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Intuitive and intentional change agency.

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INTUITIVE AND INTENTIONAL CHANGE AGENCY

A Dissertation Presented

by

Nancy McCormick Rambusch

Submitted to the Graduate School of the
University of Massachusetts in
partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

May, 1977
Education

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I am indebted to many people
for my insights. I am indebted
to Rob and Alexandra Rambusch
for my inspiration.

ABSTRACT

Intuitive and Intentional Change Agency

May 1977

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The purpose of this dissertation is the presentation of an experience of "change agency" deriving from the exposition of four field efforts, in the light of a number of theoretical constructs dealing with change.

A social movement, the American Montessori effort, found as its expression the development of a national society, while the ANISA model, a research and development model of educational change transformed a public elementary school in Maine. The culturally accommodated insights of Maria Montessori were translated into public and parochial elementary educational practices in Children's House, Cincinnati Public Schools, and St. Mary's School, Hamilton, Ohio.

As the broker of change, the author presents metaphors which have proven particularly apt in the explication of the change endeavors. Ronald Havelock's notion of the "change agent," the multi-faceted link between an idea and its realization, is one. Donald Schon's model of the career of change as "the center-periphery model of innovation diffusion" is another, as is his metaphor for the transmutation of an

old idea in a new setting, "the displacement of concept." E.F. Schumacher who sees scale as generative in all change efforts, provides in the notion of "small" as "beautiful," yet another.

There is a paucity of information on the natural history of change, or the way in which change really occurs, seen from the side of those who are involved. Four short natural histories of change are offered in an attempt to demonstrate the way in which lived experience may reflect theoretical formulations retrospectively.

The experience of a change effort tends to be reported only from the moment when the public face of the endeavor is unveiled, the day school begins or the clinic is opened . The "before the beginning" stage of change efforts is reported by the author as a critical part of their natural history and one which implicates the change agent in both the translation and transmutation of the "message" to be brokered.

The conclusions of the study draw together the common strands of all of the author's documented change efforts in the creation of "settings" for change. Also included are the author's recommendations to those planning on undertaking intentional change.

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I N T R O D U C T I O N

My work as an innovator has been in the translation of educational metaphor from one culture to another, from one institution to another, and from one scale to another. I have played a variety of roles in the drama of innovation diffusion. I tried to vivify otherwise dead ideas and transmit living ones in their vibrancy. I tried to enliven ideas, not embalm them. Often I failed; occasionally I succeeded.

Twenty years ago I launched an intuitively planned change effort in early education, the American Montessori movement. Ten years elapsed from the time I wrote the first American magazine article on Montessori education to the time I resigned as president of the American Montessori Society, the group charged with its diffusion. Those ten years, 1953 to 1963, marked the "installation" period of American Montessori education as an innovation.

From 1973 to the present, I have worked as an intentional "change agent" in four small elementary schools, three public and one parochial. I expended energies both in changing schools and in starting them. I agree with Sarason (1971) that these are very different enterprises and that "the creation of settings" is barely documented.

The problems, theoretical and practical, in creating and maintaining a setting that is not self-defeating are enormous and have barely been studied [p. 213].

In this study, I present some comparative reflections on my experiences of "change agency." In doing this, I enter a change agent's "no man's land." There is very little in the voluminous literature on "change" which deals with the contexts of "changing." Sarason (1972)

deplores the surprising lack of available information on the "natural history" of change [p. 21].

My accounts of "change agency" derive both from retrospective reflection on my own experience and from reflection on the "change" literature. Certain metaphors have informed that retrospection. Descriptions of my work owe much to the metaphors supplied me by others. Ronald Havelock (1973) has described the educational innovator as "change agent," very much as I have lived the role. He offers a four-fold description of the change agent as "catalyst," "solution giver," "process helper," and "resource linker." While establishing and diffusing American Montessori education, I acted as "catalyst." While working as a field site co-ordinator for the ANISA model at McGraw School, I was sent as "solution giver." While bringing an American Montessori orientation to public and parochial elementary education, I was acting as "process helper" and "resource linker." Donald Schon (1971, 1963) has suggested two incisive ways of considering my experience. His metaphor, "the center-periphery model of innovation diffusion," fits closely my early Montessori and ANISA experiences while his notion of "the displacement of concepts" illuminates further my Montessori effort. My concern for perceiving change in relation to small, comprehensible groups is reflected in the work of E.F. Schumacher (1973). Although I endorsed heartily all of the changes I espoused, my concern in this study is not with the substance of the innovations I brokered, except as my "change agent" function was affected. I am more interested in patterns of school organization, relations between the field and the "home office," roles played by me and others, and actual on-site

experiences. I see my role as one that is "artful" rather than "scientific." For this reason, I eschew any attempt to describe and discuss my experiences, as though they were scientific endeavors. Sarason (1972) would defend my position by pointing out that

when what is being described and discussed is intended as a scientific effort, the writer tends to accede to a tradition in which he presents events and history as being a function of a rational mover--the writer [p. 53].

I accept the notion that what happens to those who create and man settings as they are creating and manning them is of genuine interest and worth, although it is a topic rarely dealt with in the accounts of change efforts. I am aware of the limitations of my task. I (1975) maintained that

What I report...are some personal reflections on diffusion experience. I do not pretend to scientific, historical or even personal objectivity. Retrospective nostalgia and partisan perception are inevitable in any first person account of events [p. 57].

In conceiving this study, I proposed a comparison between my work as an explicator of educational ideas and as a translator of them. I see now that all of my explication was translation of a sort.

DESCRIPTION OF DISSERTATION

Chapter I - Purpose and Rationale

In this chapter, following a historical introduction I present a rationale for a first person presentation of four change efforts, one intuitive and three intentional. I describe Sarason's notion of "the creation of settings" as an appropriate metaphor for the contents of the study, and discuss other metaphors chosen for their retrospective illumination of my work, "change agent," "the center-periphery model of innovation diffusion," "displacement of concepts," and "small is beautiful." I outline the complimentary models of change agent behavior which fit my experience, the "process helper" Havelock (1973) and that of Sarason (1971).

Chapter II - Review of the Literature

I cite the literature on "change" and "changing" as it applies to the "creation of setting" discussion of which this study is an instance. I discuss the area of educational "changing" as an area of research.

Chapter III - The Change Agent

I discuss the metaphors used in the study, "change agent," "the center-periphery model of innovation diffusion," the displacement of concepts," and "small is beautiful" and my efforts as they relate to these metaphors.

Chapter IV - The Experiences of Change Agency

I describe each of the four change efforts, "The American Montessori Experience," "The ANISA Model," "St. Mary's" and "Children's House."

Chapter V - Conclusions and recommendations

I compare the efforts along the dimension of what constitutes a successful setting creation and recommend strategies for those attempting in the future to do what I did in the past.

C H A P T E R I

PURPOSE AND RATIONALE OF DISSERTATION

The purpose of this dissertation is the examination of my work as an acknowledged educational innovator in two modes, the intuitive and the intentional. Diffusing and innovation typically involves the diffuser in the shaping of the message to be communicated, both as a function of the diffuser's personal characteristics and as a function of the way in which the diffusion process is organized and interpreted. Efforts at innovation within apparently diverse institutional settings share communalities which I propose to examine in the light of my own diffusion experiences and of the literature on "changing" as it relates to them.

In the "creation of settings," as Sarason (1972) calls the generalized phenomenon of installing change, "one of thorny obstacles to the understanding and [formulation of them]... is the lack of well described instances [p. 21]." He suggests that

the inadequacy of existing descriptions has several explanations but surely one of the important ones...is that creating a setting is conceptually and action wise as complex a task as can be undertaken [Ibid.].

In the experiences I describe, I functioned as an observant participant, not as a participant observer. What I discuss is not disembodied theory but lived experience in the light of theory, both retroactively and proactively viewed. Therefore, the report of my work as a diffuser of innovation requires me to speak in the first person.

My work as an innovator may be characterized by the metaphor, "change agent," which in the literature of applied social science has

come to mean a person brokering change within institutional settings. The notion includes those who hope to effect change as well as those who are officially designated as responsible for effecting it. My angle of vision in this study is that of a person who has effected change successfully. Meyer (1975) describes the spread of the American Montessori movement thus

Nancy Rambusch and the American Montessori Society can be viewed as change agents. Their decision making activities from the initial perception of a likely adoption surface to their role definitions and activities in pursuit of their goal to diffuse American Montessori education, are important in a behavioral analysis of the diffusion process [p. 65].

Conclusions [of] this study of the diffusion of American Montessori education bear out the importance of the diffuser's role and the validity of taking the diffuser's perceived market surface into account [p. 82].

The "intuitive and intentional change agency" of this study centers on my own experiences in the active enterprise of "changing," and implies all of the following definitions of the word, change:

1. to make the form, content, etc., of something different from what it is or from what it would be if left alone. 2. to transform or convert. 3. to substitute another or others for; exchange for something, usually of the same kind. 4. to give and take reciprocally; interchange [Random House Dictionary, p. 246].

The word "agent" carries with it a double definition, appropriate to my experiences, "an active cause; a person authorized by another to act on his behalf [Ibid., p. 27]." The settings which I describe reflect the two most common instances of "agent" activity,

where the new setting emerges from the existing organization of settings, and where the new setting represents the ideas and efforts of a single individual. In the former a leader is chosen, while in the latter he chooses himself [Sarason, 1972, pp. 72-3].

The use of the adjectives "intuitive" and "intentional" as they apply to the strategies I used in the brokerage process are purposive. In my early Montessori experiences, I was innocent of the literature on "change," "change agents" and what little there was on "change agency." If anyone had called me an "opinion leader" or a "diffuser," I would not have known whether to be flattered or insulted. In the roles I played in the three successive intentional change efforts I describe, ANISA at McGraw, St. Mary's and Children's House, I was aware of the "change" literature and consciously chose "changing" strategies which accorded with my earlier successful intuitive choices.

I take "intuition" to mean arational perspicacity, implying the ability to perceive situations clearly enough to act on them immediately and nonreflectively. Both the philosophical and the operational definitions of the term, "intuition," bracket my use of it.

Intuition: (mod. philos.) The immediate apprehension of an object of the mind without the intervention of any reasoning process...direct or immediate insight...; of sight or vision that consists in immediately looking upon an object, and sees it as it is [The Shorter Oxford Dictionary, p. 1105].

The notion of "intention" as I employ it combines the dictionary definitions of "straining or directing the mind or attention to something [Ibid., p. 1091]" and "that which is intended; a purpose, a design [Ibid.]."

The title, Intuitive and Intentional Change Agency, describes the focus of my study. I offer an account of various strategies I used as one who either assumed the leadership role in the changing or creation of a setting or as one who was given this role. Initially, I used "changing" strategies which were neither intentionally nor

consciously chosen. My role in the diffusion of American Montessori education serves as an example of intuitive change agency. My roles in the diffusion of the ANISA model, and in the extrapolation of American Montessori education to the elementary school at St. Mary's School and at Children's House exemplify intentional change agency.

Change has been characterized as "the metaphysics of our age [Bennis, 1972, p. 25]." In all sectors of society, it proliferates at an exponential rate. The general public is assaulted continually by future uncertainties impinging on an unstable present. Every paperback rack has books with titles like Future Shock and The Tyranny of the Transitory. All professional disciplines are experiencing the effects of a "knowledge explosion" coupled with the rapid obsolescence of their practitioners' acquired information.

Scholars (Havelock, 1975, Chin and Downey, 1973) have heralded cautiously the arrival of a new discipline, knowledge utilization, in which the implications of change figure heavily.

...A new discipline has begun to emerge. The new discipline is the study of changing behavior deliberately - the inducement of change in which the concepts of change are embedded in a framework of bringing about change [Chin and Downey, 1972, p. 513].

Havelock (1975) suggests that it may be premature to describe this emergent discipline as a "science."

In reality, knowledge utilization is at best a crude art occupying the undivided attention of only a small scattering of scholars in three or four centers of learning [p. 1-1].

Knowledge utilization will need to be characterized by systematic "knowledge building" and "institutionalizing [Ibid.]." It is with the "institutionalizing" of knowledge utilization that this study deals.

Havelock argues that, in addition to the creation of organizational bases, university-linked centers, research and teaching facilities and departments focusing on the study of innovation, there is a need to develop training programs for those involved in dissemination and utilization strategies as change agents [Ibid., p. 1-2]. Schon (1971) has described most persons filling change agent or network roles, up to this time, as self taught. Rogers and Shoemaker (1971) have delineated a list of the personal characteristics of individual diffusers which appears to correlate significantly with change agent success. One could argue that when the "knowledge utilization" discipline becomes mature, such imprecise measures may be abandoned.

Along with the integration [of the many pieces of research, anecdote, case history and theory on utilization] should come a more developed, more general and more useful theory of utilization to replace the fragments of theory borrowed from psychology and sociology which have composed the theoretical base heretofore [Havelock, 1975, p. 1-1].

The attempt to refract my experiences as a diffuser through the prism of current "knowledge utilization" theory has resulted in necessarily fragmented imagery. I have used a series of metaphors to illumine my experiences, including that of "change agent." I have also used some "fragments of theory, borrowed from psychology and sociology" described by Havelock, in choosing models of diffuser behavior closest to my own experiences. These are Havelock's "process helper" (1973) model and that of Sarason as developed in The Culture of the School and the Problem of Change (1971).

Metaphor proved a valuable tool in describing the several settings I created. Metaphor is defined as

a figure of speech in which a word denoting one subject or idea is used in place of another to suggest a likeness between them [Merriam-Webster, 1975, p. 439].

The "change" literature is full of metaphors referring to diffusers as "conveyors," a notion from the assembly line, and as "catalysts," one from chemistry. Those metaphors which illumine my own experiences, aside from that of "change agent," the generic name for my activity, are "the center-periphery model of innovation diffusion," "the displacement of concepts," and "small is beautiful."

The "center-periphery model of innovation diffusion" deals with two dimensions of experience, the time perspective of the idea to be diffused and the territorial scale over which the diffusion occurred. The image evoked by the metaphor is that of a wheel with hub and spokes. If an idea, like that of the Montessori "method" or the ANISA model is propagated in the lifetime of an originator who also sends others to propagate the idea, then they become its second generation propagators; I was one in establishing a Montessori movement in America as the representative of the International Montessori Association, and in taking the ANISA model to the McGraw School from the University of Massachusetts, where its originator propagator, Daniel Jordan, was located. These ideas in my hands became second generation ideas. Meyer (1976) suggests the difference between the two generations of propagators in the following way.

[There is] a distinction between those agents dispatched by a propagator to operate propagator-established diffusion agencies (equivalent to change agents employed by a propagator) and those who have actually adopted the propagator's

innovation and then established diffusion agencies with or without the propagator's support [p. 18].

If an idea, like the Montessori idea, becomes, in the hands of a second generation propagator, a "new" idea, it then represents another metaphor, that of the "displacement of concepts." This metaphor explains the transformation phenomenon of an "old" idea meeting a "new" setting and thereby becoming "new." My work as an originator-propagator of the "American Montessori" idea is an example of concept displacement.

The notion of scale, expressed in the "small is beautiful" metaphor, is a direct reflection of my experience in the creation of small settings for educational change. There is considerable negative evidence to correlate the failure of ambitious broad spectrum school reforms with attempts at their incarnation in system wide educational settings.

Large scale efforts failed to produce large scale changes partly because it is so difficult to make a dent in the public school system [Matters of Choice, n.d., p. 4].

A particularly apt metaphor for the content of this study is Sarason's "the creation of settings (1972)." Despite the enormous literature on various aspects of "knowledge utilization" (Chin & Downey, 1971, Havelock, 1975, Kurland & Miller, 1966, Maguire, 1970, Stuart & Dudley, 1968), the "relationship in which two or more people come together over a sustained period of time in order to achieve certain goals" [Sarason, 1972, p. 1] is a barely studied problem. "The creation of settings" notion is important in the development of this study because it focuses on precisely those aspects of change and change agency with which I deal, aspects which, although attended to in situ,

tend to be ignored in the literature.

