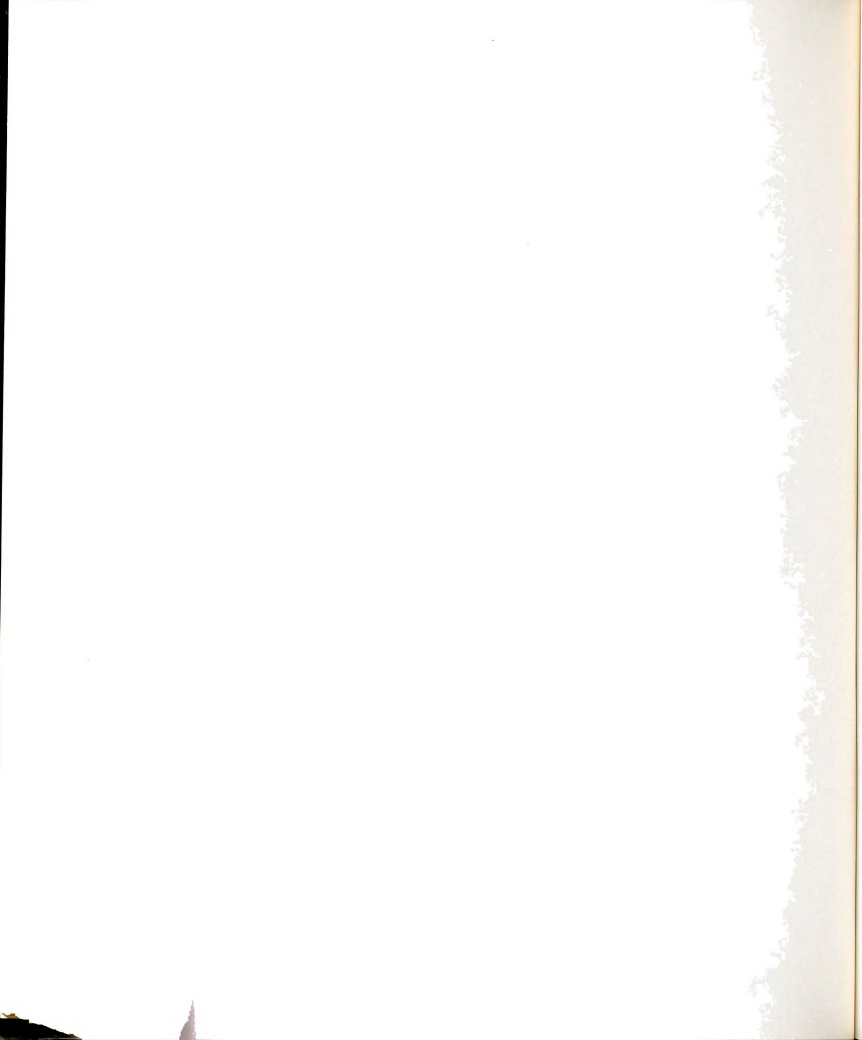
In consideration of the various modes of human adaptation which the human being has the potential to use throughout the life cycle, it should become apparent that no single area of science can concern itself with all of the environmental conditions which the human organism can utilize and adapt to for survival. The complexity of this problem is further intensified by the growth of knowledge in both the natural and human sciences and the consequent technological developments. The resolution of the problem is not found in trying to identify what science is "human ecology" because the concept



of "human ecology" has been used in all sciences. Rather, it is in examining how it has been used. In reality, it is used in both a specialized and comprehensive manner. To demonstrate this, selected recent writings in the natural and social sciences will be examined together with reflections on the use of "human ecology" in the arts. Of particular focus will be those works which bear the title "Human Ecology" or have the relationship of humans with the environment implied in the title.

#### In the Natural Sciences

The Center for Human Ecology at the University of Illinois was established in 1965 as an outgrowth of the zoology department. From the experiences of members of this group in teaching an interdisciplinary course, the text, Human Ecology, evolved in 1975. Although the text has a biological-natural science origin, the theme of it is "that humans, like all living organisms, function in their environment by means of adaptation," and that "the most important human adaptive mechanism . . . is culture" (Levine, et al., 1975, preface). The theme, thus, aims to link the social and natural science perspective in achieving a "holistic view of man's role in nature" (preface). After an explanation of the nature of "human ecology," the text examines the human environment as a physical-chemical habitat and from a biological perspective. These introductory sections are followed by three main sections: "Man's Physical Evolution;" "Man's Sociocultural Evolution;" and "Man's Confrontation with His Environment." This last section examines the current complex issues of



food, population, diseases, and pollution.

In deciding what should or should not be included, this group obviously is influenced by their area of specialization while recognizing the need for a broad perspective. This is expressed in the following:

Is "human ecology," then, an empty phrase, a useless slogan? Must it be divided and subdivided until we are left with only the same academic "disciplines" into which all knowledge is safely and barrenly pigeonholed? On the contrary! It is the synthesis of these many disciplines, their coming together into the broad, interdisciplinary and multidisciplinary field of human ecology, that is vital to the understanding of ourselves and our eternal predicament. Human ecology is, literally, the science of man in his house, and man's house is the planet Earth. (Levine, et al., 1975, p. 1)

Clearly, human ecology, is too broad for any one person to master in detail. But an overview of the field gives a framework on which to hang the data and theories of specialized fields, as well as a broad perspective on the nature and limitations of man and his environments, past, present, and future. (p. 2)

A second recent treatise on human ecology with origins in the biological sciences compiled by Sargent II (1974) takes a slightly different route to the same goal. He describes the issue of synthesis and his approach by stating

This book treats of human ecology and seeks to identify its nature and scope. . . . In these times when disciplines are both fragmenting and realigning, human ecology is difficult to identify precisely. We see it as a conceptual framework for studying and understanding "Man in Nature" and in . . . this book we look at ecosystems, man, man's use of resources, the human condition, and management of environmental quality. We do not contend that we have encompassed all that might be human ecology, but these chapters do provide a reasonable comprehensive and cohesive picture of a field that has yet fully to mature. (Sargent II, 1974, p. v.)

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The writings by Boughey, inasmuch as they derive from the Department of Population and Environmental Biology of the University of California deserve attention. Boughey states,

Human ecology is a young and yet an old science. As with all disciplines generated from the union of several older traditions, . . .

Although these converging interests of the social, biological, and medical sciences, together with engineering, represent largely independent incursions into human ecology, it is apparent that they must meet on some common ground. The rational forces for these varied interests is in the fundamental ecological concept of the ecosystem. Societies of Homo Sapiens . . . are tied inseparably to the micro- and macroecosystems of this planet. They are subject to the same laws that govern performance and behavior of the other populations included within ecosystems. (Boughey, 1971, pp. v-vi)

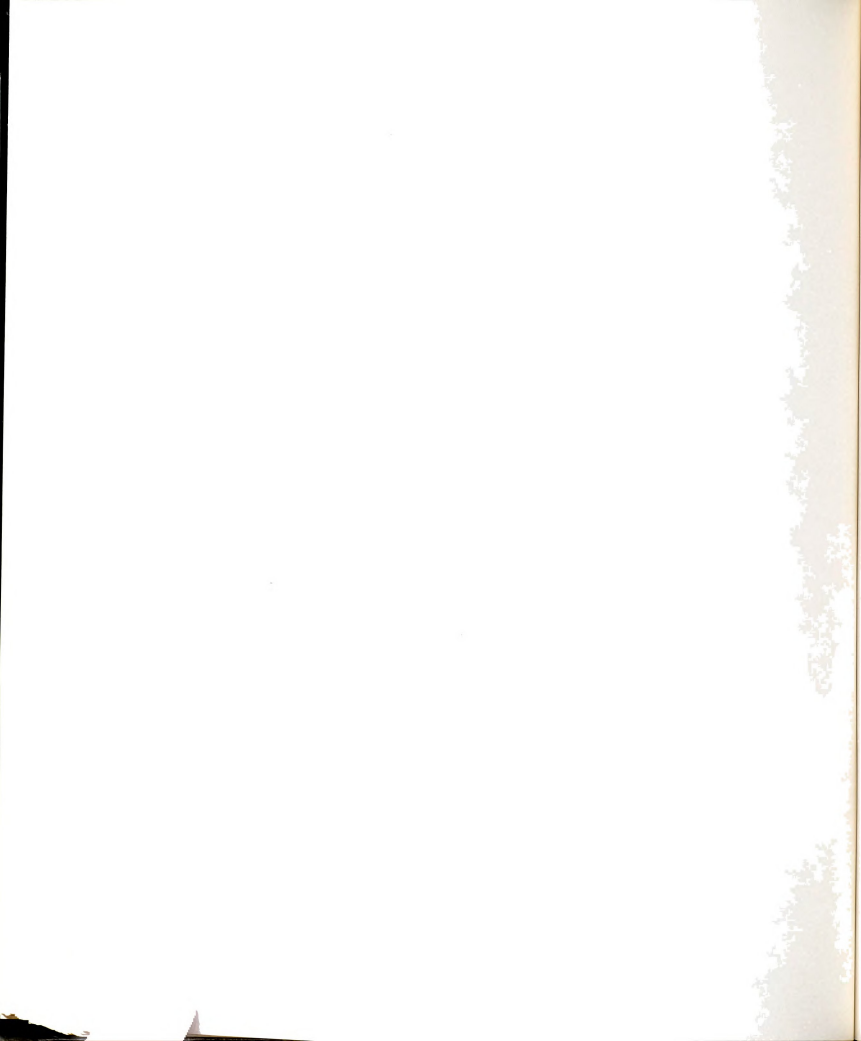
In organization of content this text moves from the origins of man to the emergence of the urban civilization and then examines the impact of this development on population, air and water pollution, and natural resource utilization. Significant to this study are Boughey's interpretations of human ecology. In addition to the above, he also states

It (ecology) is . . . simply and briefly described as the study of ecosystems. . . . it is possible to . . . define human ecology as the study of the development and interactions of human societies with one another and with their environment. . . .

The study of human ecology, as it is most commonly understood by ecologists, therefore, includes both a backward view of these early ecosystems in which human forms played an integral but less destructive role, and a forward look necessitating an urgent consideration of the catastrophic effects of . . . human intrusion into contemporary environments. . . .

Only with the development of the ecosystem concept in ecology was it realized that populations, communities, and





ecosystems had to be studied together, the . . . holistic approach (Smuts, 1926). Fortunately this realization was soon followed by an appreciation that the techniques of systems analysis could be applied to such studies. . . .

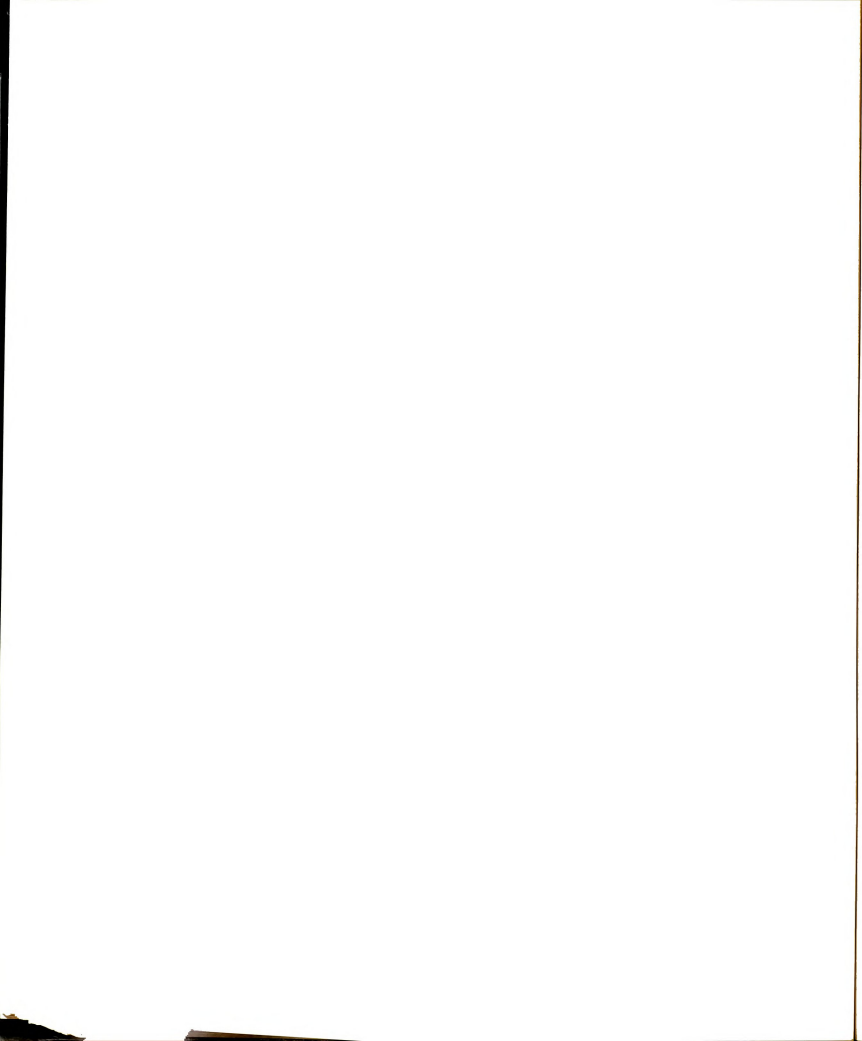
The more ecosystems came to be studied with this holistic approach, the more ecologists realized that the effect of human occupation was all pervasive (Odum, 1969). There was no population, community, or ecosystem left on earth completely independent of the effect of human cultural behavior. (Boughey, 1971, pp. 1-3)

The final excerpt above links in a very pointed manner the concepts of ecology and ecosystems. This linkage is essential if the interdependence of people with their environment is to be understood.

The content analysis of the above texts by respected authorities in the natural sciences identifies the comprehensiveness of human ecology. An examination of recent presentations on human ecology from the social sciences reveals a similar pattern.

#### In the Social Sciences

Micklin (1973), a sociologist, developed his framework for the study of human ecology around two basic principles, namely that survival is a primary motivation for humans and that social organization is the means to achieve this end. These principles are generally consistent with contemporary human ecological frameworks developed by social scientists. As in the natural sciences, the central focus of human ecology is the relationship of human organisms and the environment. The social scientist, however, places emphasis on the collectivity or the population as the unit of analysis which in turn causes the examination of "social processes" rather than individual roles to be the factor creating ecological relationships. Consequently,

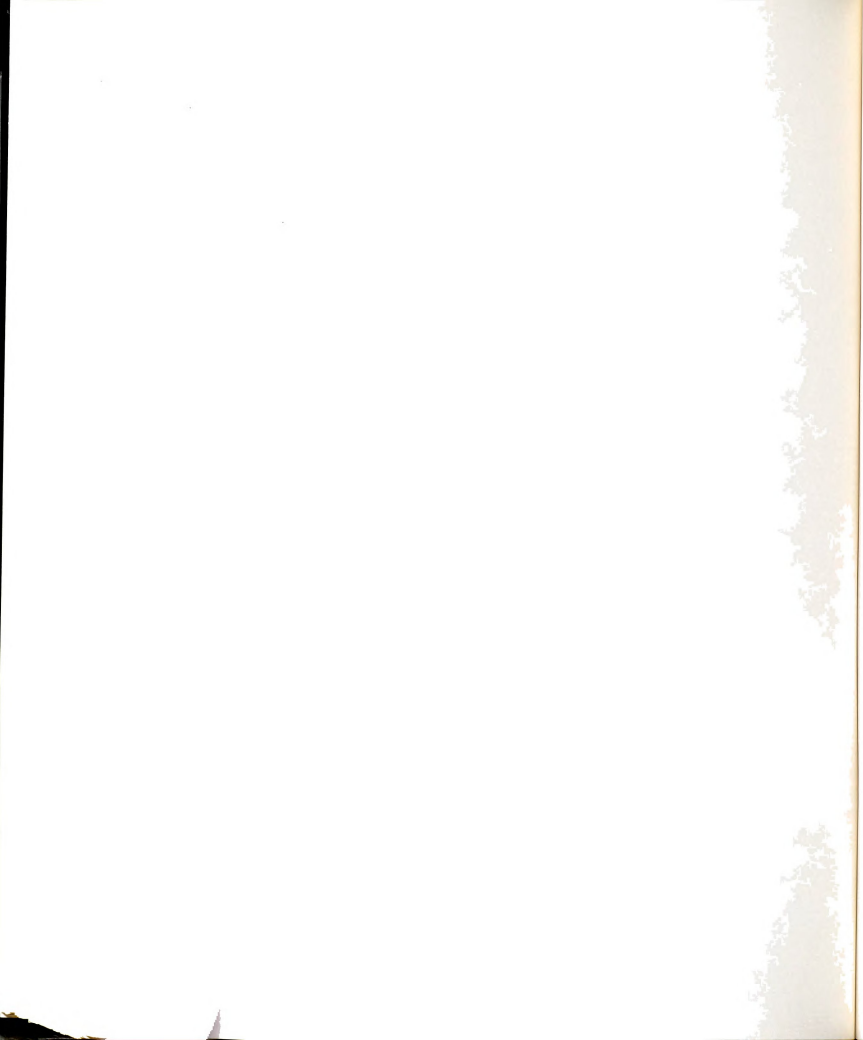


ecological analysis for the social scientist leads to explanations of social change. Further, the social scientist sees the environment which affects human activity as being comprised of both material conditions and ideas generated by human resources. Finally, the social scientist will evaluate the survival aspect from both a quantitative and qualitative aspect (Micklin, pp. 3-4). In summary of the sociological contemporary view, Micklin states

The assumptions guiding this examination of human ecology suggest a focus on relationships between collectivities and their environments. These relationships are mediated through socially organized activities aimed at satisfying the requisites of collective survival. (p. 5)

In the sociological framework exemplified by Micklin, adaptation of and by the interacting components of population and environment determines the degree and kinds of ecological activity. Adaptation can be considered in terms of either the mechanics of social organization or the outcomes of adaptation on both the population and the environmental phenomena. The latter can be interpreted in terms of quantitative to qualitative survival with the ideal being a balanced impact on each component. This approach involves understanding the dynamics and influence of adaptive mechanisms used by the components. As evidenced in Micklin's text, it eventually leads to the examination of critical contemporary concerns such as population control, use and availability of resources, and environmental quality.

In summary, the social scientist focuses analysis on the impact of social organization on the environment in contrast to the natural scientist focusing on the more physical aspects of human life and



environment. Ultimately, both the natural and social scientist are concerned with the same critical contemporary issues. Solutions for these literally cut across all bodies of knowledge. Consequently, it can be induced that a human ecological perspective demands a merger of existing bodies of science while at the same time it allows each scientist to determine a conceptual framework for a logical analysis of the person-environment relationship. Eventually, if the ultimate good is to be achieved, there must be a synthesizing and prioritizing of goals and solutions among all sciences. Bews (1973) summarized this in saying:

While in one sense, ecology is merely a view-point, in another sense it is the most complete science of life, since life is not a thing in itself but a process, which of necessity continuously involves the environment, . . . As a view-point, human ecology obviously has an important bearing on human conduct, on the kind of question that is vitally interesting to everyone of us, how to make the most of our lives and how to live happily. It supplies a working philosophy of life and conduct. (p. 278)

As a science, Bews continues, human ecology is "distinguished by its holistic outlook and technique. It investigates as fully as possible the most essential feature of life, its relationship to the environment from which it cannot be separated" (p. 279).

As a view-point, Bews states, human ecology regards life as an interaction between the environment and man as a living organism. Sometimes it concentrates on the environment itself, sometimes on man itself, but finally it always endeavors to view the environment-function-organism triad as one definitely, integrated whole. The result is a habit of mind, a mode of thinking, and a general 'philosophy of life'. (p. 284)

To understand how a human being actually experiences the human relationship with the environment, it is necessary to examine the ways



humans have chosen to express these feelings and ideals over the course of time as expressed in history and the arts.

#### Human Ecology and Humanistic Expression

Historically the term "human ecology" as descriptive of an area of investigation and knowledge has been used primarily by social scientists and, periodically, by natural scientists as they have examined the interdependency of human beings and nature. Human reflections on this interplay are also found in works of art and self-expression. The study of the various arts, therefore, enhances an understanding of the human ecological relationship with the environment.

Works of art divide into two basic types. One type represents the technologies humans have developed to gain dominance over nature and/or to make components of the environment available as resources for achieving other goals. In this sense understanding technologies and techniques contributes to understanding the interrelationship of humans and nature.

Beyond this obvious functionalism seen in the practical artifacts of humans, there are the literary, visual and performing arts of humans. An analysis of these gives an understanding of how humans view their environment, what humans value within it, their understanding of it, and how the environment affects a human as a person. Through the use of materials in the environment which a human combines in a variety of ways and through using the varied capacities of a human being for self-expression, the artist gives us "an integrated





interpretation of what he has seen or heard" (Bews, 1973, p. 291). These works of art do not reproduce nature but rather they interpret life and often idealize the environment-human interplay. Much of our present environment is made by humans, thus reflecting human creativity in seeking not only to give functionalism but also to enhance the environment in a way that reflects the human concept of the beautiful and good. This concept in some way is derived from interaction with and contemplation of the world around a person or the environment.

Examples of this would be the painter who "puts on record his own reaction to some aspect of his environment" (Bews, p. 292), the architect who blends the need of a functional space with a sensitivity to materials and an expression of an idea through them, the musician who seeks to express the many kinds of sounds that exist in nature which a human is able to hear and respond to, the artist who mimics nature or expresses a human response to environmental forces through the movements and gestures of dance and drama, and finally the literary artist who has recorded in prose and poetry human reflections and aspirations as influenced by the environment. If the essence of ecological thinking is being aware of the interrelationship that exists between human and nature, the study of the creative efforts of human beings in each period of history can give us insights into this interrelationship. This is especially true because the human's response as a thinking and feeling being is basically a response to the human senses as touched by stimuli within the environment. (An excellent exposition of the human ecological dimensions of the arts



is given in Bews, 1973, pp. 290-302).

Summary of Contemporary Usage of  
"Human Ecology" in the Basic Modes  
of Human Inquiry

The preceding discussion on the contemporary focus of human ecology in the basic modes of human inquiry and resulting in basic areas of knowledge gives support to the following generalizations:

1. Human ecology is an all encompassing area of study
2. Human ecology as the study of the human-environment interrelationship can be viewed from a variety of perspectives
3. Perspectives for viewing human ecological relationships can be broadly classified as the natural sciences, the social sciences, humanities, and technology. The latter two groups can be combined as the arts of humans.
4. The knowledge that accrues from each perspective is recognized as giving only a partial understanding of the human-environmental relationship and thus is interdependent with the knowledge from other perspectives in attaining a fuller understanding
5. Each perspective of the human-environmental relationship although limited ultimately identifies and expresses concern for similar imbalances in the human-environment interrelationship
6. Each perspective and resulting science or art arrives at an examination or exposition of contemporary issues that are related to the development of the human potential and/or the survival of the human organism
7. All perspectives and resulting sciences have found that



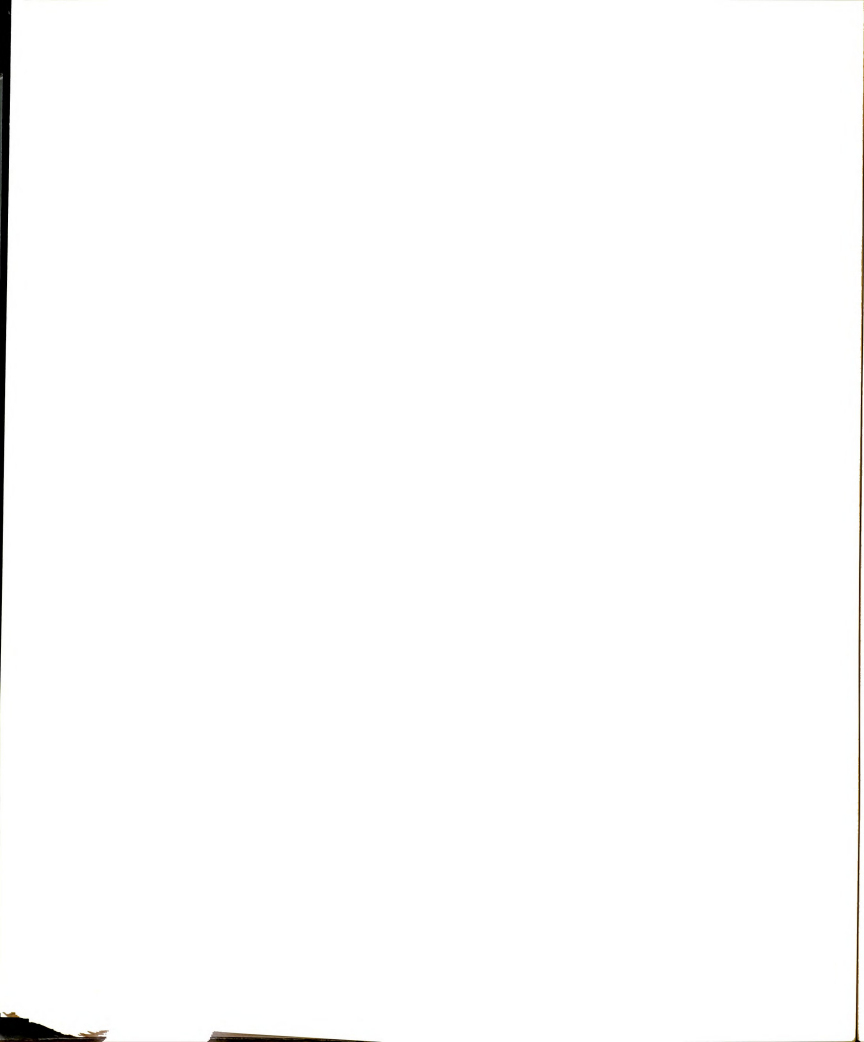
the use of ecological systems terminology facilitates expressing the relationship of one area of knowledge to another and to the totality of the human-environment interrelationship

These ideas are expressed quite succinctly in the following statement:

The value of human ecology, as in the case of ecology, generally lies in its synthesizing effect. It not only provides a pattern into which may be fitted all the separate human sciences, but it affords a means of testing the relative value of each method of approach to the all important, all-embracing question of how and why man is as he is and behaves as he does. It unifies all the human sciences and enables each one to find its proper place in a generalized study of man. (Bews, 1973, pp. 13-14)

#### Home Economics and Human Ecological Concepts

Any area of applied knowledge because of the ultimate effect the application will have on the human condition can benefit from a holistic view. One such area is that concerned with bettering the daily living of individuals and families. This applied area, as indicated earlier in this study, was originally conceived as "home ecology" but later formally entitled "home economics" when efforts were made to establish it as an academic area in the early 1900s. In recent years, as specified in Chapter II, home economists have re-examined the concepts of ecology. This current usage of ecological concepts in interpreting the profession, in focusing research, and in describing curricula will be briefly reviewed as preliminary to defining a human ecological approach to the formation of a professional home economist.



Ecosystems and the Meaning  
of Home Economics

The 1959 statement of New Directions promulgated by the American Home Economics Association stressed that the professional home economist must synthesize knowledge from the basic areas of knowledge before making application to human living. It further states, "It is the only field concerned with helping families shape both the parts and the whole of the pattern of daily living." This added comment places emphasis on a holistic view. Both of these concepts identified as intrinsic to home economics (that is, the synthesis of knowledge and a holistic perspective) are, likewise, considered essential to systems thinking and ecological relationships.

As more recent theorists have reviewed the 1902 Lake Placid Conference definition of home economics they have emphasized that home economics is the study of the interrelationship of the social nature of human beings with their immediate environment. Typically, Creekmore (1968) attempts to motivate change from a focus on practical applications of the synthesis of the sciences, to a focus not only on this but also on the impact of the application of knowledge in one area of human living upon another aspect of human living. This reciprocal concept is basic to ecological systems concepts.

Continuing with the same basic idea, Hook and Paolucci (1970) brought to the foreground and interpreted the family, long designated as a primary concern of the profession (Quilling, 1970; Schlater, 1970), as an ecosystem. In relating the concept of ecology to the family, the home is seen as the life support system or environment for each



family member or organism; or, if the family is viewed as a social unit, the physical and social components of the home situation become the environmental support system for the aggregate group. This perspective aims to move the viewer from seeing two or more separate parts or entities to seeing the interdependency of parts.

The family as a life support system is dependent upon the natural environment for physical sustenance and upon the social organizations which are related to man's humanness and give quality and meaning to life. Home economists for some time have emphasized the social-emotional environment. It is necessary for the field (as it focuses on the family) to link both the natural environment and the social environment. Therein lie its uniqueness and strength. (Hook and Paolucci, 1970, p. 316)

Hook and Paolucci support their proposal to view the family as an ecosystem with a statement by Cantlon to the U. S. Senate in 1968

. . . encourage the home economics curricula in the United States to adopt as a curricular focal point "the home as an ecosystem." Learning to think of each household as a system of inputs and losses of energy and materials would provide a means of relating to the larger . . . ecosystems.

The concept of the family ecosystem, thus, includes how the interfacing of family members and consumers with support systems beyond the immediate household influences the totality of the man-environment relationship. This generalization re-affirms what Ellen H. Richards articulated in the 1890s when she promoted "home oekology." She, at that time, recognized that the macro-units of society can be no stronger or in better balance than the micro-units of which they are made. As Trotter (1975) states

Mrs. Richards had concluded that the home is the root unit of the social environment, and that if the total environment is to be improved, if the human organism is to live in harmony with the environment, then these relationships must be

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learned at the source . . . in the home and in the family.  
(p. 9)

Growing professional concern for this reciprocal relationship and interdependency of the home and the larger units of society is reflected through the 1970s in a large number of articles in the Journal of Home Economics, the official organ of the profession. These articles reflect efforts to try to understand the interdependency of humans with the environment, and, in turn, to define the subsequent responsibility of the profession to identify ways and means to foster a balance in this relationship. A sampling shows these fall into three major groupings. First, are those which explore the profession's response to societal needs in the past and the challenge to adapt to future needs (Spritze, 1976; Bonde, 1976; Trotter, 1975). Secondly, are articles which focus more specifically on the interrelated nature of the professional with both larger and smaller segments of society (Osternig, 1977; Byrd, 1970; Hook and Paolucci, 1970; Ray, 1970; Mannino, 1974; Holding, 1975; Metzen, 1975; Wadsworth, 1976; St. Marie, 1978). In addition to these two groupings of selected articles, certain issues of the Journal contain articles that collectively focus on major human ecological problems facing society today: limited energy resources (January, 1976), world food supplies (November, 1975), consumer protection (January, 1978), and changing sex roles (January, 1973).

This general movement in the profession is epitomized and given direction in the statement of purpose, New Directions II, promulgated by AHEA in 1975. This statement defined the core of home economics as the family ecosystem and was intended to "provide leadership to the



profession at a time when the interplays between the family and society call for new insights and new emphases." The statement itself emphasizes the need to relate the present to the past and to help people "adjust" to change and to shape the future." This latter emphasis recognizes the dynamic dimension of a human ecological system.

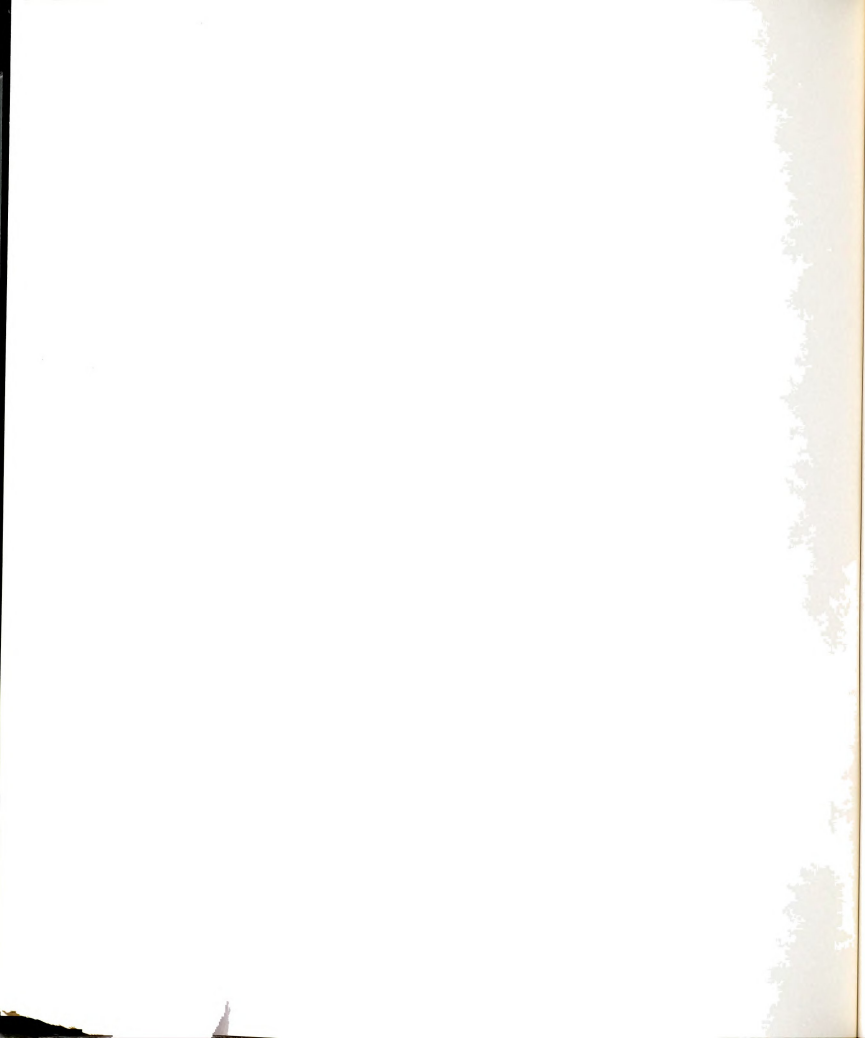
#### Ecosystems and Home Economics Research

Research in an academic area defines its mode of inquiry and ultimate knowledge base. In this respect, research emanating from home economics' sources and espousing ecological concepts should aid in interpreting the use of "human ecology". A sampling reviewed indicated that an ecological systems framework is used for both analysis and synthesis; that the researcher tends to place emphasis on one key aspect of the human-environment interplay; that systems models and terminology are used to express relationships; and that a human ecological perspective is viewed as examining the reciprocal effects of interacting systems (Burk, 1970; Vaines, 1974; King, 1975; Morrison, 1975; Sontag, 1978). These research directions indicate competencies needed to both interpret and contribute to developments in the field. Compton and Hall give additional insights into this by stating

. . . the overall focus in human ecology research must be upon the whole if it is to be a dynamic research enterprise in tune with today's demands.

. . . researchers must work as part of a team with other members of other disciplines on complex social problems requiring multidisciplinary approaches toward improving the quality of living in an increasingly polluted environment. (Compton & Hall, 1972, p. 6)

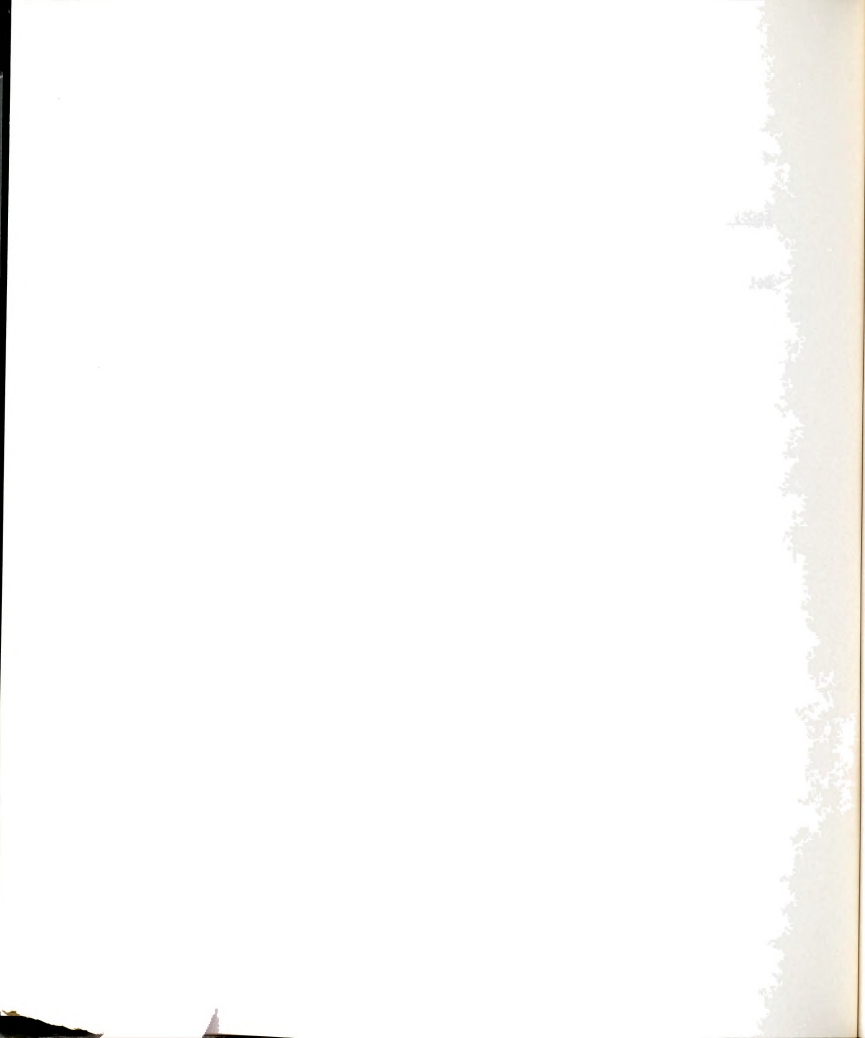
They add to this by quoting Dubos



It (human ecology research) requires the analysis of actual human situations and the use of experimental models reproducing some selected aspects of these situations. (Dubos in Compton & Hall, 1972, p. 4)

#### Ecosystems and Curriculum Development

It can be expected that the emphasis on ecological concepts both in the interpretation of the concept of home economics and in expanding its body of knowledge through research would be reflected in curriculum formats. At present four universities (Cornell, Howard, Michigan State, and Maryland) use "Human Ecology" to designate the unit within the University formerly known as "Home Economics." In each instance the change of name followed a lengthy curriculum study and restructuring of programs. In addition three liberal arts colleges (Marygrove, Marywood, and Mercyhurst) are known to presently designate their former department of home economics by the title of "Human Ecology." Although not as explicit as "human ecology," concern for the human-environment interplay in relation to the interdependency of the family, the use of resources and the achievement of quality of life for both present and future generations is reflected in changes that identify some aspect of human development or resource use. The Weis, East and Manning study in 1972-74 reported approximately seventeen name changes related to human ecology such as "Human Resource Development," "Family and Consumer Resources," and "Home and Community Services."





Summary of Contemporary Usage of  
Concepts of Human Ecology  
in Home Economics

The preceding review of Journal articles, research projects, curriculum formats and statements of objectives indicating the growing use of ecological concepts and models to comprehensively express goals and to explore ideas by the profession of home economics causes one to conclude:

1. That the profession of home economics is recognizing ecological terminology and conceptual frameworks as a means of communicating to others the underlying philosophy of the profession
2. That the profession in specifying the family ecosystem as its focus indicates it studies and serves the family as an interdependent unit in society
3. That the profession recognizes itself as being fundamentally broad based and committed to a holistic approach to problem solving
4. That the human ecological perspective is seen as a synergic framework within which the sub-system of specialized dimensions of the profession can be examined

Further, the analysis of the movement toward ecological thinking within the profession gives support to the following assumptions:

1. An ecological systems framework facilitates the understanding of the interrelatedness of systems
2. The near or immediate environment of an organism is a valid delimitation of the broad concept of human ecology
3. The home is considered a significant social and physical



environment affecting human development

4. The development of a human being is affected by and affects not only the immediate situation or system of which it is a part but all systems that directly or indirectly relate to it

5. There is a valid need for developing an understanding of and for continued research in the interrelationship between humans and the larger environment as it emanates from the interplay of humans and their near environment

6. The traditional subject matter areas associated with home economics (food, clothing, shelter, family, and human development) are bodies of knowledge fundamental to analyzing the effectiveness of societal systems developed to support the human existence

7. The delimitation of human ecology to the immediate or near home and living environment does not exclude the consideration of broad based complex societal problems (that is, population growth, energy resources, pollution, food supply, resource distribution, etc.)

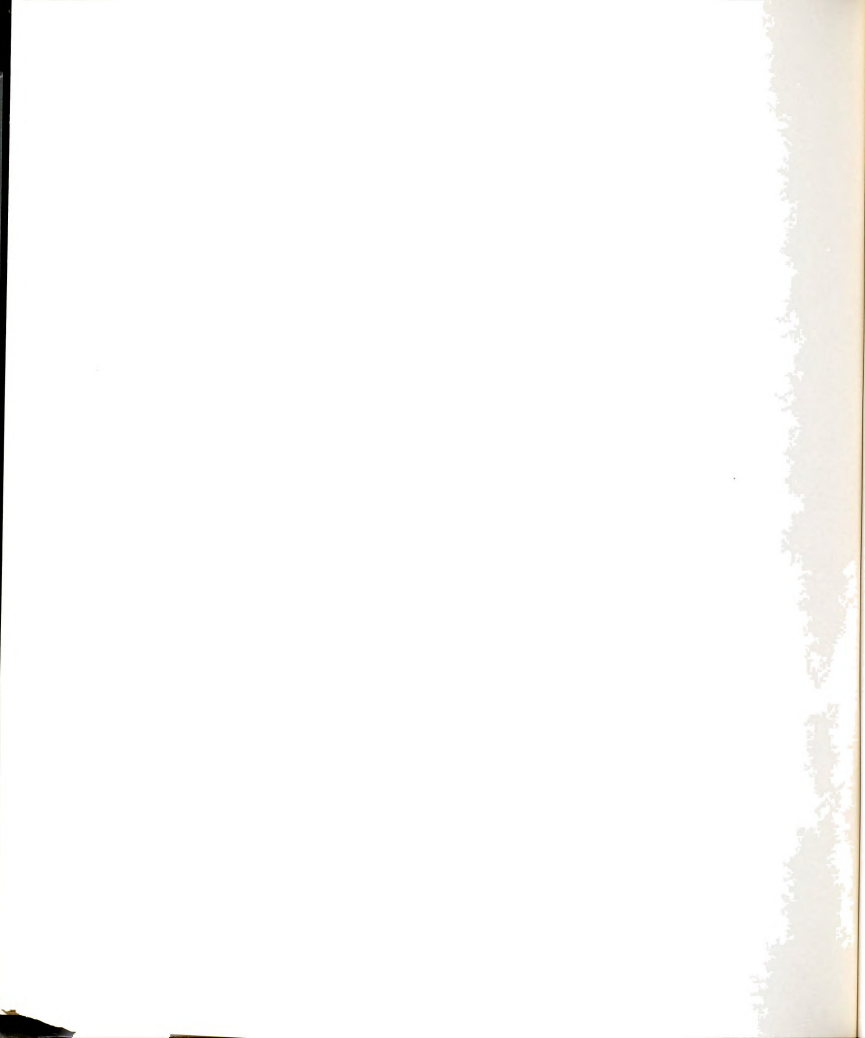
#### Generalizations Coordinating Meaning and Usage of Human Ecology

Through this extensive examination of the meaning and usage of human ecology, it has become evident that this holistic concept is applicable to any academic area. To apply it demands that the focus of the academic area is viewed as a system in the universe interacting with other human and non-human systems to determine the nature of the whole. The approach taken to the study of this interrelation and interdependency, and the particular variables examined is what makes

one academic area distinctive from another. Yet, ultimately, due to the holistic nature of human ecology the knowledge derived from one approach is inadequate for problem solving and must converge with the knowledge of other approaches. These observations lead to certain generalizations which help identify the desired outcomes of a human ecological approach in a curriculum. In a more particular way they enable relating the human ecological approach in one academic area to the approach utilized in another area.