Literary utopias do not require incarnation.

[Utopian literature] permits one to bypass the realities of the creation of new settings and societies. What literary utopias have in common is that they were brought into existence by an act of controlled fantasy, and they avoid the evils of creation by a process analogous to the belief in virginal birth [Ibid., p. 6].

We live in a time in which serious efforts are being made to create real settings encapsulated within the larger society but consciously and deliberately aiming at being different from it. Obviously, literary utopias will supply little direction for such efforts. When we look for information on settings in the real world, we find few described in ways helpful to those intent on "setting creation." Sarason suggests that the principal information to be gleaned from a perusal of the records of American nineteenth century utopian efforts is in terms of personalities rather than strategies [Ibid.].

The success or failure of a change effort, has most often been discussed in terms of a single, dominant personality. Sarason (1972) describes this as the history of the setting "seen primarily as a function of some combination of a single individual's temperament, intellect, and motivation [p. 24]." Thus, an understanding of "the Harmony Society," a nineteenth century American utopian community is described by Nordhoff (1966) in terms of its founder, George Rapp.

Rapp was, with the help of his adopted son, the organizer of the community's labor, appointing foremen in each department; he planned their enterprises- but he was also their preacher and teacher; and he taught them that their main duty was to live a sincere and religious life; that they were not to labor for wealth, or look forward anxiously for prosperity; that the coming of the Lord was near, and for this they were waiting, as his chosen ones separated from the world [p. 3].

A second frequently found explanation used to understand the creation and development of a setting may be characterized by the word, Zeitgeist, "the general intellectual, moral and cultural state of an era [Merriam Webster Dictionary, p. 816]." Sarason describes it thus:

The setting reflects what is in the air, and what is in the air derives from the existing social structure [Sarason, 1972, p. 25].

Thus does J. McV. Hunt suggest that the reawakened American interest in the work of Montessori after the Second World War was due to changed atmospheric conditions. "Montessori's pedagogy appears to fall in step with what may well be a new zeitgeist [Hunt, 1964, xxxi]." One may see either or both of these approaches as inadequate to fully encompass the complexities of the setting in which change occurs. I maintain that, at present, there are no others as ready to the pen. Thus have I utilized a combination of both in the perspective I use in reporting my change efforts.

There are differences between the creation of settings as outgrowths of already existing ones and those which represent structures thought "new." In both cases, it is important to have some notion of what Sarason calls the "before-the-beginning" phase of the setting creation. No project starts the day its clients arrive. Its context began developing far in advance of that moment. It is precisely the context establishment that may signal the change effort's potential for success or failure. I have attempted in the four examples of change agency I present to provide adequate "before-the-beginning" information, in order that each setting be adequately understood.

New bureaucratic settings or those that are perceived as new are usually expected to perform better the functions heretofore performed by other parts of the same organization. Therefore, from the beginning, inbuilt conflict concerning the new project exists within the larger organization, and is to be expected. Sarason suggests that

...the before-the-beginning period contains organizational dynamics which tend to work against rather than for the new setting in the sense that the heritage is marked by conflict, real or potential [p. 30].

Lest those who initiate change efforts outside bureaucratic structures feel immune to the before-the-beginning problems plaguing already established institutions, Sarason warns that these too represent responses to oblique public pressures. In my early Montessori effort, I provided a text book example of Sarason's description of the creation of a brand new setting.

Each[setting] reflects in some way a public problem, and in the minds of those who create the setting there may be a sense of urgency that they can do something about the problem, but there is no external pressure on them to create the setting. Second, the felt need for the setting as well as the decision to try to create it is that of a single individual who is and remains, for some time, the leader, the organizer, the mover. Third, there is a guiding idea which lends distinctiveness to the proposed setting, and which, in one way or another, is considered to be better or superior to the ideas behind existing settings. Fourth, the competition between the new and the existing settings is viewed minimally, or not at all, in terms of limited resources but rather in the realm of ideas and values. Fifth, the changes of success for the new setting are considered high precisely because it is outside the influence of existing bureaucratic organizations which would dilute, or subvert, or abort the superior ideas or values [p. 33].

The evolution of the ANISA model, although it centered in a university and addressed itself to public schools may be seen to share many of the characteristics of the extra-bureaucratic model just described. What

these two instances of setting creation have in common, according to Sarason is "the characteristic of superiority of mission, that is, competition in the realm of ideas or values with the clear implication that the new setting will be better than existing ones [Ibid.]."

In the creation of settings, the choice of a leader is critical, whether or not the leader be seen as a personality or as one embedded in an organizational matrix. In bureaucratic settings, leaders are typically designated; in non-bureaucratic settings, leaders typically designate themselves. In my early Montessori effort, I was first, a self-chosen leader and then a designated one; in the ANISA model Daniel Jordan was both self-chosen and designated leader; in my later Montessori work at St. Mary's and Children's House, I worked with principals who were designated leaders. In brokering change efforts, some of the most complicated problems arise between the designated leader and the change agent. Sarason (1972) suggests that there are three reasons why the relationships involved in the creation of settings are not illuminated in the literature. The first is that the guiding conception of most change efforts does not require close attention to the context of change. A frequent assumption of those intent on effecting change is that the substantive idea itself will draw and bind those working for its implementation together in some transcendent way. Second, discussions of interpersonal conflicts in setting creation and change effort "require description and discussion of touchy, conflictful, or downright messy events and relationships which writers would prefer to avoid [p. 53]." Finally, the notion of change efforts as scientific causes the writer to assume a completely rational stance

in relation to events. Most importantly, in writing the history of a setting, particularly one devoted to some form of human service, the focus is most often on the evaluation of the setting in terms of what was done for others. The question of what happened in the creation and manning of the setting is barely discussed because it is seldom seen as relevant. I see this question not only as relevant but as central to this study.

A critical dimension of the creation of new setting is the definition of the leader's core group, those charged with carrying out the mission. The leader tends typically to think of the core group as a family.

[The leader] thinks in terms of a ⁰care group: usually a handful of people who will be closest to him interpersonally and statuswise. They will be 'his family' to whom he delegates responsibilities and powers second only to his own... What does a leader mean when he says he has 'chosen' a member of this group?...The most frequent answer is that the individual has been chosen to do a particular job- to utilize his knowledge, experiences, and skills so that the purposes of the setting will be realized [p. 73].

What the leader's answer reflects is the emphasis placed upon the formal task and the purposes of the setting, not its context. Sarason argues that the relationships implied in doing the job are far more complex than mere verbal agreement on shared purpose.

The safest and most obvious prediction one can make about the relationship between the leader and a core individual is that there will be problems. The sources of these problems are many, among which personality is but one [p. 74].

Not only problems between the leader and members of the core group are a certainty, but also problems among the core group members.

When...problems arise it is the leader to whom the core members come for a decision, a practice which sounds reasonable (as it sometimes is) but in practice has the effect of rendering the core members increasingly unable among themselves to anticipate and manage problems peculiar to their role relationships [p. 79].

When a change agent is working as a consultant with a school principal as the designated leader, this problem surfaces as the question "Who is in charge, here?"

In this study, I speak as a creator of settings, as one who has done what the literature talks about, both because I have brokered change in schools, and because I was at the epicenter of a national movement, from its beginnings. I agree with Sarason that leaders are not different from other people except in their possibilities. They do what others hope to do or write about doing. Sarason maintains that

creating a setting is one of man's most absorbing experiences, compounded as it is of dreams, hopes, effort and thought. In the lives of individuals few things rival their participation in the creation of a setting for poignancy, memories and meanings [p. 272].

Finally, creating a setting can be likened literally to a collaborative work of art.

Like a work of art the creation of a setting requires of a group that it formulate and confront the task of how to deal with and change reality in ways that foster a shared sense of knowing and changing and allows it to regard its development as a necessary antecedent to and concomitant of its effort to serve or please others. Like the artist, its problems are never solved once and for all, they are ever present and varyingly recalcitrant, they discourage and distract, but it knows that this is the way it is and has to be and there is no good alternative to trying and learning. It treasures feeling and reveres reflection and calculation; it knows that there is always a tension between the two from which something new may emerge [p. 283].

The operational strategies in my intentional change efforts derive from the work of Sarason in The Culture of the School and the Problem of Change, and from Ronald Havelock's notion of the change agent as "process helper (1973)." Sarason, a psychologist, utilized his own work in the founding and maintenance of the Yale Psycho-Educational Clinic in his discussions of modal change. Havelock, a pioneer in the "knowledge utilization" discipline is a specialist in educational innovation.

Sarason suggests that the change process in education involves fundamental assumptions governing three general types of social relationships in the school,

those among the professionals within the school setting, those among the professionals and the pupils, and those among the professionals and the different parts of the larger society [Sarason, 1971, p. 47].

Any proposed change affects and is, in turn, affected by all of these types of social relationships. This fact is neither stated nor faced in the modal process of change in the school culture, Sarason maintains [Ibid.]. What intentional change in a school setting is about is an intended change in the relationships of those who are in or related to the school setting. Thus, the substance of a given change may be less important than the effect it has on the social ecology of the school.

Sarason is tentative about the right entry point for change. He proposes that changes not start "all at once." Not only is he unsure about where to start in a change effort; he is not sure who should start it. He argues against the notion of change agent omniscience, questioning whether the typical change agent knows and understands the

targets of change and the relationships within the school culture sufficiently to make appropriate judgements. He also wishes to preserve the right of the change agent to change judgements in the light of emergent information. The decision of where to start change might better be that of the target groups within the school.

In the implementation of change, Sarason considers time perspective of critical importance. He emphasizes the critical nature of what he calls the "before-the-beginning" phase of the change effort. If time perspective does not inform the planning stages of a change effort as a serious consideration, the whole effort may be imperiled. Everyone involved in the change effort needs a common time perspective. Otherwise, he argues, "the seeds of conflict and disillusionment are already in the soil [p. 215]." In practice, the desires of the change agents to get started frequently result in a bypass of different aspects of the time perspective problem which result in fatal consequences for the change effort. On the other hand, Sarason reports and I concur, that unrealistic time perspectives often come from within the target groups.

Finally, Sarason defends the notion of an ubiquitous universe of alternatives always available during change efforts. He sees as essential the development of formal means that protect change agents from "undue constriction in possible ways of thinking [Ibid]."

Sarason maintains that the major problems which change agents confront in the schools derive from what he calls the "school culture," systemic characteristics that are contextual, and infrastructural.

Culture and system are not concrete, tangible, visible things in the way individuals are [Sarason, 1971, p. 228].

They are nonetheless real and must be dealt with in any change effort.

Ronald Havelock in The Change Agent's Guide to Innovation in Education (1973) outlines a six stage strategy for implementing change which, together with Sarason's, I have found useful in my intentional change efforts. In describing how a change agent works, Havelock delineates the following stages:

- 1) Relationship, wherein the change agent develops a viable relationship with the client system or a solid base within it.
(This stage corresponds to both the "before-the-beginning" point and the entry point in Sarason's model).
- 2) Diagnosis, wherein, once established in the client system, the change agent turns to the problem at hand, finding out if the client is aware of his own needs. (Sarason would reverse the roles at this stage and ask the client to find out whether the change agent was aware of the client's needs).
- 3) Acquiring relevant resources, wherein the change agent and the client system, working together, identify and obtain resources relevant to solutions sought by the client.
- 4) Choosing the solution, wherein with a defined problem and a lot of relevant information, the client derives implications from an examination of the proposed solutions, generates a range of alternatives, and settles on a potential solution to be custom fitted to the client's needs.
- 5) Gaining acceptance, wherein, after a solution has been developed and adopted, it needs to be moved toward acceptance within the client system. By describing, discussing and demonstrating,

the change team helps the client gain awareness, develop interest, evaluate, try out and finally adopt the innovation. At this stage, all of the resources within the client system are utilized.

- 6) Stabilization and Self-Renewal, wherein the client develops the internal capability of maintaining the innovation without outside help. Clients become their own change agents, using the change agent as model. As this self-renewal capacity builds, it allows the gradual termination of the relationship so that the change agent can move on to other projects, other problems, and other clients.

I found the Sarason and the Havelock models complementary in my intentional change efforts. In every instance, I was working within an existing school or school system seeking a new program. Therefore, I was forced to take cognizance of the educational infrastructure in the "before-the-beginning" phase of planning, as well as during the entire change effort. I take the concept of infrastructure to mean both what is "beneath" the surface in school organization, and perhaps, more important, what is "within" it. In working as the link between the ANISA group at the University of Massachusetts and the School Administrative District 22, in Hampden, Maine, of which the McGraw School was a part, there were both the university and the public school infrastructures to attend to. At St. Mary's School, I attended to the parochial school infrastructure; in Cincinnati, in the planning and installation of Children's House, I worked with the community, the Board of Education, the Central Office of the Schools and the principal

and teachers of the school. It came as no surprise that the teachers and principals of the existing schools in the Cincinnati School District were not overjoyed at the prospect of an expanded alternative school network. All that Sarason says concerning a change effort representing both a program perceived by its partisans as better and by its competitors as a repudiation of their work came to pass.

Havelock's model worked well on specific issues within the larger school framework. A change agent is seen as part consultant and part expert, part insider and part outsider. There were areas in which I was asked for specific answers by teachers; then, I was seen as a "solution giver." In others, it would have been presumptuous of me, as an outsider, to have proposed solutions to intra-staff problems. There were times I was asked for help in areas outside the schools' immediate program; then I was seen as "resource linker." There were times when I was asked to advocate specific change strategies by the clients; then I acted as "catalyst."

C H A P T E R II

REVIEW OF THE LITERATURE

The literature on "change," "changing," "innovation," and "knowledge utilization" is "vast and elusive (Chin & Downey, 1973)." It has developed rapidly in the past decade and comes from many fields of inquiry.

The Center for Research on the Utilization of Knowledge at the University of Michigan has produced the magistral bibliographical materials on knowledge utilization, up to this time. Primary source materials in the area of "change" are found in this group's Bibliography on Knowledge Utilization and Dissemination (Havelock, 1968) and Planning for Innovation (Havelock, 1975). These materials represent the cumulative efforts of more than a decade of exploration, analysis and synthesis of thousands of discrete pieces of knowledge central to the emerging science of knowledge utilization.

This [work] provides a framework for understanding the processes of innovation, dissemination and knowledge utilization and it reviews the relevant literature on education and other fields of practice within this framework. Dissemination and utilization is viewed as a transfer of messages by various media between resource systems and users. Major sections analyze characteristics of individuals and organizations which inhibit or facilitate this transfer. The process is interpreted at four levels: the individual, the interpersonal, the organization, and the social system. Additional chapters deal specifically with specialized 'linking' roles between resource and user, types of messages, types of media, and phase models of the process [Havelock, 1975, p. i].

The collected theoretical and empirical knowledge is grouped into three general categories, corresponding to the principles, models, methods, and orientation of their authors. These are

- 1) the Social Interaction Model which encompasses studies in communication and influence
- 2) the Research Development and Diffusion Model and
- 3) the Problem Solving Model which concentrates on the needs of the user and his processes.

A fourth perspective which attempts the integration of all three models is called a "linkage system" and is largely Havelock's work.

Planning for Innovation (1975) is a basic text for students of change.

Another publication of this group is Havelock's A Change Agent's Guide to Innovation in Education (1973) which translates research findings into practical strategies and provides a directory of major information sources relevant to educational innovation, together with an annotated bibliography of the major works in the field of education.

The bibliography focuses on change within education and was designed as a help to educational practitioners involved in change planning and knowledge utilization. The Guide itself is a handbook for educational change agents. Other summaries, analysis and bibliographies on the literature of educational change are those of Maguire (1970) and Kurland and Miller (1966). Maguire's companion volumes, Observation and Analysis of the Literature on Change (1970) and An Annotated Bibliography of the Literature on Change (1970), are addressed to practicing school administrators interested in change. His intention is to integrate a knowledge of the change literature with that of the educational setting. His observations are organized under the following headings:

- 1) definitions and types of change

- 2) change models
- 3) strategies and techniques
- 4) people involved in change
- 5) sources and barriers to change and
- 6) research studies on the change process.

The bibliography contains annotated sources used in the review. Kurland and Miller's earlier bibliography (1966) on the "how" of educational change draws from the fields of anthropology, industry and technology, international development, medicine, political science, rural sociology and psychology.

Havelock considers as "the most significant integrative effort to date in the general area of dissemination and utilization (1975, p. 1-3)" the work of Everett M. Rogers and his associates at Ohio State University and at Michigan State University. Rogers' The Diffusion of Innovations (1967) serves as a model for other studies since he has undertaken a comprehensive review of the literature, employed an interdisciplinary comparative approach, compiling studies from different research traditions, and attempted to integrate these findings and evolve a theory, based on them. [Havelock, 1975, pp. 1-3]. Rogers has formulated and presented his findings for an audience of social scientists rather than one of practitioners or policy makers. Havelock (1975) sees as a limitation, the restriction of Rogers' review to empirical research findings, since

much of what is now known and much of the information upon which current practice is based is in the form of anecdotes, untested theories or case studies [pp. 1-3].

Rogers' review, in limiting the content area to "diffusion" alone, has excluded research elements which Havelock considers important to the emergent discipline of knowledge utilization.

The first is a very extensive set of general and experimental research findings in social psychology having to do with influence processes, attitude changes, group behavior and organizational behavior. The second set of studies which tends to be excluded is that dealing with major personal and social change where a particular 'innovation' is not clearly identifiable [Ibid.].

Miles' Innovation in Education (1964) is a useful reference volume on educational change. It includes a number of studies which define educational innovation broadly enough to encompass organizational change. Especially relevant to this study is Miles' discussion of "temporary systems" in which are included conferences, collaborative action-research projects and other organized social efforts used for purposes of dissemination and knowledge utilization.

The Co-Operative Project for Educational Development has produced important work under the editorial direction of Goodwin Watson, Change in School Systems (1967) and Concepts for Social Change (1967). These papers, authored by some of the leading scholars in the field, Benne, Lippitt, Miles, Thelen, and Watson, provide a broad theoretical background on the problem of knowledge dissemination and utilization, in general, with a particular emphasis on education. Havelock suggests that they contain "a great wealth of fresh insights, while ranging across nearly every area relevant to educational change [Ibid., pp. 1-4]."

General change models include those of Rogers (1962) who has laid out a five step theory of adoption and has categorized adopter types,

and Lippitt, Watson and Westley (1958) whose Dynamics of Planned Change provides a useful view of the interface between those who plan and initiate change and those toward whom change is directed. They also offer a seven phase model for introducing change. Havelock and Benne's model, described in An Exploratory Study of Knowledge Utilization (1967) attempts an integration of all the factors seen relevant to the problem of knowledge utilization. Clark and Guba (1956) present a four stage paradigm for education change, characterized as research, development, diffusion and adoption.

All of the models of change focus on four basic elements of the diffusion process:

WHO	WHAT	TO WHOM: TO WHAT EFFECT?
(Resource)	By what channel	(User)

Viewing dissemination and utilization as a system, one sees four inter-related elements:

Basic research Scientists & Systems	Applied Research & Development	Practitioners Practice Groups Practice Systems	Consumers Consumer groups Society as a Whole
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[Havelock, 1975, pp. 1-12].

The number of studies relevant to each element of the dissemination and utilization process shows where the emphasis is, in the literature. Havelock (1975) reports that of 4,000 studies classified, the largest number (36.3%) were those in which the author's primary concern was "to whom." The "to whom" as receiver of new knowledge could be a person, a group, an organization or a culture. Of the identified studies 14.8% were concerned with describing or discussing the "who," made up over one half of the studies identified (51%).

The second most popular category is "how" (21.6%), which deals with the various types of media or mechanisms for the dissemination and transfer of knowledge. Discussions of strategies and tactics are included in this category. A somewhat smaller number of studies focus on the "what" of change (11.4%), the characteristics of the innovation to be diffused. The remaining categories, "to what effect" (9.5%) and "why" (6.4%) represent categories relevant to all change efforts. The effect of any diffusion and utilization attempt relates to the criterion of the effort's success.

The aspects of the diffusion process on which my study focuses are those of the "who" and the "how." Thus was the literature on these two aspects of the diffusion and knowledge utilization process of particular interest to me. I considered the typologies of linking roles; those of "conveyor," "consultant," "trainer," "leader," "innovator," and "defender," and of all the linking roles of knowledge builders, practitioners and users; I focused on those of "leader" and "innovator" as most appropriate to my purpose.

There is strong evidence that formally designated leaders (administrators, supervisors) do play a significant role in the dissemination and utilization of new ideas. Carlson (1965) and Richland (1965) demonstrated this with respect to school superintendents. The "opinion leader," another informally designated leadership role merits close attention. Katz (1957) had made the seminal statement on this role. A large body of literature supports the view that the vast majority of those who eventually adopt new ideas do so because they are influenced by some other member of their own group. The function of the "opinion

leader" as a legitimator of new ideas and practices is cited as important.

Anyone contemplating a program of diffusion should consider the implications of opinion leadership and legitimation. In a stable client system with identifiable and strong indigenous opinion leadership, it may be a wise strategy to take the opinion leaders as primary communication targets [Havelock, 1975, pp. 7-13].

The "innovator" was a typology of linking particularly relevant to this study. The "innovator" is seen in the literature as a linker in several ways. The "innovator" may be a latent opinion leader through identification as a successful innovator. Rogers (1962) has validated this occurrence as Schon (1971) has validated the innovator as "advocate" or "product champion." However, Barnett (1953) cautions innovators concerning the "oddball or crank" dimension that often accompanies their efforts.

The diffusion literature deals with the "how" of diffusion and knowledge utilization in a somewhat limited way. Who and what media strategies are used are the principal foci of investigators. Little attention is paid to the context of diffusion, aside from the equation of media and message.

There are not many answers in the literature to the questions "How is knowledge transmitted?" "What channels and media may be employed most effectively to carry this message?" Havelock (1975) suggests that

Information about [these questions] is scattered and where it exists, it is often ambiguous. Nevertheless, it should become apparent that we can get answers to these same questions by applying existing social and behavioral methodologies to the buzzing confusion of ongoing dissemination and utilization activities throughout our society. In other words, we do know how to know how [p. 9-1].

A study of the comparative effectiveness of various diffusion strategies is critical to the intentional diffuser. It is a generally accepted belief that a combination of media or transmission strategies is more effective than anyone used singly, "if the characteristics of the selected media complement one another [Ibid., pp. 9-13]." McLuhan has long stressed this principle for educators.

...it is important that we understand cause and process. The aim is to develop an awareness about print and the newer technologies of communication so that we can orchestrate them, minimize their mutual frustrations and clashes, and get the best out of each in the educational process... Without an understanding of media grammars, we cannot hope to achieve a contemporary awareness of the world in which we live [p. xiii].

The notion of a media "mix," for the transmission of new knowledge, is a historically recent idea.

The written word has long been considered the prime vehicle for the dissemination of knowledge to a mass audience, and has been presumed to be effective. However, the literature indicates that at least three receiver variables condition the effectiveness of the written word:

- 1) education and socio-economic status
- 2) cosmopolitanism, and
- 3) innovativeness.

Schramm (1962), Swinehart and McLeod (1960), Davis (1953) and Myren (1960) all report written media users as having higher educational attainment and socio-economic status, being customers of all media and having a significant degree of willingness to try out new things. Written media appear to be most important in their information giving

function. To be used as a mechanism for arousing interest in an idea or in precipitating its adoption, written media would need to be highly relevant to the intended receivers. Greenburg (1965) found that people who were very interested in a particular topic sought information from newspaper accounts as well as from personal sources, while those less interested relied upon social contacts for their information.

An individual's interest in a topic may be influenced by the character of its original presentation. In this case written communication may not be as effective an arouser of interest as an oral presentation to a live audience, even for highly educated, cosmopolitan and innovative groups. When carefully conceived written material is combined with personal communications and conferences, the degree of adoption is impressive.

The effectiveness of a speaker presenting an innovation depends, according to the research, to a great extent upon the interaction of the individual speaker's personality with the particular audience. The rapport a speaker may establish with listeners is a crucial, but elusive variable in the analysis of such communication.

The extent to which the audience is 'turned on' and 'tuned in' to the speaker and the message is probably the major determining variable [Havelock, 1975, pp. 9-7].

Zajonc (1962) has reported on experiments on cognitive tuning, relevant to speaker rapport with audience.

Another aspect of the effective oral transmission of an innovation relates to the goals of the speaker. If the character of the speaker's message is appropriate to a "one-way" presentation to a live audience, one which the audience finds conceptually comfortable

and one which requires no immediate audience response, then such a strategy may prove useful. Hovland (1957) has demonstrated that for the optimal acceptance of a message, need arousal must precede factual information on how such needs might be satisfied. The order of presentation in oral persuasion is important.

The effectiveness of television and film as media of innovation diffusion is inconclusive and controversial. It is clear that for specific instruction of persuaded adopters, as in the case of "new" medical postgraduate training, both have been proven effective. The impact of videorecording, as an immediate feedback mechanism, one which should be important at the implementation stages of an innovation, is unreported in the literature. Two way radio hook-ups are seen as effective diffusion tools, again from the study of applied medical innovation. Radio has generally functioned in the communication process at the awareness stage of knowledge diffusion. Havelock (1975) maintains that it is hard to ascertain its impact as a first information source [Ibid., pp. 9-9].

The utilization of feedback is an integral part of the knowledge utilization process. Researcher, developer and practitioner must "hear" and respond to expressions of user need and user reaction, if their efforts are to be successful. The most valuable feedback that is not contaminated by "user awareness" can be retrieved often through direct observation of the user or through results of user behavior. Havelock (1975) suggests as the three distinct types of "observation" which can bring relevant indirect feedback to the researchers

- 1) noting the latent content of the user's communication,

- 2) studying the user's behavior or performance, as affected by the dissemination effort, and
- 3) measuring physical signs that are indicative of behavior that has taken place [pp. 9-21].

A typical observation strategy for eliciting user performance information would be a teacher administered evaluation measure. All of the aforementioned strategies focus on one-way feedback; another aspect of innovation diffusion is the two-way transmission process whereby information can be sent and responded to immediately.

The most common form of interpersonal communication is dyadic exchange, the interaction of two people. One of the obvious advantages of this and other kinds of two-way oral communication is the immediacy of the perceived reaction. The establishment of successful dyadic exchange can be seen in at least two successful strategies reported in the literature:

- 1) consultant relationships and
- 2) "Roger's rule"

[Havelock, 1975, pp. 9-27].

The "consultant" relationship is an example of a generically unique type of association, between people of different status levels, who may also be in different fields. The consultant relationship, because it is user-initiated, has the advantage of user openness or readiness for change [Wilkening, 1956].

Carl Rogers (1962) proposed a rule that can be used to intervene and halt or avoid an argument in two person communication. Each person is charged to restate accurately the ideas and feelings of the other

speaker before presenting his own. Mann (1967) developed a technique for dealing with misunderstandings and verbal conflict in an attempt to develop an easily applicable model for dyadic interaction.

Small groups provide an advantageous context for innovation diffusion. The small group's strength in promoting and stabilizing attitude and behavior change through discussion lies in its ability to mobilize the power of peer influence (Festinger, 1954). Hovland (1957) found that the mechanism of public commitment by a group member was influential in the member's subsequent retention of a change. A reliable and predictable successful small group technique for promoting change in individuals within the group is role playing (Havelock, 1975). Role playing is a technique for gaining an understanding of ourselves as others see us and of others as they see themselves.

Two way involvement in large groups means a greater range of differential responses within the group, to the sender's message. The most successful designs for a change within groups of more than two can be clustered under the general heading of "temporary systems (Miles, 1964)." These are recognized from their inception as destined for extinction [Havelock, 1975, pp. 9-29]. The kinds of "temporary systems" most commonly associated with innovation are the conference, the ad hoc task force or team, the research and/or action project, the consulting relationship and the academic course.

Miles describes the skeletal structure of the "temporary system" as input, process and output. The input characteristics are: time, limits, goal definition, and boundary maintenance (i.e. keeping one's team in and others out). Ideally, the "temporary system" should permit

its members to experience physical and social isolation. It should exist as a "cultural island," thus removing barriers to change, reducing conflicts resulting from normal roles, and protecting its members from the larger environment and from the consequences of making mistakes. Miles suggests that "temporary systems" should be limited in size and should operate within a clearly defined territory.

The process characteristics of the "temporary system" are time use, goal redefinition, formal procedures, new role definitions, role definition and power structures. Group sentiments manifest themselves as part of the process characteristics of the system, in a fairly consistent order: "defensiveness, and formality, playfulness, interpersonal liking and acceptance and intimacy, esprit de corps and lastly involvement or engrossment [Havelock, pp. 9-32]." Group norms are another distinguishing characteristic of the "temporary system" process. Successful temporary systems elicit norms of egalitarianism, authenticity, scientific inquiry, hypotheticality, "newism" (or change-proneness), and effortfulness [Ibid.].

The output characteristics listed by Miles are the changes which result from the "temporary system" experience. These are:

- 1) changes in individual participant's attitudes, knowledge and behavior,
- 2) changes in the relationship among the members of the temporary system and
- 3) action decisions resulting from the temporary system process.

Havelock (1975) suggests that the "temporary system" is an important and much needed link in the transmission of new knowledge from

resource to user. All two way transmission processes that succeed require provision for collaboration between the resource and user in both the design and the process of the diffusion effort. Innovation diffusion seen from both the problem solving and the social interaction perspective starts with the user as point of departure; the Research Development and Diffusion model does not. It presumes the user to be passive, though rational.

The design of contexts for change, what Sarason (1972) calls "the creation of settings" is not discussed in the literature. The "before-the-beginning" stage of innovation is rarely dealt with. An important instance of it being dealt with is illustrated in Jean Monnet's role in the creation of three new settings, The European Defense Community, Euratom, and the European Economic Community [Bromberger, 1969]. More typically, in the work of Colarelli and Seigel (1966) Ward H, a comprehensive discussion of a new setting, the authors state: "In July, 1960, the Ward H project became a reality." None of what happened before that date is documented. What was the project's prehistory?

The most important study on the development of a new school is Smith and Keith's (1971) Anatomy of Educational Innovation, the account of two anthropologists spending a year in a new school in which a variety of innovative ideas were being implemented. They gained the inspiration for their work from Selzwick's TVA and the Grass Roots (1966), paying much attention to the "creation of setting" aspects of the enterprise.

Chin and Downey (1973) summarize the state of the research related to "changing" in the following way.

We do not have enough information for a comparative discipline of changing, however desirable such a discipline would be. This is a future task. The practitioner-administrator does encounter unique cases and no theory or set of principles will appear to him to deal with the concreteness of the specific case [p. 517].

C H A P T E R I I I

THE METAPHORS USED IN THE DESCRIPTION OF "CHANGE AGENCY"

The Change Agent

Most successful reformers are innovators who use intuitively appropriate strategies. The test of their arational perspicacity is the extent of their particular innovation's diffusion. A second style of innovation diffusion has grown up in the past twenty years with a literature constructed around it. This innovation or "planned change" attends to the "how" of change rather than the "what." The idea to be diffused is less important than the particular ways in which the change broker succeeds or fails. His performance is seen as relating to his personal qualities and to the ways in which he operates. Havelock (1973) considers the "change agent" as a special kind of innovator, a person who facilitates planned change or planned innovation. The change agent may operate in many ways since the role represents a multifaceted link between an idea's developer and its user. Havelock (1968) emphasizes this.

One of the first facts of which we should be aware when we discuss linking roles is that there are a great variety of roles which could be said to be linking in one way or another. Indeed, connected to every phase, every aspect and every problem in the dissemination and utilization process, one could conceptualize a specific role- someone responsible for retrieving knowledge from basic research, someone responsible for writing handbooks and producing packaged knowledge for potential clients of various sorts... [pp. 65-6].