Human ecology in its broadest meaning results in a holistic perspective of the interaction and interdependency of humans and the total universe. It recognizes that the human being is an essential component of the totality and that human actions both influence and are influenced by the development of all other components. Human ecology as an area of study, thus, aims to understand all of the parts of this universe in relation to all other parts and see how this dynamic interrelationship affects both the parts and the whole. The magnitude of the universe and the finiteness of the human capacity necessitate segmentation of the universe for analytical purposes. Thus, to achieve any depth analysis of the interrelationship the scientist must focus on specific parts. From these broad generalizations the characteristics of an individual human ecologist can be determined. Such a person should have:

1. An awareness of the interdependency and interrelationship of the total universe and human action, that is, a holistic view
2. A greater knowledge of and awareness of the interaction



of components in a specific segment of the universe, that is, a focused area of analytical interest

3. A concern for not only the descriptive characteristics of the primary focus or system of analysis but also for the impact of this system on neighboring systems and in particular on the interaction of the two, that is, an ecological concern

4. An effort to relate the knowledge one has of the specific segment to the total human environment interplay, that is, a human ecological synthesizing capacity; and

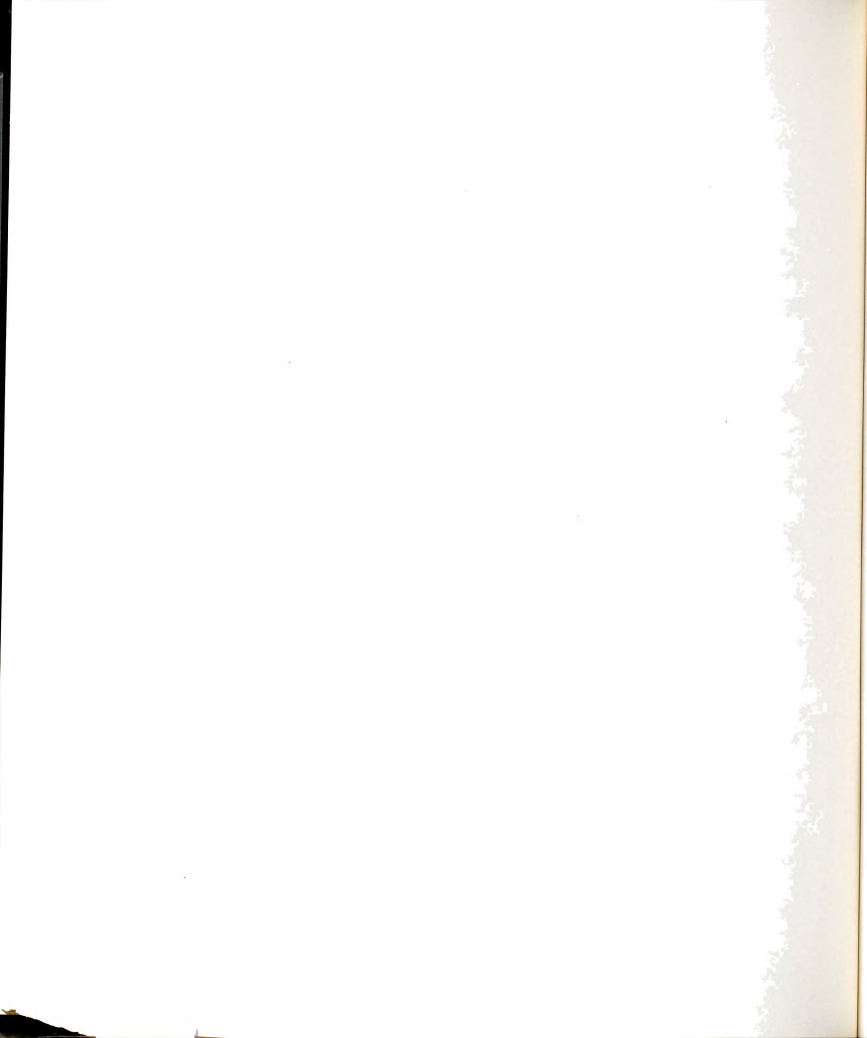
5. A recognition that the limitations of an individual's knowledge must be compensated by collaborative analytical and synthesizing efforts with others in order to achieve the desired balanced human-environment interplay, that is, a value for collaborative efforts

If one accepts the above, it can be deduced further that:

6. Each human ecologist will define an area or system within the whole as focus for analysis. Further, human ecologists with similar areas of focus will group together and create academic disciplines

7. Already existing movements in scientific efforts identify three key ways of defining an area of focused analytical interest:

- a) defining an organism in the universe and relating it to all elements in its environment moving from the near to the extended environment. This is basically the area of focused analytical interest of the



natural scientist

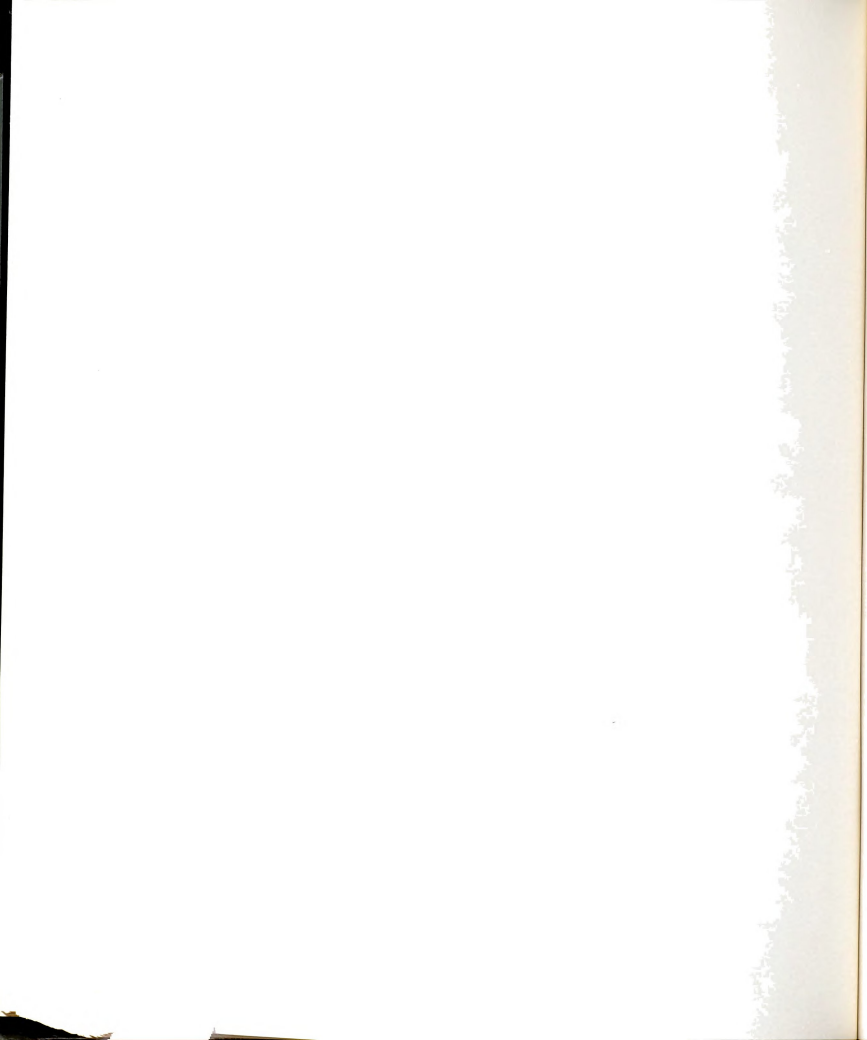
- b) defining a human component of the universe and relating it to the interplay of other living and non-living components of the environment within a defined range of the environment. This is basically how the sociologist functions ecologically, that is, a human aggregate is defined and studied in relation to human and non-human factors of its defined environment
- c) identifying a limited range of the environment and focusing on all of the human-environmental interdependent interaction within this range. This is basically the approach of the home economics human ecologist whose focus is the interaction of the individual and family group within the near or immediate home and living environment

8. A clear distinction between the human ecological concerns of one academic area from another is difficult to attain because of the ecological (interdependent and interrelated) concern of each focus and the holistic nature of the universe

9. Because the universe is a whole, all human ecologists, irrespective of their initial focus, will have similar concerns and ultimately examine problems related to the utilization of natural resources and the continuation of the human existence

10. The search for a common language to enable collaborative efforts has resulted in the use of systems terminology and conceptual





models to express ecological relationships irrespective of the initial disciplinary focus and basic language

11. The use of models facilitates maintaining the holistic view peculiar to human ecology while allowing more analytical attention on specific components

12. The use of systems terminology and models makes the characteristics of a systems scientist (see page 116) intrinsic to human ecological thinking

13. As growth in knowledge occurs, the number of potential areas for specialized knowledge and analytical focus in the universe will increase

14. As specialization increases, the struggle to maintain a holistic view increases

15. As human ecological sensitivities increase, academic discipline area boundaries decrease.

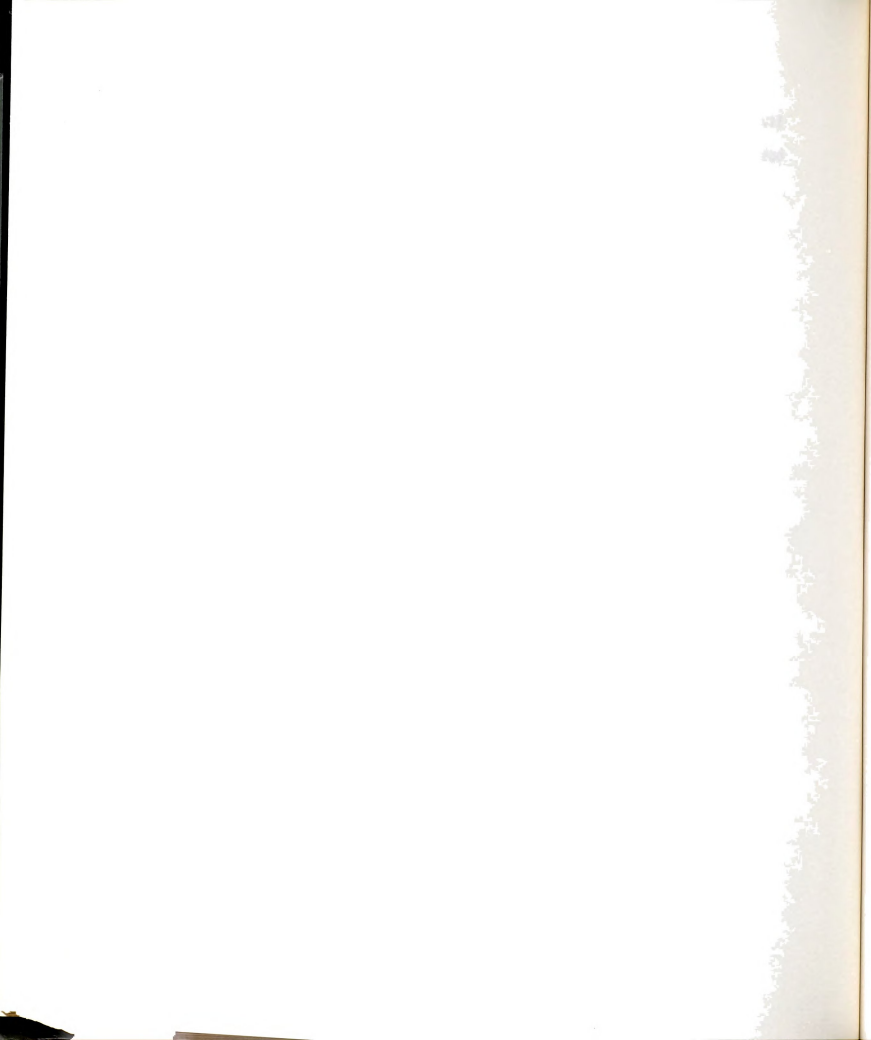
#### Models to Illustrate Generalizations

Inasmuch as the essential difference between one academic area's approach to human ecology versus that of another is what gives distinctiveness, yet ultimately the holistic nature of human ecology makes all areas of knowledge converge, Figures 5 through 11 are intended to illustrate the differences.

The universe as a complex system made up of interrelated parts as minute as electrons can be perceived as one large circle. Ecologically speaking the concern is with maintaining not only the ultimate configuration but even more so the life sustaining relationship between







human environment; and human-built environment.

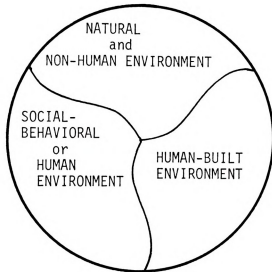
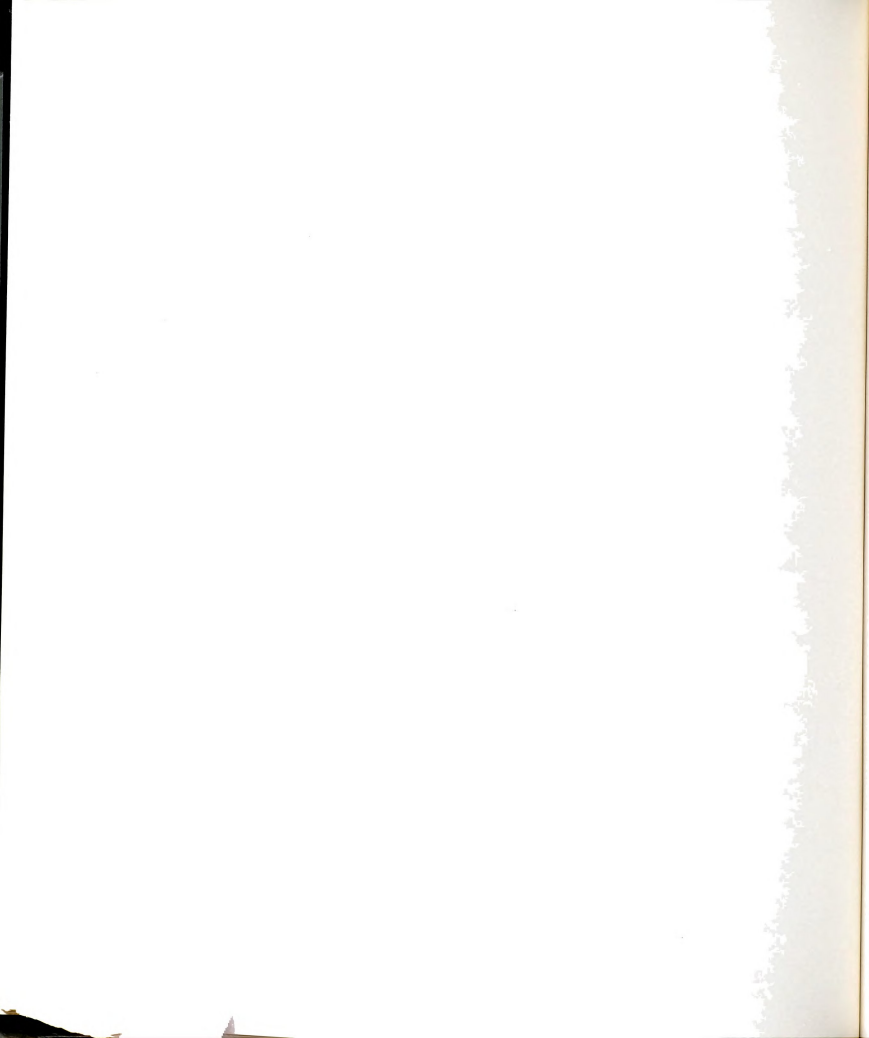


Figure 6: Conceptualization of the Three Major Components of the Human Environment

The use of free flowing lines in the diagrams is intended to convey that there is no exact distribution of the three environmental components and that their distribution changes as one moves from one environmental situation to another. If one places the human symbol in the center of the diagram (see Figure 7), it can be abstracted that the human being is in constant contact with an indefinite amount of each of these components. The arrows indicate the interaction and the ecological interdependency.



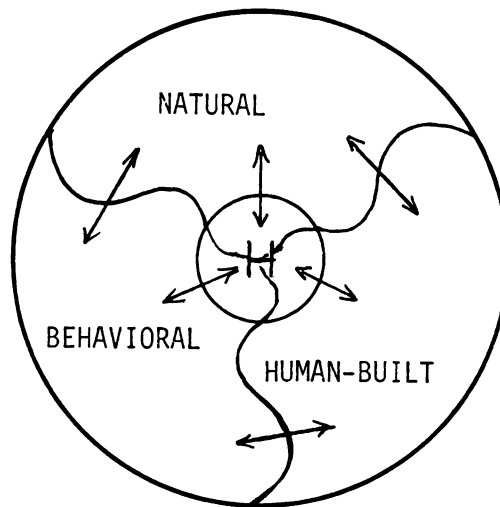
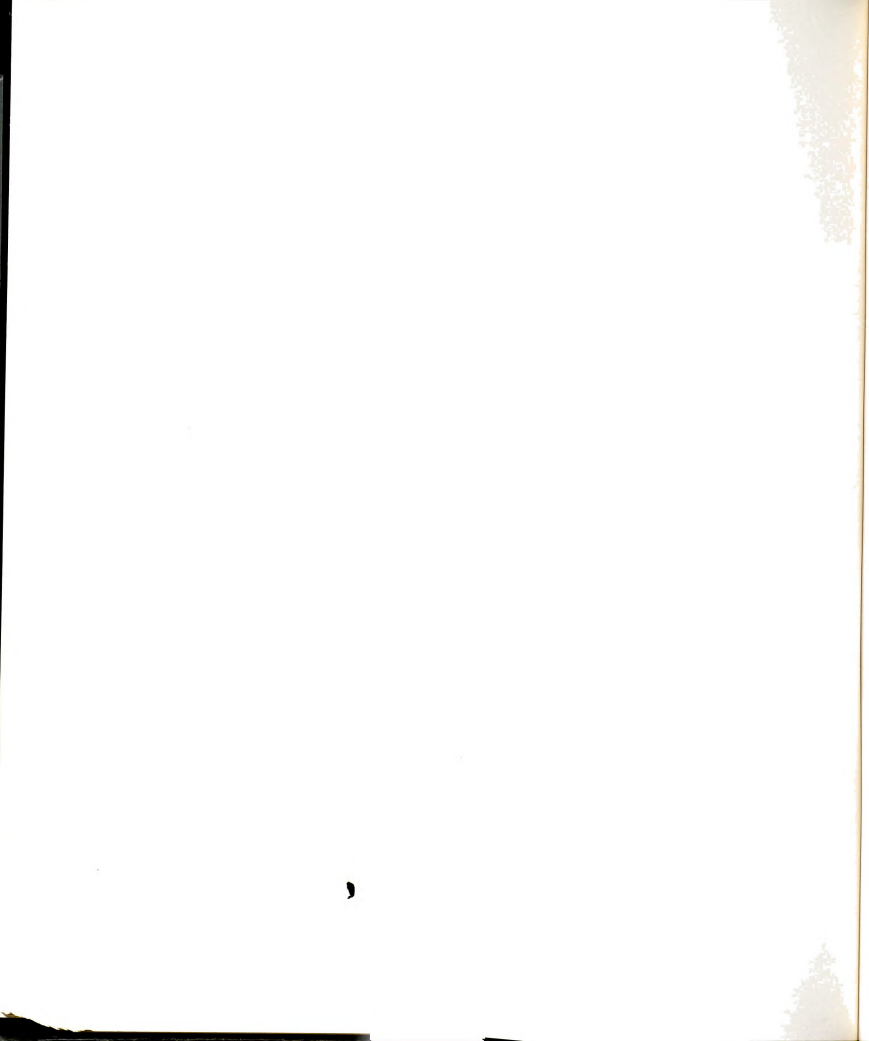


Figure 7: Conceptualization of the Continual Interaction of the Human Being with the Three Major Components of the Environment

In summary, Figure 7 illustrates that the environment of humans can theoretically be divided into three interfacing and quantifiably fluctuating components or systems in a dynamism affecting the evolution of humans as well as each component.

Recognizing the interdependence of each component, academically it can be said the focus of the natural science human ecologist is the natural environment component, the sociological human ecologist is concerned with the social behavioral component, and, although they do not commonly use the term of "human ecology," engineers, architects, manufacturers, and certain social scientists concerned with human-built social institutions have as a primary concern the human-built environment. Figure 8 illustrates this theoretical division.





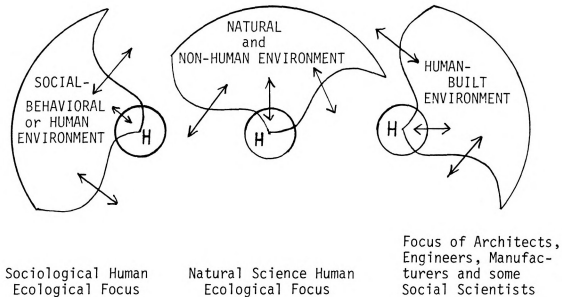
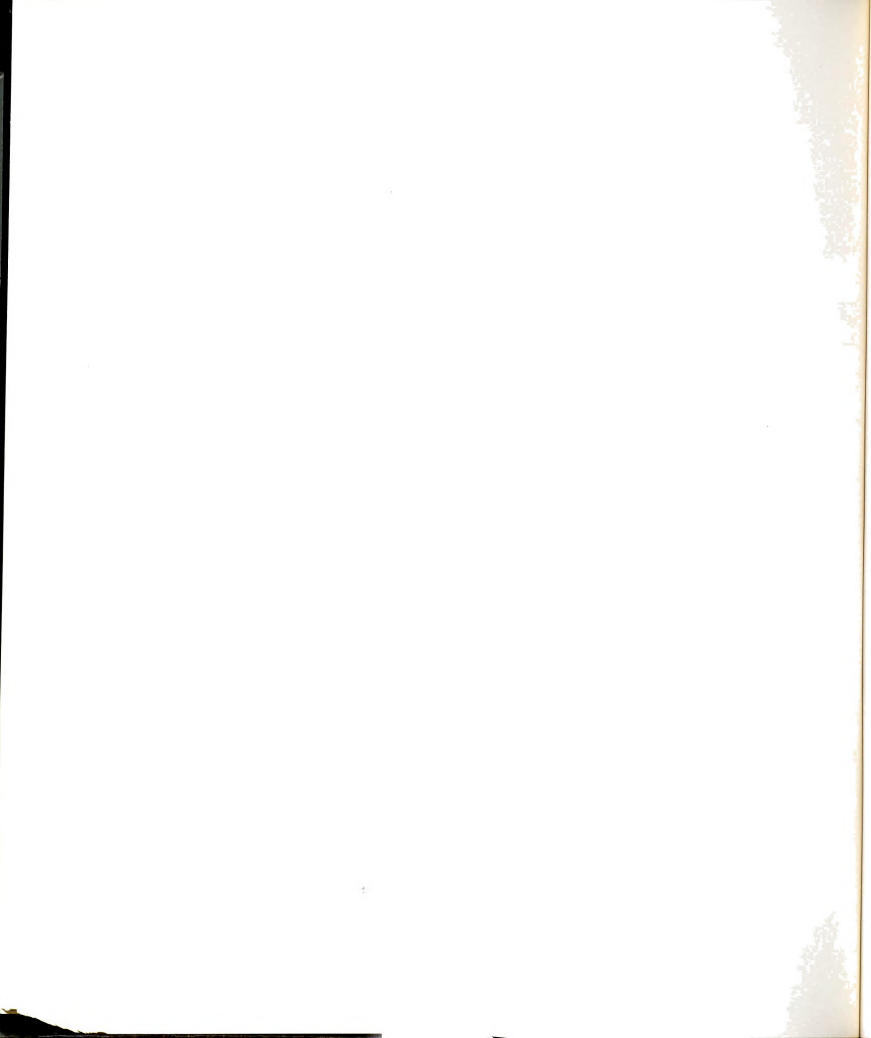


Figure 8: Theoretical Delimiting of Human Ecological Focus for Academic Study and Professional Service

It should become evident that it would be impossible to achieve complete segmentation. Further, it defeats the concept of a holistic approach. Thus, each of these major groupings cannot be ecologically approached completely separated from the other. Further, for analytical purposes within each major grouping can be found various subordinate foci. One conceptualization of further subordination can be achieved by establishing parameters or boundaries limiting and identifying the distance the environment extends from the organism. Thus, in Figure 9 the universe diagram becomes one of concentric circles with each circle representing a different magnitude or level of environment. The arrows indicate that no level (or near or distal region) is independent from another. Interaction and influence are constantly occurring.



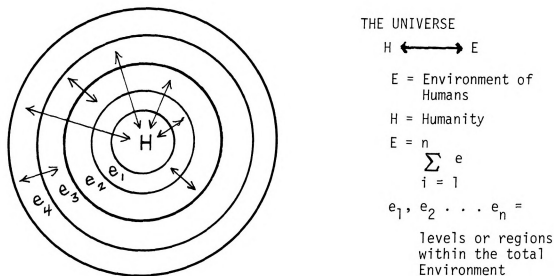
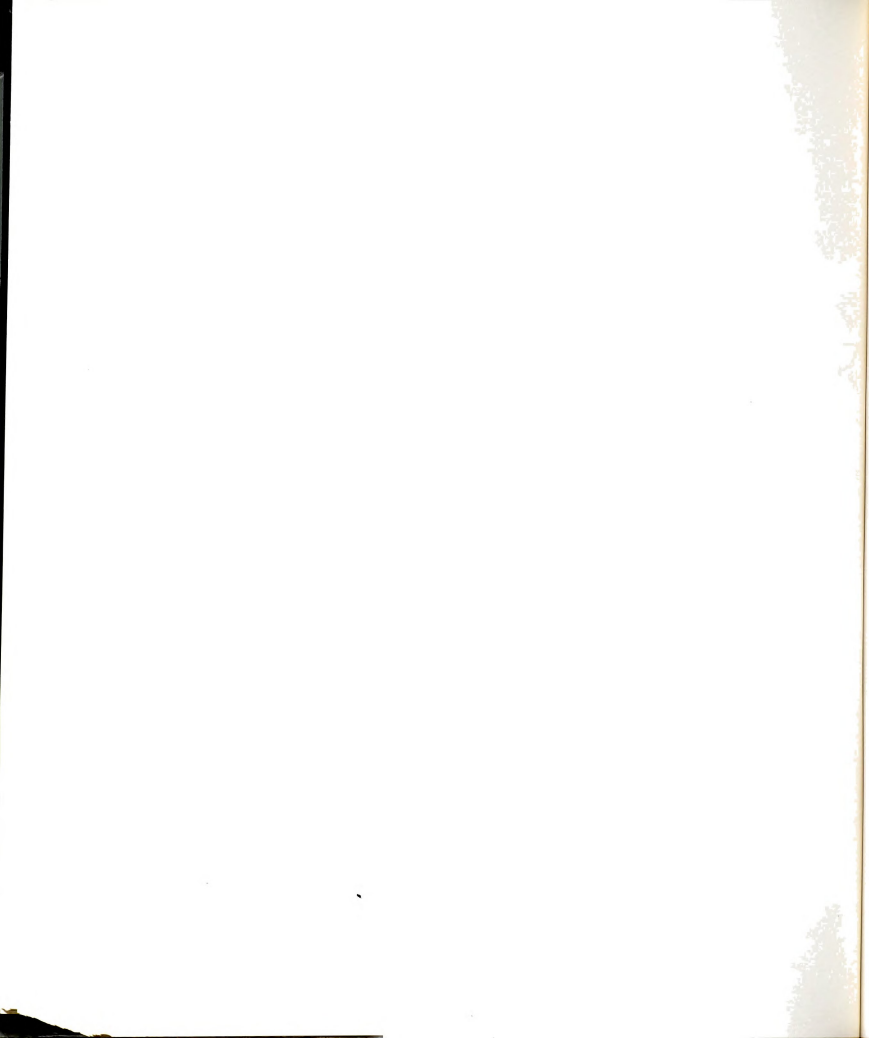


Figure 9: Conceptualization and Interdependence of the Varying Magnitudes or Environmental Regions within the Total Universe

For example, within the natural environment of the human being one can consider the layers of the earth, the terrestrial surface, and the levels of the atmosphere. Within each of these there are various subordinate components each affecting the human existence. In sociology, the levels could represent quantitative differences in the size of the human population being considered as well as the size of the environment with which the human population of concern is interacting, for example, from the individual, to small groups, neighborhood, cities, regional areas, and to the total population. Again, while examining a specific facet of the environment the scientist limits ecological analysis not only by defining the system of concern and the boundary of its environment but also by the limits of one's academic commitment. For example, the biologist will examine an



ecosystem

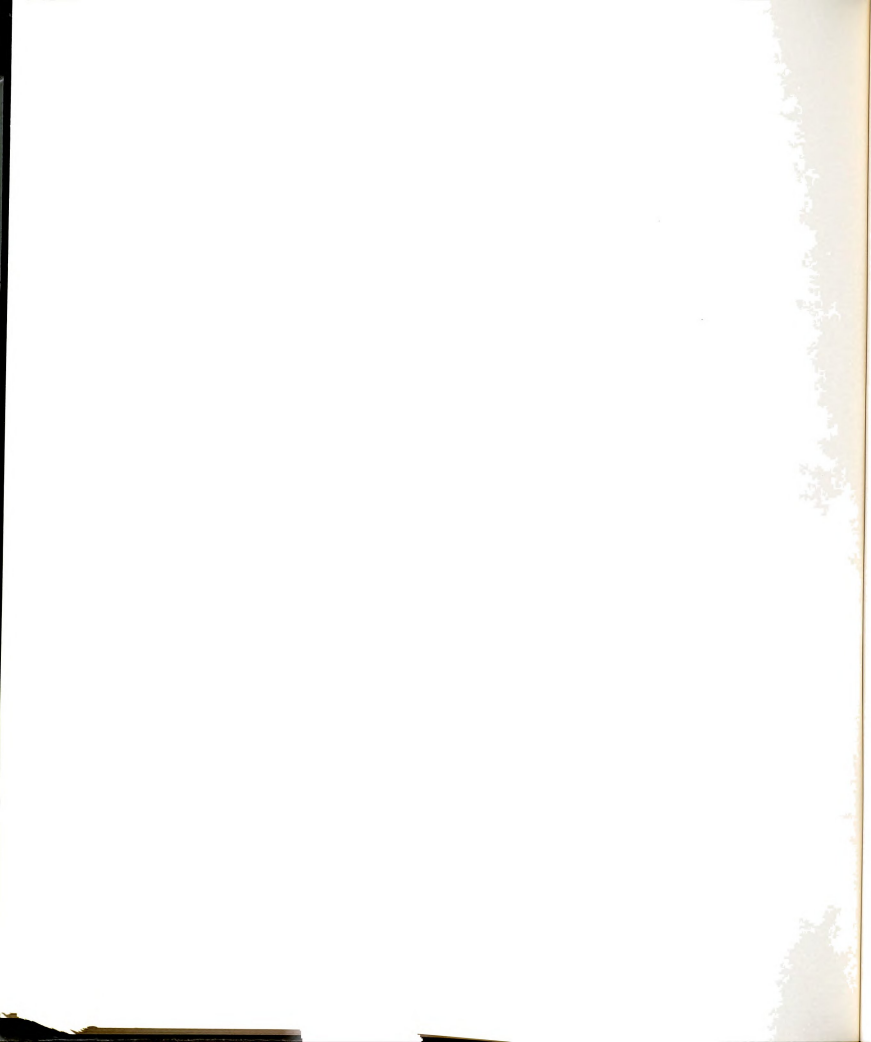
. . . as a unit of biological organization made up of all the organisms in a given area (that is "community") interacting with the physical environment. (Odum, E. P. in Boughey, 1973, p. 14)

Or, the sociologist may confine his analysis to urban geographic developments (Shepherd, P., in Boughey, 1973, p. 37).

In actual practice, therefore, the very comprehensiveness of human ecology necessitates that the human ecologist define the area of concern. It is in view of this that the profession of home economics has identified as its primary area of concern the "family in its various forms" and the "family as an ecosystem" (AHEA, New Directions II, 1975). This focus has been defined as

the study of the reciprocal relations of the family to its natural and man-made environments, the effect of these singly or in unison as they shape the internal functioning of families, and the interplays between the family and other social institutions and the physical environment. (p. 2)

In this sense we can visualize the family as the aggregate of concern with the home or daily living setting defined as the boundary of the ecosystem being studied. Figure 10 uses an adaptation of the Gross, Crandall and Knoll (1973, p. 113) model to represent the family in relation to its various environments. If one superimposes Figure 10 on Figure 7 demonstrating the classification of the elements of the human environment into natural, human-built, and social-behavioral components as in Figure 11, it can be clearly observed that the analysis of the interaction and interdependence of the family with its near environment involves an awareness of all facets of the total



environment.

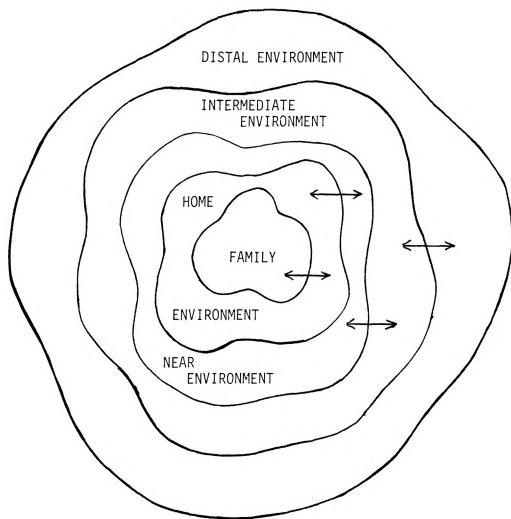
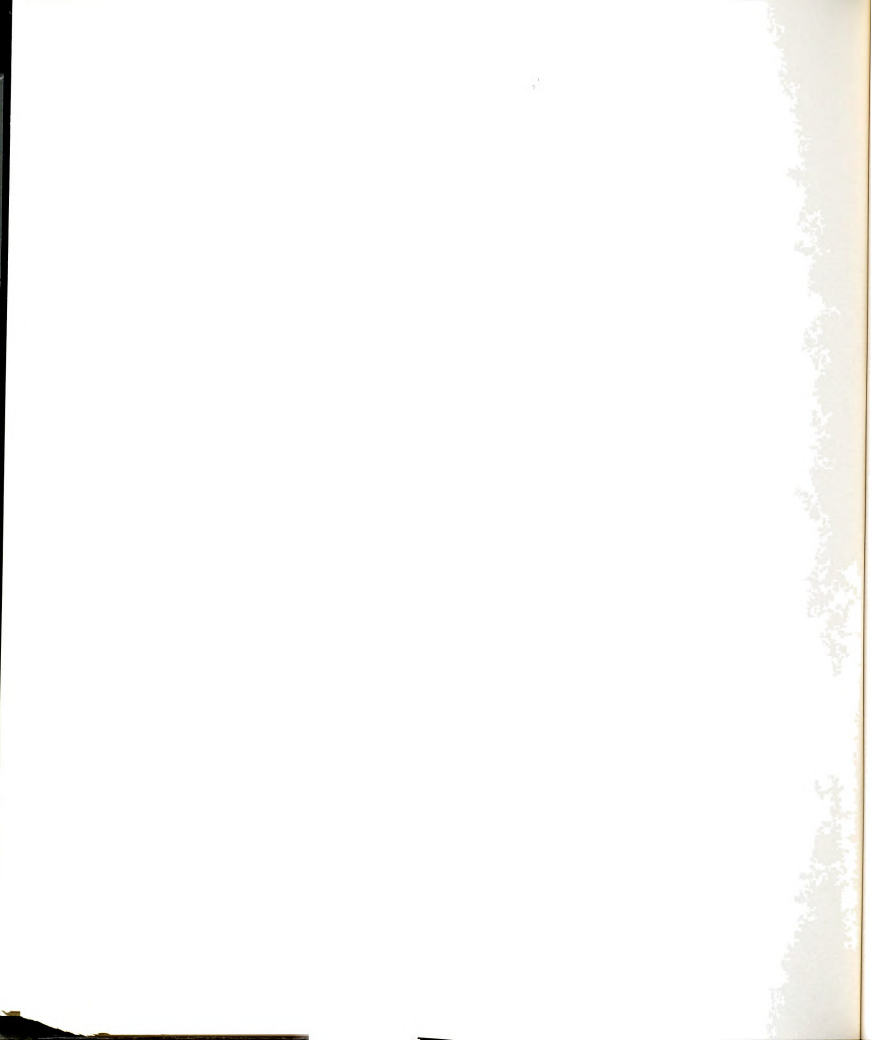


Figure 10: The Family in Relation to Various Magnitudes of the Environment





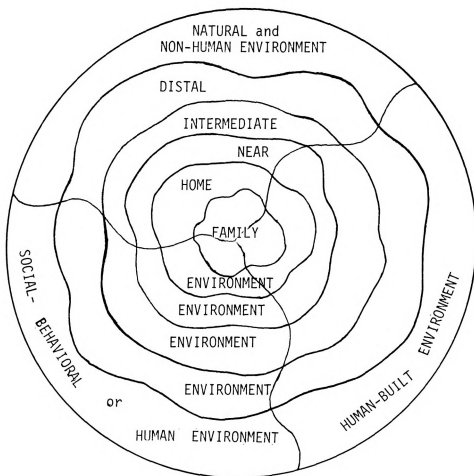
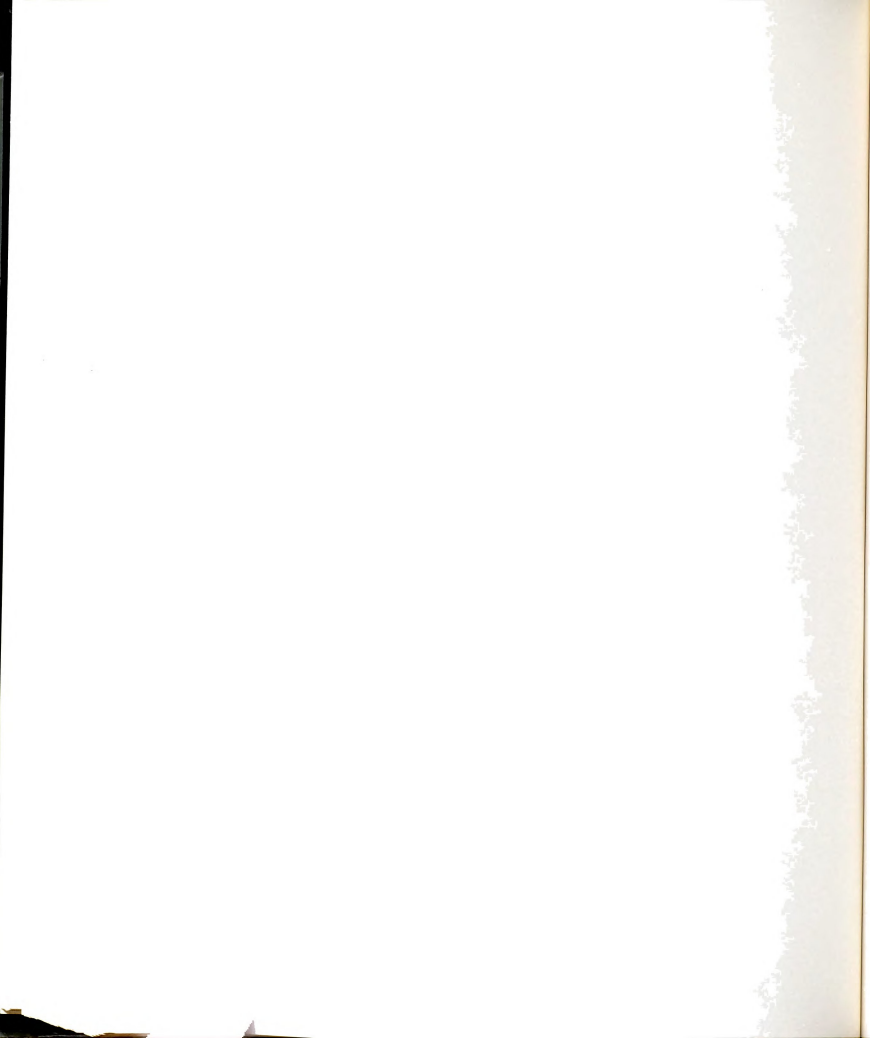


Figure 11: The Family and Its Near Environment Related to the Various Dimensions of the Total Human Environment

#### Summary of Chapter

The purpose of this chapter has been to examine the concept of "human ecology" in order to define what should be a "human ecological approach" to the formation of a professional home economist. Both its literal meaning and contemporary usage were examined. Originating in the late 19th century with the coinage of the word "ecology" in the

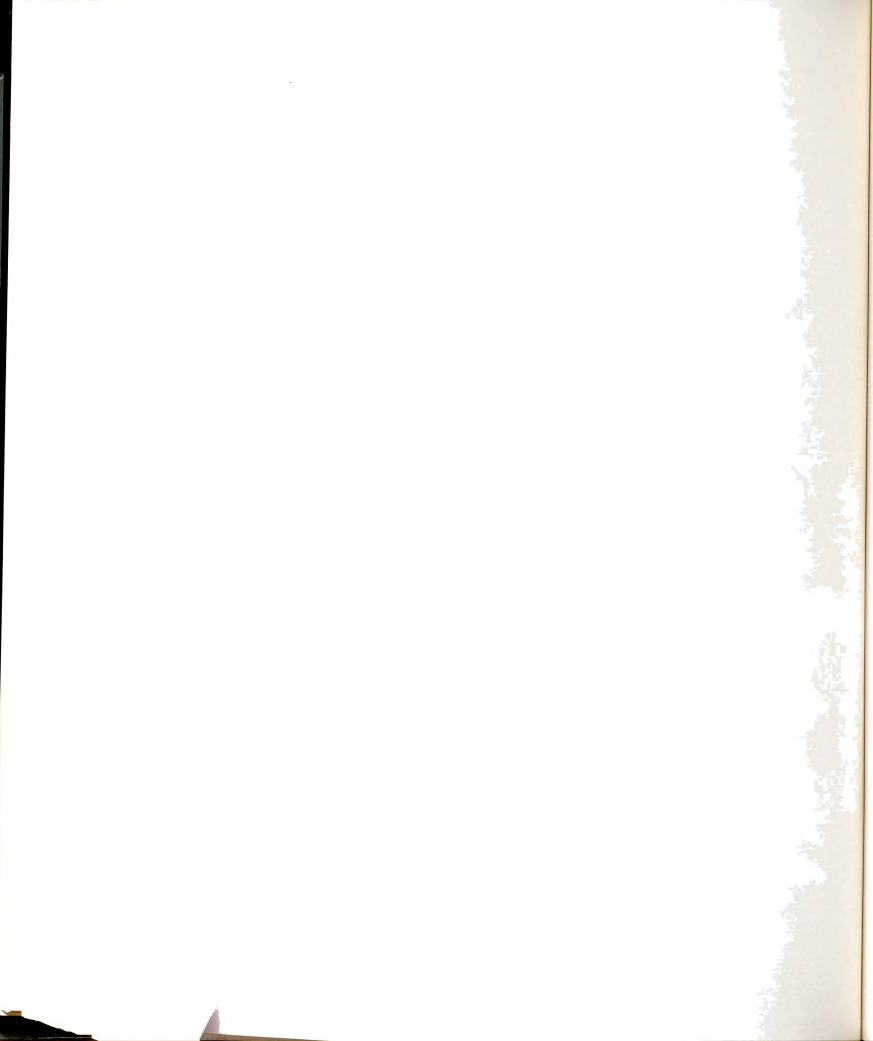


biological sciences for the study of the interrelatedness and interdependency of an organism and its habitat, ecological concepts were also identified at this early date by people who would later call themselves home economists. The concept of "human ecology", however, first found regular usage in the social sciences to study the development and movement of communities of people. Over the course of time three factors seem to dominate in each scholarly field that has examined ecological relationships: (1) the term, human ecology, in actuality has been used within a limited conceptual framework, (2) gradually systems terminology was used to describe the interrelationships, and (3) each field has become critical of itself for a lack of holism in its perspective.

The challenge, therefore, is how to maintain the holistic perspective while seeking an understanding of the component parts contributing to a whole greater than the sum of the parts, and furthering the human organism and its life sustaining support system, or environment.

A series of generalizations were developed to summarize the use of "human ecology" in the basic areas of science and in the professional field of home economics. These, in turn, were coordinated and used to identify the characteristics of a human ecologist (see page 138) and approaches to human ecological analysis in academia. Diagrams were used to illustrate these generalizations (Figures 5-11).

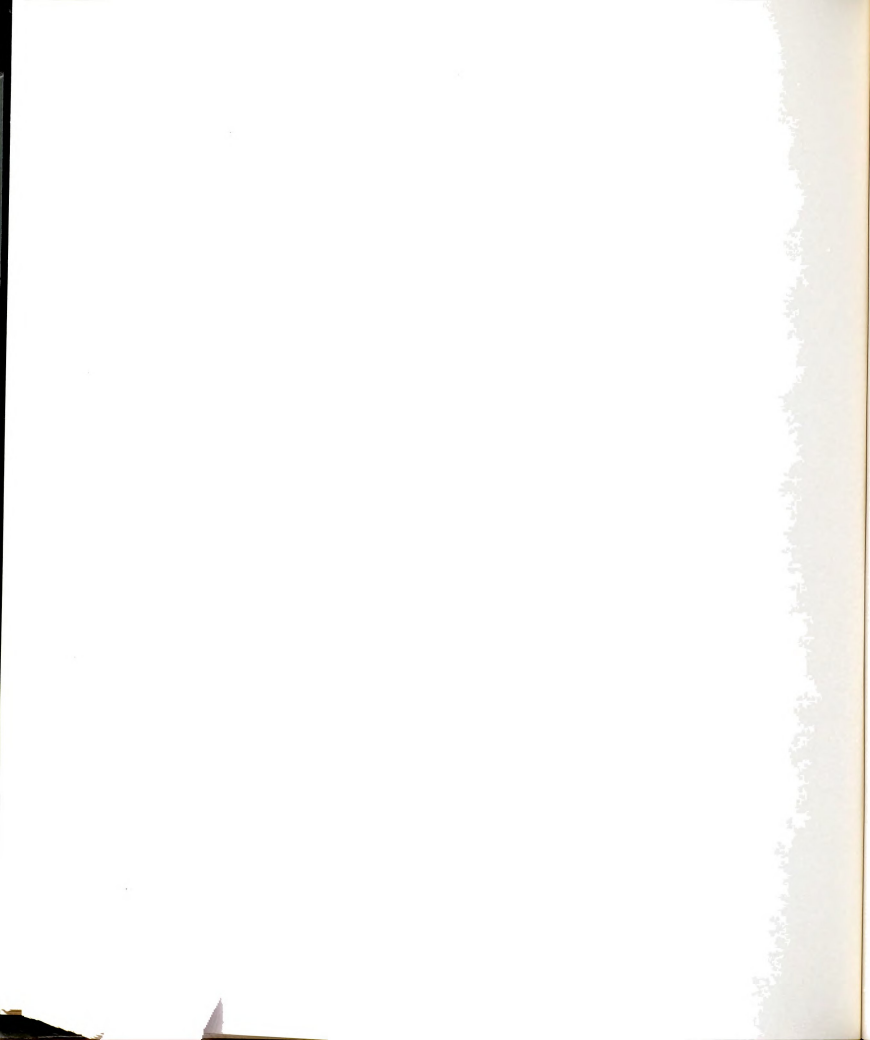
In conclusion, the study of the home and family with the ultimate goal of achieving quality of life through the management of resources when viewed in a human ecological perspective will see the



family as a pivotal point in the total ecosystem of the universe. The family itself becomes a sub-system of the whole. The interaction with the family and its immediate physical and social environment is seen as not only affecting the immediate household and its members but all systems beyond it because the interdependency and interrelatedness of systems is comprehended.

Given, therefore, that the professional home economist is fundamentally concerned with improving the quality of human life by maintaining quality in home and family life, a human ecological approach to this activity would be one

1. that recognizes all of the interfacing systems that affect the quality of home and family life and aims to comprehend how a change in one system will affect another, and
2. that sees the family as a pivotal system in the supra human ecosystem of the universe.