Havelock offers a typology of "linking" agents drawn from a wide spectrum of sources in many fields. These include the functions of conveyor, consultant, trainer, leader, innovator, and process helper. Linkers may

be knowledge builders, practitioners or users. He cautions against interpreting this typology literally rather than as "ideal" types.

When we look at the linker in vivo we find that he is a mixture, playing several linking roles in sequence and simultaneously, and, indeed, sometimes not playing linker at all [p. 66].

The simplest apparent version of the "linker" is that of conveyor or carrier. Such a person moves knowledge from an expert source to a potential non-expert user. Many kinds of knowledge may be transmitted in this mode; research data, such derivative knowledge as curricula, printed materials and training programs, as well as products, services and practices derived somehow from scientific knowledge. In its most literal form, the "conveyor" concept implies the pure transmission of information. Knowledge is passed on exactly as it is received with nothing of the "conveyor" added. It appears doubtful that anyone playing a linking role performs in this limited way, although one might argue that the salesman comes as close to this description of "linker" as anyone. Typically, the role of the salesman is to take a fully developed and already packaged product and bring it to the user. Salesmen in all fields are known to play important linking functions. However, it is extremely naive to perceive the salesman as passing his product along without any interpretation of it or without the inclusion of some part of himself. The pharmaceutical company's detail man is a case in point.

The drug detail man may give the doctor samples and literature of various sorts and he may, in addition, tell him what drugs Dr. X in the next town is ordering [p. 69].

In the literature of "planned change," the prototypical linker is the County Agent of the Agricultural Extension Service (AES) who had been thought of often as a one way communicator of new technical information from the university based agricultural expert to the farmer. Interestingly, county agents have a far more complex perception of their own roles. They think of what they do as requiring them to act as teachers, communicators, consultants, demonstrators, helpers and community leaders.

Education policy makers have considered the linking role, if at all, as that of a rather simplistic "conveyor." Havelock and others enjoin them to consider linking as a far more complex function. In everyone's eyes, the "conveying" role in education seems to be considered a very low status one. Halpin (1962) describes this situation.

I can only writhe as I watch the fatuous and condescending attitude of both the scientist and the educational practitioner toward prospective middlemen. Even the advocates of the middleman plan imply that the middleman should serve as a type of editorial assistant, at a status level only slightly above that of an average secretary and certainly below that of the research technician [p. 198].

The consultant role, a favorite in education, need not be one of knowledge linking. When it is, it becomes a version of Havelock's (1968, 1973) "process helper" role, one of the four roles he assigns the change agent, the others being "catalyst," "solution giver," and "resource linker." In his The Change Agent's Guide to Innovation in Education, Havelock (1973) enumerates "process helping" skills:

- (a) showing client how to recognize and define needs
- (b) showing the client how to diagnose problems and set objectives
- (c) showing the client how to acquire relevant resources

- (d) showing the client how to select or create solutions
- (e) showing the client how to adapt and install solutions
- (f) showing the client how to evaluate solutions to determine if they are satisfying his needs.

Binderman (1959) lists five characteristics which describe consultation in education. First, the consultee initiates; second, the relationship is temporary and specific; third, the consultant is from a different professional discipline than the consultee; fourth, he is advisory only, having no responsibility for implementation; and fifth, he has no administrative relationship to the consultee. Lippitt (1958) and others assume the consultant relationship to be voluntary and temporary involving a professional "out side" helper (consultant) and a help-needing system (client). The consultant attempts to help the client in the solving of a problem. Such a definition implies self-diagnosis and problem definition and includes the notion of conveying knowledge about the change process itself. The change agent

...may help the client develop skills in problem formulation and problem solving and he may make the client aware of various change strategies [p. 5].

Both "conveyor" and "consultant" strategies are effective when used appropriately. The county agent, according to Wilkening (1958), was relatively ineffective as an introducer of new ideas, but he was crucial when it came to a translation of innovations into practice and into the adaptation of them to the client's personal use.

The role of trainer, despite its operational overlap with those of conveyor and consultant deserves separate consideration. The trainer shares the assumption of most purveyors of formal education that know-

ledge is its own delivery system, that it can be conveyed and stored for future use in an intensive learning experience in a specialized learning setting, such as the university. The trainer is an expert capable of conveying large amounts of knowledge to people, typically before they enter a work setting. Unlike the conveyor and consultant, the trainer has control over the learner in the formal setting as teacher to student and possesses techniques of reinforcement and coercion unavailable to the other two (grades, diplomas, letters of recommendation, etc.)

Havelock (1968) proposes the role of professor of practice as the most vital of the trainer roles for knowledge utilization in all fields among practitioners. In the university, this person has replaced the master craftsman who was at the heart of the long defunct apprenticeship system. Thus, in the study of medicine, the teacher of clinical medicine has the role of passing on to new practitioners an understanding of the profession. This person is a key element in the perception of the profession formed by its aspirants. His attitudes, skills and orientation toward change may have a significant influence on the quality of their inventiveness. The very real limitation of such a trainer role is its lack of contact with the practitioner once departed from the formal educational setting. The trainer typically prepares the new practitioner and sends him out to the field as if he knew what to do. A diploma, after all, is merely a certificate of hope. With it, the new practitioner is entitled to try his new found knowledge in a real situation and hope that it is sufficient. The role of the university based trainer is one in which any linking function to the practitioner in the field is relinquished once the designated preservice

training period is over (except for an occasional refresher course).

The conveyor and consultant are considered by client users as "outsiders." The change agent functions which occur within formal organizations and as such may be considered as "insider" roles may be grouped under the general heading of leader. Formally constituted leaders do play a significant role in the utilization of ideas. Carlson (1965) has demonstrated this role definitively in his study on the diffusion of "new Math" among school superintendents.

The school superintendent is at the focal point in the decision process regarding (educational) innovation [p. 5].

Related to formal leadership within the system is the "gatekeeper" role. Havelock (1968) considers this a strategic position.

Many receiver systems may be so organized that there is a distinct 'gate' (specified set of rules, norms, etc.) which must be passed to get free access to a group of receivers [p. 77].

The gates to be passed may be those related to the social status of the linker or to the real decision making power in the client system. The gatekeeper may be someone other than the designated formal leader within the client system. Organizational charts can prove misleading.

Separate from both formal leader and gatekeeper is the opinion leader (Katz, 1957). There is a vast literature supporting the view that adopters of new ideas are influenced by other members of their own groups.

When this pattern of imitation is focused on one particular person and is stable over time and across a number of innovations, we can speak of 'opinion leadership' [Havelock, 1968, p. 78].

The question of conformity to the standards of reference groups is a complex one. Social psychologists have demonstrated that people do tend to conform to the opinions and behaviors of those around them in both structured and unstructured situations. Conformity tends to be selective within reference groups and relates to the potential adopter's prior experience and background. What appears to count in decision making in the adoption of new ideas is the perception of others as relevant sources of information and as relevant role models. It can be argued that the looser the structure the more critical is the role of opinion leadership.

In farming (individual land holdings), in much of medicine (individual physicians working out of their own offices), and in the academic world (individual scholars working on independent self-determined research projects) colleague influence may play a determining role [Ibid., p. 80].

Within bureaucratic structures, the importance of the opinion leader role may relate to the distance the administrative unit is from head quarters. In a school setting, opinion leadership should prove to be a critical variable in the adoption of new ideas. Katz (1957) suggests three functions which the opinion leader provides for potential adopters. He supplies information, a standard to follow and social support for adoption decisions. What the opinion leader has that the consultant and conveyor need is "insideness." His functions seem to overlap theirs. Above all Havelock (1968) suggests that the opinion leader is the legitimator of new ideas and practices. The issues of inside opinion leadership and legitimation are, or ought to be, central to anyone concerned with the diffusion of innovation.

The first person to "take up" a new idea is an "innovator." The idea he takes up may not be his and it may not be new, but he will be

the first to take it up within a particular social system to whose members it will appear as a new idea. Havelock (1968) argues that the "innovator" is distinct both conceptually and empirically for the opinion leader. The innovator may be a real linker in several ways. Due to his success and prosperity as an acknowledged innovator, he may be a latent opinion leader. He may be the front runner, the risk taker for the real opinion leader. This role has been documented in agricultural innovation diffusion. Opinion leaders and innovators are related to each other in ways that appear to be somewhat unclear.

...The innovator acts as an 'advance scout' for the opinion leaders...but the linkage between the two is... unexplained [p. 82].

An innovator can also be an advocate for an innovation. Schon's (1971) notion of "product champion" within a bureaucratic industrial structure describes this function.

The big factor here is motivation, the total innovation. This is what separates the champion from the bureaucratic errand boy concept of the conveyor [p. 57].

Within any knowledge utilization system, there needs to be provision for the handling of negative information. All innovations involve anticipated and unanticipated consequences. The role of defender is that which counsels clients against innovation. This role should not be thought of as a necessarily negative one. Clients are not always aware of the limitations of their resources.

The fact is that some clients and some client systems are too open to change and to the adoption of new ideas, too unaware of the pitfalls of innovations, too vulnerable to the dangers [Havelock, 1968, p. 83].

The defender may perceive his role as that of public informant. Ralph Nader is an example of the defender role.

...the implicit assumption behind the 'defender' concept is thoroughly scientific, i.e., the critical and objective evaluation of all practices, products and ideas, regardless of the claims of their champions [Ibid., p. 84].

Scholars generating new knowledge may be both knowledge builders and linkers. One can advance a cogent argument for knowledge builders as linkers, depending upon where they are located in the social system and how their efforts are utilized. The basic scientist in our time is considered a "star", and has become a much sought after expert in Government and Industry. The distinguished scientist has a gatekeeping function in relation to the public, somewhat analagous to that of "defender."

He defines what is scientific and what is not, and he is responsible for the maintenance of the standards of science and empirical 'truth' [Ibid.].

Another important role for the basic scholar is that of supreme generalist according to Havelock (1968) and others (Znaniecki, 1940).

Partly because he is removed from the hustle and bustle of everyday dealings with everyday problems, the scholar can consider the basic implications of new knowledge and can integrate disparate findings into theories that make sense out of the whole and show us where we are going [Havelock, 1968, p. 85].

Extensions of the supreme generalist role are found in the role of philosopher in the definition and delineation of basic human values and in the role of "futurist." A macroscopic world view is shared by all those so engaged.

What are the characteristics of the successful change agent at the institutional interface? Cremin suggests that one definition is that of a "committed nut," the monomaniac, fanatic or true believer (Miles,

1961). Havelock (1973) supports the notion that change agents are very likely out of the ordinary people,

...innovative, creative, searching for something new, dissatisfied with the status quo and probably slightly over qualified for the jobs they are in right now [p. 105].

These qualities seem positive. However there is another side to the change agent's personality. Such people are more likely to be marginal in their home organizations, non-representative and possibly low in influence.

This innovativeness makes them mavericks or oddballs; the risks they necessarily take as innovators sometimes lead to visible failures which others take as signs of weakness or incompetence [Havelock, 1968, p. 95].

Change agents are typically field people. This means they work alone, or in small groups, far from headquarters. Change agents are marginal. They cannot be fully committed to the change agency at the expense of the client, nor to the client at the expense of the change agency. They carve out roles for themselves which are idiosyncratic. To be effective, a change agent must tolerate high levels of ambiguity. The New England Program in Teacher Education (NEPTE), a group for which I acted as field agent in the State of New Hampshire Department of Education described the task thus:

[NEPTE] relies heavily on the person having a great deal of self starting qualities, a great deal of autonomy and a high tolerance for living without any immediate feedback for performance....He has to believe fully in what he is doing as well as in his skill in doing it. It is clearly not a role that is attractive to everybody [n.p.].

Donald Schon (1971) corroborates this role description.

The risks of the role are many, since the broker may often be squeezed between the elements he is trying to connect. The need for personal credibility is high, since each role demands that the person be acceptable

and believable to different organizations and persons, each of whom tends to hold different criteria for acceptance [p. 200].

He makes the marginality of such persons clear,

...people capable of playing network roles frequently occupy places in several of the subsystems among which they must operate. They sustain many organizational identities, and exist on the margins of institutions. They are, in effect, marginal men, with both the negative connotations (of not being central) and the positive connotations (of being at the forefront) suggested by that term [Ibid.].

What makes a change agent effective? In my experience, the critical role for the change agent is "process helper." Those of "catalyst" and "solution giver" seem to me subsidiary. The catalyst prods and pokes the system toward less complacency and more openness. The solution giver offers ready made answers to questions posed him. The resource linker puts together people and possibilities, needs and resources, but the process helper's central role is to help people solve their problems while becoming aware of the strategies of planned change. Havelock (1973) proposes a six stage strategy for process helping, one which reflects my actual field experiences.

Stage I. Building of a Relationship.

A successful change agent worries first about developing a viable relationship with the client, since this will prove to be foundation for all co-operative effort. Merely stating that one wants a positive relationship does not ensure having one. Helping the client solve small pressing problems is an evidence of one's good faith and competence paves the way for such a relationship.

Stage II. Diagnosis of Problem(s).

Once the change agent is established in the client system, his concerns must center on the "agreed upon" problem. He must find out whether the client perceives what is needed, and if the client seeing what is needed, can articulate his needs as problem statements.

Stage III. Acquisition of Relevant Resources.

Once the problem is clearly defined, the change agent helps the client identify and obtain resources relevant to the solution, attempting wherever possible to obtain help from the client system, since the potentiality for change is always greater when there is strong client ownership of the strategies employed.

Stage IV. Choice of Solution.

With a problem defined and a lot of relevant information, the client needs to be able to generate a range of alternatives from which the final solution will come. Whatever solution is chosen it will need to be reshaped to fit the special characteristics of the client. The actual working out of the solution will require further modifications.

Stage V. Gaining Acceptance for the Solution.

After a solution has been developed and adopted, it has to find broad and deep acceptance within the client system. By describing, discussing and demonstrating, the change agent helps the client gain awareness, develop interest, evaluate, try out and finally adopt the innovation. To do this effectively, natural leadership within the system as well as informal communication strategies are usually needed.

Stage VI. Stabilization and Self Renewal Within the Client System.

The client needs to develop an internalized capacity to do what the change agent has shown is possible, and to generate renewal strategies without outside help. The change agent, by "bringing along" the clients, explaining what he is doing as he is doing it, helps the members of the client system become their own change agents and become critical of the way in which their needs are being met by the outside change agent.

The change agent then takes leave of the clients, while still with them, and prepares to move on to other clients and other problems.

Rogers and Shoemacher (1971), having summarized the empirical research proposed the following attributes:

1. The extent of change agent effort. Successful change agents persons who are persistent, hardworking, energetic and committed.
2. Empathy with the client. Successful change agents are client oriented rather than change agency oriented. To some degree, the change agent sees the client group as "his" people.
3. Credibility in the eyes of his clients. Havelock suggests that the meaning of credibility differs among different clients. A negative asset in the client's eyes would be that the change agent not be identified with a reference group that marks him as biased. Examples of this would be drug and textbook salesman who depend for their livelihood on their sales.
4. Higher social status among clients. Change agents who are "looked down on" by their clients, for whatever reason, have a harder time than those "looked up to." The traditional factors

associated with status are age (older) sex (male) education (high) and economic standing (wealthy). These of course vary from group to group.

5. Higher education and literacy. Havelock (1973) describes this attribute as it relates to the change agent's effectiveness.

Education presumably makes one aware of more problems, more alternative solutions, and more resources. It also makes a person more able to utilize resources that are available, particularly if they are in written form, and better able to articulate needs, resources, and solutions to others [p. 150].

A further assumption in the literature is that a change agent needs to defend and explain his role constantly, at all levels, to all kinds of people within both sending and receiving systems.

6. Cosmopolitaness. This term is used in diffusion research to indicate gregariousness and frequency of contacts with persons outside one's place of work.

Good change agent [trainees] are likely to have had a variety of experiences in various roles, in different types of organizations, in different places.

7. Homophily with clients. For Rogers, homophily is the degree to which pairs of individuals who interact are similar in certain attributes (Rogers, 1967). Change agents most like their clients, in some respects, are most successful. Havelock (1973) suggests that the importance of homophily depends upon client tolerance.

How far one should go in using homophily as a criterion will depend upon the clients one has in mind and on their tolerance for 'differentness.' Some training programs specify particular clients who have a great deal of psychological investment in one or two traits or attributes. This might be in being 'black,' 'poor,' 'female,' 'Jewish,' 'a priest,' or 'M.D.' If this aspect is very salient in the situations in which a change agent is likely to be operating, he should probably share the characteristic in question [p. 8].

Havelock argues that there are two reasons the change agent should match the client's principal descriptor. First, his capacity for empathy may well be greater, and second, he will be seen by the client as having this empathy. Therefore, he will be given a chance to demonstrate it.

Up to the present time, change agents have learned their craft "on the job," according to Schon (1971).

At present, no one learns to play network roles through formal education or training any more than he learns through professional training to handle all the elements involved in tackling whole problems [p. 200].

Reflective inquiry into "change agency" may alter this state of affairs. A work such as Havelock's The Training for Change Agents brings "state of the art" information to those persons demanding new role definitions while occupying interstitial spots between organizations. Schon sees these roles as "essential to the design, creation, negotiation and management of ad hoc and continuing networks."

If one were to recruit likely educational change agents, what attitudes would one look for? Havelock (1973) offers the following assortment:

Concern and interest in educational progress.

Belief that educational progress can be made more effective by understanding and changing the process.

Belief or willingness to believe that new roles can be a useful part of change.

Interest and willingness to assume such a role.

Interest and willingness to assume the role of trainee.

General interest in continuing personal growth; self and others.

Probably should not be a zealot for particular educational courses, philosophies or products.

What are the trained change agent's skills? He knows:

How to build and maintain change project relationships with others.

How to bring people to a conception of their priority needs in relation to the priority needs of others.

How to resolve misunderstandings and conflicts.

How to build value bridges.

How to convey to others a feeling of power to bring about change.

How to build collaborative teams for change.

How to organize and execute successful change projects.

How to convey to others the knowledge, values and skills he possesses.

How to bring people to a realization of their own resource giving potential.

How to expand people's openness to use of resources, internal and external.

How to expand awareness of the resource universe.

How to work collaboratively (synergistically) with other resource systems.

How to relate effectively to powerful individuals and groups.

How to relate effectively to individuals and groups who generate self diagnosis by clients.

If one takes seriously the notion that a "committed nut" is critical to change, then I was the perfect choice for the diffusion of American Montessori education. I was single minded and persuaded that

Montessori had to have an American formulation. I was "innovative, creative, searching for something new and dissatisfied with the status quo." All of these qualities could have made me merely an oddball. What probably counted most toward my success were those qualities which the literature on "planned change" reckons as critical and of which, at the time, I was unaware. Meyer (1975) describes these in the following way:

Rambusch's role in the diffusion process can be described as a change agent role: the helper or person who is trying to effect change, i.e. adoption. Research has shown that change agent success is positively related to (1) extent of change agent effort (2) degree to which the program is compatible with needs (3) extent to which the change agent works through opinion leaders and (4) the credibility of the change agent. Since change agent success is predicated on contact between change agent and client, it is also interesting to note that researchers have found that change agent contact is positively related to the degree of similarity between client and change agent [p. 11].

I chose as the focus of my efforts, parents who like myself had young children.

Rambusch perceived parents as most responsive to American Montessori education and focused primarily on them in her diffusion efforts...middle class parents... a group with whom she had particular empathy, being an upper middle class Catholic mother herself...

Rambusch also worked with opinion leaders to diffuse the innovation, enlisting the aid of some prominent, influential New York and Connecticut Catholic laymen in organizing the Whitby School, and encouraging adoptions in midwestern cities by influential business men, doctors and education professors [Ibid., pp. 11-12].

When I started working as a change agent, I followed intuitively those paths described in the literature which converge in Havelock's notion of "process helper." As I proceeded intentionally, moving back and forth between field experiences and theories of "changing," the

literature corroborated the appropriateness of my personal choices. Every change agent must find within his role an appropriate personal definition.

Change agents are dealt with in the literature as somewhat disembodied linkage forces. However, their actual linking strategies are highly personal. University X is not linked to School System Y as much as Change Agent X is linked to School Principal Y. Emergent research suggests that, the "people" factor may be the strongest determinant in the adoption of innovation.

A kind of axiom seems visible...Educational innovations are almost never installed on their merits. Characteristics of a local system, of the innovating person or group or of other relevant groups outweigh the impact of what the innovation is [Miles, 1963, p. 19].

Throughout my change efforts, I was conveying more and other than a specific message. I was demonstrating a highly personal way of making change happen. I was acting like every other effective change agent.

The Center-Periphery Model

Language illuminates experience. Metaphors exert enormous influence on the way people perceive what is happening in their world. "The Greening of America," "the cold war," "woman power," are examples of word pictures which seize the popular imagination through a form of cognitive shorthand.

Marshall McLuhan speaks of the development of a 'new tribalism' among the young stimulated not only by the implosiveness of television but by its influence as a metaphor for human interaction [Schon, 1971, p. 26].

In looking at the influence of technology on language, we see that the most powerful of the new technology being "meta" technology has

influenced our perception of technological change itself. Schon suggests that

Into this category fall the infrastructure technologies, along with the techniques of distribution and merchandising which depend on them [Ibid.].

It is these technologies which have permitted the emergence of new systems for the diffusion of innovation.

The electronic network notion is at the heart of the center-periphery notion, particularly as it expands beyond the simple pair of "missionary" and "cannibal." Electronic technology has stimulated new forms of organization

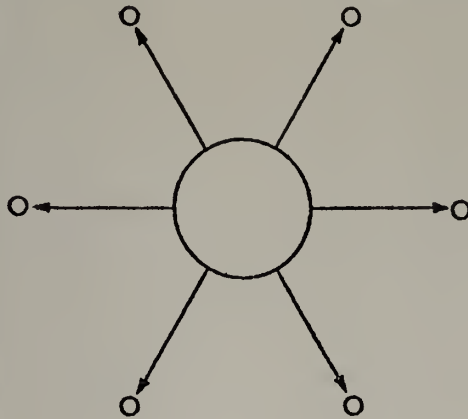
...based on the networks and grids of electronic devices, characterized by complex matrices of relationships rather than by simple lines of authority, and by the fact that information is available simultaneously at the crucial nodes of decision [Ibid., p. 27].

No longer does change occur at generational intervals. Diffusion times have shrunk steadily from 120 to 60 to 30 to 15 years. Problems of adaptation which in a 120 year span would be resolved only through the replacement of one generation by another, now must be handled within a single generation. This state of affairs is crucial to the contemporary career of innovation. The evolution of the American Montessori Society as a prototype of the single intra-generational change process was unthinkable to those reckoning change in an intergenerational pattern. The simultaneity of information transmitted to many points in the network can cause those at the center a real, organizational "cold in the node." Once information is "out," there is no way to contain it. A view of social change as a technological metaphor helps one see innovation as following infrastructure technology and as coming

into use and fanning out, all over the society at once.

Here the central metaphor is not 'deciding' but 'spread,' 'propagation,' or 'contagion' [Schon, Ibid.].

Those theories of diffusion which depend on old systems lag behind both expanding technological competencies and expanding metaphors. Those who account for social change through innovation diffusion and have tried to develop new diffusion strategies have relied heavily on the center-periphery model. This model has been used widely in agriculture, medicine and industrial development.



The center-periphery model rests on three basic assumptions:

- (1) The innovation to be diffused exists, fully realized in its essential elements, prior to its diffusion.
- (2) Diffusion is the movement of the innovation from its center out to its ultimate users.
- (3) Directed diffusion is a centrally organized and managed process of dissemination which involves training as well as provision of resources and incentives. At its simplest, diffusion may

be seen as person A telling person B something new to person B. Rogers (1967) describes it as

...the human interaction in which one person communicates a new idea to another person. Thus, at its most elemental level of conceptualization, the diffusion process consists of (1) a new idea, (2) individual A who knows about the innovation and (3) individual B who does not know about the innovation...[pp. 13-14].

Prototypical "diffusers" are the agricultural extension agent, the pharmaceutical company "detail man" who introduces new drugs to doctors, the salesman, the school administrator and the teacher. The successful work of the US Agricultural Extension Service is considered the paradigm for directed diffusion.

What makes the center-periphery model work? Its first ingredient for success may be found in the level of resources and energy it possesses at its "center." Second, its success depends upon the number of "points" on its periphery which are in need of help. The available energy at the center must be balanced against demands at the "edge" since a client system which demands too much help or attention, given limited central resources, will cause the model to fail. Third, the distance between the center and the periphery is important since diffusion becomes less controllable the farther it is from the center. Fourth, the center must have energy available to expand the client system and gain new adoptions. Fifth, the ultimate fate of the center-periphery model depends upon its capacity for generating and managing feedback. Because the process of diffusion is regulated originally by the center, the effectiveness of the model depends upon the way in which information moves out to the "edge" and back to the center.

The agricultural extension agent is seen as successful in direct relation to his own energies and skills, the number and location of the farmers he serves and the time and effort he must devote to working with each farmer [Schon, 1971, p. 82].

The scope of any dissemination model depends on infrastructure technology. With the advent of computers, much more targeted information can be disseminated far more quickly than was ever before possible.

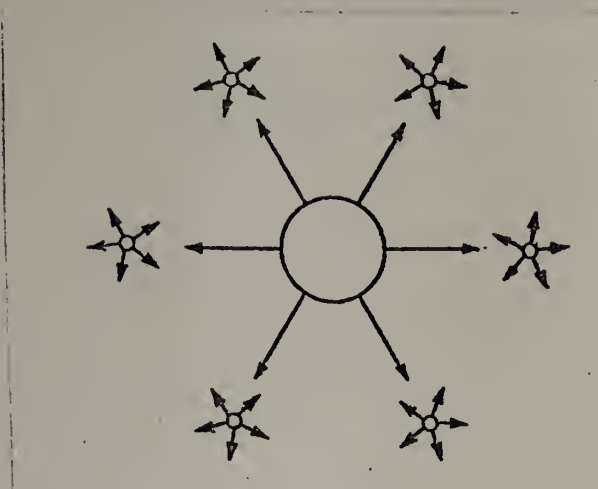
Schon (1971) describes two variants of the center-periphery model which are important to this study. The "Johnny Appleseed" is the variant in which an innovator traverses the field with his new message, gathering adherents as he travels. The "magnet" variant of the model is one in which the field comes to the innovator. The university acts as a prototypical "magnet" model. I acted as "Johnny Appleseed" in the early AMS days, as Dan Jordan does with the ANISA model. The university based ANISA organization typifies the "magnet" model. At St. Mary's and Children's House, I worked simultaneously at the university and in the field. I was something of a "Johnny Apple-Magnet," a hybrid of both variants. The "Johnny Appleseed" model allows for adoption to special field conditions, but lacks a stable center capable of attracting new adherents; the "magnet" model suffers from inherent rigidity.

[The magnet model] permits tighter control of the teaching and greater efficiency in the use of teachers. But it has less control over what happens afterwards, and permits less variation of doctrine to suit the specialized needs of the outposts [Ibid., p. 83].

Typically described, the center-periphery model requires inordinate amounts of energy at the center, to be successful.

Schon suggests that there is an elaboration of the center-periphery model which extends its limits and overcomes the sources of failure

inherent in it. He calls this the "proliferation of centers" model.



In the "proliferation of centers" model, the basic structure is like that of the simpler center-periphery one, but there is a distinction made between the primary center as "center of centers" and the secondary centers. The primary center manages and supports the secondary centers. This version of the center-periphery model addresses itself to the high failure risk of an overloaded center. When the center-periphery model exceeds its central resources or energy, when it overloads the capacity of its radii, when the center ignores or mishandles feedback from the "outposts," the model fails. Failure shows itself in various ways, as lack of effectiveness in diffusion, as distortion of the central message, or as disintegration of the entire system. An overloaded center. The "proliferation of centers" model has far greater scope than the center-periphery model since the risk of energy failure is shared among several centers.

In the development of the American Montessori Society, the "proliferation of centers" model evolved. Each of the original

"peripheral" points became its own center and had the scope of what had been the whole system, initially. Regionalization of the American Montessori movement is an indication of the "proliferation of centers" model at work. The Roman Army and the Jesuits used this model; it became the dissemination strategy for Industrialism, Imperialism and Communism.

The primary center's function in the "proliferation of centers" model is to be a "trainer of trainers." This is the function that ANISA saw itself performing for its field sites; it is a function that the AMS neglected to develop and, as a result, found itself in competition with its secondary centers on training issues. Xavier University acted as the "trainer of trainers" in my work at St. Mary's and Children's House, despite my "Johnny Apple-Magnet" role. The "training of trainers" definition of the primary center implies a pre-established method for diffusion. The ancillary tasks of the primary center in relation to secondary centers are those of deployment, support, monitoring, and management.

Missionary endeavors are often examples of the "proliferation of centers" model. The Mother House sends missionaries who, in turn, establish Mother Houses in each of the countries they catechize. Although the rhetoric of primary centers rarely reflects it, variation among secondary centers is inevitable. The dominant pattern of the primary center's relationship to the secondary centers involves the following assumptions:

- (1) The primary center is the guardian of pre-established doctrine and methodology.

- (2) The primary center selects territories for expansion, organizes them, and deploys expansion agents.
- (3) The primary center is both source and model of the operation to be diffused; It is also the developer of the methodologies for diffusion.
- (4) The primary center trains and incubates new diffusion agents.
- (5) The primary center supports decentralized "outposts" through capital, information and know-how.
- (6) The primary center monitors and manages decentralized operations, setting performance criteria, monitoring performance, observing and overseeing leadership in the "outposts."
- (7) The primary center maintains information flow throughout the network [Schon, Ibid., p. 87].

What happens when the "proliferation of centers" model fails?

When the model of the 'proliferation of centers' fails, secondary centers get out of control. In missionary organizations, this takes the form of heresy; in colonialism, revolution; in Communism, deviationism [Ibid., p. 90].

What looks like heresy to the "home office," may look like appropriate innovation to the branch manager. An illustration of divergent views of orthodoxy may be seen in the struggles of the AMS with the International Montessori Association (AMI). When secondary centers become detached from the primary center, they tend to see themselves as their own "primary" center.

When secondary centers get disconnected from central, the diffusion system fragments and becomes unable to maintain itself and expand. But the transformation no longer consists in diffusion of an established message. It leads rather, to a variety of regional transformations which bear only a family resemblance to each other [Ibid.].

When the "proliferation of centers" model fails, the feedback loop established between the primary and secondary centers no longer functions; the feedback loop is from the secondary centers to themselves.

The pattern of the "proliferation of centers model" is the following:

- (1) A primary center emerges.
- (2) It develops a diffusion system.
 - A) The primary center replicates itself in many secondary centers.
 - B) The primary center specializes in the creation and management of secondary centers and in maintenance of the whole network.
- (3) The diffusion system fragments; central loses control; the network disintegrates. Secondary centers gain independence or they decline or one of them takes on the role of primary center.

The perils of the "proliferation of centers" model are like those of the simpler center-periphery model. The infrastructure limits, particularly when related to the need for fast action or differential central response may over tax the center. Bad strategic decisions emanating from the center are another common cause of failure.

Competence in creating networks differs from competence in managing them [Ibid., p. 91].

What seems most important about the center-periphery model, its "Johnny Appleseed" and "magnet" variants, and its extension in the "proliferation of centers" model are the reflections they provide of

the actual complexity of change attempts. Roger's notion of change as a simple act of communication is too simplistic for a field person to accept. Fielding an innovation is a battle which can be lost at any moment. The literature on change cannot communicate the enormity of the lived risk.

The Displacement of Concept

Metaphor plays a dynamic role in innovation diffusion. Schon (1963) sees his "displacement of concept" notion as a large scale metaphor. It is not metaphor as an ornament of language but as central to the development of all new concepts and theories, whether they bear on science, invention or philosophy.