## CHAPTER V

### SYNCHRONIZATION OF CURRICULUM OBJECTIVES RATIONALE FOR A HUMAN ECOLOGICAL PERSPECTIVE

#### Introduction

The preceding chapters have examined literature related to (1) the development of curricula in higher education directed toward the formation of a professional home economist, (2) the development of the concepts of liberal and professional education and their interdependence in the context of a liberal arts college, and (3) the development of the concept of human ecology and ecological systems as areas of study. In each of the preceding examinations of literature the intent was to search for (1) the basic meaning of the concepts being investigated and the underlying philosophy expressed in (a) the original usage of the concept, (b) the actual expression of the concept as it evolved in the course of time, and (c) the prevailing opinion of recognized authorities; (2) the indication of problems or issues in relating the ideal to actual practice; and (3) implications for a contemporary undergraduate curriculum by identifying (a) desired behavioral characteristics which in turn suggest the objectives of a curriculum, and (b) areas of knowledge and basic understandings essential to possessing the desired behavioral characteristics. Within each chapter an attempt was regularly made to synthesize and summarize ideas. In this chapter the effort will be made to establish essential linkages in the preceding chapters



and to identify commonalities in order to establish a synchronization of objectives as a basis for developing a curriculum structure. The method will be first to recall the main concepts in the purpose of this study in order to re-establish a framework of thought and direction for establishing relationships. Secondly, as a basis for establishing commonalities, dominant ideas that pervaded each of the in-depth studies of the essential concepts in the initial framework will be highlighted. Thirdly, a means of unifying these commonalities and other objectives into a curriculum framework will be established. Finally, the more detailed summaries in each area will be examined to support the proposed means for synchronization.

#### Basic Conceptual Framework for This Study

As stated in the introduction to this dissertation the main objective is to establish a valid response to the question, "What should be a human ecological approach to the formation of a professional home economist in a liberal arts college setting?" The ultimate goal, therefore, is a curriculum structure intended to prepare a person to function effectively as a professional in the areas of service common to the home economics profession. The distinguishing factor in the format of the curriculum is its relationship to the undergraduate curriculum of a liberal arts college. In contrast to the university setting which encompasses varying levels of higher education and opportunities for in-depth growth in specialized knowledge within professionally orientated colleges, the liberal arts college is perceived as a four year undergraduate institution having as its primary

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purpose to provide a liberal education for the students enrolled (see Chapter III, The Liberal Arts College). In the traditional concept of the problem the need existed to interrelate in the formation of the future professional the objectives of liberal education, home economics subject matter, and the ability to meet professional expectations. This particular study adds to the basic framework the question of what a "human ecological approach" implies in the format of a curriculum. Simply projected, Figure 12 is intended to project the major curricular components effecting the outcome.

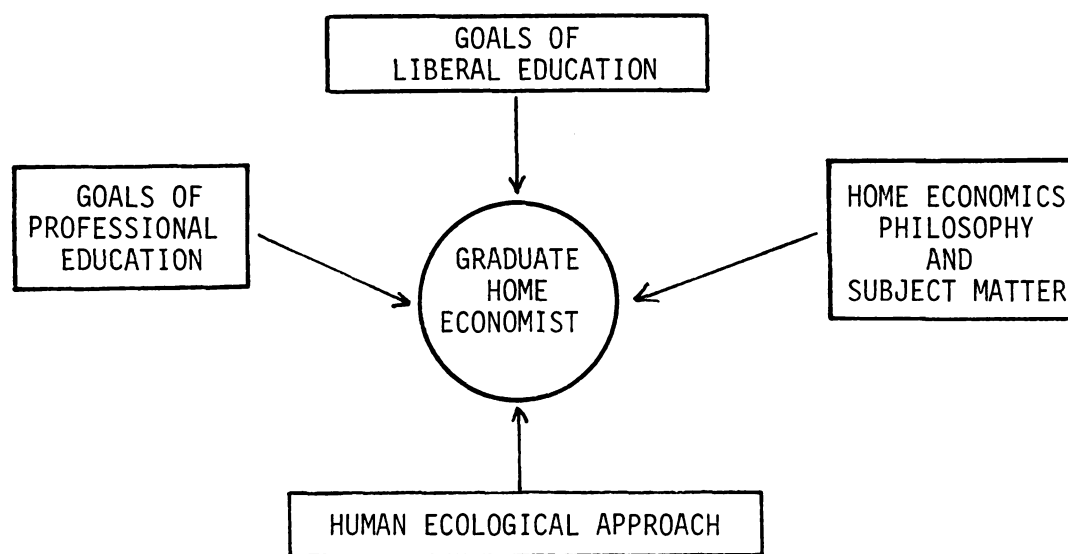


Figure 12: Major Curricular Components

Each of the components could be conceived as entities and treated separately within a curriculum. In such an approach the determination of the size of each component, as reflected in the time devoted to the development of it, is a constant problem. Further,

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unless the parts are seen as interrelated and interdependent, conflicts can result in the growth of the individual as a whole person. The intent of this study is not only to understand each component but also to determine what relationships exist within the broad educational goals of each in order to reduce the number of separate components to be juxtapositioned. The relationships of concern are indicated by the dotted lines in Figure 13. The task, therefore, is to determine the commonalities and linkages which will hold the components together in the singleness of the graduate. Subsumed in

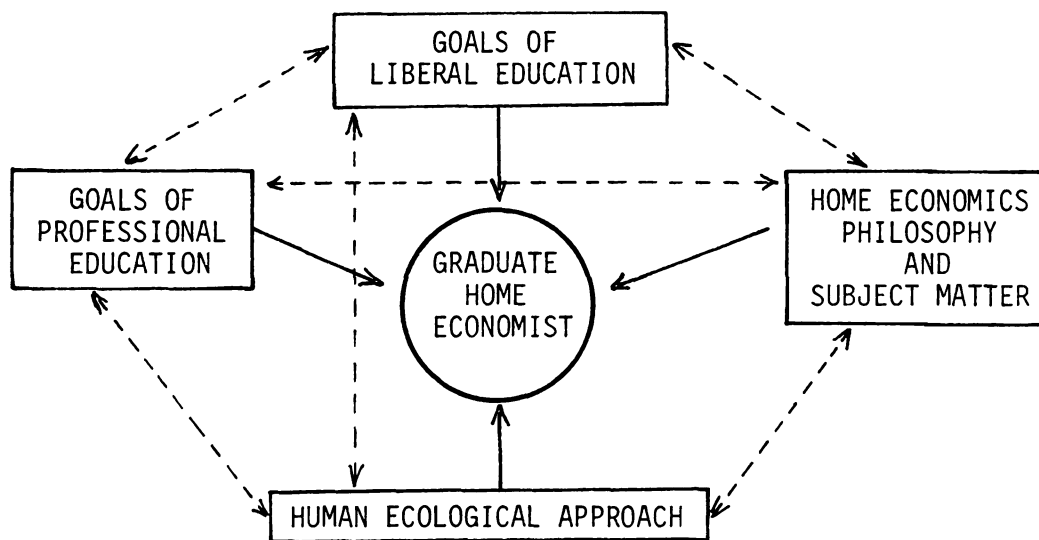


Figure 13: Relationships to be Examined and Established in the Conceptualization of the Proposed Curriculum Framework

establishing each of these linkages is the need to define the significance of each component to the ultimate whole. The content of the preceding chapters was intended to provide the basis for the rationale of the linkages and the significance of the components to the research

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problem. A review of the dominant ideas in each chapter indicates there is a relationship both in the pursuit of goals and in the goals themselves.

Interrelationship of Components  
of Conceptual Framework

Relationship Observed in the  
Pursuit of End Goals

It became evident in the exploration of the three basic components, namely, the undergraduate education of a home economist, the concept of a liberal arts college, and the role of a professional in contemporary society, that the ability to achieve the desired goals, purposes and ideals of each has been stymied because of the impact on problem solving by (1) the growth of knowledge, and (2) the increasing complexity of our contemporary society due to both the growth and diversity of the population, that is, the people to be served. Consequently, within the review of each of these components the search for a means to satisfy the need of specialization without losing an integrated perspective and an awareness of the interrelatedness of knowledge and the interdependency of human concerns for the future good of human-kind has repeatedly surfaced.

The fourth component in the basic conceptual framework, the concept of a "human ecological approach", likewise, is related to the above generalizations. The philosophy underlying the development of the concept of human ecology and the related general systems theory is motivated by the recognized complexity of micro- and macro-societies and the diversity of approaches to solving problems related to human

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welfare. This complexity, in turn, indicated the need for a common language and an understanding of the interrelatedness of the bodies of knowledge available to human-kind with the understanding that all systems, human, natural, and human-built, should function interdependently if the ultimate good of human-kind is to be attained.

Within the four basic concepts of this study, therefore, a relationship exists due to the fact that the complexity derived from increased knowledge and increased and diverse human concerns impedes the attainment of goals inherent in each concept. Further, each concept in seeking a way to overcome this impediment identifies the need for both specialized knowledge and a way of understanding the interrelatedness of all knowledge and human concerns when involved in a problem solving task.

#### Relationship Observed in the Commonality of Goals

##### Liberal and Professional Education

In addition to the relationships identified in the preceding, the recognition of other existing relationships helps compact the framework. The discussion in Chapter III, The Liberal Arts College, supported the interrelationship of the goals of liberal and professional education. It emphasized the interdependence of the liberalizing end of a sense of human dignity, self-worth, and independence with the knowledge based service role expected of a professional person. In addition, the complexity of the service arenas in which the professional functions today supports the fact that an education will not be truly liberalizing to one in a professional role unless it has given

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adequate attention to human systems and the ways to function within them. A liberal education seeks to develop within a person an understanding of all that surrounds one to give the human being a sense of dominance rather than subordination in life situations. By examining the role of the professional and the problems encountered in fulfilling it, the knowledge and skill needed to give the professional a sense of confidence and liberation in the role can be determined.

#### Home Economics and Professional Education

If one accepts the knowledge and skills needed for a professional role as subsumed in the goals of a liberalizing education, one is saying that the future professional needs all of the ends of a liberal education perceived in a broad way and achieved through an understanding of the broad areas of knowledge and the development of intellectual and judgmental skills. These skills and knowledge, in turn, direct feelings and actions in various aspects of the individual's life. In fulfillment of the self-worth and independent ends of liberal education, the future professional also needs specialized knowledge and skills in order to render a special service to society. In the curriculum model to be proposed in this particular study, this specialized body of knowledge would be the philosophy and subject matter preparatory for the profession of home economists. The goals of the profession of home economics and the knowledge supporting the attainment of these goals, therefore, determine the specialized knowledge needed. Likewise, these goals give direction to the broader

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goals of professional education. Further, by definition the philosophy and subject matter of home economics draw upon the principles of science, human interaction and expression encompassed in the ends of liberal education.

Figure 14 represents this relationship. The outer all embracing circle represents the ends of liberal education. The inner circle, in turn, represents those ends directed toward a specialized professional role. In keeping with the philosophy that there is a comprehensiveness which must be perceived before specialization, the intervening circle is indicative that certain powers and knowledge are common to all professions and, in reality, these are part of a broad liberalizing education but are identified and given significance through the examination of a professional's role in contemporary society (see Chapter III, pp. 64-71).

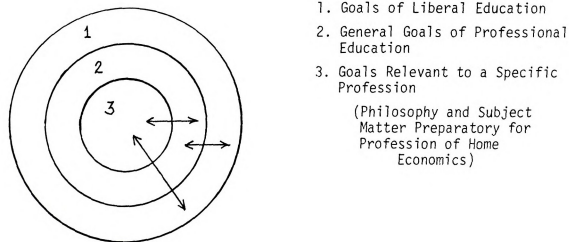


Figure 14: Interdependent Relationship of Liberal and Professional Education

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Likewise, the applied aspect of any profession and of home economics in particular is built on broad areas of knowledge and the possession of basic human skills. No component in the model can be considered independent. If this interdependency, indicated by the arrows, is not understood, the result can be an overemphasis on one component of the curriculum to the forced reduction of another. In turn, the desired ultimate end may not be achieved. The understanding of this interdependency, therefore, is a critical element.

The preceding discussion reinforces that the development of professional skills is dependent upon having familiarity with a broad scope of knowledge, an understanding of the interaction of human systems, the powers to interact in the context of both knowledge and these systems, and the development of a particular or specialized body of knowledge and skill (philosophy and subject matter of home economics) which will be used in a particular way. The so named "professional component" of a curriculum, thus, should use the resources of two dimensions of knowledge, one broad and one specific, to develop decision making and implementing skills that will govern future action related to human welfare. This task of unifying knowledge and action is an integrative function. Figure 15 is intended to demonstrate this observation.

#### Summary of Observed Relationships

By relating this observation to curriculum planning in higher education and to the identified impediments in the seeking of the goals of each component, additional conclusions can be formulated.





BROAD DIMENSIONS OF KNOWLEDGE

Defined: A generalized understanding with varying degrees of detailed knowledge of:

- The physical and social environment or systems of the universe
- Humanity, collectively and individually, with emphasis on potential, ideals, and modes of expression
- The present state of the universe in view of its past evolution and future potential

SPECIALIZED DIMENSIONS OF KNOWLEDGE

Defined: An in-depth understanding and detailed knowledge of certain areas of knowledge contained within the broad dimensions of knowledge and of peculiar interest to the individual and/or the future development of society

INTELLECTUAL, JUDGMENTAL, AND COMMUNICATION SKILLS

PROFESSIONAL COMPONENT OF AN EDUCATIONAL PROGRAM

Directed toward the integration of the above major divisions of knowledge into a form of action satisfying human needs

Strengthens the Development of Powers and Knowledge common to all Professional Service

- Concern for and commitment to well being of humanity
- Intellectual, communication, and decision-making skills

Identifies Kinds and Places of Services Needed

Develops Skills in Using Knowledge for Service of Others

Figure 15: Integrative Nature of Professional Skills Component of an Education

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The analysis reinforces the need within a curriculum for broad areas of knowledge and, simultaneously, the need for specialized knowledge for analytical and practical purposes. At the same time a means for fostering the integration and synthesis of knowledge must be included if the knowledge component is to serve the betterment of humanity. Contained within this need, is the recognition that a task of higher education is to develop people competent in making decisions which will ultimately shape the future of the universe and the quality of human life. For this competence both the ability to view a problem holistically and the possession of detailed knowledge with which to assess the variables involved and to analyze alternative solutions in relation to a variety of human needs is essential. The identification of a means to integration that will achieve these goals and its relationship to the original model needs to be established. Figure 16 illustrates this problem.

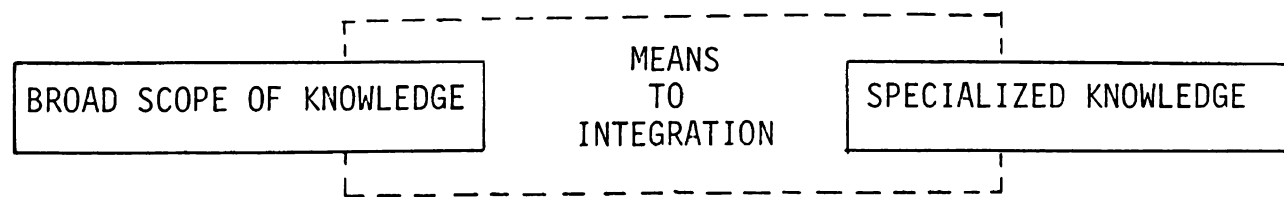


Figure 16: Need for Integration of General and Specialized Knowledge

Once the means for integration is identified, further support for it as an integrating tool achieving the above goals and implications for how to make it operative within a curriculum will be examined.

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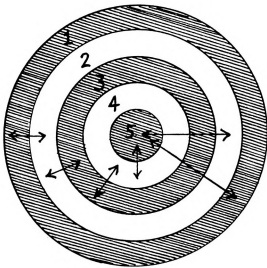
### Means of Integrating Curriculum Components

#### Human Ecology as a Holistic Perspective

Accepting that human ecology in its broadest meaning can be defined as a holistic perspective of the interaction and interdependency of humans and the total universe (see Chapter IV, p. 138) this study proposes that a curriculum based on the development of an understanding of human ecological principles in order to give a human ecological perspective will help achieve the desired integration of knowledge, allow for the development of areas of specialized knowledge and provide a basis for judging alternative solutions to problems. Moreover, it would encourage the need for a breadth of knowledge and add a special dimension to the specialized knowledge. When applied to home economics, the family ecosystem would be regarded as a sub-system of the total universe. Concern for the well being of the family would direct professional action and service. The specialized areas of knowledge would be those essential to understanding the support systems of the home and family and the family ecosystem, itself, in relation to the total human ecosystem. This study further proposes that the ends of a liberal education contribute to the holistic view of a human ecological perspective. In turn, the awareness of the various systems in the holistic, human ecological view would motivate the exploration of these systems and, thus, strengthen the achievement of the liberalizing ends of education. Based on these preliminary observations, the study contends that the qualities a professional person must have, in addition to specialized

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knowledge, can be achieved by the pursuit of the liberalizing arts and the deliberate efforts to achieve an integration of knowledge and an understanding of human needs through developing a human ecological perspective. This perspective is all embracing and would touch each component. To complete the original model demonstrating the relationship of educational goals (Figure 14), two additional circles are needed. In Figure 17 the inner circle represents the family ecosystem and becomes the pivot and focal point of the perspective. The comprehensive holistic outer circle represents the total perspective of the supra-human ecological system. Circles 1, 3, and 5 are shaded to indicate that in a particular way these areas draw upon knowledge from the remaining areas and focus on integrating the broad dimensions of knowledge with more specialized knowledge in the analysis of problems related to human concerns.



1. Human Ecological Supra-System and Perspective
2. Goals of Liberal Education
3. General Goals of Professional Education
4. Philosophy and Subject Matter of Home Economics
5. Family Ecosystem

Figure 17: Integrative and Holistic Nature of a Human Ecological Perspective

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Figure 17 further emphasizes that in an educational context a human ecological approach toward the development of a professional home economist should serve two interdependent objectives.

I. It should enable the student to manifest an understanding of the wholeness of the universe, the holistic nature of knowledge, and the interrelatedness of both of these in the resolution of human problems, and

II. It should enable the student, possessing a body of specialized knowledge, to apply this knowledge in a particular area of service in the total universal ecosystem and relate this service to a human system within the whole maintaining as far as possible the ultimate good of the total system.

In this particular study the particular system of concern for the student to examine would be the family ecosystem which is considered the basic social unit of society (Chapter IV, p. 149). In both of these objectives the ability to understand the interrelatedness and interdependency of the human being with its environment on either a micro- or macro-scale should be a dominant theme.

#### Human Ecological Perspective as an Integrative Instrument

To give further support to the value of understanding the principles of human ecology as a means of integration within a curriculum and to identify ways to implement this means, the principles will be reviewed. These will then be related back to the two interdependent objectives just established above and said to

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characterize the professional with a human ecological perspective. (For further enlargement of these objectives the reader is referred to the summary statements in Chapter IV, pages 116-17; 136-37, and 138-41 in particular.) These same two objectives will then be related to the ends of liberal and professional education as established in Chapter II, The Liberal Arts College. Following this procedure, the rationale supporting the development of a human ecological perspective in the preparation for the role of a professional home economist will be reviewed as a means of incorporating this rationale into the framework. Figure 18 is intended to indicate the process of thought which will be used to attain synthesis as well as to suggest a final matrix. The numbers above the arrows indicate the order to be followed in reviewing already established relationships or in establishing them.

#### Basis of a Human Ecological Perspective

Chapter IV explored the meaning of human ecology and the dimensions of a human ecological perspective. It supported the use of an ecological systems framework for viewing the family ecosystem as the central focus and unifying principle in the profession of home economics. The synthesizing value of developing a human ecological perspective is first perceived by an understanding of the concept of ecology.

In its broadest sense "ecology" is a way of looking at things -- a view point that sees not the things themselves so much as their connections with other things. (Schoenfeld, 1974, p. 221)



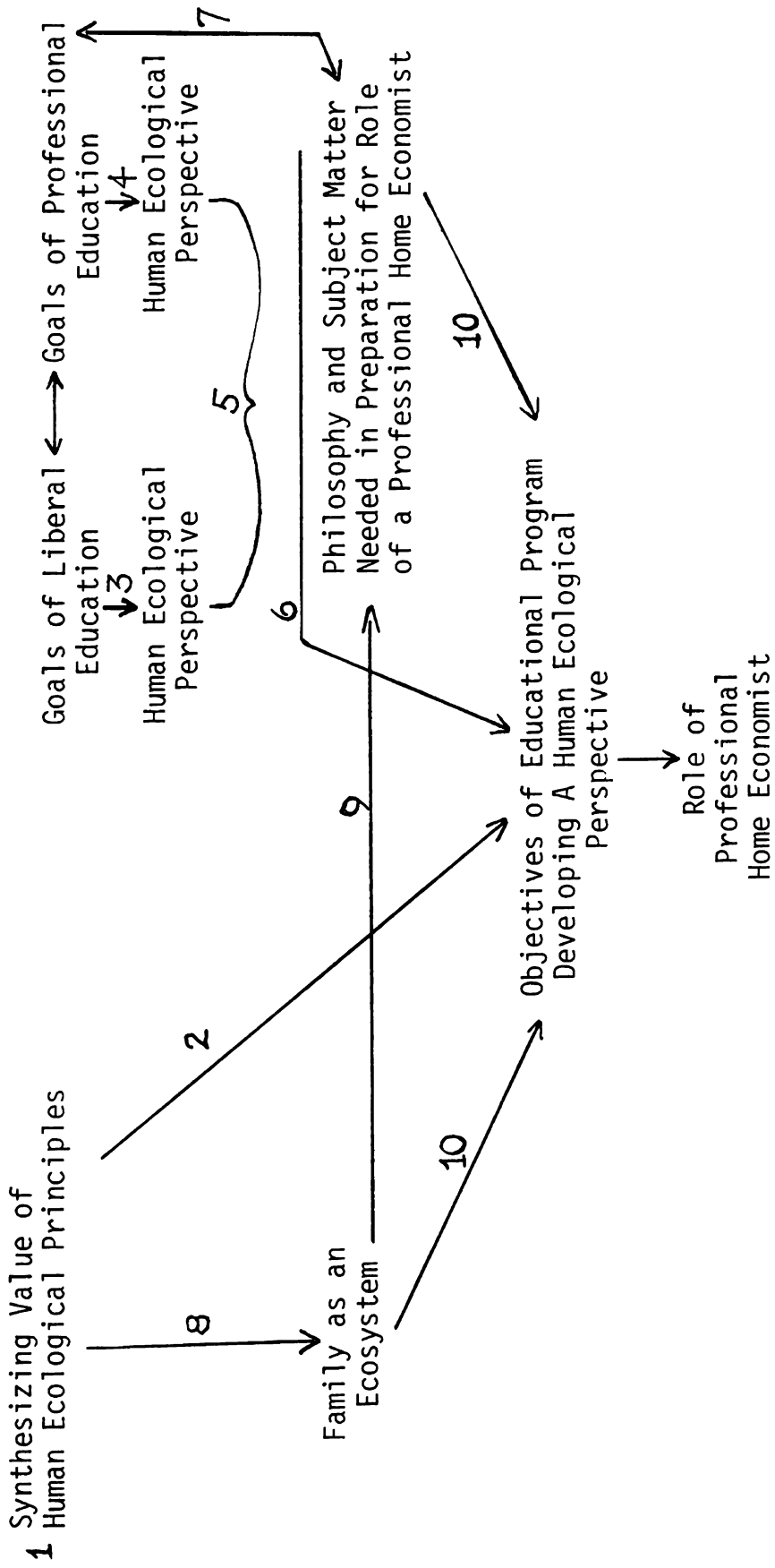


Figure 18: Process for Establishing the Rationale that Developing a Human Ecological Perspective Will Function as an Integrative Instrument (Numbers over arrows indicate the order followed in the presentation of the rationale establishing the linkages.)

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More specifically "ecology" is the study of and a way of examining an organism (or organisms) not just in itself but how the organism(s) relates to the environment and the environment to it. From this definition the following basic tenets of ecology derive. They apply to any organism-environment interrelationship.

### Tenets of Ecology

1. The basic frame of reference in ecology is an ecological system or "ecosystem"
2. Systems terminology and conceptual models are commonly accepted as a way of expressing ecological relationships
3. An ecosystem is a set or arrangement of living and non-living things in the world which are related in such a way as to form an organic whole
4. The dynamic interrelationship of the parts of an ecosystem cause the whole to be greater than the sum of its parts
5. Ecosystems exist in all shapes and sizes ranging from the total ecosystem of the universe to the microcosm of a single living cell
6. Within each ecosystem there are four identifiable parts:
  - a. the basic elements, compounds, and components of the environment
  - b. the power to convert or transform the elements into life sustaining substances
  - c. The consumers or the organism(s) which are nourished by the substance produced, and

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- d. the power to reduce substances to basic element stages to be re-converted

7. Within each ecosystem there are three basic processes which create the interdependent action and relationship or the connective linkages among the parts of the whole

- a. the energy flow or the essential ability to bring about change and to make the system operate
- b. the nutrient cycles or the process causing the continuous movement of substances through the system to create a web of life; and
- c. the flow or exchange of information in a stimuli-response interaction giving direction to change and adaptation

8. The interdependent action of the ecosystem is motivated primarily by the struggle for existence

9. The dynamics of the interdependent processes of an ecosystem cause adaptation and change in the organism and its environment

10. Ecosystems are organized complexities that can be studied in respect to structural dimensions, the processes that create change over a period of time, and the ecological interaction and resulting change

11. In an ecosystem everything is connected to everything else

12. A change in one part of an ecosystem effects a change in another

13. Nothing in an ecosystem can increase indefinitely without destroying the whole

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14. The parts of an ecosystem must remain in balance to maintain a dynamic system able to sustain the life of the organism

Schoenfeld summarizes these tenets in stating

An ecosystem, then, is a community made up of all the organisms in a given area, interacting with themselves and with the physical environment via a flow of energy, a cycling of materials, and an exchange of messages. The environment shapes the community, the community modifies the environment, and each plays upon the various citizens of the ecosystem. (1974, p. 221)

Proceeding from the above ecological principles applicable to the total science of ecology, adding the modifier "human" to ecology to specify the organisms in the system, and drawing upon conclusions arrived at in Chapter IV the following basic principles intended to express the synthesizing value of a human ecological perspective have been derived. In subsequent discussions these will be referred to as the "Principles of Human Ecology."

### Principles of Human Ecology

I. Human Ecology in its broadest meaning is a holistic perspective of the interaction and interdependency of humans (organism(s) of concern) and the total universe (the defined environment of the organisms(s) )

II. Human Ecosystems can exist in all shapes and sizes ranging from the total human ecosystem of the universe to the microcosm of a single living human cell with each smaller system a part of a larger system until the total universe is involved

III. For analytical purposes the system of concern within the total human ecological system needs to be defined in terms of the

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organism of concern and the boundaries of the environment with which it is interacting in an interdependent and interrelated manner

IV. As part of any human ecosystem the environment is subject to influence of humans and humans are influenced by the environment

V. The human ability to control and direct change makes a human ecosystem distinctive from other ecosystems

VI. The interacting parts of a human ecosystem are involved in life sustaining processes contributing to the physical, emotional and intellectual well being and growth of the human organism

VII. Change over the course of time in human ecosystems reflect adaptations necessitated by change in interfacing systems or human growth needs

VIII. A human ecosystem's present state is a development from a previous state and a prediction of a future state

IX. The earth as a sub-system of the universe is a supra-life support system for subordinate systems within it.

X. Sub-systems of the earth can be viewed as sub-support systems for subordinate human systems within the totality of humanity

XI. Inasmuch as no system is independent of the total human ecological system, the analysis of a single system within the whole is incomplete without an examination of systems beyond it in terms of the effects of the interaction and interdependency

From the acceptance of the above Principles of Human Ecology, the remaining discussions, following the outline in Figure 18, are intended to link the major constructs of this study as projected in Figure 13

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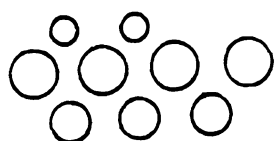
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with the two terminal objectives of a human ecological approach toward the formation of a professional home economist (see page 165).

### Human Ecological Perspective

#### Holistic View - Objective I

In viewing a human ecological system, large or small, the person sees not only the parts but also the interdependent nature of the parts and how a change in one part affects another. Illustrated, this would mean the person views the world around one in its various forms ranging from tangible visible objects to processes and systems, to varying realms of systems; and the information that describes and interprets these not as separate entities as in diagram A but as interdependent as in diagram B with the whole an entity in itself and greater than the sum of its parts.



-A-



-B-

With this in mind, by helping students perceive the components of the universe as a set of interacting systems, a holistic view of the universe should develop. Understanding, likewise, that all knowledge is in some way derived from human perception of the universe and is, in turn, used to describe and explain the multiple phenomena of the universe, the view of the universe as a set of interacting systems should cause the student to draw upon the varied sources of knowledge

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in the process of explaining the universe (or some segment of it). This activity should foster the assimilation and accomodation of knowledge in the structures of the mind, as explained by Piaget, and, thus, cause the student to experience the holistic nature, or the integration, of knowledge.

If, in the process of doing the above, an explanation leading to an understanding of the established Principles of Human Ecology is added, the student should understand the significance of the environment (total or restricted) to the human organism and accept a responsibility for its maintenance in the resolution of human problems. Further, aware of the human responsibility involved, the future professional should be motivated to ask what is the effect of change on the realtionships observed and, in turn, on the related systems, and weigh this effect in the decision making process. Developing, therefore, an understanding of human ecological relationships should lead the student to the attainment of the terminal Objective I established as characteristic of one who has developed a human ecological perspective in the pursuit of professional activities, namely:

- I. It should enable the student to manifest an understanding of the wholeness of the universe, the holistic nature of knowledge, and the interrelatedness of both of these in the resolution of human problems

Professional Service Area -  
Objective II

Inasmuch as a human ecological system can exist in a variety of sizes (Principle II) the vision of ecosystems within the whole as



well as the fact that each of these is affecting the whole should be self-evident. Further, in accepting that what exists can be known, it is likewise accepted that specialized bodies of knowledge have developed from the search for understanding or "knowing" that which has been perceived to exist. An understanding of the whole demands some understanding of the parts of which it is composed. This will eventually lead an individual to focus on a system or area of analytical interest. Given the opportunity in an educational setting to share in the accumulated and developing body of knowledge about such a system and accepting the interdependency of the system to the whole (Principles V, VI, VIII, IX), the person with an ecological perspective should be motivated and be able to use knowledge to maintain the parts of the system without creating an irreversible imbalance in the whole of the universal system. This means that the analysis of the system of interest will seek not only the understanding of its parts (Ecological Tenet 6) but also an understanding of the interaction and interdependency of these parts and the life sustaining processes (Ecological Tenets 4, 7, 8) on the system of concern and upon other systems (Principles V, VI).

Fundamentally, this understanding of the interdependency of the system of concern is the scientific knowledge, skill and attitude desired in the graduate as expressed in terminal Objective II. It depends on both the possession of specialized knowledge and an understanding of human ecological relationships and interdependencies. Further, since a single professional will know more about one system or an aspect of it than another, all persons with a human ecological



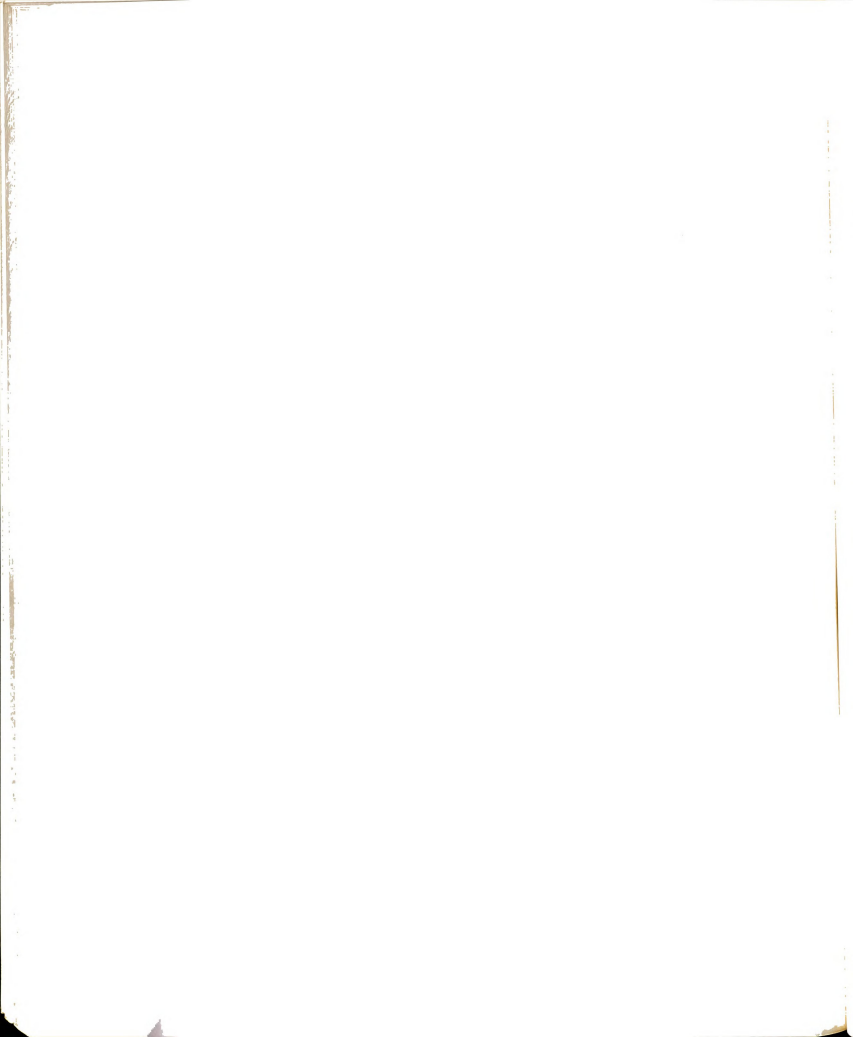
perspective will have a common unifying concern of maintaining a rational equilibrium in the system based on the recognition of the interdependency and interrelatedness of humankind with its environment (Principles III, IX). By focusing, therefore, on an understanding of human ecological principles in the formation of a professional person, Objective II should be attained, namely

II. It should enable the student, possessing a body of specialized knowledge, to apply this knowledge in a particular area of professional service in the total universal ecosystem and relate this service to a human system within the whole while maintaining as far as possible the ultimate good of the total system

In conclusion, the development of a human ecological perspective based on an understanding of ecological principles, the holistic nature of the universe, and the nature of its interdependent parts together with a more intense knowledge of a single part in relation to the whole can be said to integrate special and broad areas of knowledge as well as cultivate the awareness of ultimate human concerns in the problem solving-decision making role of the graduate. This is the essence of terminal Objectives I and II.

#### Interrelating Curriculum Objectives

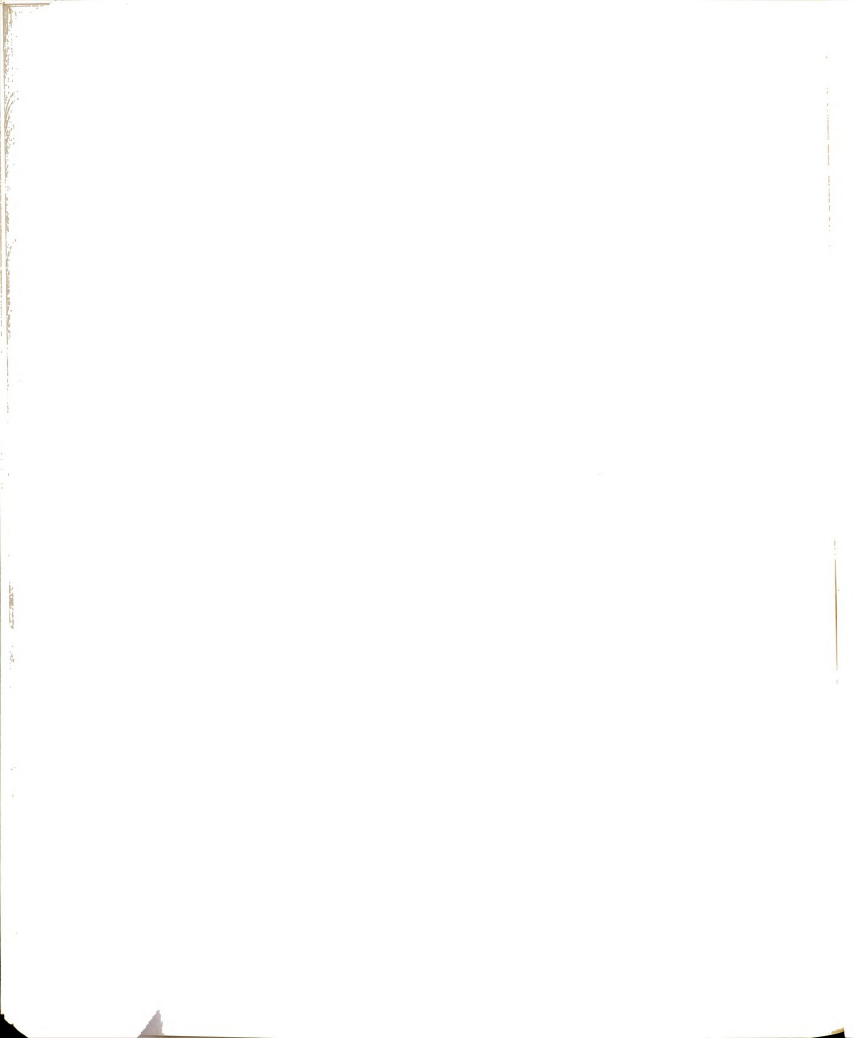
Since all curriculum planning and evaluation processes begin with and are dependent upon objectives or desired outcomes in the learner, specific effort has been made throughout this study to synthesize ideas in the form of behavior goals to be sought for and by the learner. Consequently the convergence now in process is to relate



previously identified sets of goals, suggesting of themselves content to be studied and/or learning experiences to be provided, with the two summative or terminal objectives which express the characteristics one would expect a human ecological approach in a curriculum to achieve in the learner. The intent is to identify the interrelationship of subordinate goals to demonstrate that the pursuance of one set both complements and helps attain another. With this purpose in mind, the liberal and professional goals of education will be examined in relation to the development of a human ecological perspective. Although it will be referred to in the discussion, the interrelationship of liberal and professional education, with the latter recognized to be a component of the former, has previously been established (see Chapter III).

#### Relationship of Liberal Ends of Education to a Human Ecological Perspective

In Chapter III a liberal education was defined in terms of broad, interrelated powers to be developed in the individual in order to give a person a sense of control over one's life and the world that environs it (see page 51). A re-examination of these ends and the supporting rationale makes it evident that their development contributes to the desired holistic perspective of the universe and the ability to interrelate knowledge and action for the good of humanity as expressed in Objectives I and II. This is true because the powers listed contain two basic elements. One, the development of intellectual, communicative, attitudinal, and judgmental powers, can be





developed through the context of any body of knowledge presuming the powers are understood and nurtured. Achieving the second element, interdependent with the first, depends upon understanding certain bodies of knowledge and an increasingly larger scope of knowledge so as to appreciate humanity, society, and the world itself; and then to make appropriate judgments. Anyone examining ecological systems, likewise, needs these understandings and appreciations as well as an understanding of the various modes of analysis and the interrelatedness of academic disciplines (see Chapter IV).

The development of a human ecological perspective, that is, an awareness of the interdependency of the systems of the universe, will also involve achieving the ends of a liberal education. The distinguishing difference is in the primary focus of each. Liberal ends of education focus on the development of liberalizing powers founded in bodies of knowledge. This is based on the premise that insofar as one knows and understands something, one can control or have power over it leading to freedom from subordination by it. Continual growth in knowledge leads to an understanding and control, within human limits, of the universe. The human ecological perspective focuses on the holistic nature of the universe and the interdependency of the systems within it. Understanding these systems and their interdependency is dependent upon knowledge. Once understood, the "freedom from subordination" end of liberal education will be pursued in the context of maintaining an ecological balance in the universal system. In conclusion, there is, therefore, a



direct and interdependent relationship between the human ecological perspective and a liberal education because one enhances the other enabling the ideals of each to better achieved. Diagrammatically the result would be expressed as:

Human Ecological Perspective ↔ Goals of Liberal Education

It has already been established that the professional ends of education are subsumed within the ends of liberal education. Inasmuch, however, as the question being pursued in this study rests in the formation of a professional person, namely a home economist, the professional ends of education must, likewise, be examined in relation to the development of a human ecological perspective.

#### Relationship of the Professional Ends of Education to a Human Ecological Perspective

In Chapter III, following an analysis of the role expected of a professional in contemporary society fifteen interdependent competencies were identified as essential ends of an educational program preparing one for the knowledge based service role of a professional (see pages 73-74). These can be synthesized into five more comprehensive knowledge, skill and attitudinal needs.

I. The need for a specialized knowledge or an in-depth understanding of a certain body of knowledge (This is particularly true of competencies numbered 1, 2, 3, 4, 7, and 12 on pages 73-74.)

II. The ability to relate this knowledge to individual human needs as well as the needs of a larger segment of society



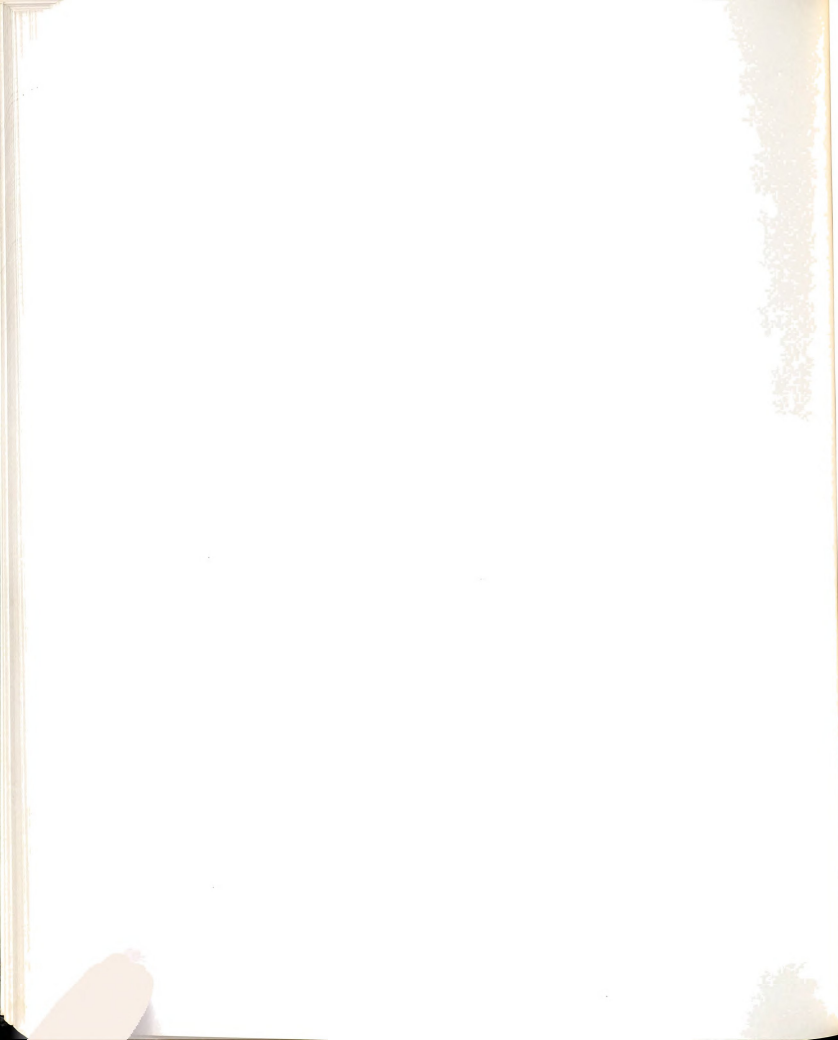
(This is particularly true of competencies 1, 2, 4, 5, 6, 7, 8, 9, 11 and 12 on pages 73-74.)

III. The ability to understand, communicate, and work with a large variety of people and in a variety of settings (This is particularly true of competencies 2, 5, 6, 7, 11 and 12 on pages 73-74.)

IV. The ability to weigh personal pursuits in relation to the good of the whole (This is particularly true of competencies 5, 6, 8, 9, 10 and 12 on pages 73-74.)

V. The ability to grow in knowledge and skill in order to adapt to changing needs and conditions (This is particularly true of competencies 3, 14 and 15 on pages 73-74.)

Because these objectives define the characteristics of a professional it is expected that I, the need for specialized knowledge, and II, the ability to use this knowledge in the service of others, would embrace several of the initially listed competencies as the above correlation indicates. The significance of II, III, and IV as indicated by the number of subordinate related competencies has implications for curriculum planning. To attain these it would be necessary to understand the variables in society in terms of interacting systems and structures, and how professional services and actions will affect not only a single client or small groups being serviced but also how they will ultimately affect the whole of society. This is a human ecological concept and goal. Further, it places a strong emphasis on understanding social systems of society and the various



modes of human interaction.