The process is nothing less than our way of bringing the familiar to bear on the unfamiliar in such a way as to yield new concepts while at the same time retaining as much as possible of the past [p. ix].

Schon maintains that the evolution of theories is very much like the processes of invention and product development as they occur in industry. He argues further that new concepts are framed only in terms of concept displacement.

The emergence of a new concept involves, in some sense, treating the new in terms of the old. After all, we have nothing else. But the processes which seem at first to involve treatment of the new in terms of the old (for example, comparison, and the correct or incorrect application of a concept to an instance) turn out not to have to do with the formation of new concepts. In these cases, the old concepts are used but do not change. There is another kind of process, however, in which an old concept is shifted to a new situation in such a way as to change and extend itself. I...call it the displacement of concept [Ibid., p. x].

Were I to describe what I did in the American Montessori movement, I would say that I took "Montessori," a metaphor, and made of it a new

or displaced metaphor, "American Montessori." Schon (1963) outlines a number of distinguishable phases of this process:

- (1) Transposition of aspects of the old theory to the new situation.
- (2) Interpretation of the "old" aspects in the new situation.
- (3) "Spelling out" of the areas of communality and difference between the "old" and the transposed theory.

Schon argues that the symbolic relation established between the "old" theory and the new situation seems to consist in the "old" theory's coming to function as a protective model for the new situation.

In every case asked to find 'the old theory in the new situation' and in the process of doing so, we come to see the old theory, too, in a different way [Ibid., p. xi].

The language of any theory contains metaphors, -metaphors of scale, the use of tools, social processes, government, mechanism and dynamism, atomism, Christianity- which signify the displacement of old theories which had functioned as projective models for the theory in question.

These metaphors go hand in hand with assumptions transposed sometimes in a covert and uncritical way, whose presence in the theory they help to explain: Attention to metaphor functions in this way as a useful tool [Ibid., p. xii].

The formation of new concepts requires that we break out of our accustomed ways of looking at things before the formation of a new concept occurs. Concepts and theories are inseparable, according to Schon. One's concept of a lamp is one's theory of a lamp in the sense that 'theory' means a set of propositions, expectations, insights, that enables one to deal with it. Wittgenstein, Schon offers, expresses

this when he says that concepts are theory-laden. One's idea of "pawn" carries with it and depends for its sense upon the idea of the game of chess.

The notion of a "new concept" is deceptively simple. In the most general sense, a new concept, like anything new, is that which appears for the first time. Ideas like "population explosion," "planned obsolescence," "the cold war," are all, at some time, new. New concepts, being unexpected, catch our attention and provide us with new images which we project against a familiar and thereby unnoticed backdrop. Obviously, all concepts are new in relation to many things, new in some respects and old in others. Seeing something familiar in a new way changes one's concept of it. Suppose a friend of yours had diabetes. You knew the friend but did not know of his diabetes. Once you learn of the diabetes, your idea of your friend changes, but not your notion of diabetes. New concepts grow out of what has gone before and can be seen as changes in the old.

In some cases, the new concept is recognizable as a minor variation of an old one, as in the case of the derivation of 'super jet' from 'jet.' In other cases, the new concepts connection with the old may be obscure, as in the case of the emergence of Marx's notion of a classless society or Bohr's idea of the quantum leap [Ibid.].

Schon argues that our conceptual structure is "a kind of amoeba." In the center are the concepts most crucial to us, the ones we are least willing to let go of; nearer to the periphery are those we are less insistent on hanging onto. In a formal body of theory, the newness of a concept may be gauged by how centrally the theory itself is affected, by its acceptance.

The more change involved in the acceptance of a new theory, the more radically new it is found to be and, usually, the more vigorously it is resisted [Ibid., p. 11].

Schon's notion of a new concept is closely linked to the definitions of innovation in the literature of planned change.

New concepts are those which emerge for the first time for an individual whether they are new for his culture or not. They are new in themselves for the individual and not merely a new concept of something. Their acceptance makes for a radical change in a familiar theory [Ibid.].

I will argue that it was precisely the radical change that the notion of "American Montessori" wreaked on the European notion of "Montessori," that caused the "American Montessori" notion to be a displaced concept. It seems simple and obvious, once stated as Schon states it. But the dynamics of forging a new definition for an old idea are fought with tension and peril. The early days of my work in the American Montessori movement perfectly exemplified Saul Alinsky's (1967) definition of the word "crisis."

The Chinese write the word 'crisis' with two characters. One means danger and the other means opportunity. Together they spell 'crisis' [p. 38].

One might wonder why Schon did not simply call his "displacement of concept" notion, "metaphor," and be done with it. Metaphor, since Aristotle, has meant a part of language. A set of words may be called a metaphor. "Metaphor consists in giving the things a name that belongs to something else [McKeon, 1941, p. 1467]."

In this sense, one can say "The world is my oyster." Roger Brown (1958) suggests that

The metaphor in a word lives when the word brings to mind more than a single reference and the single references are seen to have something in common. Sometime in the

past someone or other noticed that the foot of a man bears the same relation to his body as does the base of a mountain to the whole mountain. He thought exceeding the word foot to the mountain's base. The word foot then referred to two categories. These categories share a relational attribute which makes them one category, which we might name the foundations or lower parts of things, are two subordinate categories the man's foot and the mountain's base. These two remain distinct within the larger category because the members of each subordinate category share attributes that are not shared with the members of the other subordinate category....Metaphor differs from other super-ordinate-subordinate relations in that the superordinate is not given a name of its own. Instead the name of one subordinate is extended to the other and this...has the effect of calling both references to mind with their differences as well as their similarities [p. 140].

This metaphor blazed briefly for the person who created it and it lights up again when anyone hears it for the first time, but for most of us it is dead. This is because with repetition of the phrase foot of the mountain the word foot loses its exclusive connection with anatomy [Ibid., p. 141].

(So, the notion of "American Montessori" blazed for those few of us who saw "Montessori" in juxtaposition with "American," while for others, it was simply a signal of the geographical location of the Montessori endeavor, nothing more). Schon (1963) goes beyond what he construes as Brown's static view of metaphor.

[Brown] does not see in metaphor the emergence of a new concept nor does he see that the concept or the superordinate may come into being only through the metaphor [p. 37].

The view of metaphor which Schon finds most congenial to his notion of "displacement of concept" is Cassirer's (1946) radical metaphor, which defines metaphor not as a part of language but as a process of thought.

Transposition and substitution which operate with previously known vocabulary as their material, must be

clearly distinguished from that genuine 'radical metaphor' which as a condition of the very formulation of mythic as well as verbal alterance requires a transmutation of a certain cognitive or emotive experience into sound i.e., into a medium that is foreign to the experience, and even quite disparate, just as the simplest mythical form can arise only by virtue of a transformation which removes a certain impression from the realm of the ordinary, the everyday and the profane, and lifts it to the level of the 'holy,' the sphere of the mythico-religious 'significance.' This involves not merely a transferenceIt is not only a transition to another category, but actually the creation of the category itself [pp. 87-88].

Schon uses the term 'metaphor' in its traditional narrow sense of "giving a thing a name that belongs to something else [p. 40]." Metaphors are the traces left by displacement of concepts. They bear witness to complex processes of displacement of concepts over time just as present living species bear witness to biological evolution. Schon uses "analogy" in its traditional sense to mean a similarity of relations between concepts or objects.

The displacement of concepts does not consist in the observation of such a similarity, since at the time of the displacement these shared relations have not been conceived. But the displacement begins with the intimation of such a similarity and may be justified after the fact by pointing out the similarity in terms which are themselves results of displacements. Observation of analogies is the result and partial justification of the displacement of concepts [Schon, p. 41].

Schon suggests that the focus on metaphor as window dressing for language implies that there is a clearly non-metaphorical way of speaking which conveys meaning. He rejects this notion, since he equates language and metaphor.

[This equation] has the most serious implications for our notions of thinking and of the world, and the relation of our thinking to the world [p. 45].

Schon suggests that the growth of language and the formation of concepts are the same thing.

The metaphors in language are to be explained as signs of concepts at various stages of displacement, just as fossils are to be explained as signs of living things in various stages of evolution [p. 53].

Schon posits four stages in the "displacement of concept" pointing out that there is no one point at which the concept emerges as finished.

...the process is continuous, like the emergence of a biological species, and its freezing at only one point is always arbitrary [Ibid.].

They are; (1) transposition, (2) interpretation, (3) correction and (4) spelling out. A metaphor that Schon uses to explain the schema of displacement of concept is Walter Lippman's "cold war," a concept used in connection with the international situation whose "cycle of emergence" and development has taken place largely within our own time.

The initial movement of an old concept to a new situation results in its transposition, the establishment of a tie between the old and new. (Displacement means the full working out of the process of metaphor.)

In terms of Montessori education, I took a metaphor, and transposed it to yet another metaphor. "Montessori" was rich in the connotations of the historical personage, the social movement, the pedagogical practices. "American" was a notion redolent of size, plurality, complexity, and ambiguity. By putting the two notions together, I was introducing what I thought of as equivalent terms. Schon says

We could not even say, except in the context of a specific inquiry, which of these concepts was the 'central' one. The boundaries and the internal structure of the concept are changing and indistinct [p. 57].

The transposition phase is not a once-and-for-all affair. It goes on indefinitely as more and more concepts from the old ideas cluster are shifted to the new situation. With each passing month the concept fills out. Transposition is inseparable from interpretation. The process of interpretive transposition, the assignment of a concept from the old cluster to a specific aspect of the new situation, does not necessarily proceed smoothly. Schon suggests that

the new situation has a conceptual structure of sorts before any old theory is displaced to it [p. 55].

This pre-existing structure resists transposition and interpretation and there is resulting adjustment in the process of displacement [Ibid.].

Once, Montessori education had been announced in America, teachers from abroad had come, and the first schools were established, the general impression all of these people had was that Montessori education in America was the same as it was in any other country. The notion that the American situation was "unique" was resisted both from the side of the AMI, which argued that every national group was unique by virtue of its geography and from those in the AMS who discerned Montessori education in America as identical to Montessori education anywhere else.

The process that Schon calls correction is the process that I engaged in with the AMI formally until 1963.

The process is not a one way affair in which the old theory is corrected to suit the new situation as would be suggested by the model of the old concept as a kind of stencil fit over the new situation. It is more like mutual adaptation, in which the old theory and the new concept-structured situation are modified in various ways so as to suit one another [p. 55].

Mutual adaptation takes many forms. Aspects of the old theory may not "travel" to the new situation; they may even be dropped from the old theory. The interpretation given to aspects of the old concept may be changed.

Over time, the novelty of the metaphor "dies." When people use the new term in a literal, not figurative sense, the concept has been displaced.

In this way, the metaphor is elaborated. We come to understand what concepts from the old cluster are to be transposed to the new situation they are limited to. In the process, their reference to the new situation becomes more familiar and conventional. We become less and less aware of using old terms in a figurative sense, with a reference back to the old theory, and more and more aware of two equally legitimate senses of the same term [p. 56].

Schon calls the final step, the spelling out. As an attempt is being made to work out the relationship between these senses, the metaphor is losing metaphorical character,

Transposition, interpretation, correction and spelling out represent abstract phases in the displacement of concepts, but these phases always occur in a specific context from which the source of energy comes [p. 57].

Schon maintains that the culture provides the material from which our metaphors are made.

The acceptance of Montessori's ideas, after their initial American rejection undoubtedly dictated a necessity to identify Montessori education as an American phenomenon. If it were acculturated and domesticated, it could be seen in an organic relationship to the culture, not as a foreign or exotic notion.

I am greatly indebted to Donald Schon's "displacement of concept" notion as a missing link in the story of the American Montessori

movement. When I came upon it, I felt like Moliere's Would Be Gentlemen who had been speaking prose all his life, without knowing it. At the level of articulated controversy between Mario Montessori and myself, the AMI and the AMS, the issue appeared always as one of legitimacy. Differences centered on the question, "Who had the right to speak for Montessori?" However, in those years, I sensed that there was another term to the problem. I spoke everywhere of "American Montessori," confident in the relevance such a notion had. It was the "American Montessori" notion that I "sold." Such a notion was in fact a concept in the process of being displaced; it was a concept that I was in the process of displacing.

Small is Beautiful

One must consider seriously the problem of scale when attempting educational reform. All of the educational theorists from Rousseau to Montessori conceived of education as a personal encounter between teacher and learner. A child-centered school was really one that was designed as if children "mattered," at least as much as what was to be taught or to be learned. The economist, E.F. Schumacher's metaphor, "Small is Beautiful," typifies a point of view of social organization that is central to my own reform efforts. Theodore Roszak places Schumacher's work

in the subterranean tradition of organic and decentralist economics whose major spokesmen include Prince Kropotkin, Gustav Landauer, Tolstoy, William Morris, Gandhi, Lewis Mumford and most recently Alex Comfort, Paul Goodman, and Murray Bookchin [Schumacher, 1973, pp. 3-4].

Schumacher espouses a libertarian political economy that distinguishes itself from orthodox socialism and communism by insisting that the

scale of organization must be treated as an independent and primary problem. Rozak suggests that beautiful "smallness" is not an ideology, but a "wisdom gathered from historical experience [Ibid., p. 4]."

What Schumacher is attempting to do with economics, serious educational reformers must do with schools. There can be no new "models" of education devoted to the fullness of the human person that are so scaled that those within them, both adults and children, are treated as anonymous units. Looking at modern man's love affair with "giantism," Schumacher defends small scale operations.

Small scale operations, no matter how numerous, are always less likely to be harmful to the natural environment than large scale ones, simply because their individual force is small in relation to the recuperative forces of nature. There is wisdom in smallness and patchiness of human knowledge which relies on experiment more than on understanding [Ibid., p. 33].

He points out that small communities are less capable of causing serious ecological problems than large ones.

Men organized in small units will take better care of their bit of land or other resources than anonymous companies or megalomaniac governments which pretend to themselves that the whole universe is their legitimate quarry [Ibid., pp. 33-34].

Organizations which are scaled with men in mind turn one's thoughts to man's spiritual dimension. They are compatible with men's need for creativity.

The intermediate technology which Schumacher supports as cheap enough to be accessible to everyone, suitable for small scale operation, and compatible with man's need for creativity needs reflection in social institutions. Gandhi believed that out of this triad came non-violence, and a focus on man's spiritual as well as material needs.

Gandhi said

There must be recognition of the existence of the body and of its permanent nature and this recognition must amount to a living faith; and in the last resort, non-violence does not avail those who do not possess a living faith in the God of Love [Ibid., p. 37].

Public education has as its model, industrial society. As a result, schools tend to be inhumane because, for vaunted "economies of scale," they group humans together in inhumanly scaled surroundings to achieve ostensibly human ends. Raymond Callahan (1968) traces in his work, Education and the Cult of Efficiency, the assembly line model of the school, at least as far back as 1913. Schumacher's critique of giantism in economics is equally applicable to schools.

The economics of giantism and automation is a left-over of nineteenth century thinking and it is totally incapable of solving any of the real problems of today. An entirely new system of thought is needed, a system based on attention to people and not primarily to goods [Ibid., p. 76].

Within an organization there needs to be both centralizing and decentralizing tendencies at the same time; the simultaneous requirement of order and freedom is what Montessori called "liberty within a prepared environment." An obvious danger of a large scale operation is its bias in favor of order, at the expense of creative freedom.

In any organization, there must be a certain clarity and orderliness...yet, orderliness as such is static and lifeless, so there must also be plenty of elbow room to do the thing never done before, never anticipated by the guardians of orderliness, the new, unpredicted and unpredictable outcome of a man's creative idea [Ibid., p. 229].

People, Schumacher argues, can be themselves only in small comprehensible groups.

Therefore we must learn to think of an articulated structure that can cope with a multiplicity of small-scale units [Ibid.].