It has already been established that the ends of professional education are subsumed under the liberal ends of education and the knowledge obtained in the pursuance of these ends contributes toward and is integrated by understanding the principles of human ecology and, thus, helps the student achieve a holistic perspective. By accepting these correlations, it can be concluded that attention to the development of a human ecological perspective will give the future professional not only the awareness of human systems and their interdependency with each other and with other facets of the environment but also will foster the ability to blend the knowledge and skills peculiar to a specific profession with other systems and with the services of other professionals. The resulting relationship tends to look like this:

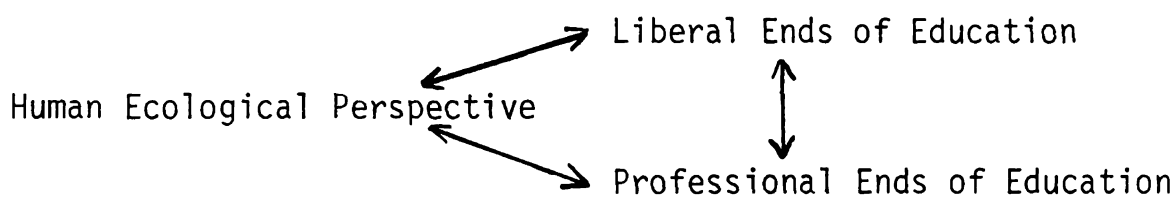
Human Ecological Perspective  $\longrightarrow$  Professional Ends of Education

At the same time the value of a human ecological perspective rests in its power to aid decisions. When specialized knowledge, a key need of a professional, is perceived as knowledge about a single system within a whole ecological system, such knowledge contributes to a human ecological perspective. This perception causes an arrow to move in the opposite direction in the diagram.

Human Ecological Perspective  $\longleftarrow$  Professional Ends of Education

In the same mode of thinking, the matrix can be further developed. Although the liberal ends of education have already been

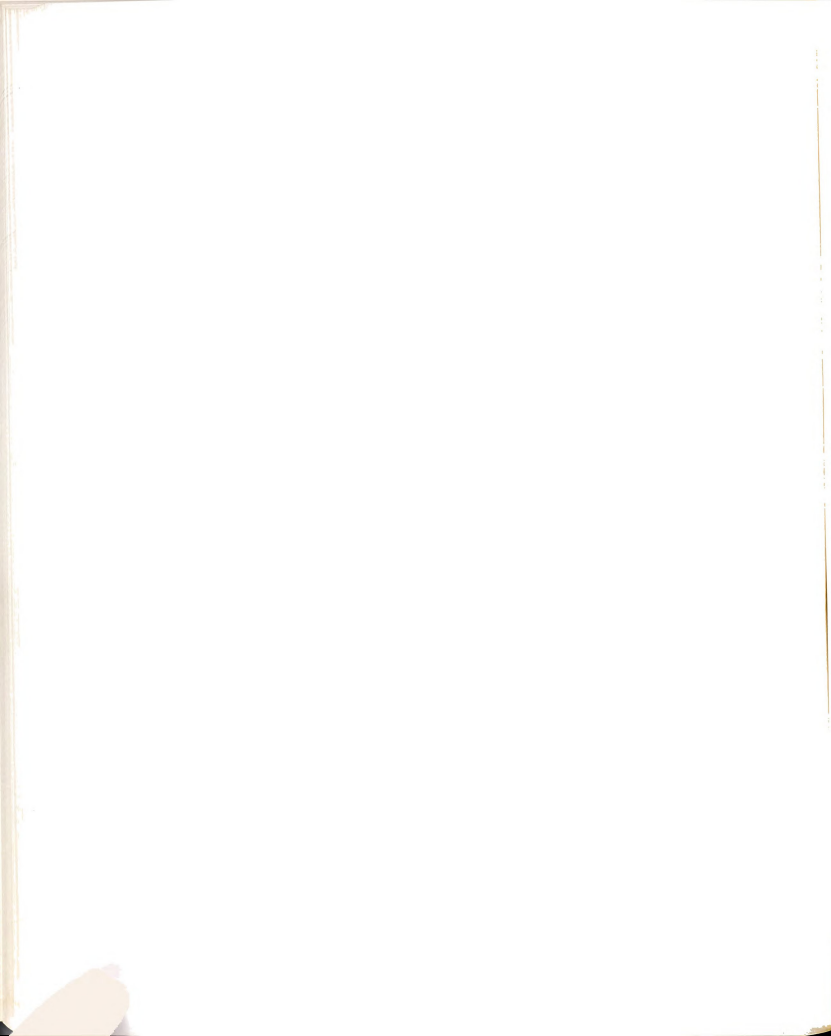
established as needed by a professional, the examination of the professional's role in Chapter III identified certain kinds of knowledge that would be needed to achieve the ends of a liberalizing education in today's complex society. The increased need to understand the diversities in human personalities and the intricate network of social systems was observed in particular. Thus, the pursuit of professional ends enhances and gives added meaning to the broader liberalizing ends. These principles combined with the preceding principle generate the following linkages



Since the development of an understanding of human ecological principles constitutes the synthesizing power of a human ecological perspective, and since both the liberal and professional ends of education are not only supported by but also support the understanding of these principles; and since professional service and decision making are guided by knowledge, it can be concluded that the understanding of the principles of human ecology will contribute to the convergence of the liberal and professional ends of education within the terminal Objectives I and II which characterize a professional with a human ecological perspective.

There now remains the need to review the rationale supporting the development of a human ecological perspective in preparation for





the specific professional role of a home economist and to fit the results into the framework. In view of the preceding rationale and the lengthy rationale given in the chapter on human ecology, the establishment of the present linkage will be consolidated through the use of a series of assumptions.

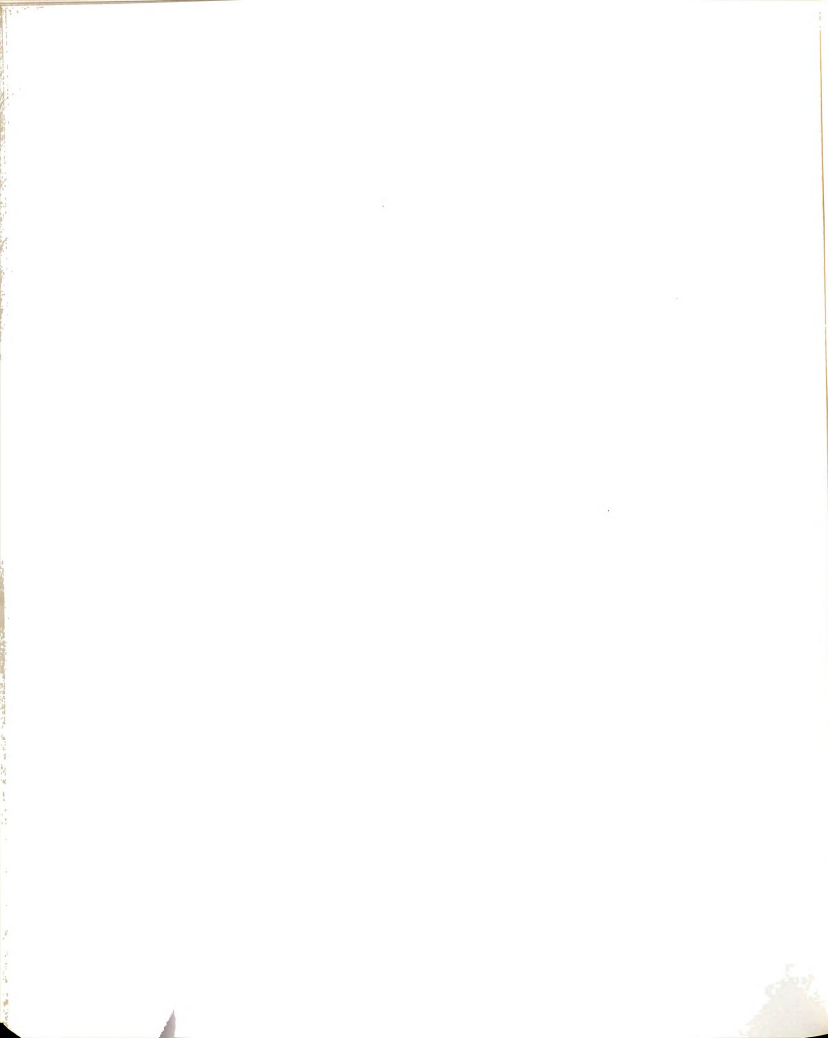
Relationship of the Role of a  
Professional Home Economist to  
a Human Ecological Perspective

Since ecology is the study of ecosystems and human ecology is the study of the human ecosystem; and since the maintenance of balance in the human ecosystem through the application of ecological principles is essential to maintaining human-kind; and since the role of a professional is service to others based on a unique body of knowledge, then an essential role of service for a professional is to contribute to maintaining the balance of the human ecosystem. Further, if one accepts that the ultimate role of the professional will be achieved best when the immediate problem of concern is viewed in the total good of human-kind (that is, a holistic perspective of the human ecosystem) and the person guiding the resolution of the problem (that is, the professional) can not only draw on the resources of his own and other person's areas of specialization (that is, the breadth of knowledge) but also can integrate the contribution of each into the solution of problems, then it permits moving to the identification of a specific human ecosystem to be the focal point of a professional's service and the determinant of the content in the area of specialized knowledge.

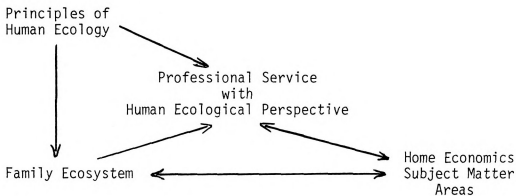
The family ecosystem has been identified as the focal point of the profession of home economics (AHEA, New Directions II, 1975). The educational preparation for the professional home economist, thus, should focus on an understanding of this ecosystem.

The family ecosystem is a subsystem within the totality of the total human ecosystem. As part of a whole in which the interdependency of the parts make the whole greater than the sum of the parts, the family ecosystem is an integral part. The part cannot be understood without understanding the whole, nor the whole without understanding the part.

In the same direction of thought, an understanding of the family, itself, as an ecosystem is dependent upon an understanding of the principles of human ecology. The family ecosystem contains parts within its whole. For purposes of limiting the focus of analysis, the whole must be defined by a boundary, that is, the point at which the system of concern comes in contact with surrounding systems. Since all systems in actuality overlap, the boundary is somewhat arbitrary. By identifying the parts and the life-sustaining and enhancing processes peculiar to the family ecosystem, the specific knowledge objectives needed by the professional home economist can be determined. Further, these parts and processes (and their sub-parts and processes) will need to be related to the systems subordinate to and beyond the family ecosystem. Again, for the purpose of focusing analysis, the boundary of the larger systems can be defined by terminology suggesting spacial limits as house, neighborhood, city, nation. With this in mind, the "family and its near



environment" has been used to describe the analytical focus of the home economics profession. As enlarged upon in Chapter III, Human Ecology, the near environment of the family will embrace components of the natural and non-human environment. Knowledge of the systems involved, insofar as they exist in the near environment, together with the search for understanding their interdependencies, will constitute the specialized knowledge component or home economics subject matter of the matrix. Conversely, the subject matter will enable the person to seek the good of the family ecosystem in a practical manner, that is by rendering service based on knowledge. The preceding relationships so established can be diagrammed as:



#### Theoretical Integrative Curriculum Model

By combining the diagrams relating the various major ends of education to a human ecological perspective, and by incorporating some intervening concepts highlighted in the discussion, the model used to identify the process for establishing the value of developing a human ecological perspective as an integrative instrument (Figure



18) can be modified to demonstrate its effectiveness in fostering convergence. The revision, Figure 19, demonstrates that such convergence is dependent upon an understanding of human ecological principles.

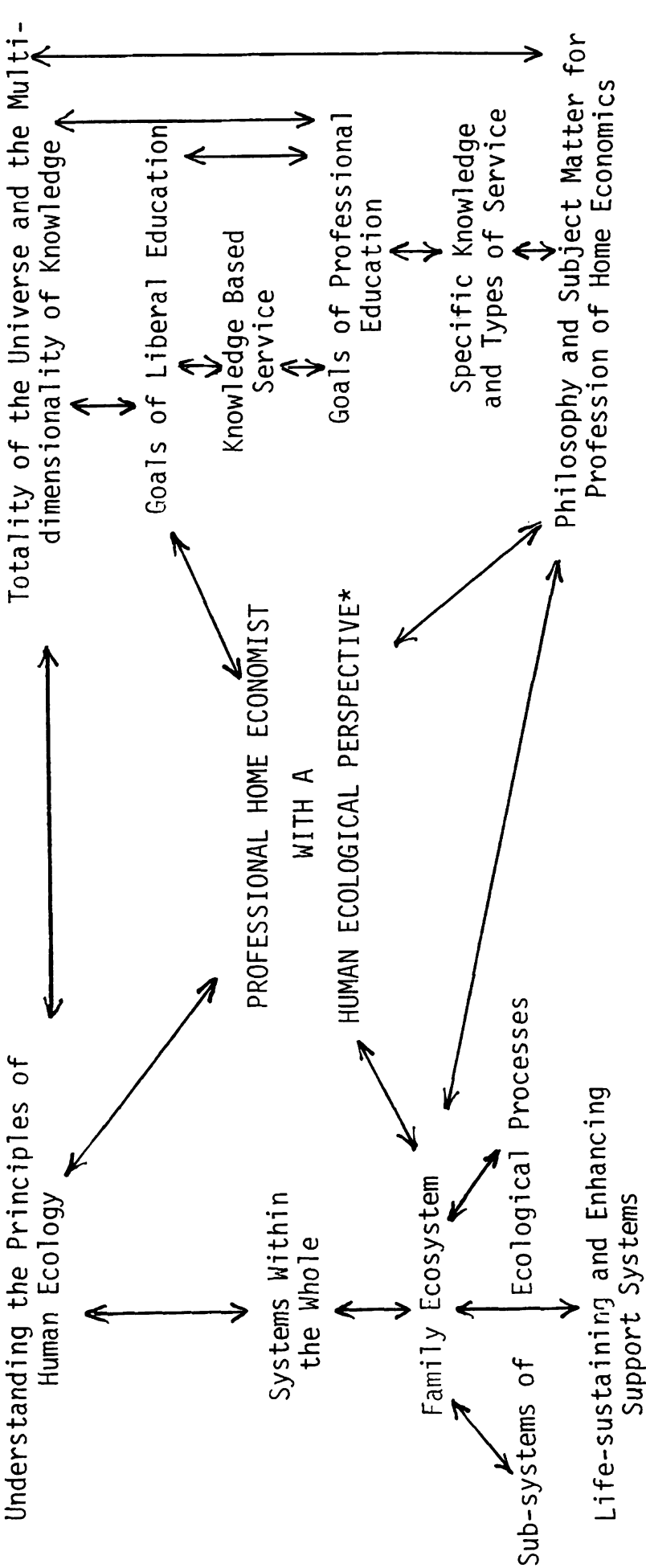
A study of the matrix produced in the model raises questions pertinent to this study. First, would not the convergence of goals take place without the development of this perspective inasmuch as the direction of arrows indicates an interrelationship does occur on the right-hand side of the model?

The basic response is that it is not impossible for integration to take place because this is a function of the mind. Integration takes place within the individual and cannot be forced. For it to take place, however, some exterior motivation is needed. For example, a problem to be resolved according to its degree of complexity will cause the resolver to draw upon the various knowledge and skill resources the resolver has. In the life-time of a person, the problems one encounters and solves promote the integration of knowledge. The greater the number and variety of problems and the greater the kinds of resources one can draw upon, the higher the level of integration.

The purpose of using a specific integrative instrument within a curriculum is to cause integration sooner in order to improve the quality of problem solving. The importance of seeking this integration is based on the complex network of knowledge and human interaction that characterizes the setting in which a professional must function



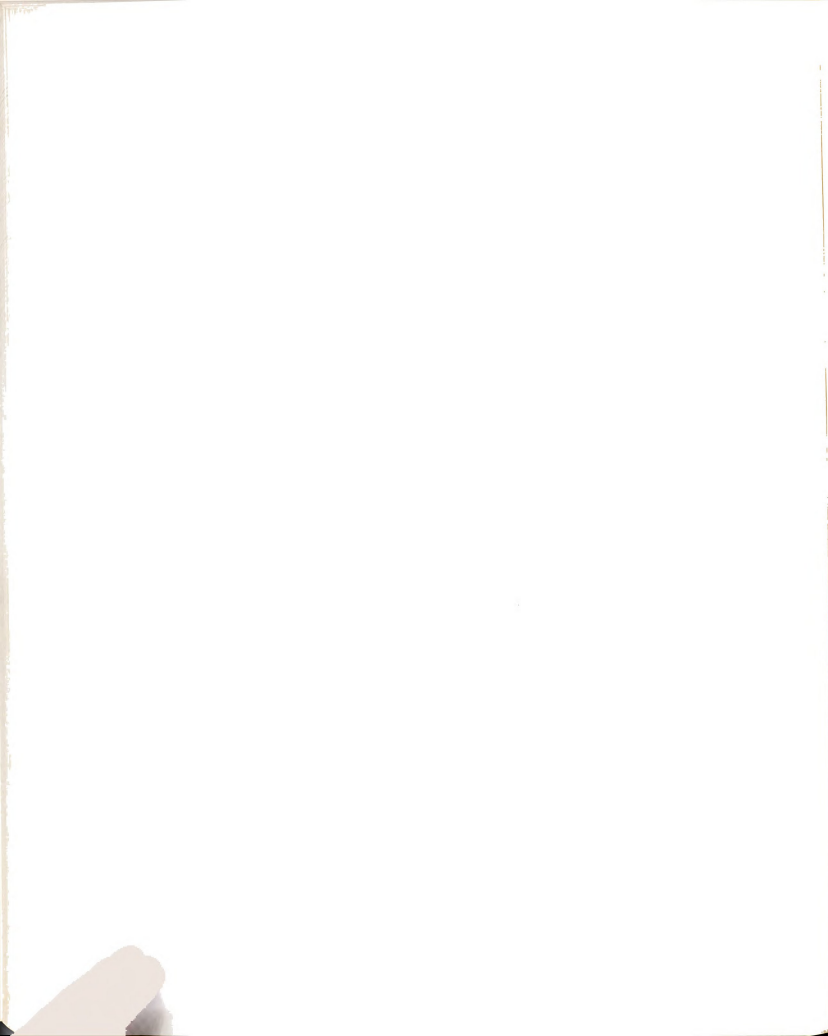




\*Defined as one who

- I. Manifests an understanding of the wholeness of the universe, the holistic nature of knowledge, and the interrelatedness of both of these in the resolution of human problems, and
- II. Possessing a body of specialized knowledge (home economics philosophy and subject matter), applies this knowledge in a particular area of professional service in the total universal ecosystem and relates this service to a human system (the family ecosystem) within the whole while maintaining as far as possible the ultimate good of the total system.

Figure 19: Development of a Human Ecological Perspective as an Integrative Instrument in the Formation of a Professional Home Economist in a Liberal Arts College Setting



in today's society. Further, the discussion establishing that the pursuit of the goals of liberal education, professional education, and specialization in home economics created an interdependent relationship (Figure 14), made it evident that unless this interdependency is recognized, the components will be pursued as separate entities with each competing against the other for time blocks in a curriculum. A human ecological systems framework provides a reference point for prioritizing the parts, for judging the relative size of components, and for demonstrating the interrelationships. Further, it gives the student a rationale and a framework to build upon for continuing the process of self-development. These factors, all being true and supportive of the instrument, do not eliminate other means to integration within a curriculum.

A second question is how does this perspective resolve the difficulties encountered when incorporating the liberal and professional ends of education into a curriculum or when practicing a profession due to the increase in knowledge and the growth and diversity of human needs? As a consequence of specializations caused by these factors, the home economics profession identified the difficulty of maintaining a central focus and unified approach to problem solving. The development of a human ecological perspective would counteract this difficulty by reinforcing the family ecosystem as the central focus of the profession and by providing a framework for identifying problems at the interfaces of systems as well as for weighing the effectiveness of solutions. The perspective emphasizes viewing the family, its function and environment as critical



and pivotal sub-systems in the total human ecosystem; and judging the solution to problems in terms of the ability to maintain balance in the micro and macro systems.

In the analysis of the conflict of the pursuit of liberal and professional ends of education, it became evident that the resolution of human problems complexed by the growth in population would be best achieved when the problem was viewed in the context of the total good of mankind and the resolver not only could draw on the resources of colleagues with specialized knowledge but also could integrate the contribution of each in the solution. The functional purpose of a human ecological perspective is to help the individual understand the interrelatedness of a change in one system upon another, the complexity and variety within the whole, the limits of one's own area of specialized knowledge inasmuch as it focuses on one system among the whole and, thus, the importance of interdependent working relations with others having different kinds of knowledge.

Finally, the discussion of human ecology, while emphasizing human ecology as a holistic perspective, continually pointed out that the need for specialized knowledge of the interacting systems and the growing number of diverse systems made the larger perspective difficult to maintain in the analysis of problems. The program proposed, that is, helping a person understand the whole and envision a specific system of concern as only part of the whole, is vital to interpreting any type of ecological relationship.



### Summary of Chapter

The purpose of this chapter was to synchronize the educational objectives established and supported through the analyses within the preceding chapters with the overall objectives of this study. The chapter proposes and supports that the development of an understanding of the principles of human ecology in order to establish a human ecological perspective in problem solving would integrate what otherwise might be perceived as separate entities within a curriculum. Such a perspective is dependent upon both specialized and broad areas of knowledge and a recognition of the interdependency of systems in fostering the human good as well as the good of the total universe. The latter is regarded as an essential and complex life-sustaining and support system of humanity. The proposal was supported by establishing the synthesizing value of human ecological principles and then by relating these principles to the goals of liberal and professional education and to the profession of home economics.

With the establishment of a theoretical framework demonstrating how the development of a human ecological perspective can be an integrative force both within a curriculum and in the making of decisions by the professional, the task remains to demonstrate how to operationalize this development in an undergraduate curriculum in the context of a liberal arts college. Before doing so it is necessary to more clearly identify the specialized knowledge needed by a professional home economist so as to be able to view problems in a human ecological manner.





## CHAPTER VI

### ROLE OF THE PROFESSIONAL HOME ECONOMIST

#### IDENTIFICATION OF KNOWLEDGE BASE

##### Introduction

It is necessary to conceptualize the anticipated role of a professional home economist with a human ecological perspective before it is possible to specify the components of a curriculum directed toward this end. This chapter enlarges on the professional end of education in the integrative curriculum framework (Figure 19) presented in the previous chapter by giving a rationale for:

1. The substance of home economics "philosophy and subject matter" espoused by the home economics profession and based on a family ecosystem focus, and
2. The relationship of the study of home economics "subject matter" and a human ecological perspective to areas of professional service

In support of the rationale presented, official documents of the American Home Economics Association will be used. Some of these have been quoted elsewhere in this dissertation but are presented here to recapitulate and to aid synthesis. For emphasis at this time certain words will be underlined. Also, it is recalled that a professional's role has been defined as "knowledge based service." To be

recognized as a "professional role" the knowledge base and the resulting service must rise above that common to all people and, in today's society, must be confirmed to some degree by an organization responsible for maintaining standards and establishing a guiding philosophy for service. This is the work of the American Home Economics Association. The Association's work is supported and enlarged upon by other professional associations representing areas of professional service related to and philosophically consistent with the ideals supported by the American Home Economics Association. Although reference may be made, it is not the scope of this dissertation to enlarge on specific professional roles.

Further, in the analysis of subject matter or areas of knowledge to be comprehended to enable adequate and authentic professional service, it is not the scope of this study to justify "home economics" as an academic discipline nor to justify its position in the classification and ordering of knowledge. Rather the object is to determine in the context of a supporting rationale the areas of knowledge needed for professional service as a home economist in the broad domains of society.

### Knowledge Base for Professional Role

#### Derived from Historic Definition

In its origin and reaffirmed by contemporary documents, Home Economics as an area of knowledge to be studied is defined as:

Home Economics in its most comprehensive sense is the study of laws, conditions, principles, and ideals which are concerned on the one hand with man's immediate physical environment and



on the other with man's nature as a social being, and is the study specially of the relation between these two factors. (Lake Placid Conference, 1902, pp. 70-71)

Within this definition a three dimensional body of knowledge is described. Further, it is not defined as a single autonomous body of knowledge but a synthesis with emphasis not on the parts alone but on the relationship and integration of the parts.

### Nature of Immediate Environment

One dimension of knowledge in the preceding definition is the nature of the phenomena in a human's immediate environment which can be interpreted as an individual's normal living and working spaces. This near environment can be further specified as the home and its environs and then extended to the market place where the individual exchanges services or resources for supplies (material and non-material) essential for maintaining and promoting growth in one's life. If this exchange is viewed in an ecosystem perspective, the home as the system of concern is envisioned as a place where resources from outside the system are taken in and transformed to satisfy human needs.

### Social Nature of Human Beings

The second dimension expressed in the above definition is the study of "man's nature as a social being." Basically, this involves the study of human nature and the causes of human interaction. Intrinsic to this dimension is understanding how humans develop and satisfy needs for self-expression and interaction with others. It implies that the home economist views the human being not just as a single unit but as part of a social unit established through some form of



interaction and perceived relationship. The basic social unit of society is the family. This unit has been accepted as the pivotal social unit on which the home economics profession focuses and aims to serve (New Directions II, 1975). As such, the nature of the family and human interaction within it should determine an essential knowledge component for the professional as well as a basic arena for service. As an ecosystem, the profession views this unit as a pivotal cause in the formation of the individuals that comprise it as well as in the formation of the larger units of society, the shape and structure of which so formed individuals will influence.

#### Study of Relationship Between Humans and Environment

The third dimension, within home economics as an area of study, expressed in this historic definition and fundamental to it is understanding the relationship between the two other dimensions. Implied is the recognition, first, that the other two dimensions are connected in some manner; secondly, granted that a relationship exists, one dimension will influence the other, and, thirdly, the nature of the relationship is uncertain and, thus, an object of study and analysis. A basic model depicting these three dimensions and their relationship is presented in Figure 20.

From the preceding explanation it can be deduced that in order to be proficient in the study of home economics an individual must understand the nature of the immediate physical environment in which humans function, the nature of the human person with emphasis on the social aspect of the human being, the social relationships and

groupings established as a result of this social nature, and the influence of these components on the development of each. This latter relationship dimension is an ecological concept and, thus, expands the knowledge needed.

IE = the immediate physical non-human environment of man and the laws, conditions, principles, and ideals which govern it.

I = the human being as a social being

$O + O$  = other individuals with whom the human being as a social being interacts

$\longleftrightarrow$  = indication that IE and  $I + (O+O)_n$  interrelate, with one affecting the other

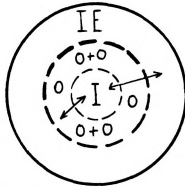


Figure 20: The Interrelationship of Humans as Social Beings and the Immediate Physical Non-human Environment

#### Derived from Ecological Principles

According to the principles of ecology interdependent relationships between an organism and its environment exist in order to provide life sustaining and enhancing needs. The resources for supplying these needs are in the environment surrounding the organism. The organism as a system in itself reaches to the environment for resources which it will take in and transform to satisfy needs within itself. History shows us that with the development of civilization and industrialization a complex network of intervening social systems have been developed by humans in order to maximize the use of resources and skills to accomplish





and manage efficiently this transformation. Both exchange systems (for example, economic, business) and control systems (for example, government political) are established. These are in some way preceded by a gradually expanding productive system which produces items for exchange. All of these interfacing systems, in turn, require an educative system to enable individuals to continue the purposes of the systems. In view of this natural evolution Figure 20 can be modified to indicate the intervening nature of social systems in industrialized societies. This is depicted in Figure 21.

NE = Natural Environment - Basic  
source of life sustaining  
resources

SS = Social Enabling Systems -  
Such as economic, business,  
government, political and  
education

I = Individual with human needs  
and powers

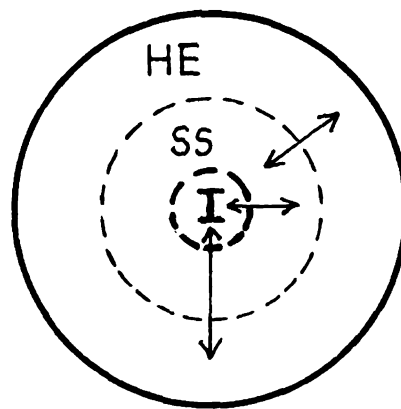


Figure 21: Intervening Nature of Social System in Industrialized Societies

Likewise, the family as an established social system can be viewed as interfacing with these larger systems, thus, reciprocating with them in the exchange of goods, resources, and services as well as replicating in itself economic, governing, nurturing (educative), and productive functions. Readily envisioned is the transformation of material goods to more usable items within the environs of the home. Not so readily seen but vital to the total system is the development of the individual or human resources within this same



environment and the fact that, they, in turn, will influence the larger social units and all humanity.

In ecological and systems terminology the family, thus, can be thought of as a human transforming unit converting the multiple types of phenomena in the environment to other phenomena in the environment capable of satisfying and enhancing human needs. The same is true of subsystems or individuals who comprise the family. Further, the family ecosystem is the primary source of the human resource which will comprise and determine the future of society. In a systems model framework, Figure 22 depicts this social-physical interdependent relationship of the home and family to other units of society.

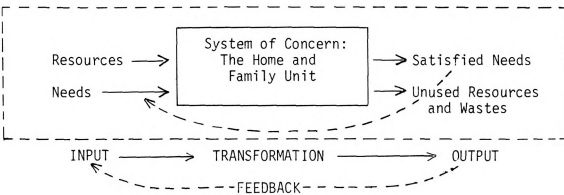
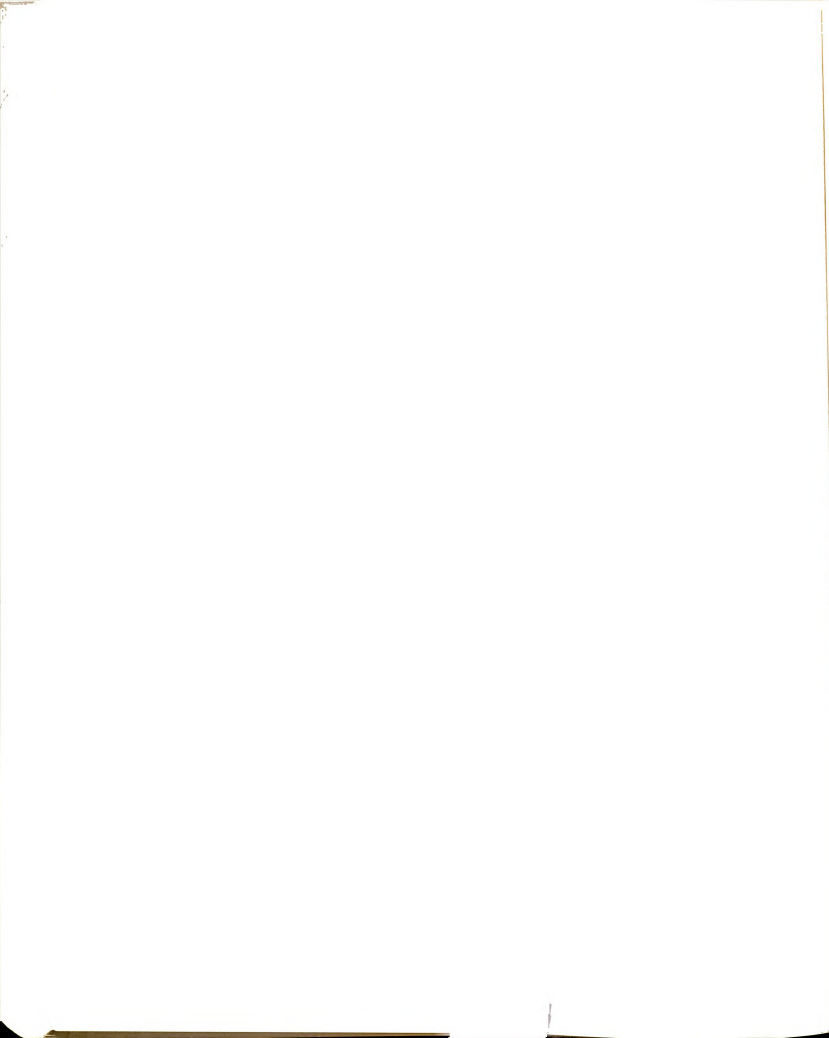


Figure 22: Home and Family as a Transforming Unit Converting Environmental Resources for the Satisfaction of Human Needs

For a more detailed model depicting the linkages between the individual, the home and family unit, and the distal environment, one is referred to the Ecological Systems Framework model developed by Vaines (1974, p. 111).



Derived from Contemporary  
Statements

Two contemporary statements made by the American Home Economics Association in 1959 and 1975 respectively give continual support to this three dimensional professional focus. The family is identified as the social unit of concern for the professional together with the responsibility for maintaining positive reciprocal relationships between the family and other social units as well as with the non-human environment. In turn, these statements determine dimensions of the knowledge base necessary for professional service. In 1959 the following statement was promulgated:

Home Economics synthesizes knowledge drawn from its own research, from the physical, biological, and social sciences and the arts and applies this to improving the lives of families and individuals. . . . It is the only field concerned with helping families shape both the parts and the whole of the pattern of daily living.  
(New Directions, 1959, p. 2)

In 1975 this clarifying statement was made:

The core of home economics is the family ecosystem: The study of the reciprocal relations of the family to its natural and man-made environments, the effect of these singly or in unison as they shape the internal functions of families, and the interplay between the family and other social institutions and the physical environment. (New Directions II, 1975, p. 2)

Knowledge is Synthesized from  
Fundamental Sciences

The 1959 statement emphasizes the various bodies of knowledge the professional needs to synthesize before the implications derived can be applied to improving family life. The resulting synthesis of knowledge is formulated into "home economics subject matter." It



differs from the basic fundamental bodies of knowledge because in the process of synthesis it draws from several of the fundamental sciences in order to understand a component of the home or near environment which is recognized as essential for satisfying human needs and promoting human development. In so doing, the developer of these derived bodies of knowledge must first always analyze the nature of human needs and the human potential. The understandings necessary for this preliminary analysis, likewise, are derived from elements in the more basic sciences. Eventually, as a result of this analytical and synthesizing process each fairly organized area of knowledge which is considered part of the specialized knowledge of the professional home economist can be called a synthetic science. In view of the fact that the synthesis was undertaken in order to achieve a practical end, home economics is, likewise, a practical science (Martin, 1957, p. 27; Brown and Paolucci, 1979).

#### Objective of Synthesized Knowledge - The Improvement of Individual and Family Life

The 1959 statement identifies the objective of the synthesis of knowledge into "home economics subject matter" to be the improvement of the lives of individuals and families. In examining the ecological relations thus far in this study the objective of the profession has been interpreted as providing the life sustaining needs. Obviously, life must be sustained before it can be improved. The task to improve implies a moral judgment of what ought to be beyond what must be or what is. This goal implies the ability to qualify a





situation. Such ability is dependent upon an understanding of the potential of the human being and being able to envision and accept some degree of positive, undefinable growth, as well as to accept the quantifiable limits and potential of the resources one uses to achieve the desired goal. The 1975 statement emphasizes this interdependency. Further, it highlights the moral responsibility of the professional to understand the reciprocal relation of the family and its environment so that in the development of each a harmonious balance working toward the ultimate good of the human race will be achieved. This is fundamentally an understanding of the family ecosystem which the profession has identified as the unifying understanding intended to guide the professional home economist (New Directions II, 1975). As already indicated, this is not a new concept but was inherent in the 1902 definition of the science of home economics.

#### Unifying Core of Knowledge - Family Ecosystem

The 1975 statement of the American Home Economics Association, identifying the family ecosystem as a focus of activity for the professional, envisions the home as a central place of activity from which individuals (collectively or singly) reach out to the larger environment to find the ways to satisfy and enhance human needs. At the same time and for the same purpose within the home or immediate ecosystem of the family, individuals are relating to the immediate or near environment which is composed of other humans plus other living and non-living objects.



The basic human needs of the human organism have been continually recognized as food, clothing, shelter, and human interaction. In terms of ecological principles, the means to satisfy these needs and to develop human life are in the non-living and living, near and far environments of the human being. Figure 22 (p. 196) demonstrates how the family system, composed of individuals, is reciprocal with all other systems in the environment. Simultaneously, it must be understood that the good of the other organisms and non-living objects in the environment must be sustained if the environment is to remain a viable resource for sustaining and enhancing human life. The understanding of the reciprocal relationship of the interfacing systems leads to the identification of the parts within the interfacing systems that need to be understood so that the professional will be serving society in a way that promotes the continuance of the interchange. These ecological principles lead to the identification of bodies of knowledge essential for professional service directed toward improving the quality of life. Science has defined and is continually attempting to refine combinations of resources in the environment that will sustain human life in an optimum manner. As new knowledge evolves and technology alters the human condition, both new resources and new dimensions of the basic human needs develop.

For example, a body of knowledge continually evolving supports what physical nutrient substances the body must take in to maintain optimum health, what objects in the natural environment can provide these, and the multiple ways they can be changed and combined into substances which the body can take in and transform to sustain and



enhance life. The whole body of knowledge is commonly called "Foods and Nutrition." It can extend from knowledge directing the cultivation and control of the land by humans and the tools they utilize to provide food substances (thus, blending the natural, social-behavioral, and man-built environments); to the individual selecting food items from a home storage unit and preparing them for human intake; to the analysis of how the human body will use what is consumed to transform it into the human organism as life is sustained and developed. This example demonstrates once again the interdependent nature of the human system with other systems in the universe. Similarly, around the human need for clothing, shelter, and human interaction bodies of scientifically based knowledge have developed and continue to evolve. In all cases it is a procedure of synthesizing knowledge to be used in making practical applications and judgments beneficial to human life. Figure 23 demonstrates this process of synthesizing and integrating knowledge as a basis for professional service.

#### Knowledge Base Related to Professional Service

If one accepts that food, clothing, shelter, and human interaction are basic human needs which the professional home economist can help families and individuals achieve, continuums of professional service roles can be identified that facilitate satisfying these needs. It is not the purpose of this paper to enumerate the multiple roles possible. Rather, it is to demonstrate that a person aware of the total continuum is better qualified to do a task at any point on the



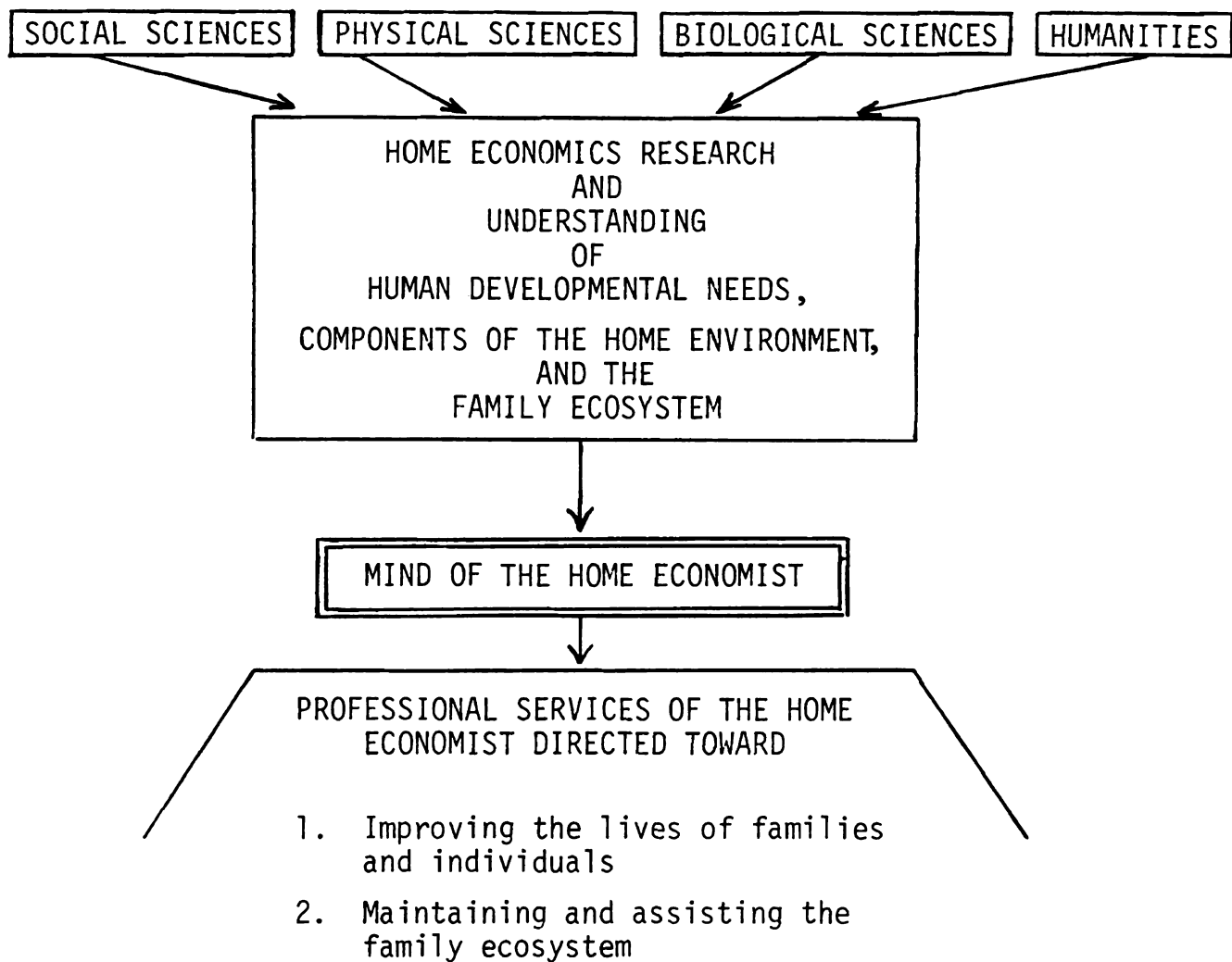


Figure 23: Summation of the Synthesizing and Integrating of Knowledge as the Basis for the Services of the Professional Home Economist

continuum. Further, it is expected to demonstrate that a pivotal point on the continuum is the home and family, or the basic unit in society which functions as a social unit to transform the products beyond the unit into ways of satisfying the life sustaining needs of the individuals within it. These continuums will be briefly explored and related to the family ecosystem.





### Continuums of Services Facilitating Human Need Satisfaction

An enlargement of the previously given capsulized view of satisfying human nutrient needs would present a long continuum from energy sources, to the conversion of natural substances to products usable by man, to the conversion of the latter into energy by man to be used for other conversion activities. All along this continuum the services and powers of humans can function to keep the process moving. The professional home economist, or one who focuses on the home and family transforming process, is concerned with helping families transform the food items available to them in such a way that the physical and emotional well-being of the individual will be sustained and enhanced. At the same time, a supporting and related group of professionals (who could be home economists) understanding the food and nutritional needs of humans must work to make the necessary products available to the home or an alternate place. This would involve a knowledge of the production and distribution systems operative in society. At the other end of the continuum, and not independent of it, are those professionals who understand more fully how the human body actually uses these foods to maintain normalcy and to correct abnormalcy or provides a counteractive force to maintain a degree of balance essential to sustaining life.

This example demonstrates the professional roles available to persons concerned with the interrelationship and interdependency of humans with both their social and physical environment. Its emphasis is on satisfying the "food" need of man through the work of a



broad group of professionals each serving the individual directly or indirectly to satisfy or enrich this basic need. It also implies two interrelated bodies of knowledge essential to making judgments at any point on the continuum. These are (1) understanding the nutritive needs of humans and the factors that influence the satisfaction of these needs, and (2) how food or alternative substances can be produced, transformed, and used to satisfy these needs.

A similar continuum can be envisioned for satisfying the human need for clothing and shelter. These two basic needs are often not seen as basic because their impact on sustaining the physical life is not as readily analyzed. Further, they are often perceived in a very limited sense. Both can be demonstrated as fundamental for protection from external physical forces that would endanger life. More significant, though, is their ability to satisfy man's need for self-expression and maintaining varying amounts and kinds of personal space. Both of these have been demonstrated as essential to the psychological health and growth of the individual. These factors move the knowledge continuum in the direction of the psychological and aesthetic needs of humans. (It should be recalled that the holistic nature of the human being makes all physical, psychological, and emotional basic and growth needs interdependent.) To obtain these needs the human must look beyond oneself to the larger environment. Again, the professional could function in any position on the continuum with a certain group converging to enable the selection, use, care and storage of clothing in the home or equivalent setting, and in the shaping and enriching of the various degrees of living and



working spaces of individuals as members of the primary social unit, the family.

The fourth commonly accepted human need is interaction with others. Although there are many ways this need can be met, all people in some way from the moment of life belong to a family in one or more of its various forms: communal, extended, or nuclear. The Home Economics profession defines the family as

a unit of intimate transacting and interdependent persons who share some values and goals, responsibility for decisions and resources, and have commitment to one another over time. (AHEA, New Directions, 1975, p. 2)

It is within this family unit, normally defined by physical or relational boundaries, that people reach out and communicate with others in response to this need for human interaction and also to satisfy other human physical and psychological needs. Again, a continuum of resources in relation to needs can exist. Some social-psychological needs can be achieved independent of the core family ecosystem. Interaction with others can occur in systems such as educational, recreational or business, but the principles governing this interaction in any form, (that is, respect, cooperation, authority roles, subordination roles, allowances for diversity while maintaining unity, distribution of resources, communication, manipulation of the physical environment) are first nurtured and developed in small social groups that fit the definition of a family and are then applied and further developed consciously and unconsciously in larger or alternative group settings.

Since a function of the family is to provide a means for and



to develop skills in human interaction, the professional can work directly with families through educational and human service organizations, large or small, so that within the family growth-producing human relations will be sought and maintained. Further, the professional can work with individuals directly or indirectly through the larger systems with which the family interacts and is dependent upon for producing and controlling the flow of goods, information, and services to the family. Fundamental to this professional service, therefore, is first, an understanding of the interactional needs of humans in their total development and how the unit of the family and the other units in society contribute to them. Secondly, the professional role demands an understanding of how these interactional needs contribute to and receive satisfaction through the achievement of the other basic needs of humans in their life cycle, thus, creating an interdependency in the achieving of all needs. Thirdly, and equally important, is the need to understand how human interaction contributes to the ideals and values held by an individual who, in turn, will influence human interaction within a social unit and the eventual structure and functioning of other social units. Bodies of knowledge have evolved as humans have explored the impact of various modes of human interaction on human beings, on social systems, and on the varying stages of human physical, psychological, and emotional growth. There is an opportunity for the professional to use this specialized knowledge in a wide range of services fostering the development of human interaction, or the use of human interaction to achieve the higher goals of a social group. It is important that this





interaction be consistent with goals fostering quality in human life. An understanding of the family as the pivotal system in the influence of human interaction on individual and societal development aids the prioritization of objectives in professional services.

### Focus of Professional Service - Family Ecosystem

In each of the four basic human needs discussed, a continuum has been expressed. In all continuums some fairly clearly defined units of society can be identified. For example, the individual, the family, the neighborhood, the exchange and distribution centers for goods and services outside the home or the market place, the production systems, and the government or control systems can generally be defined with some type of limiting boundary. As the continuum grows from its human beginning to the largest expansion the intervening units become less clearly defined. The only truly clear units are the microscopic cell at the origin and the totality of the human society at the other end. The family, because of its closeness to the point of origin has greater specification and, thus, as a system its boundaries are easier to define than the increasingly larger and more complex societal units. Further, the concept of the family in some form has been recognized in every known human civilization. No human unit can be completely separated from other human units due to its dynamic ecological nature. Thus, each is influenced by all surrounding and subsequent units. It follows, therefore, that broadly speaking, professional activity in every unit of society can in some way affect the family. At the



same time, the ability to define the family within limits, as well as its pivotal position in relation to other units, allows it to be a focal point for professional service.

Professional literature supports that the home economist is primarily concerned with servicing the family unit of society so that its needs are met and its linkages with the larger units are maintained. Subsequently, the four continuums based on human need satisfaction as well as the family unit identify major areas of knowledge-based professional service for a professional home economist with a human ecological perspective. All of these areas are concerned in some way with the interaction of humans with the environment and all directly or indirectly affect and are affected by the family unit.

#### Distinctiveness of the Professional Role of a Home Economist

The preceding discussion indicates that home economics can be viewed as a comprehensive profession based on a synthesis of knowledge. This is true because, as already indicated, its peculiar body of knowledge, deriving from more theoretical bodies of knowledge and its own research, is primarily directed to the satisfaction of basic human needs and the process of how humans can and should manage their immediate and extended environments in order to achieve these needs in a human-enriching manner. Human needs and the resources to satisfy them can be examined from a simple listing of facts and techniques to an increasingly detailed analysis. Further, they can be examined expansively to embrace the total universe as all humanity joins in a complex matrix of activities to transform resources to satisfy human



needs and improve the quality of life. This is a basic human drive. Its pursuit is not the domain of any single profession. Rather, professional service should facilitate its pursuit. From the perspective of the goal of satisfying human needs and "improving the quality of life for individuals and families" there is no occupation or professional area that cannot be linked to the profession of home economics. One must ask, therefore, what gives distinction to the profession? Hook and Paolucci respond to the question by saying,

A single profession can bring knowledge to bear on only a limited part of the environment; hence, home economists generally define their sphere of concern as the family and that part of the near environment that impinges directly upon the family and is subject to manipulation by the family. Home Economists attend to the interaction of man as a total being and his near environments, especially as this interaction is managed by the family. (1970, p. 316)

This means that in the truest sense the home economist works with and for families in their nuclear, extended, or other forms within the immediate physical environment families establish, that is, the home, to satisfy the needs of family members through the use of available resources in order to obtain the optimum human development of its members.

At the same time, from the preceding discussions based on resource availability and the satisfaction of human needs, there are various positions in society that persons with a family ecosystem focus in their professional development (area of specialized knowledge) can fulfill. They do not necessarily need to be identified by the title "home economist" but a philosophical stance, derived from their



educational formation regarding the family as a pivotal unit influencing both human and societal development, will influence their decisions in managing activities and their evaluation of a situation.

For example, if the homemaker possesses the body of knowledge for this task, the homemaker or home manager is the essential professional role. The next group of professionals would be those who help the homemaker maximize the potential of the home in its contribution to human development through educational means in formal and informal settings and the various communication media that bring knowledge to the homemaker. Interrelated with this group is a third group of professionals functioning to make available to the homemaker the resources needed in satisfying human needs or in interpreting how a particular group of resources can best be used in the immediate physical environment of the family and individuals. A fourth important and equally interrelated group of professionals includes those who are available to help the family resolve conflicts (physical, technical, or emotional) in the pursuit of needs. As technological advances have increased the variety of ways for satisfying needs, society itself has become more complex and diversified. Consequently, the greater is the need for the service of a professional to resolve the problems involved in the processes of evaluating the overall effectiveness of resources, and of efficiently bringing them to the availability of persons and of families.

What, therefore, gives distinctiveness to the role of the home economist is twofold. Primarily, it is the philosophical attitude or awareness that recognizes the family in its variety of forms as a

primary, vital, and pivotal unit in society because within this unit human beings are nurtured and sustained. Inherent in this belief is, first, that the quality of human beings determines the eventual quality of society and the environment in which all humans are nurtured; and secondly, that the evolution of conditions in the larger society should be supportive of the family and the nurturing of human life and development. Given this philosophical stance, and enriched with an understanding of human needs and development, the home economist has possession of a unique body of knowledge and skills that can be used to facilitate the role of the family and its members in satisfying human needs and nurturing human development. It is the combination of this philosophical stance and knowledge-based activity committed to the service of the family and its members that gives distinctiveness to the role of a home economist. Within this broad perspective many specialized roles, determined by the details of the knowledge-based preparation and subsequent experiences, can exist. At the same time within society many related services and occupations are being filled by individuals who do not merit this title because the motivation for activity is not founded on the above stated philosophical stance.

#### Summary of Areas for Professional Service

Statements by the American Home Economics Association support the rationale that the professional home economist can serve society in a variety of professional areas.





Home Economics is the field of knowledge and service primarily concerned with strengthening family life through:

- educating the individual for family living
- improving the services and goods used by families
- conducting research to discover the changing needs of individuals and families and the means of satisfying these needs
- furthering community, national, and world conditions favorable to family living. (AHEA, New Directions, 1959, p. 4)

The focus of home economics is the family. Home Economists work through many professional channels to help improve the quality of individual and family life. . . . Most home economists are employed in education, business, human services or research. (AHEA, The Opportunity of a Lifetime, 1978)

Data published by the Association in 1978 on the area or place of activity for home economists supports the above and is summarized in Figure 24.

| <u>Major Areas</u>                                      | <u>Number of Home Economists Involved</u> |
|---|---|
| Human Services  |   |
| Cooperative Extension Services                          | 5,550                                     |
| Homemaking  | 25,000                                    |
| Dietetics   | 45,000                                    |
| Government, Social, and Health and Welfare Organization | 7,000                                     |
| Business and Industry                                   | 5,000                                     |
| Education   |   |
| Preprimary and Elementary                               | 2,000                                     |
| Secondary   | 53,000                                    |
| College and University                                  | 7,000                                     |
| Adult   | 16,000                                    |
| Research  | 1,500                                     |

Figure 24: Number of Home Economists Involved in Major Professional Service Areas According to 1978 Data (The Opportunity of a Lifetime)



Exact data in regard to professional service roles of home economists are difficult to solicit because once a person with a basic home economics orientation moves into a certain area of professional service the person is often identified by a title other than "home economist." This is particularly true in the business and government domains.

Knowledge Base and Professional Service Areas  
Related to Curriculum Content Areas

Having examined the two interacting components in the definition of a professional, namely, the knowledge base and the nature of services given, it is now necessary to identify more specifically the components of the curriculum which will directly serve these purposes.

In curriculum development, particularly at the undergraduate level, one is faced with how much an individual person can comprehend in order truly to give knowledge based service to others. It must be kept in mind that the undergraduate program is only one phase in the development of an individual who wishes to serve society in a professional manner. As in all phases of development, this phase should be foundational to later learning experiences in which the professional will engage. At the same time in the light of the ends of a liberal education, the undergraduate program should at least provide for entrance into some level of professional activity. The body of specialized knowledge a person explores in formative educational experiences will determine the type of professional activity one can authentically engage in.



Content Area Based on Philosophy  
of the Profession

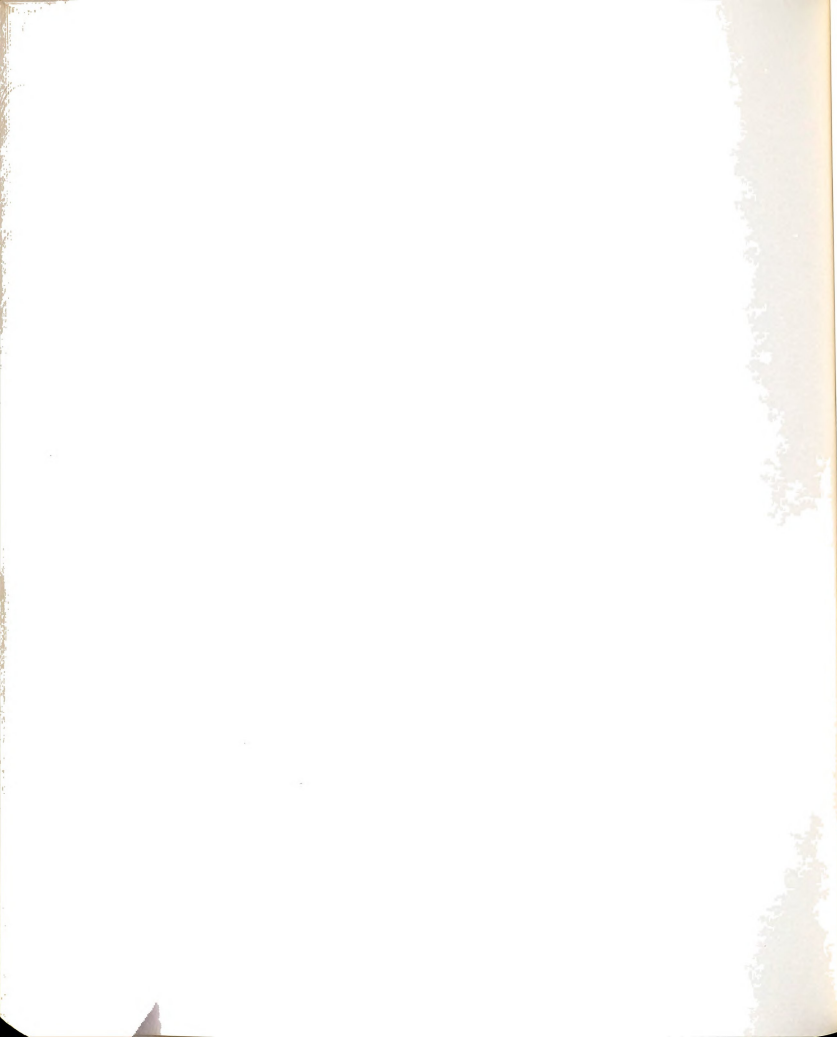
Because the home economist's concern is the family and in particular the family ecosystem, an understanding of the family, its functions, purposes, and interrelational systems, is fundamental to the future professional. This understanding should derive from and incorporate an understanding of the developmental needs of the sub-systems of the family, that is, individuals, and the functioning of the market place where goods and services are exchanged to satisfy human needs. Further, if a main function of the social unit of the family is to satisfy human needs and enhance human development, it is important that the home economist can understand, analyze, and evaluate the behavior within the family unit as it functions to achieve this ultimate goal.

Two interrelated sub-interactional systems are constantly interfacing within the family:

1. The psycho-social or personal sub-system is primarily concerned with the integration and solidarity of the group, the internal relations of the members to each other, personality development, and the socialization of family members

2. The managerial sub-system or instrumental activity is primarily concerned with the achievement of family and individual goals and with transactions between the group and its environments (Gross, Crandal, and Knoll, 1973, p. 9)

Although these systems seemingly have distinct functions, neither



could exist without the other. Further, inasmuch as each system is directed toward human development goals, the values espoused and developed by the family and their effect on decision-making will have long range effects.

In consequence of the above, a professional dealing with the human system of the family, directly or indirectly, needs to understand clearly the managerial activity involved in the pursuit of goals, particularly those goals considered essential for the maintenance and enhancement of human life. This activity derives from the cognitive, valuing and decision-making powers characteristic only of the human being. Simultaneously, it must be recognized that these powers cannot develop apart from one's environment as it is through perception via the senses that all knowledge configurations and value prioritizations are established in the human mind. Further, the decisions made within the family related to life sustaining and enhancing needs will affect the systems beyond the family in terms of expectations placed upon them. Conversely, the managerial activity of systems beyond the family will determine the availability of material resources and environmental conditions (purity of air and water, quiet, aesthetic beauty, security, temperature control, non-human organic life, human freedom and the like) conducive to the well being of human physical, psychological, and emotional life.

In the light of the preceding, a professional with a holistic perspective of the family's relationship to other systems versus a singular or atomistic view of the family is as important to the ultimate good of society as is knowledge of human developmental needs.





Likewise, it is important that the understanding of the family and its functions as well as any other body of specialized knowledge supportive of these functions be viewed and used in terms of its relationship to all other dimensions of knowledge and the universality of the human-environmental system. This principle supports the development of a human-ecological perspective for the professional home economist as was enlarged upon in the previous chapter.

The above discussion establishes the truth that there is a common body of knowledge related to understanding the family, basic human needs, the attainment of these needs within the family unit, and the reciprocal relationship to other units in society that all professional home economists should have to establish a unifying conceptual base for problem solving. To function, however, as a professional rendering knowledge based service, this basic body of knowledge related to understanding the family ecosystem must generally be supplemented by two types of more specialized knowledge.

#### Content Area Based on Realm of Professional Activity

From the earlier discussion identifying the professional home economist as one who would facilitate the functioning of the family in its role of satisfying human needs and nurturing human development, it can logically be concluded that areas of specialized knowledge for a professional home economist would be within the four main categories derived from a consideration of the basic needs of humans. These are: foods and nutrition, clothing and textiles, shelter and furnishings, and human interaction and development. These broad categories



can be further subdivided into areas of increasing specialization.

In the discussion on areas for professional service, it was demonstrated that the home economist could service humanity through a variety of social systems which have been developed to facilitate the attainment of human needs while at the same time maintaining the total good of society. Each of these systems (education, human services, business, government, and industry) has its individual purposes and modes of operation. Further, this broad classification of systems can be subdivided into more specific categories with specific modes of operation. To function within these systems, therefore, demands an understanding of the system which, in turn, constitutes a second area of specialized knowledge for the professional. These two areas of knowledge which will give unique characteristics to the individual professional home economist can be summed up as:

1. Knowledge which focuses on understanding in a more in-depth manner a specific human need or the interactive processes involved in achieving these needs within the family and its near environment

2. Knowledge which focuses on understanding the purpose, functions, processes and special techniques involved in the human system or institution through which the professional will work directly or indirectly to service the family unit of society.

Figure 25 diagrams the relationship of these two areas of knowledge. The diagram is intended to depict the concept that it is not the possession of in-depth specialized knowledge related to human



KNOWLEDGE FUNDAMENTAL  
TO SATISFYING HUMAN  
LIFE SUSTAINING AND  
ENHANCING NEEDS = "KHN"

MAJOR PROFESSIONAL SERVICE  
ARENAS EMBRACING LIFE  
SUSTAINING AND ENHANCING  
SUPPORT SYSTEMS = "PSA"

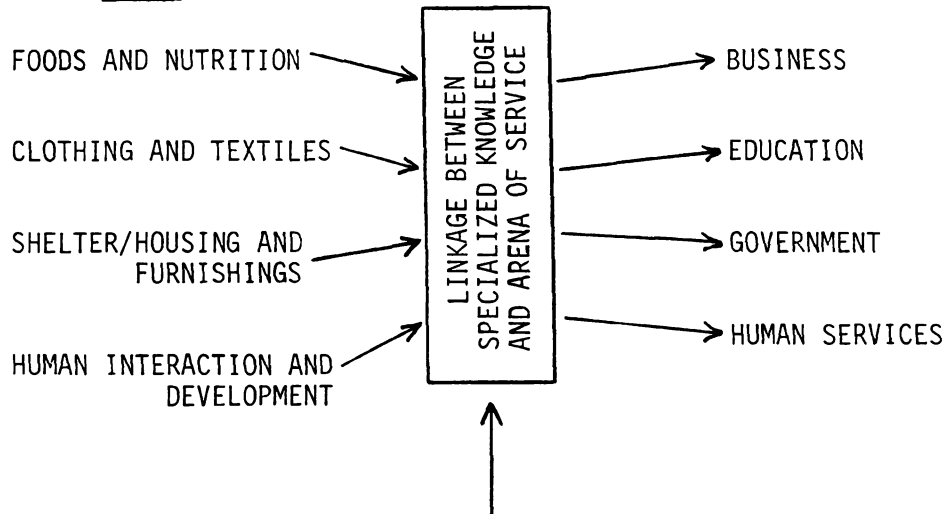


Figure 25: Linkage of Specialized Knowledge Areas and Professional Service Arenas

needs alone which determines the actual place of professional service but rather the supplementing of this knowledge with knowledge, skills, and techniques directed toward understanding the guiding philosophy and structure of a particular social institution and the ability to work within it. This latter body of knowledge creates the linkage between scientifically based knowledge alone and the ability to use knowledge for the good of humanity in an enabling or intervening social system. Assuming that all social institutions ultimately aim to serve humanity, they can be categorized according to subordinate purposes into four major arenas or spheres for professional service:



Business, Education, Government and Human Services. It is through these institutions that a professional functions directly or indirectly to service the needs of humankind.

In viewing the diagram it should be recognized that there is an interdependency in these two types of knowledge determining the quality and the type of service to be given. Likewise, there is an interdependency between the philosophy a person holds as a home economist based on an understanding of the family ecosystem and the philosophy undergirding the arena of professional service which when synthesized will affect the nature of the service given.

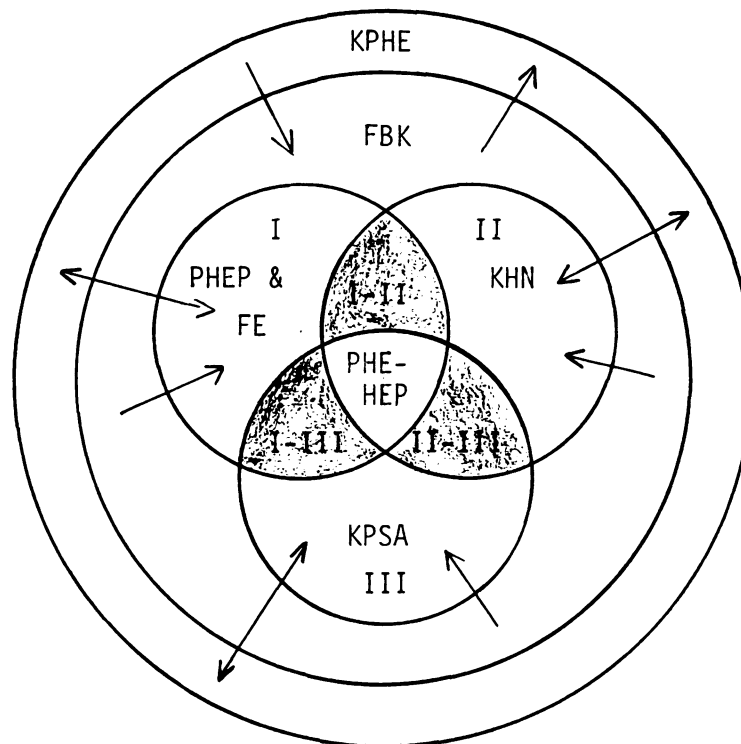
Taken by itself, therefore, Figure 25 may give a distorted view of the essential components of a curriculum directed toward the development of a professional home economist with a human ecological perspective. Figure 25 must be seen in relation to Figure 23 (p. 202) which links the synthesized knowledge the professional needs with fundamental bodies of knowledge (FBK). These are fundamental, likewise, to achieving the broad liberal and professional ends of education established in Chapter III. Further, it must be clearly understood that the identified specialized bodies of knowledge in Figure 25 (that is, knowledge related to human needs (KHN) and areas of service (KPSA) ) alone do not form the judgmental framework that should characterize the professional home economist. This knowledge must be integrated with an understanding of the philosophy of knowledge and service established and espoused by the Home Economics profession (PHEP) as discussed previously in this chapter and based on an understanding of the family ecosystem (FE) as discussed in both this





chapter and Chapter IV on human ecology. Finally, as proposed in Chapter V, Figure 19, the major means of integration fundamental to understanding the family ecosystem and to making professional decisions is knowledge and understanding of the synthesizing principles of human ecology (KPHE). Figure 26 attempts to summarize and depict how these various kinds of knowledge must interrelate and be integrated in the formation and conceptualization of a professional home economist with a human ecological perspective.





KPHE = Knowledge and understanding of Principles of Human Ecology

FBK = Fundamental Bodies of Knowledge leading to understanding the multidimensionality of knowledge and systems of the universe

PHEP & FE = Knowledge leading to understanding the Philosophy of the Home Economics Profession and the nature and functioning of the Family Ecosystem

KHN = Specialized Knowledge fundamental to understanding and satisfying a specific life sustaining and enhancing Human Need

KPSA = Specialized Knowledge of the philosophy, structure, decision making and implementing process, skills, and techniques essential for working effectively within a single Professional Service Arena

I-II = Knowledge leading to understanding the relationship of the specialized human need knowledge to the family ecosystem and the philosophy of the home economics profession

I-III = Knowledge of the principles and skills governing the application of the philosophy of the home economics profession and the family ecosystem within a specific professional arena

II-III = Knowledge of the principles and skills governing the application of the specialized human need knowledge within a professional service arena

PHE-HEP = The Professional Home Economist with a Human Ecological Perspective

Figure 26: Interrelationship of the Types of Knowledge Needed in the Formation of a Professional Home Economist with a Human Ecological Perspective



### Summary and Conclusion

This chapter has intended to identify and give the rationale for the specialized areas of knowledge needed to understand the family ecosystem as a pivotal system in the holistic perspective of the total human ecosystem. Secondly, it has aimed to relate this knowledge to areas of professional service. Further, in the context of the total dissertation it has enlarged on the "home economics philosophy and subject matter" and its linkages to other components in the framework presented in Chapter V (Figure 19, p. 186) illustrating the integrative function of a human ecological perspective. By way of summarizing these linkages two guiding principles emerge as undergirding a curriculum directed toward the development of a professional home economist with a human ecological perspective. These assume that the focus of the profession is the family ecosystem.

1. In an ecological relationship the interdependency exists due to life sustaining and enhancing needs of the organism. Hence, the bodies of knowledge to be pursued in depth derive from identifying human needs and the processes involved in satisfying these needs within the family ecosystem as part of the total human ecosystem.

2. All units of the universe must work together to satisfy human needs. Hence, opportunities for professional service exist in the varying social systems of society for people with an understanding of the relationship between the availability of resources and the transformation of resources into the satisfaction and enhancement of human needs.



Based on these principles eight interdependent areas of knowledge evolve that would be essential in the formation of a professional home economist with a human ecological perspective:

1. Principles governing ecosystems and in particular the family ecosystem's part of the total human ecosystem
2. Principles explaining the systems within the universe, human ways of understanding these systems, and human reaction to these systems
3. The basic needs of humans (food, clothing, shelter, and human interaction) and how resources in the environment within and beyond the family satisfy these needs for the development and enrichment of human life
4. Systems within the family ecosystem and the processes for developing and maintaining the system as a whole and its sub-systems
5. Structure and functioning of systems beyond the family and their influence in achieving human needs, for example, the distributive, legal, economic, political, production, communication, and environmental control systems
6. In-depth knowledge of a specific human need and its attainment or the interactive processes involved in achieving human needs within the family and its near environment
7. Purposes, functions, processes, and special techniques of the human system or institution through which the individual will work directly or indirectly to service the family unit of society





8. Philosophy espoused by the home economics profession integrated into a human ecological perspective in the resolution of human problems

These areas of knowledge are supportive and consistent with the goal of a professional home economist with a human ecological perspective defined in Chapter V as one who

I. Manifests an understanding of the wholeness of the universe, the holistic nature of knowledge, and the interrelatedness of both of these in the resolution of human problems, and

II. Possessing a body of specialized knowledge (home economics philosophy and subject matter), applies this knowledge in a particular area of professional service in the total universal ecosystem and relates this service to a human system (the family ecosystem) within the whole while maintaining as far as possible the ultimate good of the total system.



## CHAPTER VII

### CURRICULUM MODEL

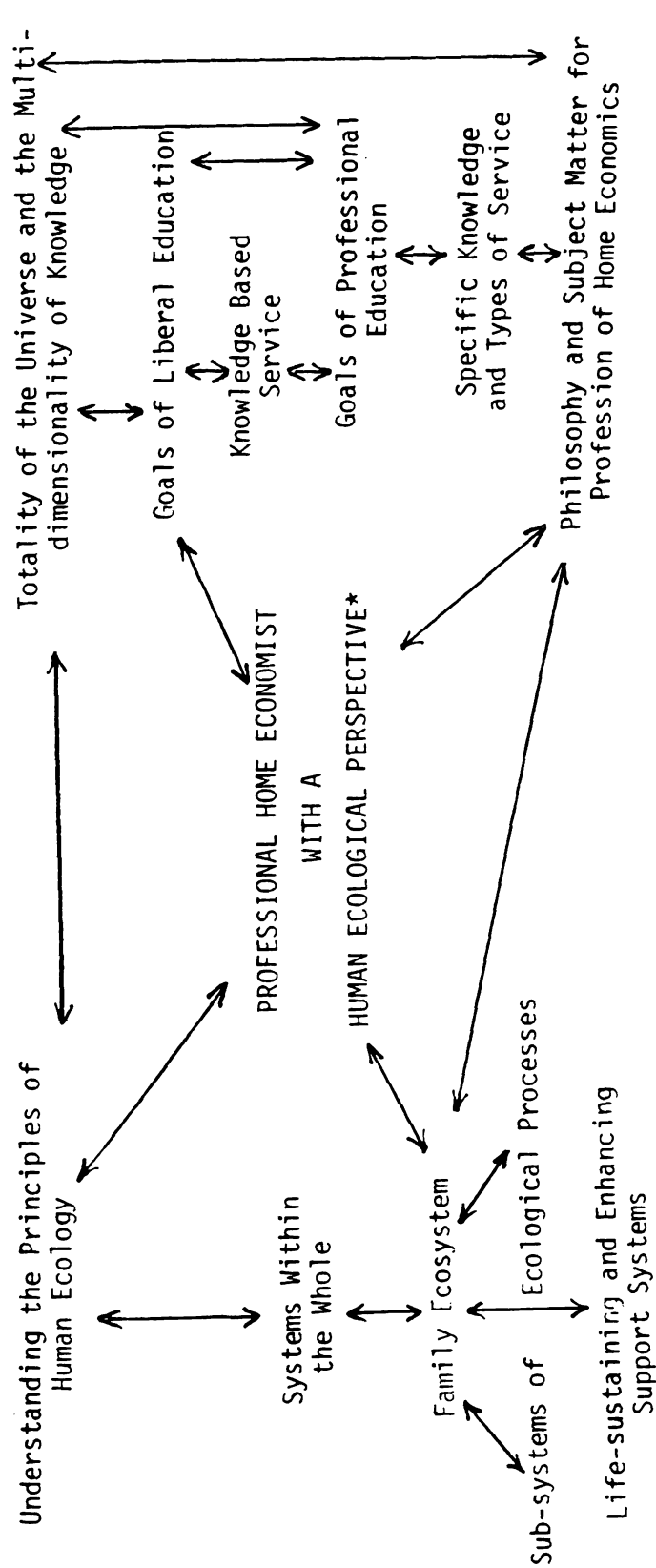
#### Introduction

The preceding chapters have been an effort to explore, develop and intensify a rationale supportive of a human ecological approach to the formation of a professional home economist in the context of the philosophy of a liberal arts college. The object of this chapter is to develop a concrete curriculum model directed toward attaining the major and subordinate objectives contained in the rationale and incorporated into a theoretical model presented in Chapter V (Figure 19).

In establishing the objectives of a liberal arts college and their implications for curriculum planning, the general and specific goals of a liberal education were identified and shown to embrace and contribute to the ends sought in preparing for a professional role. After exploring the concept of human ecology and its use in various disciplines (Chapter IV) it was concluded that a human ecological approach to the development of a professional home economist would be one that (1) recognizes all of the interacting systems affecting the quality of home and family life and demonstrates how a change in one system will affect another, and (2) perceives the family as a pivotal system in the supra-human ecosystem of the universe.

The ensuing theoretical curriculum model developed in Chapter V





\*Defined as one who

- I. Manifests an understanding of the wholeness of the universe, the holistic nature of knowledge, and the interrelatedness of both of these in the resolution of human problems, and
- II. Possessing a body of specialized knowledge (home economics philosophy and subject matter), applies this knowledge in a particular area of professional service in the total universal ecosystem and relates this service to a human system (the family ecosystem) within the whole while maintaining as far as possible the ultimate good of the total system.

Figure 19: Development of a Human Ecological Perspective as an Integrative Instrument in the Formation of a Professional Home Economist in a Liberal Arts College Setting  
(Repeated from p. 186)



is based on the proposition that an understanding of the principles of human ecology will integrate the previously surfaced educational objectives into a unified curriculum structure. These principles are seen as a way to foster a holistic perspective in professional decision making. They support the need for a broad range of knowledge, intellectual and judgmental skills, and specialized knowledge by a professional person. Finally, they logically identify the family ecosystem as the focus of the service of the professional home economist and the determinant of the specialized knowledge component. The ultimate goal of the curriculum framework presented (Figure 19) is a professional home economist with a human ecological perspective. Other models previously presented and demonstrating the relationship of identified curriculum objectives are Figure 17 (page 164) which emphasizes the all encompassing nature of a human ecological perspective; and Figure 11 (page 149) which demonstrates the interrelatedness of systems within the whole, justifies the family as a pivotal system, and identifies basic knowledge areas essential to understanding these systems and the resulting ecological relationships.

Curriculum Objectives Subordinate  
To a Human Ecological Perspective Goal

These models and supporting rationale identify four essential objectives subordinate to terminal Objectives I and II expressed in the theoretical framework (Figure 19). These are the need for

1. An understanding of the principles of human ecology
2. An understanding of the family ecosystem



To these two "knowledge" oriented objectives must be added "knowledge based service" orientated objectives if the curriculum is to prepare for a professional role. These would be

3. Sufficient understanding of a certain aspect of the family ecosystem to help achieve and maintain the family system and its sub-systems

4. An understanding of the responsibilities inherent in the decision making roles of the professional relative to seeking the ultimate good of interacting systems with emphasis on the quality of human life

Chapter VI was developed with the intention of enlarging on and developing the rationale for the specialized knowledge essential for serving society in a role consistent with the philosophical concept of a professional home economist with a human ecological perspective. Figure 26 ( p. 221) demonstrates this interrelationship of knowledge and service. The discussion within Chapter VI supports the above objectives, their relationship to the professional role, and the knowledge needed for their attainment. At the same time, the interrelationship of Objectives 1 and 2 above with Objectives 3 and 4 above, and with the overall objective of this dissertation, that is, to create a linkage between the liberal and professional ends of education and human ecological concepts and principles, justifies identifying some subordinate objectives before presenting a concrete curriculum model.



### Objective 1 - An Understanding of the Principles of Human Ecology

Since the immediate professional focus is the family ecosystem, the graduate or future professional will need sufficient knowledge in the natural and social sciences, the arts and humanities to support an understanding of

1.1 The dignity of humanity based on the individual in particular as a social, physical, and rational organism

1.2 The elements, source, and potential of the physical, social, and human built environment, and

1.3 The interdependent reciprocal relationships that exist in the totality of the human-environment interplay

The need for this knowledge derives from the need to understand the principles of human ecology based on the tenets of ecology (Chapter V pp. 168-169). It would be expected that the "breadth of knowledge" dimension in a curriculum would provide 1.1 and 1.2 and contribute to 1.3. It would remain for a more explicit specialized dimension in the curriculum to focus on 1.3 presuming some comprehension of 1.1 and 1.2 have been attained.

### Objective 2 - An Understanding of the Family Ecosystem

For an understanding of the family ecosystem with the ultimate aim of using this comprehension in professional activities more than an understanding of the general principles of human ecology is necessary. This content would derive from an understanding of the organizing principles of systems theory, ecological principles, and the nature



of the family as a dynamic ecological unit. (This has been enlarged upon elsewhere in this dissertation.) In summary, this content would involve four interrelated objectives:

2.1 Understanding both the concept and the principles governing the family ecosystem

2.2 Understanding supported by substantive knowledge of the needs of the individuals within the family (structure of and subsystems or parts within the whole) that must be met if the family (the whole) is to be maintained

2.3 Understanding how the family as a system provides life-sustaining and enhancing needs and becomes an entity greater than its parts (behavioral dimensions and ecological relations within the whole)

2.4 Understanding how the family as a subsystem depends on systems beyond itself to be sustained and how the survival of the family affects the whole universal system (behavioral dimensions and ecological relations of a system within other systems in varying levels of its environment)

#### Development of Curriculum Model

Inasmuch as the theoretical, integrative framework (Figure 19) and other models demonstrate that attaining the above objectives both contributes to and draws upon other components of the framework, the emphasis in moving from the identification of objectives to the identification of experiences directed toward achieving these objectives will focus primarily on developing Objectives 1, 2, 3, and 4 as



subordinate to the two major objectives describing a professional home economist with a human ecological perspective. As will be observed, however, the interdependent nature of these objectives in relation to bodies of knowledge and to the underlying ecological perspective being sought prevents them from being four distinct components of a curriculum. Both Figures 19 and 26 are attempts to illustrate this interdependency which should be kept in mind as specifics of a potential curriculum are now being presented.

### Logistics of Curriculum

#### Academic Environment - Liberal Arts College Setting

The program to be described will be viewed as a four year or eight semester undergraduate program in a liberal arts college. This setting supported by the rationale in Chapter III, The Liberal Arts College, allows the following assumptions related to the facilitating agents (Dressel, 1968, p. 23) of a program to be made:

1. A professionally orientated program in the confines of a liberal arts college will have available for its use the support systems of courses, methods of teaching, and learning objectives that are primarily directed toward a liberalizing education
2. A liberal arts college will have a basic educational program expected of all students to facilitate the attainment of the liberal ends of education
3. The capacity of the basic educational program to attain the ends of a liberal education will depend on three interrelated factors:





- a. The college's expression of its basic understanding of or philosophy of a liberal education
  - b. The college's ability to operationalize its philosophy into a basic curriculum intended to attain the expressed objectives
  - c. The college's ability to develop faculty who are sensitive to the ends of liberal education and committed to the development of these ends in the context of their teaching
4. Cognizant of the end of liberal education the professionally oriented efforts would be considered as an integral part of the whole and not a parallel program

#### Limiting Factors of Academic Environment

A realistic factor needing recognition is that the use of "human ecology" in relation to home economics as both an area of knowledge and a philosophy motivating professional service, although of deep historical origins and rationally sound as demonstrated in the chapter on human ecology, is comparatively new in the liberal arts college academic environment. Consequently, it is logical to expect that a program developed at this time while seeking the ideal will reflect remnants of the past. Further, in order to bridge the psychological gap that can exist when confronted with unfamiliar terms, course titles and descriptive terminology may reflect seemingly traditional ideas. It is the contention of the writer that the actual



content, development, and philosophical orientation of a course is controlled by the person teaching it. Thus, the ideal may not be approached until the faculty involved not only has been orientated to the ideas of a human ecological-family ecosystem perspective but also has internalized them to the degree that they, rather than traditional values, dominate decisions regarding course structuring, learning experiences, and evaluative processes. Based on the above reflection, the curriculum presented should be viewed not as final but as something evolving in operational details.

A final comment must be made affecting the nature of courses offered. The setting, as indicated, is a liberal arts college. In addition, it is perceived as being small and collegial in nature as compared to the large university with independent units. In contrast to the number and variety of courses a large university can offer to accommodate a wide range of student interests, a small college usually must make a single course accommodate more than one purpose. If this single course is built on a foundation of basic sciences, its strength is in its power to demonstrate the synthesis of knowledge and to involve the student in an integration of knowledge experience. The actual potential for this is very dependent upon the instructor's background in the sciences and the ability to lead the student to synthesize and to apply previously learned principles of science and art in new and relevant situations.

#### Dimensions of Curriculum Framework

Given the preceding background of objectives and logistics,

2700

1700

a curriculum model in terms of courses, defined as any teacher directed learning experience recognized as worthy of credits toward a bachelor's degree, will be proposed. Ultimately the framework will have dimensions contributing toward:

1. Breadth of Knowledge - directed toward understanding the totality of the universe and the multidimensionality of knowledge
2. Specialized Knowledge - directed toward (1) understanding the pivotal family ecosystem and its sub- and support-systems; and (2) the ability to use this knowledge in satisfying human needs
3. Integration of Knowledge - directed toward developing a human ecological and holistic approach to problem solving as well as one's view of life and the universe

It will further seek to develop

4. Intellectual skills of critical thinking and the ability to acquire, analyze, organize, and synthesize knowledge
5. Communication skills essential for interacting with others in written, oral, and symbolic forms
6. Decision-making and judgmental skills essential to assuming responsibilities for the well-being of humanity
7. Practical, professional skills essential to using one's specialized knowledge in a specific service arena of society

The above dimensions are intended to incorporate the liberal and professional ends of education, the principles of human ecology, and the philosophy and subject matter of home economics as discussed in the



chapters of this study and presented as essential components in the formation of a professional home economist with a human ecological perspective (Figure 19).

### Descriptive Elements of Curriculum Framework

I. Foundation Courses: Courses selected from offerings of other departments of the college representing the fundamental areas of knowledge with the intent of developing understandings essential for courses within the department relating knowledge to human needs and the human-environment interrelationship. The foundation courses are related in purpose and may contribute toward satisfying the general education requirements of the college but are identified in a more specific way as part of the total program for a student majoring in Human Ecology.

II. Human Ecology Major: Courses selected from offerings of the Human Ecology Department and constituting approximately 25-30 percent of the 128 semester credit hours required for graduation:

II-1. Human Ecology Core Courses: Courses required of each student majoring in Human Ecology. Courses would focus primarily on understanding the principles governing the total human ecological system and the family ecosystem; and the relation of these principles to the profession of home economics, related professional roles, and the ultimate good of society

II-2. Support System Courses: Courses which examine a





single life sustaining and enhancing support system in an interdisciplinary and ecological manner. One or more of these courses, selected according to the specific professional orientation of the student, would be required in each student's program

II-3. Specialized Knowledge Component: Courses which focus primarily on the science of a life-sustaining and enhancing system, and secondarily on the application of this knowledge in a professional role

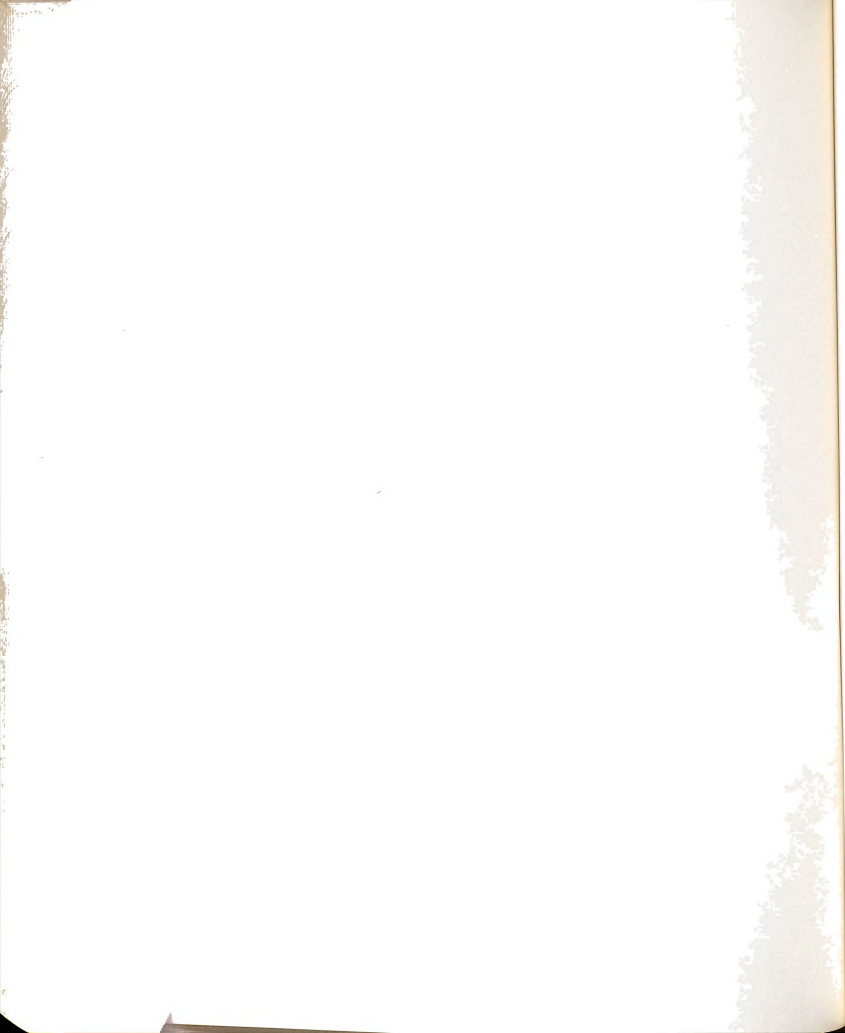
II-4. Applied Knowledge Component: Courses which focus on principles governing the application of knowledge in the service of others, and/or actual experience in a professionally related role

III. Supporting Discipline Courses: Courses selected from offerings of other departments according to the specialized professional orientation of the student within the broader professional home economist role. In certain situations academic criteria established by professional organizations would prescribe the courses. Normally a grouping of these courses will constitute a "minor" area of concentration, that is 15 to 20 percent of the total credits earned toward graduation requirements. Additional supporting discipline courses could constitute another 15 to 20 percent of the total program. Supporting discipline courses serve one or more of the following purposes:



1. To understand the structure, functions, and mode of operation of systems interfacing with the family ecosystem
2. To explore a body of knowledge supporting an understanding of a human support system
3. To understand the philosophy, structure, skills, and techniques essential for working effectively in a specific professional service arena
4. To develop in a particular way intellectual, communication, and/or technical skills
5. To further an understanding of the non-human environment
6. To further an understanding of humanity and of human developmental needs

IV. Electives: Courses selected according to individual interest and needs to complete the requirements for a bachelor of arts degree in the context of the objectives of a liberal education. Prescribed courses and the selections made in satisfying the general education requirements of a college and the foundation and supporting discipline courses significant to this human ecological and professionally oriented program, could allow 15 percent of the student's program for electives.



Expansion of Rationale and Description  
of Elements within Framework

Inasmuch as the general education requirements of a college will differ from institution to institution in specific details, and, likewise, the actual packaging of courses will differ, a deliberate attempt has been made to keep the following descriptions generalized. It is presumed, therefore, that the ideas generated would be adapted to particular situations.

Foundation Courses (I)

General Description

Students would be expected to complete within approximately the first two years courses providing an understanding of:

I-1. Principles Operative in the Natural Environment or  
Natural Science

Rationale: Chemistry based on an understanding of the laws of physics explores the principles controlling the development and decomposition of the compounds in our environment which individuals use to satisfy needs.

Biology, the study of the nature of life itself, examines the impact of environmental forces on the maintenance of life as well as principles governing the interaction of any organism and its environment.

I-2. The Nature of Human Beings

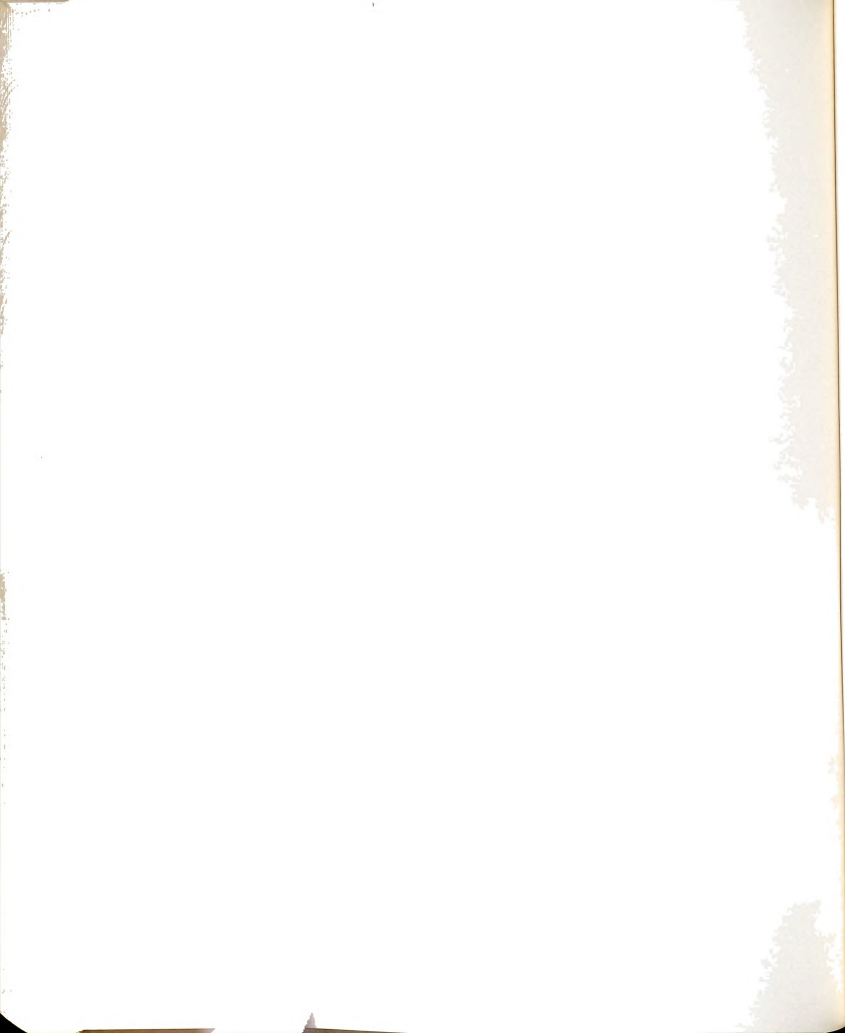
Rationale: Particularly through the study of psychology and philosophy individuals gain an understanding of how



humans relate to the environment through perception and, in turn, develop intellectually and emotionally. Philosophy can be considered a science of how human reason arrives at an explanation of the cause and interrelation of all things. This knowledge causes a person to determine the relative importance of things, and, thus, provides a basis for determining the relationship of humans to the environment. Philosophical principles and thinking, therefore, are fundamental to human ecological consciousness and the subsequent judgments. Psychology as the science which deals with the mind of man in any of its aspects and the resulting human behavior is, likewise, fundamental to understanding how humans respond to conditions of the environment.