We know that people feel dehumanized by social arrangements which are out of sync with human scale. Nobody really likes large scale organizations. The fundamental risk facing reformers is to achieve smallness within large scale organization, since large scale organization is here to stay. What Schumacher says about small semi-autonomous units existing with a large organization fits an optimal innovation diffusion pattern. In the center-periphery model, whether Montessori or ANISA, in the first generation the Master and the model are one; in succeeding generations, each of the peripheral points becomes its own "center," exemplifying the "proliferation of centers" model. It is in the second generation of an innovation that an entrepreneurial presence becomes critical. Webster defines "entrepreneur" as "an organizer or promoter of an activity, especially one that manages and assumes the risk of business [Webster, 1975, p. 242]." Centralization, argues Schumacher, is mainly an idea of order; decentralization, an idea of freedom. The "small beautiful" module, within a large organization should be able to have both order and freedom at the same time. The ANISA field sites in 1973-4, posed this possibility; the American Montessori schools realized this smallness. The change agent operates between the centralized order of the Mother Church and the entrepreneurial disorder of the mission.

The way in which large scale organizations need to be set up in order to foster small, beautiful modules, corresponds to my own field experiences. To be effective, the larger unit must acknowledge, at

the outset, the authority of the smaller. Schumacher outlines the salient principles which should inform the relationship between the home and the branch office.

1.) The Principle of Subsidiarity

The higher level must not absorb the functions of the lower one, on the assumption that, being higher, it will automatically be wiser and fulfill them more efficiently [p. 230]. Loyalty grows from the bottom up, not the top down. The operational aspect of this principle implies that the burden of proof lies on those at the top who want to deprive a lower level of its function. The large organization that consists of many semi-autonomous units, will insure that the greatest possibility for creativity and entrepreneurship exist.

If this happens, then the center can do its job more effectively. The center will more freely, powerfully and effectively do all those things which belong to it alone because it alone can do them: directing, watching, urging, restraining, as occasion requires and necessity demands [Ibid.].

2.) The Principle of Vindication

To vindicate means: to defend against reproach or accusation; to prove to be true and valid; to justify; to uphold; so this principle describes very well one of the most important duties of the central authority towards the lower formations....Except for exceptional cases, the subsidiary unit must be defended against reproach and upheld [Ibid., p. 232].

Ideally, Schumacher argues, the principle of vindication should permit only one criterion of accountability. (In a commercial organization, this would be profitability.) In a public school, it is performance as demonstrated by standardized testing. (In an alternative school, such a criterion might be the assessment of parents and teachers concerning the attitudes of the children toward school.)

Of course, such a criterion would be subject to the quasi-firms observing general rules and policies laid down at the center. Ideals can rarely be attained in the real world, but they are none the less meaningful. They imply that any departure from the ideal was to be specially argued and justified. Unless the number of criteria for accountability is kept very small, indeed, creativity and entrepreneurship cannot flourish in the quasi-firm [Ibid.].

The center's function is to direct, watch, urge, restrain as occasion requires and necessity demands.

3.) The Principle of Identification

Each quasi-firm within the large organization must have its own identity and be judged separately. (In business the separation between quasi-firms is determined by separate balance sheets). Schumacher suggests that

A unit's success should lead to greater freedom and financial scope for the unit, while failure-in the form of losses- should lead to restriction and disability. One wants to reinforce success and discriminate against failure [Ibid., p. 234].

This enables all concerned to follow the effect of operations on substance [Ibid.].

4.) The Principle of Motivation

In large organization, with bureaucracies, remote and impersonal controls, its many abstract rules and regulations, and above all the relative incomprehensibility that stems from its very size, motivation is a central problem.

Typically, management has no problem with motivation, but as one moves down the scale this becomes increasingly acute....Any organization that is conceived without regard to this fundamental truth is unlikely to succeed [p. 235].

5.) The Principle of the Middle Axiom

Schumacher's fifth principle, signals the difficulties of top management.

[Top management] carries responsibility for everything that happens, or fails to happen, throughout the organization, although it is far removed from the actual scene of events. It can deal with many well-established functions by means of directors, rules and regulations. But what about new developments, creative ideas? What about progress, the entrepreneurial activity par excellence [p. 236].

The center, Schumacher argues can look after order; it is not willing to look after freedom and creativity. The center has the power to establish order, but no amount of power evokes the creative contribution.

Schumacher's notion of "small" as "beautiful" has particular relevance to the conduct of the center-periphery and proliferation of centers models of innovation diffusion. Organizations such as AMI and ANISA had innovations, fully realized in their essentials, prior to diffusion. The rigidities of AMI pointed up the problems of a second generation "center" which failed to observe the principles which would have insured the health of the many, small semi-autonomous units linked to it. ANISA could suffer the same fate as the AMI, were it to consider itself as a social movement rather than as a grand research-development-and- diffusion design.

Schumacher's principle of identification seems to me particularly important in second generation change efforts. Clients must become their own change agents. If they are able to assess their performance realistically, and are supported in their perceptions, they have the chance to succeed, once they are on their own.

C H A P T E R I V

THE EXPERIENCES OF CHANGE AGENCY

The American Montessori Experience

The "American Montessori" experience is that complex of events which led to the redefinition of Montessori education in an American context. One way to understand it is to consider its evolution as an instance of the center-periphery model of innovation diffusion. To do this, one begins with Maria Montessori, not as a historical personage nor as a pedagogical theorist, but as the intentional "center" of her own diffusion system. The development of Montessori as "center" dates from the time she drew international attention to her work. As Italy's first woman physician, Montessori had emerged early as a celebrity. Her role as the Italian delegate to several feminist congresses was positively documented in the European press. When she turned her attention to the education of young slum children, it was not as someone unknown, but as a respected and accomplished physician. Initially, Montessori acted as a personal "magnet" for her ideas, staying in Rome where people from all over the world came to see her work.

In 1912, The Montessori Method was published in the United States as a translation of her work, The Method of Scientific Pedagogy Applied to the Education of Young Children in the Casa dei Bambini. This popular account of Montessori's educational ideas was extremely well received in the United States, thanks to the tireless efforts on Montessori's behalf, of S.S. McClure, publisher of McClure's Magazine.

McClure had introduced Montessori to the American public a few years earlier as "an education wonder worker." Rita Kramer (1976), Montessori's most recent biographer, describes the book thus:

In it Montessori defined the new science of pedagogy, traced its lineage from Itard and Seguin, gave the history of her own work and its culmination in the Casa dei Bambini, and told the story of what happened there. She explained her methods in detail, describing the teaching materials and how they were to be used, first in the education of the senses, later for the teaching of reading and writing and eventually arithmetic, and spelled out the other aspects of school life as well: the furnishings of the school room, the exercises of practical life, gymnastics, the care of plants and animals to teach nature and foster responsibility, the use of handwork such as pottery and building [p. 137].

The central thrust of the book was a statement of Montessori's education philosophy.

The transformation of the school must be contemporaneous with the preparation of the teacher. For if we make of the teacher an observer, familiar with experimental methods, then we must make it possible for her to observe and to experiment in the school. The fundamental principle of scientific pedagogy must be, indeed, the liberty of the pupil- such liberty as shall permit a development of individual, spontaneous manifestations of the child's nature. If a new and scientific pedagogy is to arise from the study of the individual, such study must occupy itself with the study of free children [Ibid.].

Following the publication of The Montessori Method, whose first edition sold out in four days, Montessori announced that her First International Training Course would take place in Rome in the following winter.

In the First International Training Course, Montessori formalized her "magnet" role by offering teachers the chance to be trained personally by her. (Montessori appears to have lectured in this course and left the demonstrations with children and materials to underlings.)

With the promise of teacher training, Montessori defined her innovation, the Montessori Method, as fully realized in its essentials, prior to diffusion. Thus she met the first of the center-periphery model's requirements. From the beginning of her work, Montessori personally controlled teacher training in her method. She thereby established herself as the center from which the innovation would move out to its ultimate users (the center-periphery model's second requirement.) One who was trained by Montessori was not thereby empowered to train another; the diplomas Montessori issued stipulated this condition. Thus was Montessori able to control the incentive and reward system in all that related to the "approved" diffusion of her method, the model's third requirement. Because Montessori combined features of the "magnet" variant of the center-periphery model with those of the "Johnny Appleseed" variant, she managed to avoid some of the pitfalls of each of these. She did develop a central core of disciples, who protected her and extended her work. She did "ride the circuit" moving along the periphery to points where her adherents operated national societies, bringing them up to date on her thought and keeping them in touch with the living center of her method, herself. She also exhibited energy to move to new points, to establish new outposts. Certainly, many of the countries where Montessori visited and established training centers evolved their own versions of her "method." These versions became the "unauthorized" ones. It is a joke in Montessori circles that in every country Montessori visited, there are at least two Montessori societies. This is in part due to Montessori's prerogative that she have the right to establish new societies in any country she saw fit. A proviso

attached to the AMS affiliation with the AMI in 1960 stipulated

...that it (AMI) retains the right to start other societies in your country if it considers this to be necessary [AMS Archives, 1960].

Thus was the central function of reward reinforced by the AMI's dis-affiliation power.

Another way in which the center controlled the periphery in the Montessori model was through the tithing by each national group; 10% of each society's annual income was to be sent back to the "Mother Church."

In her lifetime, Maria Montessori and the Montessori "method" were identical. As she moved through Europe, to Asia and briefly to America, Montessori personally monitored the network which she had established. As she became older, her visits became as honorific as they were inspirational. They remained a major tool for designating those disciples in each country deemed worthy by her to carry on the "work." As an extension of herself, Montessori and her son, Mario, organized the AMI. It's task was to protect Montessori's person and her ideas. Mario Montessori explained that

The original function of the Montessori Society [AMI] was to protect Dr. Montessori's work so that the only valid course was Dr. Montessori's and mine. As long as she was alive there was no problem [Applebaum, 1972, p. 157].

The AMI was a buffer established to deal with mundane concerns so that Montessori would be free to think. Disciples assuming the buffer function are a standard fixture in social movements. It is they who filter information and requests to the "master" and ultimately make decisions relating to the best use of the master's gifts and time.

Irving Janis calls them "mindguards." Typically, they have the master's total confidence and speak for him as he would speak for himself. Lesser disciples do not always understand this. They believe, mistakenly, that the "mindguard's" rejection of their requests would be reversed by the master, if only they could present them directly to him. They are wrong. The "mindguard" and the master are in complete agreement that lesser disciples be dealt with in this way. (A more familiar version of this teaming is found in the police partnership where one plays the "sweetheart" and the other the "heavy.")

During Montessori's life, she considered herself as "a sovereign state" and frequently invested people interested in her work with powers to act on her behalf in the establishment of national societies. Montessori designated Helen Parkhurst to establish a Montessori movement in America before the first World War; I was so designated by Mario Montessori after the Second. On June 15, 1959, Mario Montessori wrote me certifying that I had been appointed

the representative of the Association Montessori Internationale for the U.S.A. with the special tasks of starting Montessori schools in the country, taking steps necessary to start a Montessori Society affiliated to the Association Montessori Internationale and an Institute for training teachers in the Montessori Method [AMS Archives, 1960].

The function of such persons was to contact the powerful of the land and pave the way for a Montessori millenium. If the plenipotentiaries were themselves powerful, it was considered helpful since Montessori had, from the outset of her work, depended upon the patronage of the powerful. The ladies of the Italian nobility supported her San Lorenzo work. By the time Montessori organized the International Training

Course in Rome in 1913, she had graduated to the patronage of the Queen Mother of Italy. When Montessori interest developed in America the first time, President Wilson's daughter, Margaret, was involved in the organization of the American society.

An example of the "Johnny Appleseed" variant of the center-periphery model can be seen in Montessori's work in India. There, she was interned during the Second World War. She was given freedom of the country and travelled extensively, offering short training courses. When she returned to Holland, after the War, the Indian effort was left largely on its own. The son of one of her close disciples went to "look after things," but clearly the radius extending from the Indian continent to Amsterdam was too long for the same kind of attention to be paid it that had been normative for European countries.

As the Montessori network expanded geographically, it appeared to contract in influence. Kramer (1976) suggests that it was the tide of men and events which caused this. I propose that it was serious overload at the center of the model which choked off contact with the periphery and, more importantly, the feedback from the periphery to the center. Montessori grew old. She could not continue to monitor the outposts personally, although her definition of control required that she do this. There were only a few close disciples she deemed capable of carrying on her work and they all suffered from the same fatal flaw. They were not Montessori. To the surprise and consternation of her disciples, Maria Montessori died. At her death, those close to her were her son and a few trusted disciples. Montessori willed her authority to her son, Mario, and expected her disciples to

close ranks behind him, considering him as an extension of herself. This, those who were close to Montessori in life were able and willing to do.

I had happened upon the writings of Maria Montessori while I was an undergraduate at the University of Toronto in the late 1940's. I read The Montessori Method in a new French translation of Mme. Jean Jaques Bernard, a Montessori disciple. I was struck by the freshness of Montessori's ideas and their obvious absence from the American child rearing scene, as I perceived it, from my twenty year old vantage point. Following my graduation from Toronto, I studied in Paris as a French government fellow and had an opportunity to see at first hand some of what Montessori's work had promised. Mme. Bernard's daughter, Anne Marie, head of the Association Montessori de France, permitted me to visit the small private school she directed in Paris. As a philology student, I spent little of my two year stay in Paris worrying about the education of young children. That concern reasserted itself when I returned to the United States, married, and had my first child in 1952.

As an intentional Catholic parent, I became committed to providing for my children the best possible education and, if I could, one very different from my own. Like many of the young parents I was to work with, I was very dissatisfied with the narrow type of religious and intellectual formation I had received as a school child in a parochial setting. Before my son's first birthday, I was back in Europe attending the French Government sponsored Tenth International Montessori Congress at the Musee Pedagogique in Paris. This Congress had been planned as a testament to the living Maria Montessori. Between the time of

its planning and its actual occurrence, Montessori died. The meeting I attended in Paris was a lament for a leader irreparably lost.

At the Congress, I met Mario Montessori, Montessori's son whom she had designated as her successor and to whom she had left the "family business," the Montessori movement. He was head of the Association Montessori Internationale (AMI), the group charged by Montessori with maintaining the purity of her message and the integrity of her work around the world. The AMI had its headquarters in Amsterdam and was the center of what appeared to be a world wide network of Montessori schools and training organizations. Requests for Montessori teacher trainers, orders for Montessori learning materials, permission to start national Montessori societies all flowed through the Amsterdam headquarters of AMI, the single "authorized" Montessori source, as Mario explained to the Congress participants. (What I was not to realize until years later was that Mario Montessori's description of how the AMI operated was his public bid for the hereditary leadership willed him by his mother.)

I discussed with Mario Montessori my desire to explore the establishment of a Montessori "type" school in America, thinking no doubt of the way in which several groups of A.S. Meill's admirers had set up American variants of Summerhill. "Madame," he commented, "there is no such thing as a Montessori 'type' school; there is only a Montessori school." It seemed reasonable to me at the time I met him, that Mario Montessori should control the social movement of which his late mother had been the cause and the center. He advised me about where I might obtain "authorized" Montessori training in preparation for my plan to

organize an American school. He supported my intention to put Montessori "back" in the American pedagogical picture. (I was very hazy on the past history of Montessori in America, at that time. Her ideas were truly innovative as I saw them.)

After returning to New York I researched, wrote and published the first American article on Montessori education for a general audience, to appear in several decades. "Learning Made Easy," appeared in the first issue of Jubilee magazine (September, 1953), a liberal Catholic publication aimed at a young educated audience. It was the first of many articles relating to Montessori which I wrote for this publication during the next five years.

In September, 1954, pregnant, I embarked for London, with my son, Rob, in my arms to attend the Maria Montessori Training Center's "authorized" Montessori course. My husband stayed home to support our travels. During the year in London, I had an opportunity to see close-up the devastating effects that Maria Montessori's death had had on her followers. The English Montessorians were divided into two camps, one unacknowledged by Mario Montessori, though close to Montessori in her lifetime. My chief concern was getting the "training" so that I could function as a Montessori practitioner when I returned to America.