I-3. The Nature of the Human Being's Expression of Self and Concept of Humanity or "Humanities"

Rationale: Courses in history, literature, and the arts, often grouped as "humanities" further an understanding of (1) the nature of the human being, (2) what humans have valued over the course of time, (3) how humans have expressed, prioritized, and pursued values, and (4) how humans have perceived and used components of the environment in the pursuit of goods reflective of the values held. Humans express these ideas in the things they accalim as worthy of celebration,





as joy-giving, or as concerns. These acclamations are to be found and understood in the study of history, literature, and the arts.

I-4. The Nature of Society and Social Institutions or "Social Science"

Rationale: Basic course work that incorporates the underlying principles and fundamental concepts of sociology, economics and business, and political science and government cause the student to understand the social behavioral patterns of humanity. This behavior causes both problems and issues to evolve as well as social systems and institutions to be developed to resolve these problems. This area, thus, constitutes a study of the social-behavioral environment and the human built environment (social institutions) which together with the natural environment (natural science) are considered three of the four major components of the total human-environment system (Figure 7, p. 144).

I-5. Principles of Design

Rationale: The forming and shaping of the physical environment by a human being involves the constant manipulation of objects in space to create configurations. If these are aesthetically satisfying and enriching, they contribute positively to the quality of human life. Course work, therefore, leading to an understanding of the principles of design and an opportunity to



apply these should foster an aesthetic sensitivity in a professional person.

#### I-6. Communication Skills

Rationale: Depending on the initial capacity of the student, course work in writing, speaking, mathematics, and various art forms are essential to helping individuals express ideas and perceive the ideas expressed by others. Inasmuch as the use of words as symbols to express ideas is the dominant form of communication in the world today specific course work encouraging the development of writing skills and ability to critically read and synthesize the ideas expressed by others is needed for both the self-development of the person and the ability to interact with systems in the human environment.

#### Commentary on Foundation Courses

The above descriptions of foundation studies to be included in approximately the first two years of an undergraduate curriculum are intended to form the basis for a human ecological perspective in a professional home economist as well as for more specialized courses focusing on dimensions of the family ecosystem. Inasmuch as home economics subject matter is a synthetic science (versus autonomous) to truly understand any aspect of it depends upon a basic knowledge in the fundamental sciences. These courses can contribute, likewise, to an understanding of the multi-dimensionality of knowledge and the various modes



of knowing (that is, scientific, humanistic, philosophical, analytical), as well as to the development of the intellectual and judgmental skills fundamental for the liberalizing ends of education and contributing to the understanding of humanity that is essential for professional interaction.

Specifics for how the above courses would be fulfilled are dependent upon the structure of courses and the general education requirements of a college. Additional course work expanding these foundational courses can continue through the four year program and can also be categorized as "supporting discipline courses" or as "electives" in the proposed curriculum schema. A tentative minimal distribution of semester credit hours allowed for these areas in the first two years might be:

|                                |     |                              |      |
|--------------------------------|-----|------------------------------|------|
| I-1. Natural Science           | 6-8 | I-4. Social Science          | 9-12 |
| I-2. Nature of Human<br>Beings | 6-8 | I-5. Principles of<br>Design | 3- 4 |
| I-3. Humanities                | 6-8 | I-6. Communication Arts      | 8-12 |

Such a distribution would permit a range from 38 to 52 semester credit hours out of the normal 64 for that span of time or from 60 to 80 percent of the course work in the first two years.

### Human Ecology Major (II)

#### Functional Objectives

As indicated in the Integrative Framework (Figure 19) the terminal objectives are to be attained through the totality of the student's four year program. The courses within the major are designed to serve



four subordinate functional objectives:

1. To facilitate the integration of the student's total college program through an understanding of human ecological principles
2. To provide a focused and enlarged understanding of the family ecosystem
3. To provide the specialized and synthesized knowledge for understanding a single life sustaining and enhancing support system as a basis for professional service
4. To provide an integrative linkage between the specialized knowledge related to satisfying human needs and the professional arena for service

Although there is a relationship between the four subordinate curriculum elements of the major (see pages 235-236) and the four functional objectives stated above, it is an interdependent relationship rather than direct. That is, each element in some way contributes to all four objectives although one objective may seemingly dominate within the element. This should become evident as the elements are enlarged upon.

#### Specializations within Major

Objective three above indicates the need for understanding a single life sustaining and enhancing support system as a basis for service. As developed in Chapter VI, "The Role of the Professional Home Economist," these will be limited to the systems operative in satisfying the human needs of food, clothing, shelter and human interaction. In turn, the specialized knowledge will be grouped under the titles of "Foods and Nutrition," "Clothing and Textiles," "Shelter/Housing and





Furnishings," and "Human Interaction and Development" (see Figure 25). Likewise, objective four above for purposes of this study will be considered as relating to the major professional service arenas identified in Chapter VI (Figures 25 and 26).

#### Human Ecology Core Courses (II-1.)

Introductory Comments. This grouping of required courses is perceived as a fundamental means of effecting an integrative linkage of :

1. The broad dimensions of knowledge and the more specialized knowledge of "home economics philosophy and subject matter"
2. The broad liberalizing ends of education and the professionally orientated component within the broader ends
3. The theoretical concepts guiding the profession of home economics and the actual problems and concerns requiring the attention and services of the professional

In relation to the proposition of this dissertation (as developed in Chapter V) that understanding the principles of human ecology constitutes an integrative linkage, the core courses are also viewed as a fundamental means for :

4. Understanding the principles governing the total human ecological system
5. Relating human ecological principles to the family ecosystem, and for
6. Relating the concept of the family ecosystem to the profession of home economics, the roles practiced within it and the



broader concerns of the human society

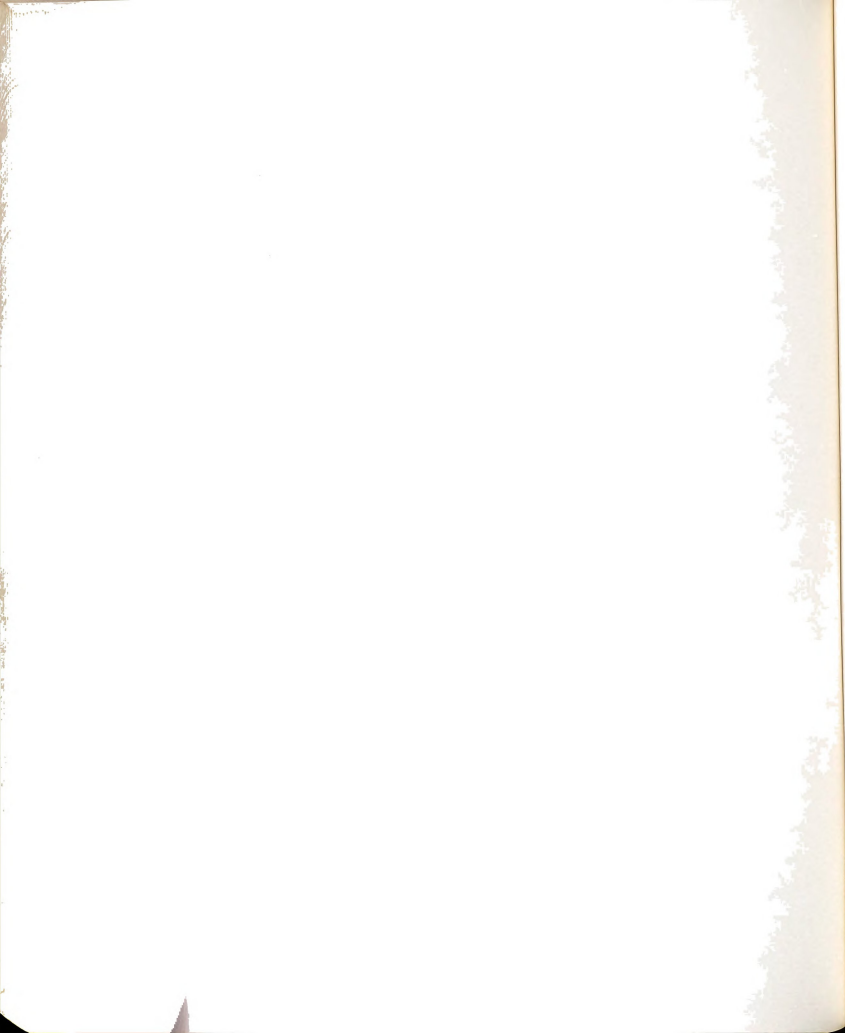
With the integrative framework and these objectives in mind, and with the knowledge that these courses are preceded and supplemented by other courses the following core of four courses (nine semester credits), is suggested:

#### Description of Core Courses

##### II-1.1. Foundations in Human Ecology - 2 semester credits

Rationale: This is an introductory course to be taken the first year. It should develop a basic understanding of the concept of human ecology; the principles governing the human ecosystem; and descriptive terminology. These concepts and principles would be related to the family ecosystem, to the profession of home economics, and to the development of humans and human society. Further, the course should provide the rationale for other courses required in this program and explain their interrelationship.

Suggested Course Description: Historical review of the concept of human ecology and its relationship to home economics as an academic discipline and profession. Survey of contemporary environmental and human concerns. Human ecological principles and systems concepts applied to the family as an ecosystem. Exploration of careers and opportunities



for professional service.

II-1.2. Management of Family Resources - 3 semester credits

Rationale: This course, taken in the third year, would first review in the context of the student's maturing experiences the principles of human ecology with special emphasis on the family ecosystem. Primarily, it should cause the student to examine in-depth how the family ecosystem functions socially and managerially as a pivotal unit in the transformation of resources in the environment to satisfy human needs. The course would regard and examine management (including its principles and subprocesses) as a dynamic interactive process affecting human development and the quality of both the home and the extended environment. Further, the course would be intended to help the students relate their own developing specialized knowledge of a human need satisfaction to the impact of activities within the home and family and how this, in turn, will affect their own future professional decisions and service.

Suggested Course Description: Principles of management related to the use of resources in achieving the goals of family ecosystems; comparison of families and individuals regarding goals sought, resources available, and managerial behavior; emphasis on decision making and the dynamics of the management



process; case studies; time, energy, and space analysis.

II-1.3. Professional Development Contacts - 1 semester credit

Rationale: Based on the recognition that all learning does not and cannot occur in formal classroom settings; that seeing professional persons function in nonacademic settings presents models of thought and action; and that experiencing and contemplating "real world" problems and situations motivates self-development as well as helps to integrate theory and action, this course is intended to encourage the student to participate in activities that will achieve the above objectives as well as broaden the student's understanding of human ecological principles and/or the diversity of roles possible within the home economics profession. Having completed the "Foundations in Human Ecology" course, the student would be expected to identify, participate in, and report on a minimum of twelve self-selected experiences. In both counseling for and evaluating these experiences, diversity of experience and the ability to relate the experience to human ecological principles, the family ecosystem and/or the role of a home economist should be considered important.

Suggested Course Description: Experiences over a two to three year period selected to help students comprehend the role of professionals functioning in





specific areas of human ecology; become familiar with related professional organizations; and further understand issues affecting the quality of human life.

II-1.4. Departmental Research Seminar - 3 semester credits

Rationale: A human ecological perspective has been defined as one which recognizes the interrelatedness of the systems of the universe and the various bodies of knowledge. Problems occur at the interfaces of systems. Their resolution involves the ability to analyze the systems for the cause of conflict and determine a solution favorable to the total system. At the end of a four year program the student, drawing upon and expanding previous studies should be able to demonstrate an awareness of the interdependency of systems in both the cause and resolution of problems as well as an ability to use this in defining a solution to a contemporary problem or issue based question. Further, the comprehensiveness of the concept of human ecology necessitates that although for analytical purposes its principles are applied to specified segments of the environment-human interplay, ultimately the analysis of one approach must converge with the analysis of other approaches in examining a common concern. The research seminar experience, thus, is considered a



final experience to encourage the integration of knowledge and an extended awareness of human concerns, the interdependency of all systems, and of personal and professional responsibility in resolving societal problems.

Suggested Course Description: Research, analysis, and synthesis of data examining a contemporary problem affecting the quality of life; individual investigations apply ecological principles to relate an aspect of the family ecosystem to other societal systems in suggesting a course of action for maintaining equilibrium in the human-environmental system; seminar presentation and defense of individual research; participation in seminar discussions.

Commentary on Human Ecology Core Courses. Certain factors should be noted in the "Core" courses:

1. There is an entry (Foundations . . . ), a midway (Management . . . ), and terminal (. . . Seminar) experience with a linkage element (Professional . . . Contacts)

2. Although all are intended to relate human ecological principles, the family ecosystem, and professional activity, each varies in its emphasis and course structure

3. The courses themselves do not give sufficient specialized knowledge for professional preparation or for total understanding



of the human-environment interdependency. Rather, their objectives must be perceived in relation to all courses in a student's four year program

#### Human Ecology Support System Courses (II-2)

Rationale. Since it is accepted that there are four basic life sustaining and enhancing needs (food, clothing, shelter, and human interaction) which the human being must satisfy; that within the environment a network of interacting systems have developed which affect both the quantity and quality expected of these needs; and that the professional home economist will serve society within this network, one course related to each of these basic needs would examine in a substantive manner the environment-human satisfaction interplay as well as the principles that should be operative as the human being exercises control in the functioning of this system.

Prior to taking a "support system" course, the student would have taken the "Foundations in Human Ecology" course; have completed the foundation courses in the basic arts and sciences; and have completed some course work relating more specifically to the science and technology of satisfying a specific human need. The support system courses would be intended to foster the integration of knowledge; to demonstrate the interrelationship of societal systems involved in satisfying a specific human need; to emphasize how this societal network affects the nature of the human need satisfaction; and, finally, to examine this network in both its supra- and sub-support system interrelationship with the family ecosystem.



Ideally each student majoring in human ecology would take each course. To do so would give the desired broad perspective but from a practical point of view the time involved would conflict with the time needed for course work essential to the specialized knowledge needed for functioning in certain professional roles. Consequently, only one such course would normally be required in the specialized programs. Others would be recommended according to the professional interests of the student. If the student's professional interest requires a more generalized approach, the support system courses provide this but would limit time for more advanced work in the science, art, or technology of satisfying a particular human need.

Suggested Course Descriptions. Given below are suggested course titles and descriptions for each broad area of specialization within the major based on life sustaining and enhancing needs. These courses would normally be taken toward the end of the second or within the third year of undergraduate studies. It will be noted that the course descriptions tend to indicate the overall thrust of the particular areas of specialization and suggest the type of more specialized knowledge needed either within the subject matter area itself or in related arts and sciences to enable and enhance practical problem solving in professional situations.

#### II-2.1. Clothing and Textiles Area

Clothing and Human Behavior - Ecological and interdisciplinary study of the sociological, psychological, aesthetical, and economic factors affecting





clothing production, availability, and choices.

Design and management principles applied to clothing selection and consumer problems.

II-2.2. Foods and Nutrition Area

Food and Society - Physiological, social, economic, and psychological factors influencing attitudes and issues toward foods. Impact of urbanization, food resources, global distribution and cultures on food availability, use, and the quality of human life.

II-2.3. Human Interaction and Development Area

Family Relations - Stages and dynamics of individual and family life cycles related to interpersonal relationships, role performance, responsibilities, and human development. Patterns of family living social and cultural forces examined in relation to the family ecosystem.

II-2.4. Shelter/Housing and Furnishings

Environmental Psychology - Impact of the physical and aesthetical aspects of the home and work environment on human development, behavior, and society; human spatial needs, modes of organizing space and reciprocal effects; concepts of territoriality, crowding, privacy, life-space and behavioral settings explored.



Alternate Plan. A primary objective of each "support system" course is to help students comprehend the interrelated and interdependent nature of varying bodies of knowledge in understanding human needs and of human and non-human systems in society in satisfying these needs. This is not to deny that within each course a certain body of substantive knowledge can also be comprehended. The ideal is to have a single course that focuses on the synthesizing process as has been suggested in the above course descriptions. At the same time it must be recognized that a grouping of courses taught by a faculty person who reinforces the ecological principles and fosters synthesis by the type of problems examined and conceptual models presented could achieve the same goal. Based on typical course offerings, some suggested groupings are:

Food Science + Nutrition + Meal Management

Textiles + Clothing Selection + History of Clothing and  
Textiles

Developmental Psychology + Family Relations + Home  
Management

Housing + Interior Design

Obviously the above alternate plan is greatly dependent upon faculty members teaching in specialized areas having a strong commitment to and an understanding of a human ecological perspective and the family ecosystem as a central focus of the profession.

Secondary Support System Courses. In a department focusing on human ecological systems, courses can be developed which focus not so



much on several systems interacting to satisfy a single life sustaining need but rather on a single system in society, or on a single resource in the environment which by its nature affects the satisfaction of several human needs. The decision to offer, and the content of, a course of this nature will depend on the academic structure of a department and the type of courses offered by other departments. Such a course could be required or highly recommended for all majors. Typical courses might be:

- A. One which focuses on the reciprocal relationship of the individual and family systems with the marketplace in attaining life sustaining and enhancing needs such as "consumer economics" or more specifically "personal and family finance"
- B. One which focuses on the reciprocal relationship of individual and family systems with the natural environment in the utilization of energy-driven equipment to enhance the work and living environment or extend the physical and energy capacities of the human being. Such a course might typically be called "home equipment" or "household physics"

Human Ecology Specialized  
Knowledge Component (II-3)

Rationale. Professional competency derives from scientifically based technical and theoretical knowledge. Home Economics as a discipline preparatory for professional service has focused on synthesizing knowledge from other arts and sciences and applying these to



individual and family needs. Bodies of knowledge, thus, have developed that can be related to basic life sustaining and enhancing needs (Figure 25). Comprehension of these bodies of knowledge with some degree of intensity is essential for one to function as a home economist. The degree of intensity determines whether one functions as a "specialist" in one life sustaining and enhancing area or in a more comprehensive or integrative role because of a broader understanding of these areas of knowledge. The composition of the "specialized knowledge" component, thus, is a strong determinant of the ultimate nature of professional service; and, likewise, determines the kinds of course work from supporting disciplines to be selected to complement this component within the major.

Content. Because institutions vary according to modes of course structuring, specific professional interests of students, specializations of available faculty, offerings in other departments, and teaching-learning resources it is impractical to detail specifics of these courses. It is presumed that the majority would require previous study in the more autonomous bodies of knowledge, and that the focus, content, and structure of the human ecology courses would be primarily directed toward an intensive understanding of how the basic principles are operative when applied to an environmental resource in satisfying human needs. General areas of study encompassed in such courses would be food science; nutrition; textiles; architecture and interiors; stages of family and human development; housing, interior, and clothing design; equipment and furnishings; financial





and resource management. For each area courses can be developed for introductory and advanced levels.

Structure of Courses. The courses within this component can be structured to range from formally organized, highly structured classes to laboratory-experiential types, to less structured independent study and problem orientated type courses. Within this component, if not within another, the student should develop skills essential to self-directed study within their area of specialization.

Distribution. This component of the major is somewhat flexible in size depending on the type of knowledge needed for the professional focus of the student. Approximately 30 to 50 percent of the major courses would be in this component.

Human Ecology Applied  
Knowledge Component (II-4)

Rationale. As indicated in Chapter VI the professional home economist normally utilizes his/her specialized knowledge in one of the major social systems of society developed to facilitate the process of converting environmental resources to satisfy and enhance human developmental needs (see Figure 25). These systems were identified as business, education, government, and human services. No system is exclusive in its operation or goals but each has its own unique characteristics which must be known in order to function within it. An understanding of these characteristics and an ability to apply one's knowledge in the service of others through a particular system is essential in the formation of a professional. Figure 26, demonstrating



this principle, identifies the types of knowledge essential for achieving this end, and how the interfacing of large blocks of knowledge creates components that involve the application of knowledge. The "applied knowledge" component of the major focuses on this integration of theory and action.

This component presumes the student has acquired a basic understanding of the philosophy of the profession of home economics, the principles of human ecology, and the nature and functioning of the family ecosystem through the basic human ecology core courses and a support system course. Further, the applied knowledge component is dependent on the student having a substantive knowledge of the human need-satisfying resource (food, clothing, shelter, and/or human interaction) as acquired in the specialized knowledge component of the major as well as a general knowledge of the structure and function of the system for the intended professional service (business, government, education, or human services) acquired in the supporting discipline component of the entire program. The "applied knowledge" component, thus, is interdependent with and complements the other components.

Suggested Courses. Courses within this component would be of two complementary types both of which are important to the end goal: (In accordance with the academic organization of an institution these courses or their equivalency might be offered by a related department and, thus, not be considered part of the major.)

- A. A formalized classroom approach with the opportunity to observe on-site practicing professionals and



professional responsibilities; and to apply principles primarily in hypothetical situations

- B. A learning experience acquired primarily through working in a professionally orientated situation related to one's anticipated specialized professional role

It is suggested that the giving of credit for this second type of experience be optional but that an experience of this type be required for graduation. Credit for the experience allows greater supervision and guidance by a faculty adviser in attaining educational goals. This type of course is typically called a "practicum," "internship," or "cooperative work or field study experience."

Courses within the first category would examine, if not examined elsewhere, possible professional roles, work situations, types and needs of clients, organizational behavior, and the ethics and standards undergirding professional decisions. Students would take at least one course of this nature. The best qualified instructor for such a course will have both the academic qualifications and professional experience in the particular service arena. Typical courses in this category might be:

Methods of Teaching Home Economics. Within this course the philosophy and subject matter of home economics and the family ecosystem would be interrelated with principles operative in the educational system.

Food Service Systems Management. Within this course the specialized knowledge of foods and nutrition, the philosophy of the home economics profession and the family ecosystem would be



interrelated with principles operative in the business and human service systems of society as anticipated areas for service.

Similarly structured courses might focus on an interrelationship with the clothing industry, the home furnishings industry or community nutrition services.

### Supporting Discipline Courses (III)

Through the careful selection of courses from other departments the objectives listed on pages 236 and 237 can be attained. Knowledge concentrations can be established which expand the student's understanding of the universe and human systems, foster concentrated intellectual activity, and contribute to the student's knowledge base for professional service. For example, a natural science concentration would be supportive of foods and nutrition services; the social sciences are supportive of human development understandings and services; art and humanities are supportive of environmental design type services; and computer science would be supportive of a research or business interest.

For acquiring an understanding of the philosophy, structure, skills, and techniques essential for working effectively within a professional service arena, courses or a "minor" concentration in business, education, government, or social work should be selected.

Other important purposes of this component are to attain increased understandings and appreciations of the human and nonhuman dimensions of the environment and to develop the communication and technical skills necessary to interact within the various systems.





These competencies both enhance the understanding of human ecological principles and further the liberal and professional ends of education.

Throughout this study the need for understanding human nature, social behavior, and the network of enabling social systems has constantly surfaced as important in achieving the liberal ends of education; for functioning effectively as a professional, and, in particular as a professional home economist; and for comprehending the interdependent and reciprocal relationship of the human being with the immediate and distant human and non-human environment. Course work contributing to these understandings should be part of this component.

Each of the above ends is not necessarily distinctive. Single courses or groups of courses can be taken to meet several purposes. In many ways this component is an extension of the basic component of foundation courses. This component, however, should be pursued with more specific purposes based on the specialized interests of the individual as well as the objective to become a professional home economist with a human ecological perspective.

#### Electives (IV)

This final and last element of the curriculum framework seems self-explanatory and will not be further enlarged upon. It is understandable that the selection of courses within this component may be guided more by personal desires than professional aspirations.



Diagrammatic Projections of  
Curriculum Model

A curriculum model has been presented and described in terms of four major elements, namely:

I. Foundation Courses: required course work in the basic arts and sciences

II. Human Ecology Courses: the "major" or in-depth concentration

1. Human Ecology Core Courses: courses required of all majors
2. Support System Courses: courses presenting an ecological and interdisciplinary study of a single life-sustaining and enhancing need
3. Specialized Knowledge Courses: a group of courses focusing on a single life-sustaining need
4. Applied Knowledge Component: course work of experiences focusing on relating theoretical knowledge to actual professional service

III. Supporting Discipline Courses: course work selected from offerings of other departments of the College according to student's professional goals

IV. Electives: enrichment courses selected according to individual interest

The model was developed on the premise that an understanding of human ecological principles would serve as a means of integrating the broad



dimensions of knowledge needed for achieving the liberalizing ends of education with the specialized knowledge needed for professional service. (It has previously been demonstrated that these two bodies of knowledge complement each other serving the ends of liberal and professional education.) Fundamental to the model, likewise, is the rationale that these same human ecological principles are inherent in the philosophy motivating the profession of home economics and are critical to an understanding of the stated focus of the profession, the family ecosystem. The model, therefore, places emphasis within the major component (that is, the course work in human ecology) on clarifying an understanding of these principles and using them as a means of integrating into a whole the other areas of knowledge, and, in particular, for understanding the interdependencies and interrelationships of the family ecosystem. This was expressed in the four functional objectives of the major (see page 243) and the limiting of the areas for specialized knowledge within the major (see pages 243-44).

In support of this rationale several paradigms have been developed. In particular Figure 19 demonstrates how these principles enhance understandings and serve to integrate the various declared ends of education as well as the kinds of knowledge needed to achieve these ends. Figure 26 identifies the kinds of knowledge a professional home economist needs, how some of these various bodies of knowledge form, and their relation to the principles of human ecology. The final product or graduate is intended to be a professional home economist who brings to her role of serving life-sustaining and enhancing needs of the family a human ecological perspective. This dissertation has



explicitly defined such a person as one who

1. Manifests an understanding of the wholeness of the universe, the holistic nature of knowledge, and the interrelatedness of both of these in the resolution of human problems, and

2. Possessing a body of specialized knowledge (home economics philosophy and subject matter), applies this knowledge in a particular area of professional service in the total universal ecosystem and relates this service to a human system (the family ecosystem) within the whole while maintaining as far as possible the ultimate good of the total system

The holistic circle symbol used in Figure 26 is intended to convey the convergence of the dimensions of the curriculum within the person.

Figure 27 has been developed to conceptualize how this convergence gradually takes place through the sequential process of the curriculum.

As stated in the description of the elements of the curriculum model, the function of the human ecology courses, that is, the major concentration, is intended not only to give the student the specialized knowledge essential for serving a life-sustaining and enhancing human need but more particularly to purposely develop a human ecological perspective that focuses and influences the professional service of assisting the family ecosystem. Figure 27 attempts to illustrate this integrative function of the major by its central position and the outreach of its core components so as to interface with other bodies of knowledge. This is in contrast to a curriculum model which might project the major concentration as a component parallel to other elements in a total college curriculum.





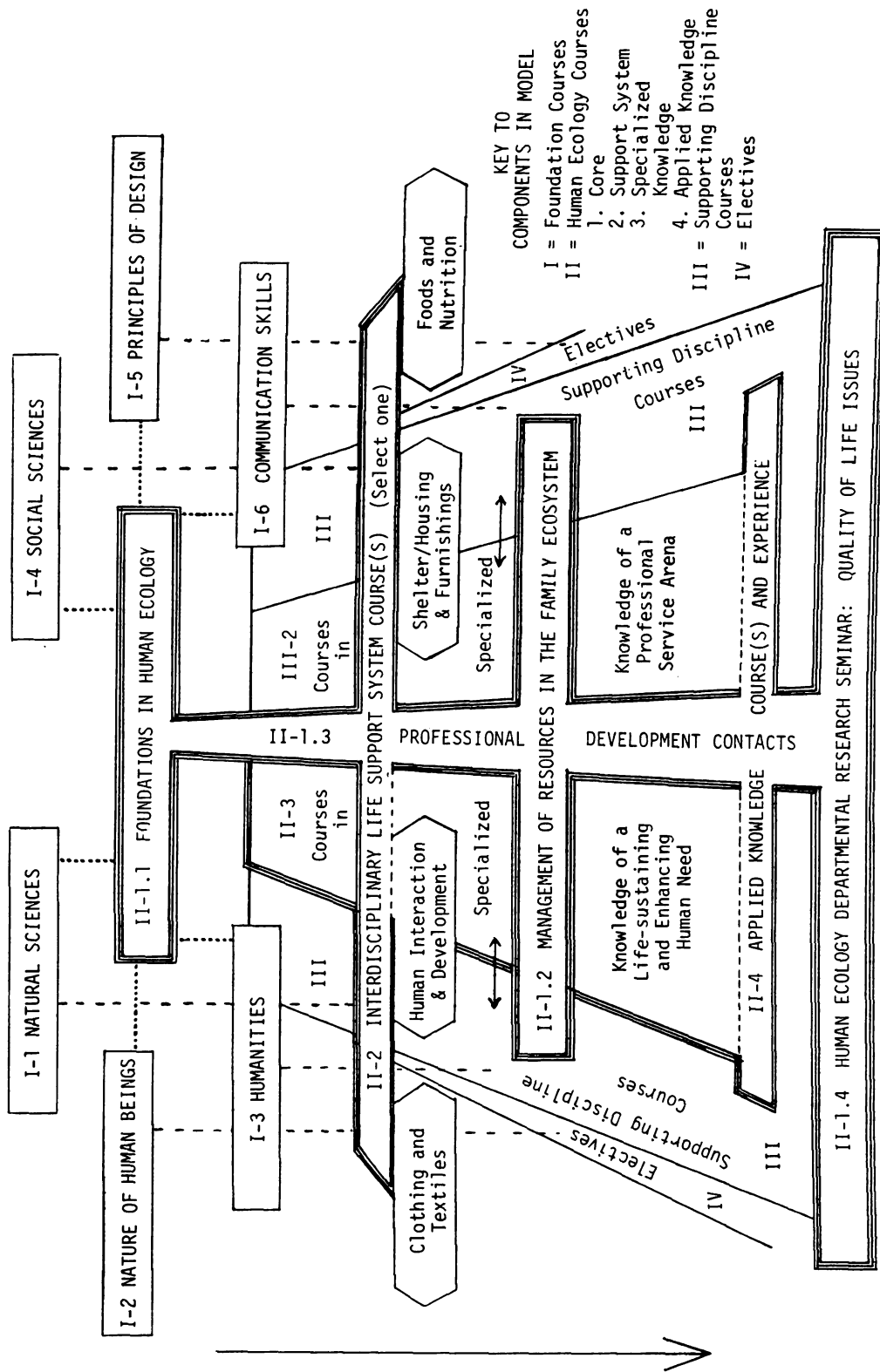
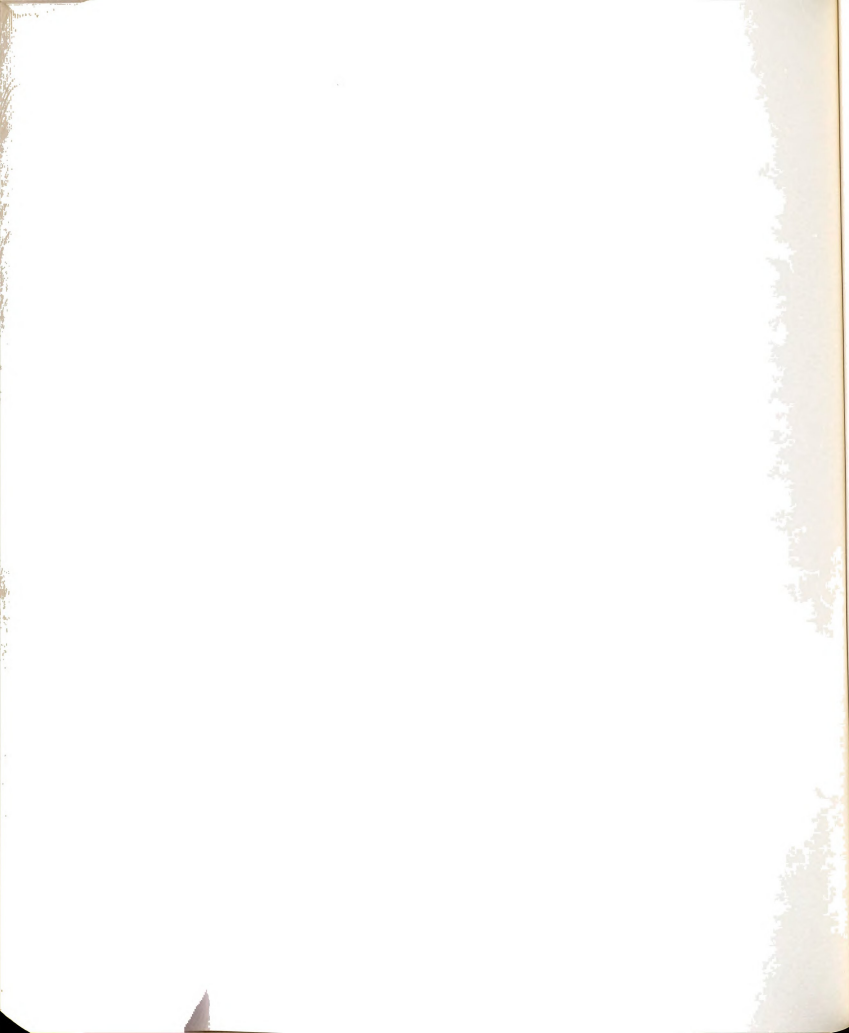


Figure 27: Demonstration of Proposed Interrelationship and Sequence of Courses in Curriculum Model to Foster the Integration of Knowledge and the Development of a Human Ecological Perspective



Concluding Commentary on Implementation  
of Curriculum Model

The models presented are intended to summarize the structure and philosophy of the proposed curriculum directed toward developing a professional with a human ecological perspective. Its actual implementation is dependent not only upon the formal acceptance of the theme, structure, and courses by a curriculum committee but also at least five other crucial factors:

1. Attitude and Qualifications of Faculty Teaching Human Ecology Courses, that is, the Departmental Faculty

Inasmuch as the courses within the major serve as the primary means for teaching and reinforcing human ecological principles, all faculty need to :

- a. have a broad foundation in the arts and sciences
- b. be able to demonstrate how their particular area of expertise synthesizes knowledge from the arts and/or sciences related to it
- c. be able to interpret their area of expertise in relation to human life-sustaining and enhancing needs
- d. be able to relate the area of expertise to both the family ecosystem and the larger systems of society
- e. be able to demonstrate in ecological terminology the long and short range effects of decisions supported by knowledge in their area
- f. be able to perceive and demonstrate career and



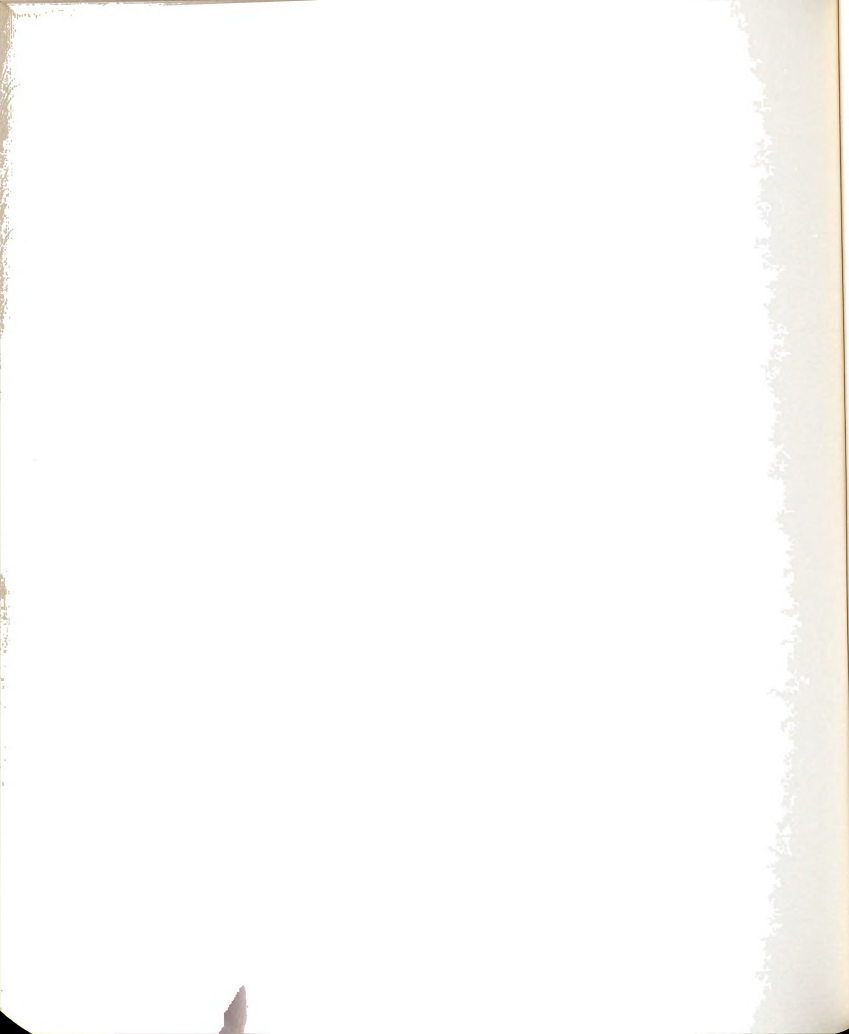
professional activity based on their area of expertise in relation to the family as a pivotal unit in the totality of human ecological systems

In summary the faculty need a basic understanding of, commitment to, and a continuing desire to explore the principles supporting the curriculum model. It appears that these needs have implications for graduate programs designed to prepare persons for college teaching faculty positions.

## 2. Cooperative Working Relations Among Human Ecology Faculty and Other Departments within the College

Two basic principles make this cooperation an essential factor. First, the concept of human ecology itself implies the interdependency of not only systems but also the knowledge that provides an understanding of these systems. Secondly, the specialized bodies of knowledge defined as peculiar to the home economics profession are synthesized from more fundamental bodies of knowledge. As a consequence of these principles it is important that faculty teaching within the department know the nature of the foundation and supporting discipline courses the students have taken or will be taking. This will avoid repetition and can be used to encourage synthesis.

If a liberal arts college functions with the concept of a liberally educated person as the all encompassing goal of each department irrespective of subordinate professional goals, the resulting collegial atmosphere of the college will be conducive to this cooperative interchange. At the same time the home economics profession (Chapter VI)



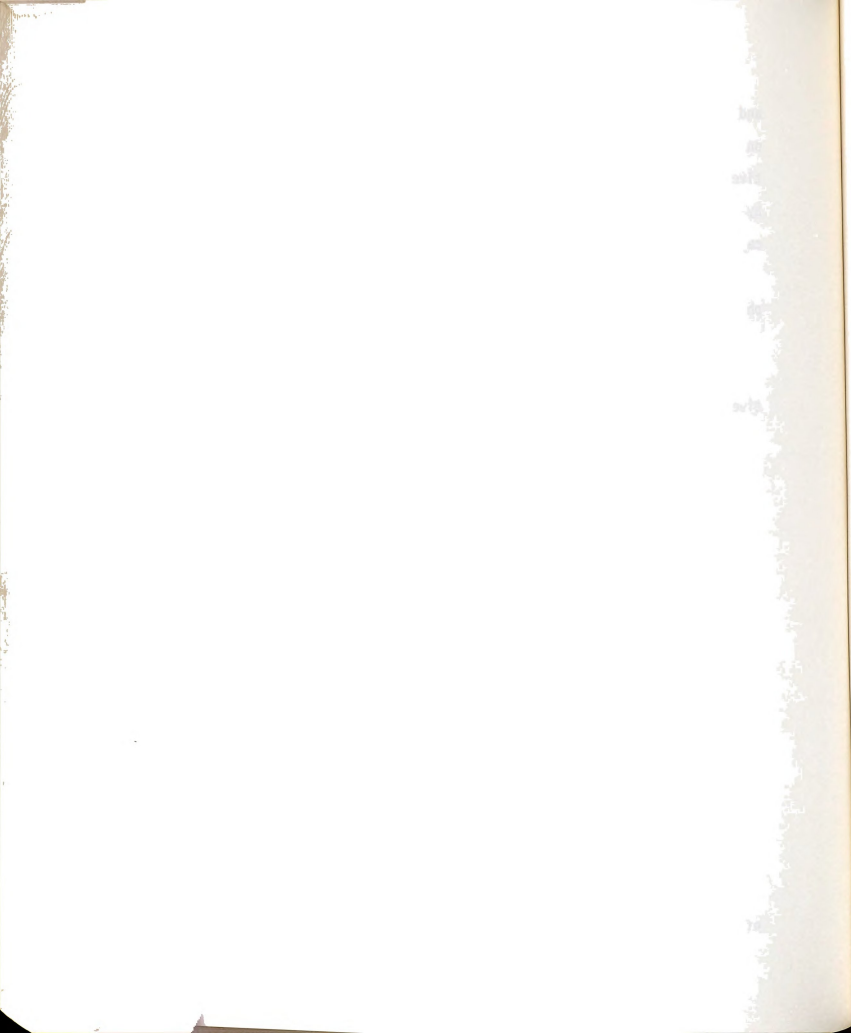
and the concept of a human ecological perspective impose an obligation on a department of human ecology to more explicitly foster this cooperative working relationship. In so doing faculty need to be supported by a deep conviction of the unique nature and value of the philosophical basis of their area or they may yield to being subsumed by other areas who could provide the technological knowledge based on a different philosophical stance.

### 3. Recognition of Significance of Human Ecological Focus

The separate enunciation of this factor may seem repetitive. It, however, is the crucial factor which justifies the human ecology core and support system courses in the model. Inasmuch as it is important for all faculty to have an appreciation of this (factor one above), it is of vital importance for the faculty person teaching the human ecology core and support system courses. In a special manner these courses must not only teach substantive knowledge but must also foster the ability to integrate knowledge, to recognize human concerns and responsibilities, and to make judgments based on both knowledge and an awareness of the long range implications of decisions.

### 4. Role of Academic Adviser

If one understands the diversity of services professional home economists can give depending upon their interests, talents, and educational background, it should be evident why it is unreasonable to specify every course within a curriculum. Consequently, in the proposed model the only clearly defined courses were those in the human ecology core and the support system components. For the others, only areas of knowledge and objectives were identified to support the rationale





of the model.

An adviser's role is one of guiding a student in the selection of courses so the desired goals can be achieved. There is no doubt that in actual practice the analysis of an institution's course offerings will cause a department to identify preferred courses for the various areas listed under "Foundation Courses" and for at least some of the courses in the "Specialized Knowledge" component of the major. The selection process, thus, is narrowed. Even so, choices will still need to be made. To give effective guidance to the student, the academic adviser must understand the needs of a person aspiring to a particular type of career or professional service, the goal of the department to develop a human ecological perspective focusing on the family ecosystem, the rationale for how this goal is to be achieved, and how these objectives merge with the concept of a liberal education as espoused by the college. The advising session is not only a time to guide and approve a course load but also a time to help the student understand how the courses help meet the goals of their total undergraduate program. If the adviser can explain this in terms of human ecological principles, it reinforces the objectives of the core courses within the human ecology major.

##### 5. Availability of Opportunities for Professional Experiences

Research examining the role of a professional in today's society clearly indicates that the educational preparation for such a role should provide experiences in which the candidate can apply theory to satisfying actual needs and resolving problems of varying degrees of complexity. This can be done in simulated classroom activities or



through actual working situations. In the former it is important that the instructor be very familiar with the expectations of the professional role. It is advantageous if the classroom activity is preceded by the instructor's actual experience in the role. To utilize the second general method, it is important that not only opportunities exist but that they are available for student placement.

In conclusion, therefore, the actual implementation of the curriculum model presented is dependent upon careful selection of faculty, orientation and development of faculty and advisers, effective communications with other dimensions of the college, and building working relationships with potential professional service areas. This is important not only for the support of the program itself but more significantly to maintain quality input so that the expressed goals of the program will be achieved.



## CHAPTER VIII

### VALIDATION OF CURRICULUM MODEL

#### Introduction

There appear to be three possible ways to validate a curriculum model prior to its actual implementation and later observation of the products of the curriculum process established by the model. Three basic assessment questions are:

1. Is there an evident relationship between the objectives proposed and the process established by the structure?
2. Does the structure allow for the comprehension of the bodies of knowledge indicated as essential for the development of skills identified by the objectives?
3. Is the process established by the model functional in a real life situation?

The purpose of this chapter will be to respond to the above questions.

#### Relationship of Curriculum Objectives and Structure

Throughout this dissertation objectives for a curriculum were established from the perspective of a liberal education, a professional education, the concept of human ecology, and the role of a professional home economist. A key objective in developing the curriculum model was to embrace these varying sets of objectives. It was determined



that the ultimate goal was a professional home economist with a human ecological perspective. This stance was taken because it was demonstrated that through the pursuit of this main objective all other objectives could likewise be attained. The intended logistics of the curriculum within the setting of a liberal arts college presupposed the pursuit of the liberalizing ends of education. This assumption assured the availability of courses in the basic arts and sciences and methods of teaching that would promote these ends. The model presented, therefore, focused on how these resources would be used and supplemented in the pursuit of goals directed toward the more specific knowledge-based service orientation education preparing for a professional role. This integration of goals has been expressed in the major or terminal objective of the curriculum process and the statements of subordinate objectives which give direction to the components of the model. For the purpose of projecting these objectives in a unified format they are now repeated.

#### Major Objective

To develop a professional home economist with a human ecological perspective, that is, one who

- I. Manifests an understanding of the wholeness of the universe, the holistic nature of knowledge, and the inter-relatedness of both of these in the resolution of human problems, and
- II. Possessing a body of specialized knowledge (home economics philosophy and subject matter), applies this knowledge in a particular area of professional service in the total universal ecosystem and relates this service to a human system (the family ecosystem) within the whole while maintaining as far as possible the ultimate good of the total system.





### Subordinate Objectives

These objectives can be classified into three major categories: Liberalizing Objectives and Dimensions, Objectives Related to Specialized Function of Curriculum, and Objectives Related to Individual Elements of the Model. The interrelatedness of these three sets of objectives requires the acceptance of the ecological nature of a curriculum format.

#### A. Liberalizing Objectives and Dimensions: (From Chapter VII, p. 324)

1. Breadth of Knowledge - directed toward understanding the totality of the universe and the multi-dimensionality of knowledge
2. Specialized Knowledge - directed toward (1) understanding the family ecosystem and the sub-systems and support-systems of this pivotal ecosystem; and (2) the ability to use this knowledge in satisfying human needs
3. Integration of Knowledge - directed toward developing a human ecological and holistic approach to problem solving as well as one's view of life and the universe
4. Intellectual skills of critical thinking and the ability to acquire, analyze, organize, and synthesize knowledge
5. Communication skills essential for interacting with others in written, oral, and symbolic forms
6. Decision-making and judgmental skills essential to assuming responsibilities for the well-being of humanity
7. Practical, professional skills essential to using one's specialized knowledge in a specific service arena of society

#### B. Objectives Related to Specialized Function of the Proposed Curriculum: (From Chapter VII, pp. 227-30)

1. Develop in the student a holistic perspective of the



interrelationship and interdependency of the total universe and human behavior, that is, an understanding of human ecological principles

2. Help the student perceive the family as a pivotal point in the supra-ecosystem influencing and being influenced by the quality of the interaction, that is, an understanding of the family ecosystem
  3. Develop sufficient understanding of one aspect of this individual-family-environment interplay to enable one to assist in maintaining the family ecosystem in the role of a professional home economist
  4. Develop an understanding of the responsibilities inherent in the decision making roles of the professional relative to seeking the ultimate good of interacting systems with emphasis on the quality of life
  5. Develop the capacity to use one's knowledge and perspective in the resolution of problems related to satisfying human needs and enhancing the quality of life, that is, to function within a professional service arena of our society
- C. Objectives Related to the Individual Elements of the Curriculum Model: (From Chapter VII, pp. 237-241; 243)
1. Foundation Courses: To develop an understanding of
    - 1.1 The Principles Operative in the Natural Environment
    - 1.2 The Nature of Human Beings
    - 1.3 The Nature of the Human Being's Expression of Self and the Concept of Humanity
    - 1.4 The Nature of Society and Social Institutions
    - 1.5 The Principles of Design Operative in Shaping the Human Built Environment
    - 1.6 Communication Skills as a Means of Expressing and Perceiving Ideas



## 2. Human Ecology Courses or Major

- 2.1 To facilitate the integration of the student's total college program through an understanding of human ecological principles
- 2.2 To provide a focused and enlarged understanding of the family ecosystem
- 2.3 To provide the specialized and synthesized knowledge for understanding a single life sustaining and enhancing family ecosystem support system as a basis for professional service
- 2.4 To provide an integrative linkage between the specialized knowledge related to satisfying human needs and the professional arena for service

## 3. Supporting Discipline Courses

- 3.1 Understanding of the structure, functions, and mode of operation of systems interfacing with the family ecosystem
- 3.2 Exploring a body of knowledge supporting an understanding of a human support system
- 3.3 Understanding the philosophy, structure, skills, and techniques essential for working effectively in a specific professional service arena
- 3.4 Developing in a particular way intellectual, communication, or technical skills
- 3.5 Furthering an understanding of the non-human environment
- 3.6 Furthering an understanding of humanity and of human developmental needs

### Structural Elements of Curriculum Framework

In the curriculum framework presented, groups of courses to be taken in the context of a bachelor of arts degree program were designated as learning experiences designed to achieve the projected objectives.



These major elements of the framework are summarized now for reference in relating to the objectives.

- I. Foundation Courses: basic arts and science courses required of all majors. Courses would constitute approximately 30-40 percent of the total program
- II. Human Ecology Courses: the major or in-depth concentration. Courses would constitute approximately 25-30 percent of the student's total program
  1. Human Ecology Core Courses: four courses required of all majors, focusing on integrative concepts, principles, and experiences
  2. Support System Courses: courses with an ecological and interdisciplinary approach to a single life-sustaining and enhancing need. A minimum of at least one of these courses is required in each student's program
  3. Specialized Knowledge Courses: a group of courses focusing on a single life sustaining need. Each student's program would include four to six such courses
  4. Applied Knowledge Component: course work or experiences relating theoretical knowledge to actual professional service. Each student would have a minimum of one such course
- III. Supporting Discipline Courses: course work selected from offerings of other departments of the College according to the student's professional goals. These would be in addition to the Foundation Courses and would constitute approximately 30 to 40 percent of the student's total program
- IV. Electives: enrichment courses selected according to individual's goals and/or to complete the general education requirements of the College.

Because of the close relationship of the knowledge needed for a human ecological perspective and the attainment of the liberal ends of education, it is presumed that the combination of the foundation courses required for all majors and the selections made in the





supporting discipline component would fulfill the general education requirements of a college. Both of these goals embrace the recognition of the totality of the universe and the multidimensionality of knowledge.

Figure 28 correlates the objectives of categories A and B with the designated learning experiences (groups of courses) within the curriculum framework. Category C objectives, that is those of the specific elements of the model, were correlated with course components as they were listed. How these objectives would be achieved within the courses has been enlarged upon in Chapter VII. These correlations support a positive relationship between the proposed objectives and the process established by the structure.

#### Relationship of Curriculum Structure and Specified Knowledge Areas

There is a strong relationship between the first and second validating questions. In the total process used to arrive at the proposed curriculum framework both objectives to be sought and bodies of knowledge to be comprehended as essential to achieving the objectives have been identified. Figure 26 sums up these bodies of knowledge and their interrelationship in a holistic model. It is repeated now for reference. Following a procedure similar to that used in developing Figure 28, Figure 29 correlates the bodies of knowledge as identified in Figure 26 with the elements of the curriculum framework.

The correlation demonstrated in Figure 29 indicates a positive response to the second validating question, that is, it indicates



OBJECTIVES  
(Expressed by Key Focus)

LEARNING EXPERIENCE  
(Numerals Refer to Groups  
of Courses in Framework)

Category A

1. Breadth of Knowledge\* . . . . . I, III + II, IV
2. Specialized Knowledge . . . . . II, III
3. Integration of Knowledge . . . . . II-1,2,3
4. Intellectual Skills\*\* . . . . . I, II, III, IV
5. Communication Skills\*\* . . . . . I, III
6. Decision-making Skills . . . . . I, II-1, 4, III
7. Practical Professional Skills . . . . . II-2, 3, 4, III

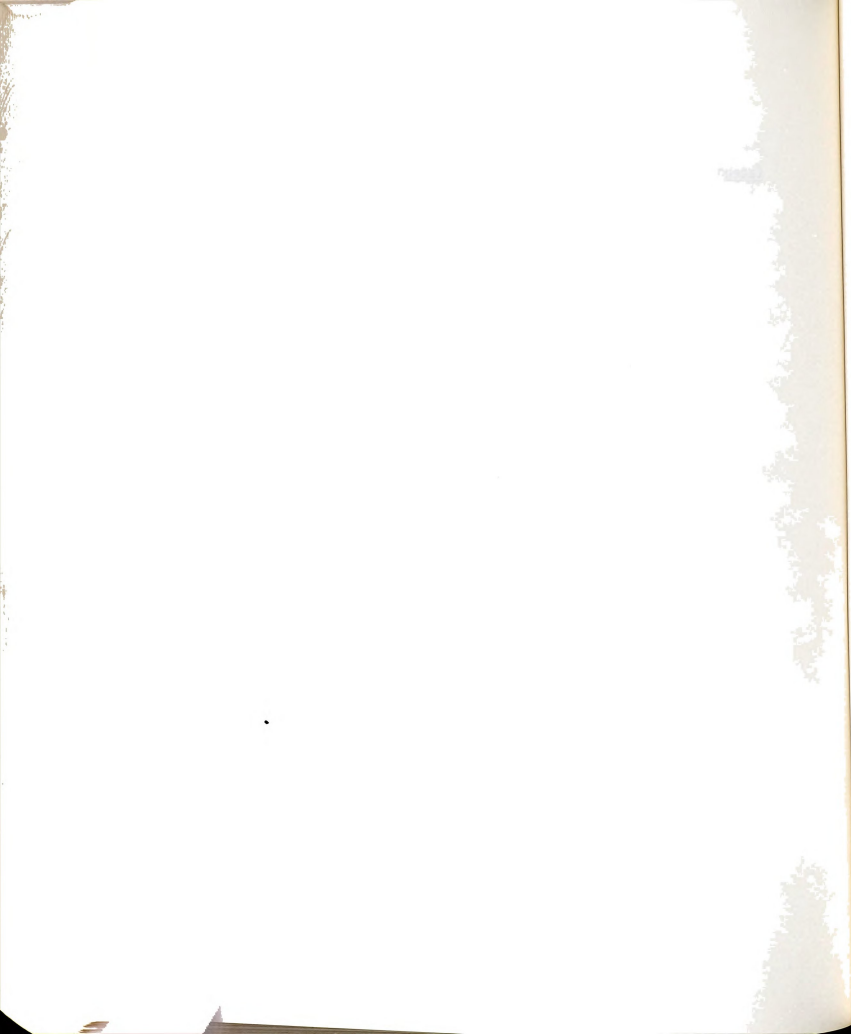
Category B

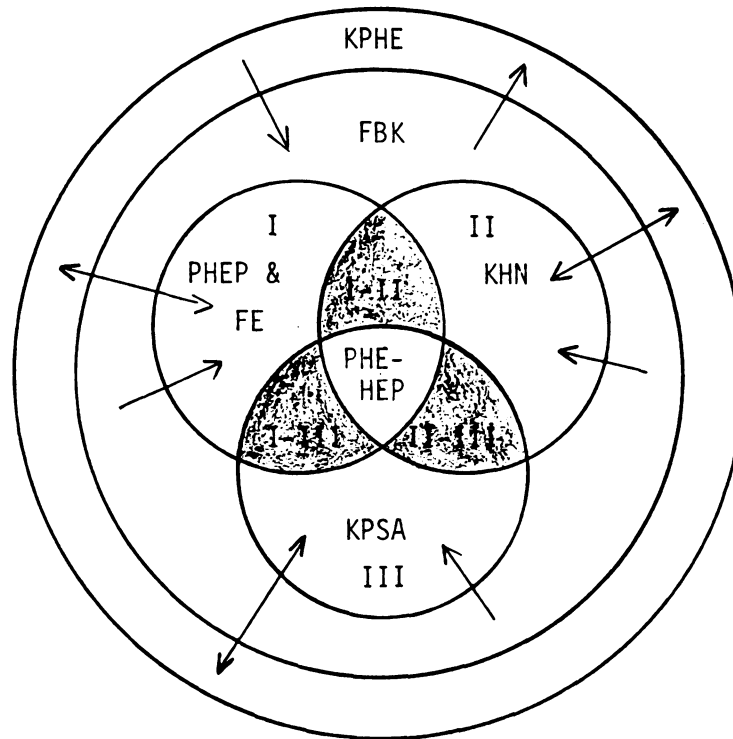
1. Human Ecological Principles\* . . . . . II-1, 2, + I, III, IV
2. Family Ecosystem. . . . . II-1, 2, + I, III, IV
3. Specialized Aspect of Family Ecosystem II-2, 3, I, III
4. Professional Decisioning . . . . . II + I, III
5. Professional Service Arena . . . . . III, II-3, 4, 2

\*Actually all learning contributes, but the experiences first indicated focus primarily on this objective.

\*\*Although some courses would focus primarily on the development of these skills all course work can contribute according to the method of teaching and expectations of the teacher.

Figure 28: Correlation of Objectives with Designated Learning Experiences within Curriculum Framework





KPHE = Knowledge and understanding of Principles of Human Ecology

FBK = Fundamental Bodies of Knowledge leading to understanding the multidimensionality of knowledge and systems of the universe

PHEP & FE = Knowledge leading to understanding the Philosophy of the Home Economics Profession and the nature and functioning of the Family Ecosystem

KHN = Specialized Knowledge fundamental to understanding and satisfying a specific life sustaining and enhancing Human Need

KPSA = Specialized Knowledge of the philosophy, structure, decision making and implementing process, skills, and techniques essential for working effectively within a single Professional Service Arena

I-II = Knowledge leading to understanding the relationship of the specialized human need knowledge to the family ecosystem and the philosophy of the home economics profession

I-III = Knowledge of the principles and skills governing the application of the philosophy of the home economics profession and the family ecosystem within a specific professional arena

II-III = Knowledge of the principles and skills governing the application of the specialized human need knowledge within a professional service arena

PHE-HEP = The Professional Home Economist with a Human Ecological Perspective

Figure 26: Interrelationship of the Types of Knowledge Needed in the Formation of a Professional Home Economist with a Human Ecological Perspective  
(Repeated from p. 221)



| <u>MAJOR ELEMENTS OF CURRICULUM</u>         | <u>ESSENTIAL BODIES OF KNOWLEDGE</u> |
|---|--------------------------------------|
| I. Foundation Courses . . . . .             | FBK                                  |
| II. Human Ecology Courses. . . . .          |                                      |
| 1. Core Requirements. . . . .               | KHEP<br>PHEP & FE<br>I-III           |
| 2. Support System Courses . . . . .         | KHN<br>FE<br>I-II<br>II-III          |
| 3. Specialized Knowledge. . . . .           | KHN<br>II-III                        |
| 4. Applied Knowledge. . . . .               | KPSA<br>FBK<br>KHN                   |
| III. Supporting Discipline Courses. . . . . | KPSA<br>FBK<br>KHN                   |
| IV. Electives. . . . .                      | FBK                                  |

Figure 29: Correlation of the Elements of the Curriculum Framework with the Bodies of Knowledge Considered Essential for Curriculum Objectives





that the curriculum structure does allow for the comprehension of the bodies of knowledge indicated as essential for the pursuit of the objectives.

#### Application of Model to an Actual College Situation

The final proposed test of validation is whether the model would be functional within a typical college situation. One must accept that although there are many similarities every college has its own peculiar set of characteristics which must be taken into consideration and will affect the adaptation of any basic curriculum model. Among these is the evolution of the curriculum within the college based on its heritage, the interpretation of its mission over the course of time, and the influence of its social-economic environment. These must be juxtapositioned with the philosophies and capabilities of the faculty and administration both at the present moment and in the past. It is these personality factors consciously and unconsciously interpreting, shaping, and controlling an institution which bring it to its present characteristics and determine its manner of adaptation to proposed changes.

#### Selection of Marygrove College for Application

In 1971 social forces caused the name of the home economics department at Marygrove College in Detroit, Michigan to be changed to "human ecology." This dissertation was in many ways prompted by a desire to clarify what implications, if any, the name change should

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have on departmental offerings and requirements. As a supplement to this study a review was made of the evolution of curriculum offerings at the college with particular emphasis on those of the home economics/human ecology department. The curriculum model presented in Chapter VII, although influenced by the writer's experience at Marygrove College, was projected in a generalized form. It concretized the theoretical model presented in Chapter V by identifying specific kinds of courses which would constitute the total program. Emphasis was placed on stating the rationale for these courses in relation to previously stated objectives in order to facilitate the adaptation of the model to a specific college setting. The Marygrove College setting will now be used to demonstrate that the proposed model is adaptable to and suitable for a small liberal arts college. To do this two questions will be addressed:

1. In what specific ways has this study caused change in the requirements for a major in human ecology and in the course offerings of the Human Ecology Department at Marygrove College?
2. How are these changes actually incorporated into a typical student's four year program?

#### Adaptation of Proposed Curriculum Framework at Marygrove College

If one were to compare the Human Ecology section of the 1976-1978 Marygrove College Bulletin with the 1979-1980 Bulletin one would observe notable changes in statements of the philosophy undergirding the program, the specification of foundation courses, the requirements of the core, the description of the areas of emphasis within the major,



and the course descriptions of both the core courses and those which fulfill the concept of support system courses within the model. These changes will be briefly discussed.

In the 1979-80 Marygrove College Bulletin the introduction to the Human Ecology Departmental offerings reads:

Human Ecology is the study of the interrelationship and interdependence of human beings with the total environment. At Marygrove, Human Ecology focuses on the immediate social-physical environment of the home and family and how it both influences and is influenced by the individual and the larger society. In this eco-system approach, the family is regarded as the pivotal unit shaping society and individuals.

The study embraces many areas of human living: family relationships; environmental and interior design; nutrition; human development; food; clothing; textiles; housing; equipment; consumer economics; health and sanitation; value systems; goal analysis; behavioral patterns; community services; management of resources; environmental psychology . . .

The department is committed to developing a future professional

- . who brings to the world a mode of thinking concerned with the impact of technological advances on the individual, the family, and society; and
- . who is equipped with the knowledge and skills necessary to help maintain a balance in the interdependent relationship of environmental components and the quality of life.

Frequently this professional is known as a Home Economist. The human ecological approach helps develop a wholistic perspective in solving the problems of daily living.

The major in Human Ecology integrates liberal and professional education. Areas of technical and specialized knowledge evolve from the natural and social sciences, the humanities, and the arts. The student is challenged to integrate this knowledge in a three-dimensional framework that recognizes:

- . the value and dignity of each person as a social, physical and rational being;



- . the factors and potential of the physical and social environment; and
- . the interdependent, reciprocal relationship between humans and their environment. (p. 98)

This statement is intended to identify and clarify the family ecosystem as the focus of study and analysis without losing the three dimensional concept essential for any ecological study, namely, the study of the organism(s) (that is, human beings), the environment, and the reciprocal relations between the two. A professional service focus is also identified with special reference to the profession of home economics.

#### Departmental Programs

In evaluating the existing programs offered by the Marygrove Department, the intent was to incorporate as much as possible the principles undergirding the theoretical curriculum model presented in this dissertation. The size of the College limits a complete incorporation at this time. At the same time the size provides for a great deal of individual adaptation as a qualified adviser guides a student in course selection. This can be seen in the introductory comments about the programs offered as well as in the specifics of the programs. The 1979-80 Bulletin reads:

Programs in the department are designed to prepare for career opportunities with emphasis on the life support systems of food, clothing, shelter, and human interaction. Each program has common and specific elements to assure the human ecological perspective integrated (sic) this with specialized competency one needs for entry level professional positions (sic) leading to long range career goals. The total program of a student majoring in human ecology merges five essential dimensions:





1. General Education Requirements and Specific Foundation Courses from the natural and social sciences, the arts and humanities
2. Human Ecology Courses:
  - . Required Core Courses emphasizing the development of a human ecological perspective
  - . Area of Concentration Courses emphasizing a single human support system and professional application
3. Supporting Discipline Courses and Minor Concentration
4. Electives
5. Pre-professional Experience (p. 98)

The Department offers programs in the following areas of concentration for a major or minor in human ecology.

- . General Human Ecology
- . Clothing, Textiles, & Interiors
- . Family, Child & Consumer
- . Foods and Nutrition
- . Home Economics Education

As an aid to planning student programs, the bulletin states:

Students are required to select foundation courses in the basic disciplines. Certain forms of professional eligibility, such as a dietetic internship, teacher certification, research, or interior design, require specific foundation courses. A program including these courses, an appropriate supportive minor, and a strong major can be developed by consultation with a departmental advisor.

Highly Recommended Foundation Courses:

- ART 111 - Two Dimensional Design and Color
- PHI 126 - Persons and Values
- BUS 173 - Introduction to Business
- 12-15 hours in Social Science including psychology, sociology, economics and political science
- Basic chemistry, human physiology and natural science courses

(If applicable, the above courses will fulfill the College General Education requirements)



Required Human Ecology Core: All majors must take

- HEC 104 - Foundations in Human Ecology
- HEC 383 - Management of Family Resources
- HEC 494 - Professional Development Contacts
- HEC 496 - Departmental Research Seminar

Area of Concentration: Other required courses within the major vary with the area of concentration and the type of specialized competency desired. These requirements are listed below. The suggested minor areas indicate the Supporting Discipline Courses and areas for Electives.  
(Marygrove College Bulletin, 1979-80, pp. 99-100)

#### Foundation Courses

It will be observed that specific courses are listed in the newer bulletin. This specificity was prompted mainly by a need to provide a more explicit guide for advisers and students. If one refers to the description of the foundation courses in the projected curriculum model, it will be observed that this listing of courses would meet those objectives. The specification of courses listed by the Department needs to be interpreted in the context of the General Education requirements of the College which include eight credit hours of natural science and mathematics and the attainment of a certain level of written communication competency. The listing of an introduction to business course as a requirement is an explicit change from the earlier bulletin. This reflects the significance of this system in society and recognizes that understanding the business system will help the student better understand the interdependency of the family with the business sectors of society. It, together with other basic courses in sociology and economics, becomes part of the foundation upon which consumer-problem orientated courses offered by the Human Ecology Department can be structured.

### Human Ecology Core Courses

Prior to 1978 the three courses comprising the Human Ecology Core were: Foundations in Human Ecology (1 cr. hr.), Professional Development Contacts (1 cr. hr.), and Departmental Research (2 cr. hrs.). This core has been expanded to include for all majors Management of Family Resources (3 cr. hrs.) and by increasing the credit hours of the Foundations and Research courses to two and three credits respectively. The description of these courses in the new bulletin is identical with those projected in the model. The changes made from the previous wording place more emphasis on human ecological principles, systems, and family ecosystem concepts. The descriptions are intended to reflect changes made in course content and structure.

### Areas of Concentration Within the Major

Identification or Title. In contrast to the projected curriculum model suggesting four areas of specialization within the whole based on basic human needs, the Marygrove plan lists five. These are described in detail on pages 290-293. The fifth area listed, Home Economics Education, is a deviation from the logic of identifying areas of concentration by bodies of synthesized knowledge related to basic human needs. It identifies a specific professional arena. The rationale is pragmatic. It is intended to highlight this specific professional focus rather than have it sub-sumed within the "General" concentration.

In contrast to two areas identified in the projected model, the Marygrove plan combines "clothing and textiles" with "shelter/

housing and home furnishings" under the title of "Clothing, Textiles, and Interiors." The change from "Design" in the earlier bulletins to "Interiors" in the present bulletin was made in order to place emphasis on the concept of the near environment of humans. Likewise, the "Family and Child" emphasis was re-entitled "Family, Child, and Consumer" to convey both human development and human interaction.

Support System Courses. Prior to 1976 courses were offered and required similar to those listed under this grouping in the proposed curriculum model. The research of this study, however, has clarified their function and, in turn, caused changes in the course descriptions. "Clothing and Human Behavior" (formerly "Clothing Consumption") has been and will continue to be a required course in the "Clothing, Textiles, and Interiors" emphasis. Students in this concentration will be given the option of taking either "Housing and Interior Design" or "Environmental Psychology." The latter is a new course to be introduced in 1980-81. These two types of support system courses are required in this concentration because of the dual focus.

It is not possible at the present time within the "Foods and Nutrition" concentration to incorporate a separate course entitled "Food and Society" as described in the projected model. This is due to the need to structure courses so that they can fit into a variety of professional certification plans. Consequently, in the Marygrove plan, a sequence of three courses, "Food Science," "Nutrition," and "Meal Management," is used to achieve the purpose designated in the projected curriculum model for a single support system course such as "Food and Society."



In the "Family, Child, and Consumer" concentration both the "Family Relations" course as described in the curriculum model as a support system course and "Consumer Finance," described as a secondary support system course in the model are required. Because the focus of human development and human interaction involves activities both within and beyond the family, "Clothing and Human Behavior" and "Housing and Interior Design," both designated as support system type courses, are required in this concentration. Likewise, the requirement in this concentration of a basic nutrition course is intended not only to give the substantive knowledge needed for human development but also to help build an understanding of the ecological dimensions of foods and nutrition.

Based on a similar rationale and because of its comprehensive nature, the "General" consideration, also requires all of the support system courses offered by the Department. The basic distinction between the "Family, Child, and Consumer" concentration and the "General" is that the former is intended to purposely emphasize the interdependency of the family with the social-behavioral dimensions of the environment. In this program emphasis is placed on interpersonal skills rather than technical. In the "General" concentration an attempt is made to achieve an equal distribution of emphasis on each domain of the environment and its influence on the satisfaction of human needs. The ability to use the substantive knowledge gained through these concentrations in the service of others is strongly dependent on the selections made within the "Supporting Discipline Component" of the model as it is adapted at Marygrove. For example, it would be





expected that students selecting the "Family, Child, and Consumer" concentration would also have in their total program a strong concentration in the social sciences.

The preceding discussion seems to re-emphasize that the development of a human ecological perspective cannot be achieved by an academic unit working in an isolated or singular manner. Rather, the unit's role is to help foster integration, but in so doing is independent upon the input from other academic units responsible for the many different dimensions of human knowledge and an understanding of varying dimensions of the universe.

In summary, the support system course dimension of the proposed curriculum model has been incorporated into the programs directed by the Human Ecology Department at Marygrove. With the exception of the "Food and Society" course all of the support system and secondary support system courses as described in the model are listed in the course offerings.

Specialized Knowledge and Applied Knowledge Components. These last two elements within the human ecology major are not as clearly defined as the preceding elements. According to the area of concentration, certain courses are required in addition to the core and support system courses. Also, students are guided to elect courses which give additional specialized knowledge and develop skill in applying this knowledge in a professional area. The department offers a course, or a combination of courses, which can be elected to meet individualized career objectives and would be comparable to the



"applied knowledge component" in the curriculum model.

Program Planning Guides. In the new Bulletin statements of focus, professional orientation, required courses, and suggested minors for each area of concentration within the major are provided to guide the student in program planning. For presentation in this study (see below to page 293) the required courses are listed by title and grouped as "support system course(s)" and "other required human ecology courses." Within each broad area the specific "applied knowledge" course is not given because to do so would restrict the individual's choice of professional direction. The "Suggested Minor" area should guide course selection in the corresponding "supporting discipline" component in the projected model.

#### GENERAL HUMAN ECOLOGY

Focus: The family in and as an ecosystem

Professional Orientation: Careers in business, industry, media relations, or community services where a comprehensive view of the home and family as a consuming and interacting unit is significant

#### Required Departmental Courses

##### Support System Courses

Sequence of Food Science  
Nutrition  
Meal Management  
Clothing and Human Behavior  
Housing and Interior Design  
Family Relations  
Consumer Finance

##### Other Required Courses

Clothing Construction I  
Textiles and Textiles Lab  
Developmental Psychology or Child Training

Suggested Minor: Business, Social Science, or Journalism



CLOTHING, TEXTILES, & INTERIORS

Focus: The interrelationship of the material environment and human development

Professional Orientation: Careers related to the production, design, and/or merchandising of clothing, textile products, and/or home furnishings; and the designing of living and/or work spaces and interiors

Required Departmental CoursesSupport System Courses

Clothing and Human Behavior  
Housing and Interior Design

Other Required Courses

Clothing Construction I  
Textiles and Textiles Lab  
Plus Human Ecology courses related to this area  
and career interest to total a minimum of 30  
credit hours

Suggested Minor: Business or Art, depending on career interest, with supporting courses in art or business, the social and natural sciences

FAMILY, CHILD, AND CONSUMER

Focus: The interrelationship of the interaction of individuals within basic societal systems and human development.

Professional Orientation: Direct work with families or individuals in social agencies, consumer services, informal educational settings, parenthood programs, and community services for various age groups

Required Departmental CoursesSupport System Courses

Nutrition through the Life Cycle or Nutrition  
Clothing and Human Behavior  
Housing and Interior Design or  
Environmental Psychology  
Family Relations  
Consumer Finance

Other Required Courses

Developmental Psychology  
Plus Human Ecology courses related to this area



and career interest to total a minimum of 30 credit hours.

Suggested Minor: Social Science or Social Work with supporting courses in the natural sciences and business

### FOODS AND NUTRITION

Focus: The interrelationship of food and human development

Professional Orientation: Careers related to food service, research, dietetics, and community nutrition; and the production and distribution of food products or equipment

#### Required Departmental Courses

##### Support System Courses

Sequence of Food Science  
Nutrition or Nutrition through the  
Life Cycle  
Meal Management

##### Other Required Courses

Quantity Food Purchasing and Preparation  
Plus other Human Ecology courses related to this area and career interest to total a minimum of 30 to 38 credit hours depending on career goal

Suggested Minor: Natural Science or Business with supporting courses in the natural and social sciences, business, and computer science

### HOME ECONOMICS EDUCATION

Focus: Similar to the "General" program; its more specific requirements qualify the student for Vocational Certification

Professional Orientation: Teaching homemaking, consumer education, and family life in junior and senior high schools and community colleges; also, business and community service careers which reach out to educate the consumer

Required Departmental CoursesSupport System Courses

Sequence of Food Science  
 Nutrition or Nutrition through the  
 Life Cycle  
 Meal Management  
 Clothing and Human Behavior  
 Housing and Interior Design  
 Family Relations  
 Consumer Finance

Other Required Courses

Clothing Construction I  
 Textiles and Textiles Lab  
 Developmental Psychology  
 Child Training  
 Problems in Home Management

Other Requirements

All recommended Human Ecology Foundation Courses  
 A Certifiable Teaching minor  
 Professional Education Sequence including  
 Curriculum Planning in Vocational Education  
 Methods of Teaching Home Economics

Summarization of MarygroveAdaptation of Model

The preceding detailed exposition of the areas of concentration within the human ecology major is one component of the Marygrove adaptation of the curriculum model. As previously indicated, this component must be interfaced with the earlier statements extracted from the Bulletin expressing the underlying philosophy of the major, and the required foundation and human ecology core courses. These two components, in turn, must be interfaced with the goal statement of the College and its framework for implementing these in the context of degree requirements. This latter includes: (1) General Education requirements leading to the development of identified liberalizing arts, powers and skills in four major areas classified as Arts





and Letters, Natural Science and Mathematics, Social Sciences, and Communication, (2) Major and Minor area of Concentration, and (3) Electives (Marygrove College Bulletin, 1979-80, pp. 30-33).

The application of the projected model within the context of a specific College produces in itself a model. This can be viewed as a totality of the entire academic program of a student or as a specialized discipline model by focusing on the recommended and required courses established by the human ecology department. The former view relates more to the theoretical model developed and presented in Chapter V. The latter more specialized focus was the emphasis in the projected curriculum model presented in Chapter VII and the presentation of its application at Marygrove College in this chapter. In reality, however, a student's program is a totality. The final proposed means for verifying the practicality of the model will also demonstrate this holistic concept of a student's undergraduate program.

#### Examples of Student Programs

One obvious test of the feasibility of a proposed curriculum structure is to determine if it can actually be achieved within the normal four year span of time allowed for an undergraduate program and the required total of 128 semester credit hours. Figure 30 (pp. 297-299) exhibits this feasibility.

Three typical student programs have been selected. The anticipated courses they would take have been listed in a four year, eight semester time plan. Two means of validation have been incorporated.



Preceding each course a numeral is used to relate the course to the four main components and sub-components or structural elements of the projected curriculum model. The reader is referred to the listing of these on page 275 of this chapter. This correlation indicates that all components in the model are included in the student's program.

A footnote for each course enlarges on the above correlation by indicating the course as recommended, required, or elective in the context of the major and minor concentrations, the professional focus or specialized and applied knowledge needed, and the general education requirements of the College.

#### Summary and Conclusion of Chapter

This chapter has aimed to validate the practicality of the curriculum model proposed in Chapter VII. The process used was three-fold. Through rational correlation it demonstrated that the achievement of the proposed objectives were reasonably assured by the proposed structure, that the structure allowed for the development of an adequate knowledge base for the proposed objectives, and, finally, that the curriculum model was adaptable to a real life situation. Further, this last application to the Marygrove College environment evidenced the adaptability of the model to accomodate varying circumstances. This adaptability also lends support to the ability of the curriculum model to evolve with changing circumstances.

It must, however, be recognized that the validating means were basically theoretical. The results of a real test, evidencing



the attainment of a professional home economist with a human ecological perspective are dependent on many variables. Dominant and constantly interfacing in an educational situation, are the attitudes, knowledge, and abilities the student and teacher bring to the learning situation.

The expression of a guiding philosophy and the delineation of a functional structure as presented in this dissertation, consequently, must be regarded as the fundamental and primary steps in the development of a curriculum. Once developed, these, in turn, become instruments for the guidance and control of variables which will affect the realization of the objectives through the implementation of the structure.

# AREA OF CONCENTRATION WITHIN HUMAN ECOLOGY MAJOR: GENERAL

| Professional Focus: Home Economics Education                            |                         |  |               | Minor Concentrations: Social Science & Education Sequence   |   |               |  |
|---|-------------------------|--|---------------|---|---|---------------|--|
| YEAR  | Curric. Model Component | Title of Course                                    | Sem. Cr. Hrs. | Curric. Model Component   | Title of Course   | Sem. Cr. Hrs. |  |
| First   | I-1                     | CHM Introductory Chemistry <sup>1*</sup>           | 4             | I-2   | PHL Persons and Values <sup>1*</sup>                    | 3             |  |
|   | I-5                     | ART Two Dimensional Design & Color <sup>1*</sup>   | 4             | I-2   | PSY Introductory Psychology <sup>1*</sup>               | 4             |  |
|   | I-6                     | ENG College Writing <sup>1*</sup>                  | 4             | II-2,3  | HEC Food Science <sup>4,3</sup>                         | 4             |  |
|   | II-1                    | HEC Foundations in Human Ecology <sup>2</sup>      | 2             | II-3  | HEC Clothing Construction I <sup>1,5</sup>              | 4             |  |
|   | II-3                    | HEC Clothing Construction I <sup>4</sup>           | 16            | I-4   | BUS Introduction to Business <sup>1</sup>               | 3             |  |
|   |                         |  |               | I-1   | NSC Nature of Energy                                    | 1             |  |
| Second  | I-4                     | SOC Sociological Perspectives <sup>1*6</sup>       | 3             | I-4   | ECN Economic Dimensions <sup>1*6</sup>                  | 17            |  |
|   | I-1                     | BIO Human Physiology <sup>1*</sup>                 | 3             | II-2,3  | HEC Nutrition <sup>3,4</sup>                            | 3             |  |
|   | III-1                   | PSY Developmental Psychology <sup>7,9</sup>        | 3             | II-2,3  | HEC Clothing and Human Behavior <sup>3,4</sup>          | 3             |  |
|   | III-3                   | HEC Textiles & Textiles Lab <sup>9*</sup>          | 4             | II-2,3  | HEC Meal Management <sup>3,4</sup>                      | 3             |  |
|   | I-3                     | History of Literature Elective <sup>9*</sup>       | 16            | III   | HEC Educational Psychology <sup>7</sup>                 | 3             |  |
| Third   | II-1                    | HEC Management of Family Resources <sup>2</sup>    | 3             | III   | NSC/HEC Human Sexuality or Family Health <sup>5</sup>   | 1-2           |  |
|   | II-2,3                  | HEC Family Relations <sup>3,4</sup>                | 3             | II-2,3  | HEC Housing & Interior Design <sup>3,4</sup>            | 16-17         |  |
|   | II-3                    | HEC/EDU Child Training <sup>3,4</sup>              | 3             | II-2,3  | HEC/EDU Consumer Finance <sup>3,4</sup>                 | 2             |  |
|   | III                     | HEC/EDU Curr. Planning - Voc. Ed. 7                | 2             | III   | HEC/EDU Methods of Teaching Home Economics <sup>7</sup> | 3             |  |
|   | I-3                     | History or Literature Elective <sup>9*</sup>       | 3-4           | III   | PSY Adolescent Psychology <sup>7</sup>                  | 3             |  |
| I-6   | Communications Elective | 17-18  | III           | RS Christian Marriage <sup>8</sup>  | 15  |               |  |
| Fourth  | II-4; III               | EDU Directed Teaching & Seminar <sup>7</sup>       | 10            | I-4   | POL Political Realities <sup>1*6</sup>                  | 3             |  |
|   | III                     | EDU Foundations in Amer. Education <sup>7</sup>    | 3             | II-1  | HEC Departmental Research Seminar <sup>2</sup>          | 2-3           |  |
|   | II-1                    | HEC Professional Development Contacts <sup>2</sup> | 14            | II-3  | HEC Problems in Home Management <sup>4</sup>            | 2-3           |  |
|   |                         |  | III or IV     | Arts and Letters Elective <sup>6</sup>  | 4-6   |               |  |
|   |                         |  | III           | Electives in Social Science   | 16  |               |  |
| Course Highly Recommended to Satisfy Foundation Course Requirements     |                         |  |               | <u>Note:</u> If in this sequence the student selects history courses to satisfy part of the 18 sem. cr. hr. college requirement in Arts and Letters, these will contribute to the Social Science minor. |   |               |  |
| Required Highly Recommended to Satisfy Foundation Course Requirements   |                         |  |               |   |   |               |  |
| Required Human Ecology Core Course                                      |                         |  |               |   |   |               |  |
| Required Human Ecology Support System Course for Area of Concentration  |                         |  |               |   |   |               |  |
| Course Required for Area of Concentration - Specialized Knowledge       |                         |  |               |   |   |               |  |
| Course Required for Minor in Area of Concentration                      |                         |  |               |   |   |               |  |
| Course Required for Education Sequence                                  |                         |  |               |   |   |               |  |
| Highly Recommended Elective Course                                      |                         |  |               |   |   |               |  |
| May Count as Minor in Social Science                                    |                         |  |               |   |   |               |  |
| Course Contributes to Satisfying College General Education Requirements |                         |  |               |   |   |               |  |

Note: If in this sequence the student selects history courses to satisfy part of the 18 sem. cr. hr. college requirement in Arts and Letters, these will contribute to the Social Science minor.

<sup>1</sup>Course Highly Recommended to Satisfy Foundation Course Requirements

<sup>2</sup>Required Human Ecology Core Course

<sup>3</sup>Required Human Ecology Support System Course for Area of Concentration

<sup>4</sup>Course Required for Area of Concentration - Specialized Knowledge

<sup>5</sup>Highly Recommended Elective for Area of Concentration

<sup>6</sup>Course Required for Minor in Social Science

<sup>7</sup>Course Required for Education Sequence

<sup>8</sup>Highly Recommended Elective Course

<sup>9</sup>May Count Toward Minor in Social Science

<sup>10</sup>Course Contributes to Satisfying College General Education Requirements

Figure 30: Exhibits of Student's Four Year Program





## AREA OF CONCENTRATION WITHIN HUMAN ECOLOGY MAJOR: FOODS AND NUTRITION

| Professional Focus: Dietetics |                         |   |               | Minor Concentration: Natural Science |  |               |    |
|-------------------------------|-------------------------|---|---------------|--------------------------------------|--|---------------|----|
| YEAR                          | Curric. Model Component | Title of Course                                     | Sem. Cr. Hrs. | Curric. Model Component              | Title of Course                                | Sem. Cr. Hrs. |    |
| First                         | I-1                     | CHM General Chemistry <sup>6,7*</sup>               | 4             | I-1                                  | CHM General Chemistry <sup>6,7*</sup>          | 4             |    |
|                               | I-5                     | ART Two Dimensional Design & Color <sup>1*</sup>    | 4             | I-2,3                                | HEC Food Science <sup>3,4</sup>                | 3             |    |
|                               | I-6                     | ENG College Writing <sup>1*</sup>                   | 4             | I-2                                  | PHL Persons and Values <sup>1*</sup>           | 4             |    |
|                               | II-1                    | HEC Foundations in Human Ecology <sup>2</sup>       | 2             | I-2                                  | PSY Introductory Psychology <sup>7,1*</sup>    | 4             |    |
|                               | I-3                     | History or Literature Elective <sup>1*</sup>        | 3             | III                                  | MTH Intermediate Algebra                       | 2             |    |
|                               |                         |   | 17            |                                      |  |               | 17 |
| Second                        | I-4                     | SOC Sociological Perspectives <sup>1,7*</sup>       | 3             | I-4                                  | ECN Economic Dimensions <sup>1,7*</sup>        | 3             |    |
|                               | I-1                     | BIO Human Physiology <sup>1,7*</sup>                | 3             | II-2,3                               | HEC Nutrition <sup>3,4</sup>                   | 3             |    |
|                               | II-1                    | CHM Organic Chemistry <sup>7</sup>                  | 4             | II-2,3                               | HEC Meal Management <sup>3,4</sup>             | 3             |    |
|                               | I-4                     | BUS Introduction to Business <sup>1,7</sup>         | 3             | III                                  | CHN Biochemistry <sup>7</sup>                  | 4             |    |
|                               | I-3                     | History or Literature Elective <sup>1*</sup>        | 3             | I-6                                  | Communications Elective <sup>1</sup>           | 3             |    |
|                               |                         |   | 16            |                                      |  |               | 16 |
| Third                         | II-1                    | HEC Management of Family Resources <sup>2</sup>     | 3             | III                                  | BIO Microbiology <sup>7</sup>                  | 4             |    |
|                               | II-1                    | BIO Principles of Biology <sup>6,7</sup>            | 4             | III                                  | EDU Educational Psychology <sup>7</sup>        | 3             |    |
|                               | III                     | BUS Accounting Principles <sup>1,7</sup>            | 4             | HEC                                  | Food Service Systems Mgmt. <sup>4</sup>        | 3             |    |
|                               | II-3                    | HEC Quantity Food Purchasing & Prep. <sup>4</sup>   | 3             | I-4                                  | POL Political Realities <sup>1,7*</sup>        | 3             |    |
|                               | III or IV               | Arts and Letters Elective <sup>*</sup>              | 3             | III                                  | BUS Personnel Management <sup>7</sup>          | 3             |    |
|                               |                         |   | 17            |                                      |  |               | 16 |
| Fourth                        | II-3                    | HEC Diet Therapy <sup>4</sup>                       | 3             | II-3                                 | HEC Advanced Nutrition <sup>4</sup>            | 3             |    |
|                               | II-3                    | HEC Food Technology or Experimentation <sup>4</sup> | 3             | II-3,4                               | HEC Community Nutrition <sup>8</sup>           | 3             |    |
|                               | III                     | CSC Computers and Society <sup>7</sup>              | 3             | III-1                                | HEC Departmental Research Seminar <sup>2</sup> | 3             |    |
|                               | II-1                    | HEC Professional Development Contacts <sup>2</sup>  | 1             | III                                  | BUS/PSY Statistics <sup>3,8</sup>              | 4             |    |
|                               | III or IV               | Arts and Letters Elective <sup>*</sup>              | 3             | III or IV                            | Elective                                       | 4             |    |
|                               |                         |   | 16            |                                      |  |               | 16 |

<sup>1</sup>Course Highly Recommended for HEC Foundation Course Requirement  
<sup>2</sup>Required Human Ecology Core Course  
<sup>3</sup>Required Human Ecology Support System Course for Area of Concentration  
<sup>4</sup>Required for Area of Concentration & Dietetics Professional Focus

<sup>5</sup>Highly Recommended Elective for Area of Concentration  
<sup>6</sup>Required for Minor in Natural Science  
<sup>7</sup>Required Support System Course for Concentration  
<sup>8</sup>Highly Recommended Elective Course

\*Course Contributes to Satisfying College General Ed. Requirements

Note: Where the option of electives exists students could be advised to select from: Family Relations, Christian Marriage, Consumer Finance, Equipment & Demonstration Techniques or Increase selections in Business or Social Science according to career interest



AREA OF CONCENTRATION: CLOTHING, TEXTILES, AND INTERIORS

| <u>Professional Focus: Fashion Merchandising</u> |                                |  | <u>Minor Concentration: Business</u> |  |   |
|--|--------------------------------|--|--------------------------------------|--|---|
| <u>YEAR</u>                                      | <u>Curric. Model Component</u> | <u>Title of Course</u>                               | <u>Sem. Cr. Hrs.</u>                 | <u>Curric. Model Component</u>                 | <u>Title of Course</u>                      |
| First  | I-1                            | CHM Introductory Chemistry <sup>1*</sup>             | 4                                    | I-2  | PHL Persons and Values <sup>1*</sup>        |
|  | I-5                            | ART Two Dimensional Design & Color <sup>1*</sup>     | 4                                    | I-2  | PSY Introductory Psychology <sup>1*</sup>   |
|  | I-6                            | ENG College Writing <sup>1</sup>                     | 4                                    | I-4  | BUS Introduction to Business <sup>1,6</sup> |
|  | II-1                           | HEC Foundations in Human Ecology <sup>2</sup>        | 2                                    | I-3  | HIS History and Literature Course           |
|  | II-3                           | HEC Clothing Construction I                          | 2                                    | I-3  | HEC Clothing Construction <sup>1,5</sup>    |
|  |                                |  | 16                                   | I-1  | NSC Nature of Energy <sup>2*</sup>          |
| Second   | I-4                            | SOC Sociological Perspectives <sup>1*</sup>          | 3                                    | ECN Economic Dimensions <sup>1*</sup>          | 3   |
|  | I-1                            | BIO Human Physiology <sup>1*</sup>                   | 3                                    | HEC Clothing & Human Behavior <sup>3</sup>     | 3   |
|  | III-1                          | BUS Accounting Principles <sup>16</sup>              | 4                                    | HEC Housing & Interior Design <sup>3</sup>     | 4   |
|  | II-3                           | HEC Dress Designing or Tailoring <sup>5</sup>        | 3-2                                  | BUS Principles of Management <sup>1*</sup>     | 3   |
|  | I-6                            | Communications Elective <sup>1</sup>                 | 3                                    | PSY Developmental Psychology <sup>8</sup>      | 3   |
|  |                                |  | 15-16                                |  | 16  |
| Third  | II-3                           | HEC Textiles and Textiles Lab <sup>4</sup>           | 4                                    | HEC Advanced Textiles <sup>5</sup>             | 2-3   |
|  | II-1                           | HEC Management of Family Resources <sup>2</sup>      | 3                                    | HEC Retailing Management <sup>5,7</sup>        | 3   |
|  | III-1                          | BUS Business Law <sup>16</sup>                       | 3                                    | HEC/ART History of Fashion <sup>5,1*</sup>     | 3   |
|  | III-1                          | BUS Marketing <sup>1</sup>                           | 3                                    | HEC/ART Political Realities <sup>1*</sup>      | 3   |
|  | III-1                          | CSC/BUS Introduction to Data Processing <sup>6</sup> | 3                                    | HEC/ECN Consumer Finance <sup>8</sup>          | 3   |
|  |                                |  | 16                                   | HEC Arts and Letters Elective <sup>2*</sup>    | 3   |
| Fourth   | II-3                           | HEC Fashion Industry <sup>5</sup>                    | 3                                    | HEC Departmental Research Seminar <sup>2</sup> | 16-17                                       |
|  | II-1                           | HEC Professional Development Contacts <sup>2*</sup>  | 1                                    | HEC Personnel Management <sup>1</sup>          | 3   |
|  | III or IV                      | Arts and Letters Elective <sup>2*</sup>              | 3                                    | BUS Electives                                  | 10  |
|  | III or IV                      | Electives  | 9                                    |  | 16  |
|  |                                |  | 16                                   |  |   |

- <sup>1</sup>Course Highly Recommended to Satisfy Foundation Course Requirements  
<sup>2</sup>Required Human Ecology Core Course  
<sup>3</sup>Required Human Ecology Support System Course for Area of Concentration  
<sup>4</sup>Course Required for Area of Concentration - Specialized Knowledge  
<sup>5</sup>Highly Recommended Elective in Area of Concentration  
<sup>6</sup>Course Required for a Minor in Business  
<sup>7</sup>Highly Recommended Course for Minor  
<sup>8</sup>Highly Recommended Elective Course  
<sup>\*</sup>Course Contributes to Satisfying College General Education Requirements

Figure 30 (Cont.)



## CHAPTER IX

### SUMMARY, CONCLUSIONS AND IMPLICATIONS

#### SUMMARY

The primary objective of this study was to determine the nature of a human ecological approach to the formation of a professional home economist within a liberal arts college setting. Within this major goal two subordinate questions were identified. First, what is meant by "a human ecological approach to the formation of a professional home economist?" Secondly, is such an approach consistent with the goals of a liberal arts college? The introduction to this study provides a summation of the conditions that provoked these philosophically based questions. It was theorized that if such an approach could be defined it would provide a basis for curricular decisions. Thus, a final objective of the study was to develop a curriculum model reflecting the response to the philosophical questions.

The search for answers, as reflected in this dissertation, has followed a process of rational analysis and synthesis of data from the documents of professional organizations and the writings of recognized authorities. The process was founded on the principle that curricular decisions should be based on clearly defined objectives consistent with the philosophy of an educational institution and the outcomes desired in the student. The research question



specified the setting as a liberal arts college and the outcome, a professional home economist. In addition the question includes the less definite concept of "a human ecological approach."

In accordance with this principle the process has been first to examine the three major concepts inherent in the basic question for the purpose of identifying implied educational objectives and the means to obtain them; secondly, to determine the relationship of these objectives; and, thirdly, to establish a curriculum model based on the findings of the first two steps. For the purpose of this study a curriculum model was defined as the identification of objectives and the sequencing of courses directed toward achieving these objectives within a four year undergraduate academic program.

In pursuit of the first step as well as to support the value of the research question, a review was made of the literature analyzing home economics curricula at the undergraduate level. Emphasis was placed on seeking data that would help define and give direction to a human ecological approach as well as data examining the relationship of home economics to the liberal arts concept of education. The review indicated that both historically and currently confusion exists over the purpose of the profession thus making it difficult to structure a curriculum based on clearly defined goals and on an organized body of knowledge. The literature did indicate that the family in some form has been a consistent concern of the profession. At the same time, solicitude for achieving a balance in general and specialized goals, liberal and professional ends, and respect for time honored values versus satisfying societal, immediate needs





supported the continued need to search for a unifying force and a uniqueness of problem solving that would characterize the professional home economist. The review lent support to the concept of human ecology as a potential means of achieving a unification of mission within the profession.

The review also led to the realization that the clarification of the concepts inherent in the research questions was dependent upon clarifying the concepts of liberal education, professional education and human ecology. Thus, a major aspect of this research was to establish the meaning of these concepts by examining their original and current usage. This search and analysis process was further directed toward determining curriculum objectives. The process identified desired competencies to be developed in the learner, societal conditions affecting the evolution of these objectives, and the relationship of these objectives to areas of knowledge. Chapters III and IV of this study contain the details of this search and the logical analysis and synthesis of the ideas generated by it.

Chapter III established that a "liberal arts college" is one committed to developing the arts that liberalize a person. This end is the basic meaning of a liberal education. Secondly, the discourse established that the ends of liberal and professional education are interdependent with the latter a logical component of the former. Liberal education was summatively defined as an education which aims to free or liberalize a person by developing both an understanding of the world itself and the powers to enable directing the world for the ultimate good of all mankind. Through a synthesis of



literature specific goals of a liberal education, stated in terms of powers to be developed, were formulated (see Chapter III, p. 51). Inasmuch as these powers cannot function without knowledge, it was concluded that knowledge contributing to understanding the various modes of human knowing was essential for their development. This conclusion verified the need for a broad scope of knowledge and a more thorough understanding of some specific aspect of the universe to allow for the development of analytical skills.

The discourse examining the role of the professional supports that professional education is one aspect of liberal education; that the powers enumerated as the ends of liberal education are essential for a professional functioning in today's society; and that the complexity caused by the growth of knowledge, population, and technology support the need for the professional to have a broad range of knowledge integrated with the specialized knowledge essential for the professional role of knowledge-based service. Research examining the work setting and range of clientele of the contemporary professional has placed increased importance on an understanding of human nature, the interrelationship of human needs with human experience and environmental factors, and the needs of the larger society. These findings support the need in the educational formation of a professional for strengths in the behavioral sciences and an understanding of how one's professional services will interface with the other systems of society. This discussion was summarized into fifteen abilities a professional person should have in today's society (see Chapter III,



pp. 73-74). The correlation of these competencies to areas of knowledge supported the need for a curriculum structure that provides for flexibility in objectives, the integration of knowledge, the analysis of social problems, and an understanding of the structure and functioning of both societal and natural systems.

Based on the proposition that preparation for professional service is an essential component of a liberal education, and supported by the discourse of the chapter, the place of a professionally orientated curriculum in a liberal arts college was justified. To facilitate structuring a curriculum seeking the integration of liberal and professional educational goals, five guidelines were formulated. These were to (1) aim to have the end of liberal education permeate all teaching, (2) develop a breadth of knowledge dimension based on modes of knowing related to specific content areas, (3) give emphasis to social interactional needs through studying the behavioral sciences, (4) promote a macro- and microview of culture as a system supporting human needs, and (5) allow for an in-depth study wherein cognitive, judgmental, and decision making skills are applied within the context of a specialized knowledge area. These guidelines influenced the development of the curriculum model embracing the ideals generated by this study.

With the principle established to view liberal and professional education as interrelated, the concept of human ecology was explored. The data, discourse, and syntheses within Chapter IV are essential to understanding the conclusions of this study. The chapter examines the origins and evolved meaning of human ecology as it and related concepts



have been used by the natural scientists, social scientists, and home economists over the course of time. The analysis demonstrated that the principles inherent in the concept of "ecology" are basic in examining human ecological issues. Ecology is defined as the study of the interrelationship and interdependency of an organism and its environment. Equally evident was the fact that for practical purposes each group limited its area of human ecological, analytical focus according to the primary interests which caused the particular academic area to develop. The chapter analysis concludes that all scholarly fields which have examined human ecological relationships have in reality used the concept within a limited conceptual framework; have gradually used systems terminology to describe the interrelationships; and each field has been critical of itself for a lack of wholeness in its perspective. This latter observation is consistent with the understanding of recognized authorities that human ecology in its broadest meaning is a holistic perspective of the interaction and interdependency of humans and the total universe.

From the analysis of the literature reviewed and the synthesizing principles developed, the characteristics of a human ecologist evolved. Stated briefly these are (1) a holistic view of the universe and the effects of human action, (2) a focused area of analytical interest, (3) an ecological concern as systems interact, (4) a human ecological synthesizing capacity, and (5) a value for collaborative efforts in problem solving. Based on these characteristics other generalizations were deduced which in summary are that:

1. Human ecologists with similar areas of analytical interest





would group into academic disciplines, with the continued growth in knowledge of the universe fostering an increasing number of potential areas

2. Areas for analytical focus have been established in the natural and social sciences and by the home economics profession

3. As specialization increases, the difficulty of maintaining a holistic view increases

4. Because the universe is a whole, ultimately all human ecologists will have similar concerns as they focus on segments of the same broad problem. Likewise, it becomes difficult to maintain academic disciplinary boundaries

5. Due to the need for collaborative efforts in problem solving, systems terminology and conceptual models are used in all academic areas to express varying kinds of ecological relationships

Based on these generalizations, a series of paradigms was developed to clearly express and justify the family and its near environment as the area of analytical focus for home economists who approach their professional role in a human ecological manner. The chapter concludes with the following definition of a human ecological approach to this role;

Given that the professional home economist is fundamentally concerned with improving the quality of life by maintaining quality in home and family life, a human ecological approach to this activity would be one that (1) recognizes all of the interacting systems that affect the quality of home and family life and aims to comprehend how a change in one system will affect another; and (2) that sees the family as a pivotal system in the supra-human ecosystem of the universe.

Chapters II, III and IV, just reviewed, comprise the first



major step in this research project. The second step was to determine the relationship of the principles generated by the separate analyses. The process used for achieving this synchronization of objectives is presented in Chapter V. The final product is a curriculum framework which uses an understanding of the principles of human ecology as a means of integration and has as its major objective the development of a professional home economist with a human ecological perspective. This integrative framework incorporates and demonstrates the relationship of the liberal and professional ends of education as well as the specialized knowledge and philosophy that would undergird the role of a professional home economist. In so doing, it relates the family ecosystem as the focus of the profession to the other elements in the framework.

The integrative framework derived from the observation that in the major areas examined, namely, the undergraduate home economics curricula, liberal education, professional education, and the development of the science of human ecology, commonalities existed in both the pursuit of goals and in the goals themselves. In each case the actual pursuit of goals was thwarted due to the growth of knowledge and the increasing complexity of society as a whole. To accomplish its goals each curricular area sought a means to satisfy the need for specialized knowledge without losing an essential perspective based on a greater range of knowledge. A second form of interrelationship observed was in the actual goals of each component. Logically, to the extent that goals were similar, the means for achieving them could be similar thus reducing the need of distinctive entities in a curriculum.



The interrelationship of professional and liberal education was established in Chapter III. It followed that the development of a professional home economist would embrace the professional ends of education with the specific professional goal determining the type of specialized knowledge needed. The broader professional ends of education were thus interpreted as a linkage between the ends of liberal education and the specialized profession of home economics. This search for commonalities concluded that:

1. The professional "component" of a curriculum should be directed toward the integration of both the broad and specialized dimensions of knowledge into a form of action satisfying human needs (see Figure 15).

2. The need for both dimensions of knowledge as well as their integration requires a structured means in a curriculum that will foster both the integration of knowledge and the integration of knowledge with action (see Figure 16).

These conclusions were supported by principles previously established. First, that higher education should develop competence in making decisions that will ultimately shape the future of the universe and the quality of human life; and, secondly, that both the ability to view a problem holistically and the detailed knowledge with which to assess variables and to analyze alternative solutions in relation to human and societal needs are essential for this task.

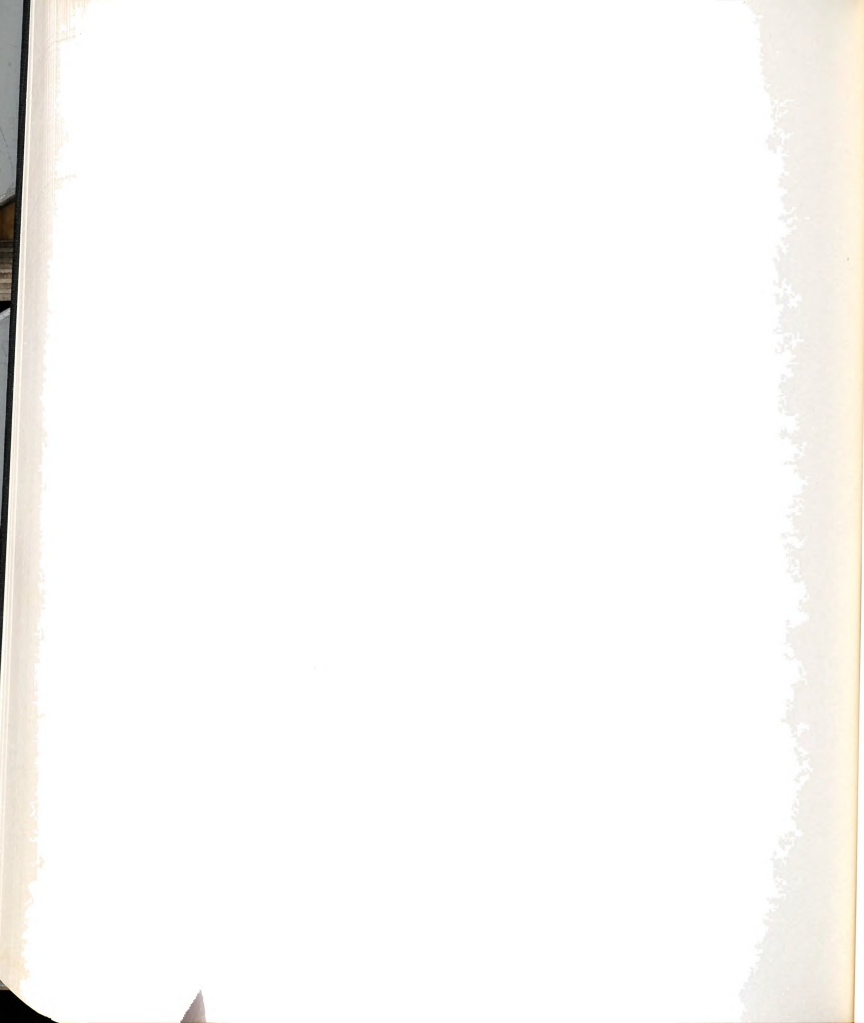
With the acceptance of the preceding principles and the fact that human ecology in its broadest meaning can be defined as a holistic perspective of the interrelationship and interdependency of humans



and the total universe, the proposition was made that a curriculum based on the development of an understanding of human ecological principles in order to give a human ecological perspective would (1) achieve the desired integration, (2) allow for the development of areas of specialized knowledge, and (3) would encourage the need for breadth of knowledge. In relating this curriculum concept to the formation of a professional home economist, it was projected that (1) the specialized areas of knowledge would encompass knowledge related to the essential life sustaining and enhancing support systems of the home and family, and (2) the family would be studied as a subsystem and pivotal unit within the whole. In relating the proposition to the liberal arts college setting, it presumed (1) that the pursuit of the liberalizing ends of education would contribute to the holistic view of a human ecological perspective, and (2) that the awareness of the various systems in the holistic human ecological view would encourage exploration of these systems, thus, strengthening the liberalizing ends of education. The goal of the curriculum to develop a human ecological perspective was regarded as all embracing, influencing each of the other components, and strengthening an integration of the various ends of education. Through a process of rational discourse the proposition was supported and a paradigm of the proposed integrative framework was presented.

### Conclusions

The process of synchronizing the previous sets of objectives into an integrative framework led to the major conclusions of this





research. These are:

1. A human ecological approach to the formation of a professional home economist can be defined as a curriculum structure which develops a professional home economist with a human ecological perspective

2. A professional home economist with a human ecological perspective is one who

- (a) Manifests an understanding of the wholeness of the universe, the holistic nature of knowledge, and the inter-relatedness of both of these in the resolution of human problems, and

- (b) Possessing a body of specialized knowledge (home economics philosophy and subject matter) applies this knowledge in a particular area of professional service in the total universal ecosystem and relates this service to a human system (the family ecosystem) within the whole while maintaining as far as possible the ultimate good of the total system

3. The development of a human ecological perspective will serve as a means of integrating the various components of an undergraduate curriculum in a liberal arts college

4. The development of an understanding of the principles of human ecology with special emphasis on the family ecosystem will develop a professional home economist with a human ecological perspective

5. Understanding the principles of human ecology is dependent



upon understanding the wholeness of the universe, the holistic nature of knowledge and the interrelatedness of both of these in the resolution of human problems

6. The goal of developing a human ecological perspective will give purpose to and unify the goals of a liberal education

Based on the principle that objectives should determine process the major focus of this study has been to identify objectives or the desired outcomes of a human ecological approach to the formation of a professional home economist in a liberal arts college setting. It has been evident that outcomes cannot be readily separated from process. The following conclusions indicate ways of achieving the outcomes identified, or what would actually constitute the "approach" to the desired objectives:

7. A human ecological approach in a curriculum is one which
  - (a) Encourages the student through requirements, electives, or advising to develop a breadth of knowledge as a means of understanding the universe and its relationship to human life and growth
  - (b) Includes experiences that cause the student to examine issues affecting the quality of human life
  - (c) Helps a student understand the nature of the human being and how human needs are satisfied through resources in the environment; and
  - (d) Focuses on an understanding of the interrelationship and interdependency of human beings with specified aspects of the environment



8. An understanding of the family ecosystem is dependent upon an understanding of the subsystems within it, the ecological processes for maintaining it, and the life-sustaining and enhancing support systems with which it interacts

The development of the integrative curriculum framework (see Figure 19) theoretically demonstrating that an understanding of human ecological principles and the family ecosystem would both unify the liberal and professional ends of education and develop a professional home economist with a human ecological perspective is a major outcome of this research. The framework makes it possible to identify and rationally support the need for specific components in an undergraduate human ecology-family ecosystem-home economics curriculum.

The specifics of the specialized knowledge component, previously referred to as "home economics subject matter and philosophy" are summarized in Figure 26. These are based on an analysis of the historic definition of the profession, contemporary statements of the profession's knowledge base and focus, and ecological principles. In addition it was necessary to relate the established knowledge base and family ecosystem focus to actual areas for professional service. As was anticipated, this second analysis identified other types of specialized knowledge needed. From the research and analysis presented in Chapter VI the following guidelines for identifying curriculum components evolved:

1. Since the core of home economics has been defined as the family ecosystem, there is a common body of knowledge related to understanding the family as an interacting unit, basic human needs, the attainment of these needs within the family unit, and the



reciprocal relationship of the family to other units in society that all professional home economists should have to establish a unifying conceptual base for problem solving

2. In an ecological relationship the interdependency exists due to life sustaining and enhancing needs of the organism; thus, the bodies of knowledge to be pursued for professional service derive from identifying human needs and the processes involved in satisfying these needs within the family ecosystem as part of the total human ecosystem

3. The basic life sustaining needs of the human organism have continually been recognized as food, clothing, shelter, and human interaction. Each of these has physical, psychological, sociological, economic, and philosophical dimensions

4. The family ecosystem is a primary and pivotal social unit in the process of transforming resources to human need satisfaction

5. All units of the universe must work together to satisfy human needs; thus, opportunities for professional service facilitating the attainment of human needs exist in a variety of societal systems

6. In facilitating the attainment of basic life sustaining and enhancing human needs, the home economist can work directly with the family in the process of transforming resources to need satisfaction, or with sub-systems or supra-systems of the family system

7. Irrespective of the position on the projected continuum of professional services facilitating the human attainment of life sustaining and enhancing needs, a philosophical attitude that recognizes the family in its variety of forms as a primary, vital, and





pivotal unit of society within which human beings are nurtured and sustained should characterize and influence decisions of the professional home economist

8. Within the broad professional role of service to the family unit, the individual professional's service will be characterized by the depth of understanding the individual has of one or more of the life sustaining and enhancing human needs; of the processes necessary to attain these needs; and of the enabling societal system one selects to function within to facilitate the attainment of these needs

Based on these principles eight interdependent areas of knowledge essential for a professional home economist with a human ecological perspective were identified (see Figure 26 and pages 219-223). The interdependency of these bodies of knowledge is consistent with the principle that home economics subject matter is synthesized knowledge which when used for improving the quality of individual and family life becomes a practical science.

The final goal of this study was to develop a curriculum model embracing the principles and objectives generated in each of the preceding segments of the study. The model is intended to reflect the basic conclusion that an understanding of the principles of human ecology will serve as an integrative link in a curriculum uniting the goals of liberal education with the philosophy and subject matter identified as unique to the profession of home economics. The primary developmental objective of the curriculum is a home economist with a human ecological perspective. Subsumed in this is the intent to allow



flexibility for the development of the knowledge and skills necessary for more specialized career goals. Subordinate curriculum objectives align with the concept of a human ecological perspective, the family ecosystem focus of the home economics profession, and the specialized knowledge needed in a particular professional role.

Inasmuch as a liberal arts college was established as the logistics of the curriculum, the goals of liberal education are presumed inherent as well as the availability of curricular resources common to a liberal arts college. The curriculum model itself could be considered the conclusion of this study. Its broad dimensions, statements of objectives, and specific components present a "human ecological approach" to the formation of a professional home economist in the context of a liberal arts college.

The model has four major components each of which is enlarged upon with a rationale and descriptive discourse. These are: Foundation Courses selected from the basic arts and sciences, the Human Ecology Major, Supporting Discipline Courses selected from other departments, and Electives. The human ecology major is structured around a core of courses which focus upon understanding the principles of human ecology, the family ecosystem as a subsystem of the universal human ecosystem, and the affect of the interaction of systems upon the quality of human life. Other segments in the major provide for the development of specialized theoretical and technical knowledge focusing on the science and art of satisfying life sustaining and enhancing needs. A minimum of one "support system" course within each student's major aims to integrate an understanding of the satisfaction of a single

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need with the objectives of the core, and with the other areas of knowledge. A second type of integrative course within the student's major aims to apply the human ecology-family ecosystem principles in the context of the student's specialized knowledge of a life sustaining need to a professional service area. Figure 27 demonstrates the inter-relationship of the core courses with other courses within the major and with other components of the students total program.

The final chapter of the study attempts to validate the model by correlating its components with the objectives and bodies of knowledge identified as essential in the other phases of this research. A second mode of validation demonstrates the adaptability of the model by demonstrating how its principles and structure would be incorporated into the total program of a human ecology major at Marygrove College in Detroit, Michigan.

#### Additional Observations and Implications

In the context of the preceding review of the research process and the conclusions arrived at which gave direction to and support the proposed curriculum model, it is appropriate to identify some other observations and implications generated by the study.

1. The curriculum model proposed and the rationale supporting it are founded on an understanding of human ecological principles. As a philosophical base for decision making these principles cannot be simply taught. It is intended that, particularly through the core courses, they be presented in various modes over a four year period. Further, within courses, it is expected that the student would be



encouraged to apply ecological principles in the analysis of family and human ecosystem issues.

2. In the context of ecological principles as applied to the family, the essential life sustaining and enhancing needs of food, clothing, shelter, and human interaction become the logical areas for specialized investigation, knowledge, and service for a professional home economist. Each of these can be further subdivided suggesting many related areas. To fit into a human ecological framework for decision making the area of analytical interest and service must be seen in relation to the total family-human ecosystem schema.

3. Due to the emphasis in the final projection of the model on understanding the principles of human ecology, the earlier conclusion that the ends of liberal education are a need for every professional may have lost prominence. It is expected that the liberalizing goals would permeate all teaching. Secondly, it is expected that the foundation courses identified would both provide the basis for understanding the elements of a human ecological system and also introduce the student to the various kinds of human inquiry. If realized, these assumptions would promote the liberalizing ends.

4. An undergraduate program is not a final step in the development of a professional person. Continual quality professional service is dependent upon both future formal education and the ability to self-develop through experience and the selection of non-formal learning opportunities. The model presented is intended to provide adequate foundation for this continual growth through knowledge in the basic arts and sciences and the development of intellectual and judgmental





skills.

5. Throughout this study the close relationship between the ends of liberal education and the concept of human ecology has continually surfaced. It is anticipated that either pursued to the fullest would merge as one. The commonality is a holistic perception and a dependency on a broad range of knowledge. The difference is that a human ecological approach defines the means to achieving the holistic view as understanding ecological principles and the implications of interdependency. The concept of a liberal education is broader and allows for the identification of a range of ways to achieve the unity desired.

6. The holistic, human ecological perspective proposed as the major curriculum objective derives from understanding the inter-dependent nature of the component parts of a system and that the whole of an ecological system is greater than the sum of its parts. In presenting the model it is recognized that there are other means of achieving a holistic perspective. Each means derives from a different integrating principle.

7. Although the model itself focuses on the development of a professional home economist, the complex nature of our society today and the issues any professional should consider suggest that the model and its rationale could be a viable means for developing an integration of knowledge and a framework for decision making in preparation for any professional or human service role.

8. The complex issues that the human society must examine today require the collaborative efforts of specialists from many areas.



A human ecological perspective provides a conceptual framework for understanding this need, for examining the issues and for judging the effectiveness of proposed solutions.

9. A distinction needs to be made between the ability to view problems in a human ecological perspective and the arrival at solutions based on an ecological analysis. The latter is more difficult and implies the need for data, for ways to make analyses, and skills in weighing data so as to achieve the desired equilibrium. The model does not presume to develop the latter to a high degree of competence. Rather, it provides a start for further development in this ability.

10. A valid curriculum model should have three major components: objectives, learning experiences, and means of assessment in terms of objectives. The model presented is a theoretical model. Its emphasis is on objectives and the identification of ways to achieve them. It is expected that its implementation will require adaptation and that evaluation through use will either confirm it as functional or suggest change.

11. Critical factors were enumerated as affecting the attainment of the ideals of the curriculum model. Among these were the interrelationship and interdependency of the human ecology major with the offerings of other departments of the college; the commitment of faculty and advisers to the ideals promoted; and the competence of the faculty to teach in a manner conducive to attaining the liberalizing ends of education as well as to interpret the subject matter being taught in relation to human ecological principles. These factors support the need for faculty development as essential



in the implementation of the model.

12. As indicated, the effectiveness of the curriculum model presented is dependent on interfacing the human ecology unit with other academic units. This interdependency itself can be considered a human ecological approach. An increase or decrease in the ability of any interfacing unit to achieve its designated objectives will affect the final outcome. A change in one unit, likewise, can be offset by a change in another, if the first change is perceived. From this observation and in keeping with the principles of systems science, the task of monitoring a program based on the interaction of several different units is more complex than for a single autonomous unit or a fully segmented unit. This reinforces the need for faculty and administration to understand the principles undergirding the interdependency in relation to the outcomes desired.

13. The research has affirmed the frequent observation that the goals of the home economics' profession are very comprehensive. It has supported (1) a family ecosystem focus as a unifying theme for diverse but interrelated professional activities, (2) the need of the profession to understand human ecology-family ecosystem principles and their application, and (3) the need to delineate further the relationship and interrelationship of the profession of home economics with other professions that service the family and facilitate the attainment of human needs for the improvement of the quality of life.



### Limitations of Study

The major limitation of this study has been in attempting to achieve integration of the ideas while at the same time giving adequate analysis to its component parts and the supporting rationale for their integration. This limitation is evidenced in the development of the study, in the projection of the curriculum model, and in anticipating its implementation. A college curriculum and its philosophical foundation is itself an ecological complexity. Efforts to restrict the analysis were aborted by the need to explore and relate interdependent systems. The human ecological concept itself intensified this need. Throughout the study summaries and paradigms were used to facilitate the progression of thought, the perception of key ideas, and the conveyance of interdependency. Considered necessary, these efforts may seem to convey repetition. The research effort has further been complicated by the fact that the analysis has been in the realm of ideas rather than based on quantifiable data. A further challenge is seen in the implementation process of finding an effective means to move from this expanded philosophical base to a simple statement of purpose conveying the desired message to the public.

### Final Statement

This research has indicated that an understanding of the principles of human ecology can unify liberal and professional ends of education while emphasizing the family ecosystem as the focus of the knowledge and service of the professional home economist. It has shown that the development of a human ecological perspective is





consistent with and complements the goals of liberal education which is considered the primary objective of a liberal arts college. At the same time, the family ecosystem focus within the broader concept of human ecology gives purpose to and defines areas for concentrated study and professional service. The human ecological principle of the interrelationship of societal systems allows for a range of professional activities dependent upon specialized knowledge from other academic disciplines.

Thus, it can be said that a human ecology department in a liberal arts college while focusing on a system within the whole will simultaneously be responsible for the synergy of other academic studies into a total academic program viewed as an entirety through the integrating force of an understanding of human ecological principles.



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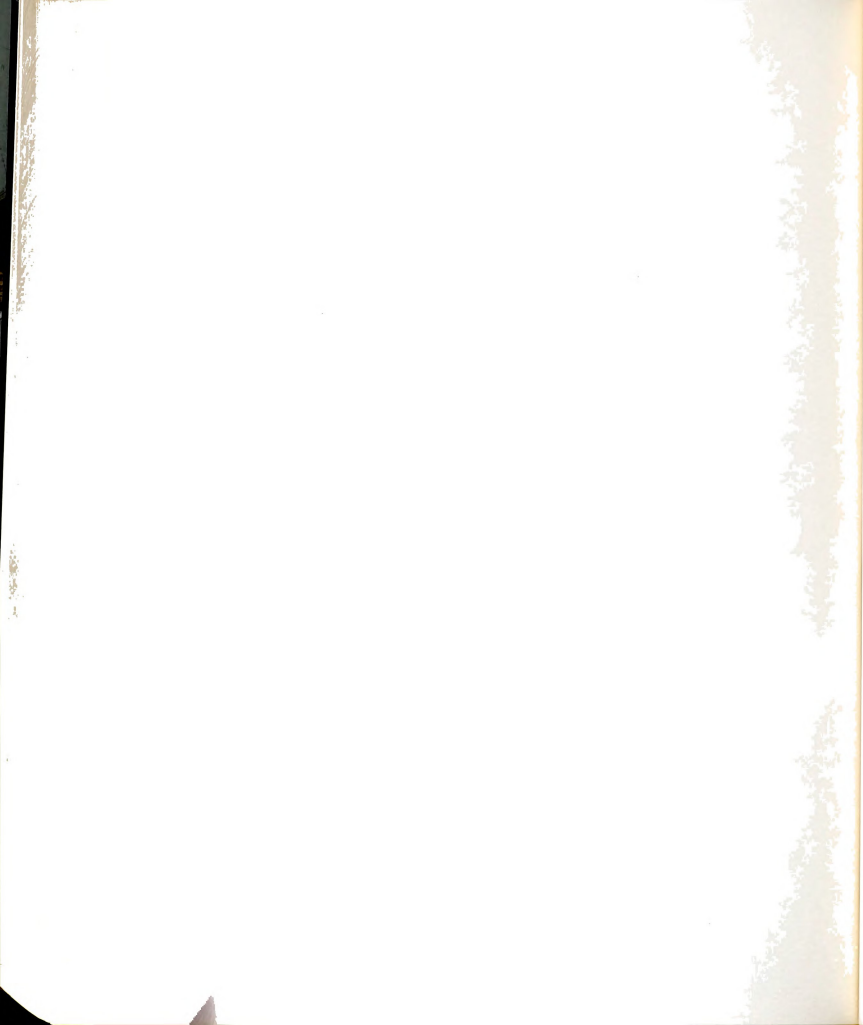




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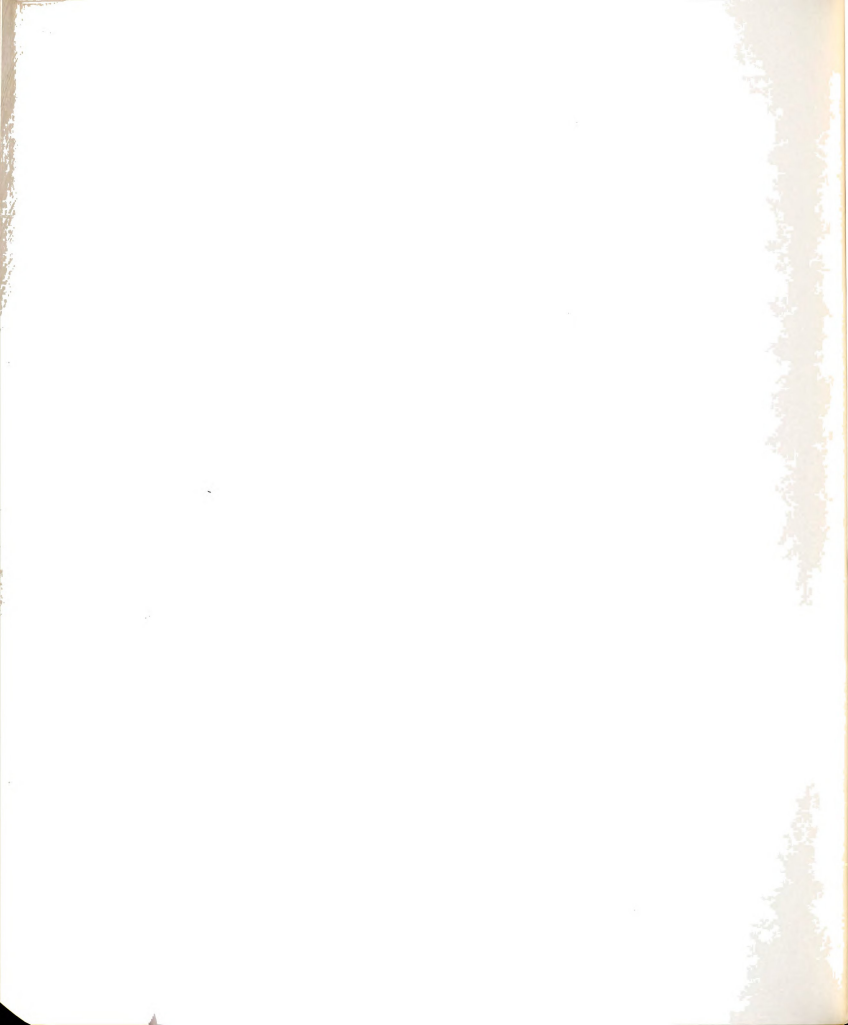
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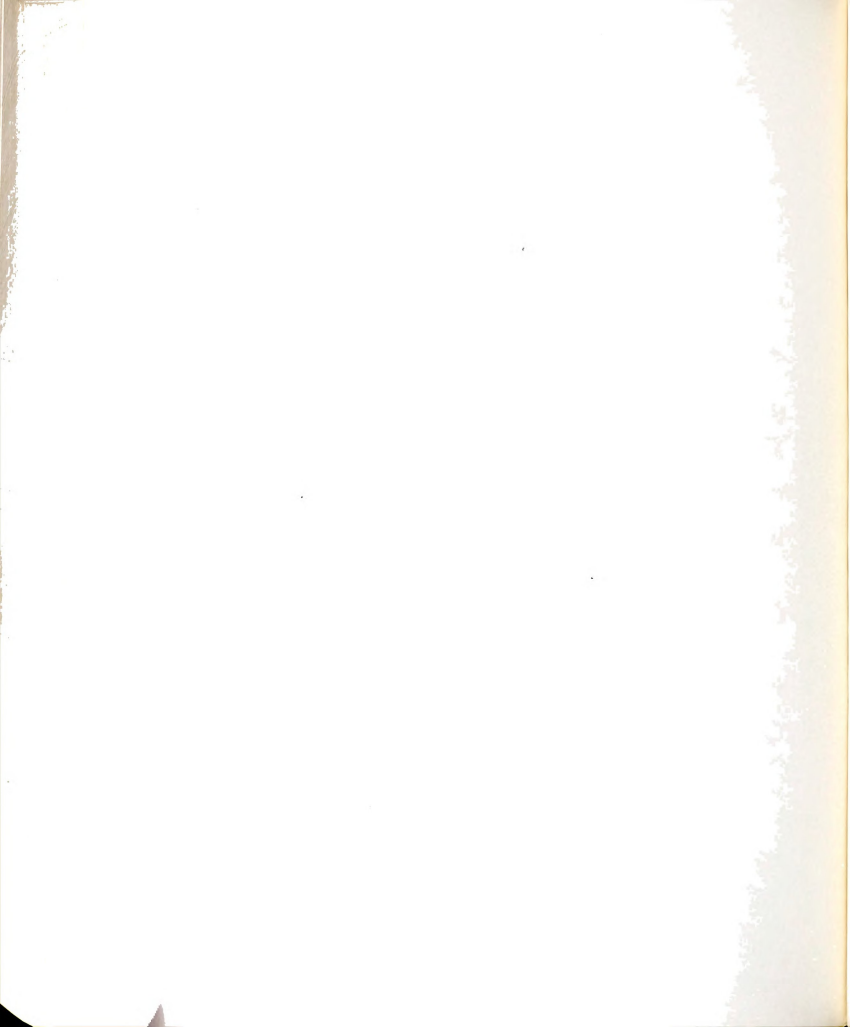
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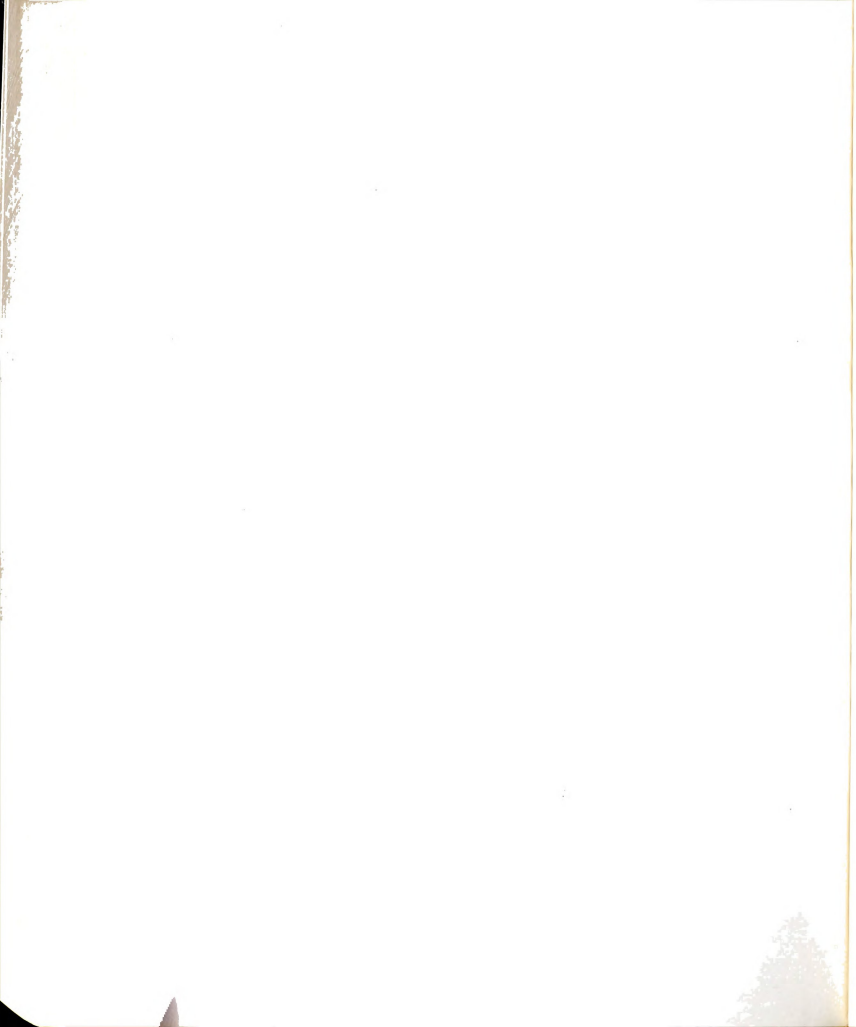


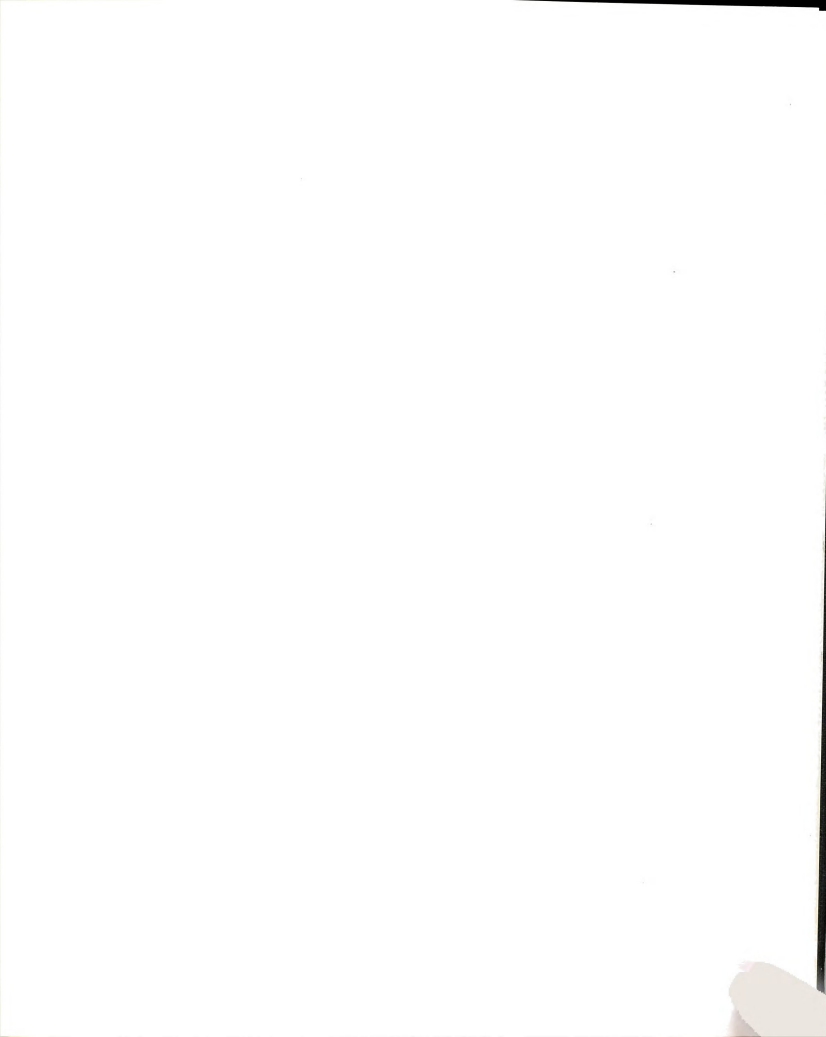


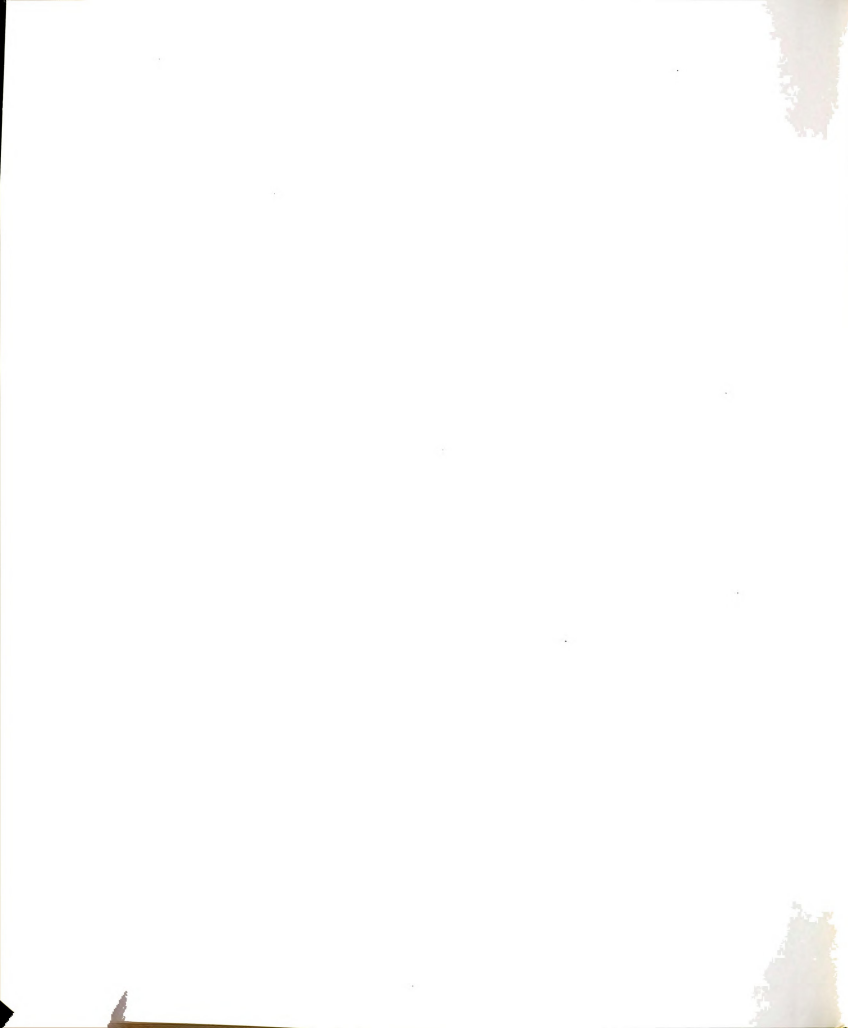














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