The Montessori training offered by the AMI was similar in content to that offered during Maria Montessori's lifetime. Bereft of her genial presence, much of it made little sense. The principal focus of the training was the provision of structured experiences with an array of "didactic apparatus" which Montessori and her followers had developed and which was to her "Method" what Froebel's "Gifts and

Occupations" were to his. A secondary focus was on the transmission of Montessori folklore and myth in the form of anecdotes of Montessori's life and work which were delivered with the reverence and solemnity accorded scriptural quotations. Since none of the didactic apparatus was demonstrated with children present, the Montessori aspirants had to imagine what their future reactions might be in the face of culturally divergent child responses to such strategies. There were few visits to actual Montessori schools provided during the training. (I later discovered that there were very few Montessori schools in existence in England.)

The classes were held in an elegant old house facing Regent's Park. In the basement, there was a room full of didactic apparatus available for solitary practice. We met three times a week for two hours in the evening. A few members of the group were university graduates. Others had not finished the equivalent of high school. There appeared to be no academic prerequisites for the Montessori training. What bound the group together was an ability to pay the fees. Some of Montessori's British disciples lectured in the course, Claude and Francesca Claremont among them. The content of the course could have been mastered easily by reading Montessori's books and practicing with the Montessori materials, had they been available. Each student was required to make a series of handmade albums, containing detailed protocols for the materials.

I completed the Montessori Primary Course with "Distinction," in Spring, 1955. My second child was born in mid-May; I enrolled immediately in the Montessori Elementary Course, the second level training

for teaching children between the ages of six and twelve. In late Summer, 1955, I returned home to New York and set about organizing a Greenwich Village "play" group. My goal was to occupy my own two children and to test my newly acquired Montessori insights. For two years the play group prospered as seven or eight preschoolers from the neighborhood shared our living room reorganized daily as a "prepared environment." All of the children worked through the Montessori sequences of activity in the areas of Sensorial Education, Practical Life and the "indirect preparation for academic learning." Four of the children read fluently by the time they were four.

During this period, I kept in touch with Mario Montessori. He sent me visitors to the United States who had been connected with the Montessori movement in Europe and Asia. He put me in touch with "old" Montessorians who had been involved in the Movement both in Europe and America at an earlier time. I came to know Catherine Pomeroy Collins, who had been one of the first Americans and certainly the youngest ever to take one of Dr. Montessori's Roman Courses. I learned of the work of Emma Plank, Lilli Peller and Lisl Braun, all of whom were living in America and had been close to Montessori at one time. I sought them out; none of them expressed any interest in involving themselves in an American parent-oriented Montessori movement.

In 1956, our family forsook Manhattan for the greener reaches of Connecticut. Friends of ours, John and Janet Bermingham, who shared my interest in starting a Montessori school, had preceded us to Greenwich. When we arrived, I located a small group of wealthy Catholics who were dissatisfied with the local parochial schools and were interested in

starting a Montessori school. One of them, Georgeanne Skakel Dowdle, knew of Montessori education through her sister whose children attended a Montessori school in Ireland. Dissatisfaction with existing educational arrangements and affluence were to prove the prime ingredients in launching the new American Montessori movement.

Thus was the Whitby School born, the first school of the American Montessori movement and the Montessori revival in America. The name Whitby had a special significance to the school's founders. According to Venerable Bede in whose Ecclesiastical History of England the story occurs, the Abbess Hilda of the early double monastery in Yorkshire, Whitby Abbey, heard of a stable boy, Caedmon, who was inspired with a divine gift of song. Hilda invited Caedmon inside the monastery enclosure so that all within could enjoy his heavenly gifts. This story we took as a paradigm of what American Catholic education had become. With all of its resources, it was leaving children "outside" its enclosure, unmindful of their gifts. It was Whitby's aim, a frankly utopian one, to redress this imbalance by offering children another kind of school experience. Whitby was chartered as a lay Catholic school with no fiscal but with strong filial ties to the Diocese of Bridgeport, Connecticut. Whitby operated as an independent school. As its Headmistress, I was responsible for the definition of Montessori in the school as well as for the Montessori definition of the school. At the same time, I became the "American Montessori movement," but not the American Montessori. I travelled and lectured throughout the country until in 1960 the American Montessori Society came into being to institutionalize my itinerant role. During the years 1953-1960 I

had followed the "Johnny Appleseed" variant of the center-periphery model of innovation diffusion

[where] the primary center is a kind of bard who roams his territory spreading a new message [Schon, 1971, p. 83].

I was the Methodist circuit rider on the frontier, gathering Montessori enthusiasts into "classes" and returning periodically to keep them committed and connected. How did I operate?

Nancy Rambusch brought the message of Montessori to the country with her own unique powers of enlightenment... and succeeded in arousing the desire in the parents to whom she spoke for a method of pre-school education radically different from the existing system. Single-handedly, she revived an educational movement which had lain dormant... for many years... Nancy created interest and enthusiasm for Montessori's ideas by unceasing mental effort at no small personal sacrifice. She never refused an invitation to speak no matter where. She travelled and lectured constantly. She reasoned, persuaded and convinced, but most important - she persevered. She appeared on television and was interviewed on radio. She inspired numerous newspaper and magazine articles. She wrote Learning How to Learn [O'Brien, AMS Archives, 1970].

My activities corresponded intuitively to the optimal strategies for innovation diffusion. In her study of the diffusion of American Montessori education, Meyer (1975) relates the importance of media coverage to auspicious beginnings:

In the typical adoption process, mass media communication is most important to individuals when they are first becoming aware of an innovation. For Montessori teachers, however, publicity in the form of interpersonal communication predominated in importance as a first source of information except among homemakers who were as likely to be dependent on mass media communication [pp. 3-4].

Two media events catalyzed early interest in Montessori education: Time published a story on Whitby in May, 1961 and my book, Learning How

to Learn: An American Approach to Montessori appeared in Spring, 1962. Mine was the first book to place Montessori in a contemporaneous American context since the first American books on Montessori had appeared in the wake of the 1912 American edition of The Montessori Method. Letters and people poured into Whitby from across the United States, demanding insistently that writers and visitors be given help in starting Montessori schools and teacher training programs.

To understand why successive waves of sassy, critical, and articulate young American parents were drawn to Montessori education is to envisage some of the social currents in which these young people were caught up. In the late 1950's, parents interested in Montessori were Catholic and were persuaded that the parochial education awaiting their children was as monolithic in structure as it was in intent. These early Montessori adopters tended to have sizeable, tightly spaced families. To them, Montessori environments provided an acceptable vestibule between the little world of family and the larger world of life. Mothers felt comfortable confiding their children to Montessori schools whose blend of Christian humanism and 19th century scientific optimism helped them rationalize separation from their children and hope for a better world. Other parents early attracted to Montessori were those who went into orbit with Sputnik; they rebelled against what the Council for Basic Education pilloried as the "life adjustment" curriculum, a pabulum derivative of Dewey's thought. Still other parents looked back upon retrospectively barren childhoods, determined to provide their children with a "golden" time they themselves had not known as children.

The American Montessori Society intended to build a national network of Montessori schools and teacher training programs. In its first years of operation, while I acted as President, the AMS still operated within the oral tradition. A visitor to Whitby in 1961 described the prevailing state of affairs:

The American Montessori Society headed by Nancy Rambusch and centered in Whitby has officially been granted leadership status [by the AMI] for carrying forward Montessori activities in the U.S. Details of organization and plans for the future are in the developmental stage and not yet fixed. To safeguard a sound expansion and development of the Montessori ideas and their implementation in the American culture pattern, some organization, direction and supervision are desirable. To date, however, much of the organization and most of the plans exist in the mind of Nancy Rambusch [Fleege, AMS Archives, 1962].

The newly conceived AMS succumbed almost immediately to the same problems it had experienced earlier with the AMI. There were simply not enough resources available to do the job. America was a continent and we were two people in the AMS office, myself as President, general factotum and catalyst, and a secretary. We faced a growing constituency which had limited resources and limitless needs. The undercapitalization of the AMS at its center virtually insured the failure that Mario Montessori predicted privately would occur in less than five years.

According to Schon's notion of the center-periphery model, the basic conditions of the model did exist in the AMI at the time that the AMS got organized, but did not exist within the AMS. The AMI conceived of itself according to the model, while the AMS was, at that time, still an extension of me. The three conditions qualifying the AMI as a "center" were:

1. its belief that "Montessori education" existed fully realized prior to any diffusion attempts
2. the AMI's insistence that the direction of the movement be from the center out to the ultimate users, the national Montessori societies and finally
3. the AMI's conception that directed diffusion was to be a centrally managed process of dissemination, training and the provision of resources and incentives (Schon, 1971).

The AMI saw itself exactly as Montessori had seen herself.

From growing contact with the AMI, it became clear that that group's effectiveness as the living embodiment of Montessori's work was severely limited. The center-periphery model depends for its effectiveness on the level of resources and energy it can muster at the "center." It must reckon with the number of "points" on its periphery that require service as well as the distance from the center to these "points." For the model to prosper, energies are needed to expand the model. Finally, and Schon (1971) considers this critical, the center must have the capacity to generate and modify feedback mechanisms.

Because the process of diffusion is originally regulated by the center, the effectiveness of the process depends upon the ways in which information moves from the periphery back to the center [p. 82].

Montessori's small band of faithful intimates was ill equipped to maintain and expand a world wide network whose cohesive force had been her charismatic presence. What it did seem capable of demanding was total acquiescence to infrequent directives and sychophantic attention paid Mario Montessori on his world tours to far-flung Montessori outposts. What actually existed at the heart of the "international"

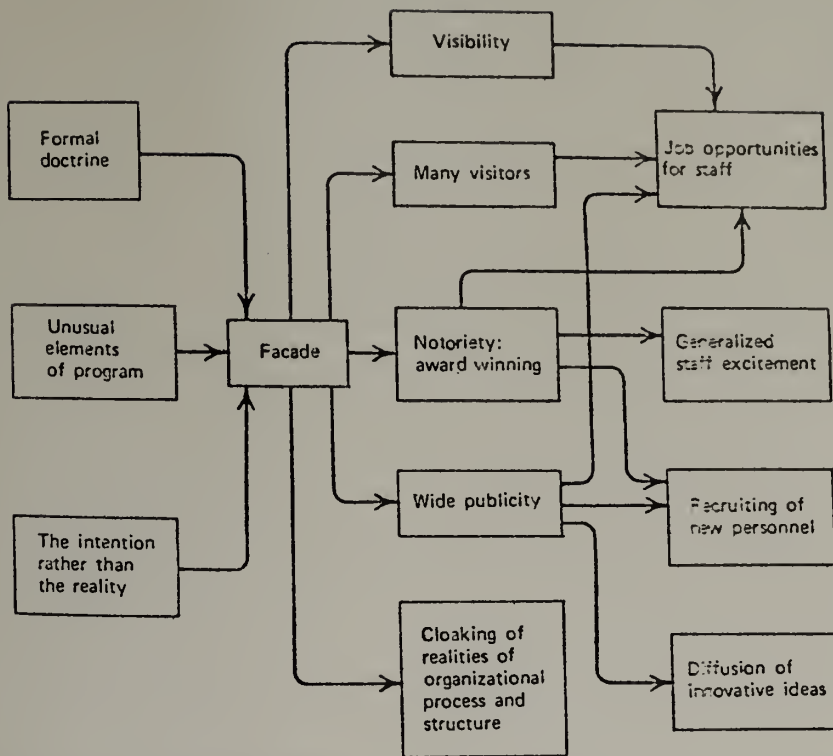
Montessori movement was a scantily clad self-styled emperor. Mario Montessori, as his mother's heir, attempted to control teacher training much as she had done in her life. The format for the training, however, was now reduced to anecdotes and demonstrations of the didactic apparatus, in the hands of disciples deemed sufficiently loyal to take such word, without distortion or modification, from the Mother Church of the aborigines. The resources and energies of the AMI, when seen in American perspective, centered on endless squabbles with possible usurpers and polluters of that "method" which Mario Montessori had been bequeathed. E.M. Standing (1962) describes Mario's "work."

At Montessori's death, her son, Mario was bequeathed the 'delicate' task of safeguarding the integrity of the Montessori movement... by recognizing ...only such Montessori schools and training courses as faithfully interpret, both in spirit and practice, the Montessori principles [p. 72].

The International Montessori movement was far flung, with radii extending to several continents.

What was happening in America? The AMS was becoming its own "center" in the center-periphery model and was discovering that its constituents on the periphery were presenting many of the same problems which it had experienced with the AMI. The two organizations, the AMI and the AMS held different positions on which group had the right to speak for the Montessori movement in America. The AMI naturally believed that it alone could speak for Montessori since Montessori had bequeathed it her authority. The AMS conceived of itself as a representative organization deriving its legitimacy from its American constituency. The AMI viewed the information it received on the American movement exclusively in a context of orthodoxy versus heterodoxy.

The real drama within the American Montessori movement occurred as those seeking answers to educational problems looked to Montessori as an American short-term panacea. Both as Headmistress of Whitby and as President of the AMS, my position concerning the intentions of Montessori education was interpreted by many parents as equivalent to measurably superior outcomes for children attending Montessori programs. I felt pressured continually to resolve all of the pedestrian as well as ideological difficulties of the Society as though they were problems admitting of simple solutions. The demands of the AMS member schools were protean. We two in the office, trying to keep ahead of the mounting mail and unanswered telephone calls, succeeded in generating the image of IBM while actually operating a Taco stand. The impact of media coverage nearly destroyed us. Overexposure led inevitably to underdevelopment. It also led to the erection of a Montessori "facade." Smith and Keith (1971) define a "facade" as the image an organization presents to "the several publics." When an organization is forced to make premature statements concerning its aims and structure, its formal description rarely matches its emergent reality. What results is a biased or partial picture which tends to be interpreted literally and which serves subsequently as a referent. The organization is then hard put to defend its "unfinished" state and that of its work when the work and the organization have been reported to the media as "finished." Since AMS was "unfinished" by its own conscious choice in contradistinction to AMI, the major difficulty AMS encountered through publicity was an inadequate discrimination between its intentions and its reality.



The implications of the facade.

The "facade" issue relates to the larger question of "official doctrine." Selznick's study of the Tennessee Valley Authority provides the classic locus for a discussion of this. The necessity for an "official doctrine" is traceable to the way that a "new" idea confronts a hostile environment, operates in an ideological vacuum and needs to communicate within its own organization. Members of the AMS wanting specific academic outcomes for their children as described in Montessori's writings did not thereby enable the AMS to provide these. Some of the wishes of the AMS constituency were clearly unrealizable. Smith and

Keith lament that

the language of school organization, teaching and goals for pupils remains metaphorical and literary but neither practical nor scientific [Ibid., p. 53].

The "facade" issue was an important one for the AMS. It was true of Whitby, of the AMS and also of the AMI.

The organizational face presented to the public - especially in popular newspapers and magazines - did not reflect the reality of the school [Ibid.].

The AMS commitment to a culturally relevant version of Montessori education was a self-imposed task of enormous complexity. In all the literature explicating the aims of the AMS this intention was articulated. In describing an early training course jointly sponsored by the AMS and AMI, I wrote:

Through lectures on theory and practice of Montessori, as well as exposure to educational and developmental trends in Early Childhood Education, a Montessorian learns to relate the insights of Montessori to those of American educators [Rambusch, 1962].

From the beginning of the public notice I received, I was described as an advocate of "an American approach to Montessori." (Gross and Gross, 1965). I was credited with bringing about "the Americanization of Montessori" (Pines, 1963).

By 1963, I was confronting head on those Montessori enthusiasts who failed to see the difference between "Montessori in America" and "American Montessori." I wrote:

Very simply, the Montessori ideas today are meeting the same 'Americanization' test as did those of Frederick Froebel fifty years ago.... There is good reason to believe that the American Montessori movement will be destroyed as intellectually and pedagogically substantive if it is representative of the fossilized outlook of those Europeans whose fidelity to Dr. Montessori's

memory is as unquestioned as is their innocence of the complexity of American culture [Rambusch, 1963].

I argued that the American climate posed particular challenges for Montessori education which the European Montessorians seemed to be missing, altogether.

Everywhere, Montessori stresses the importance of the environment and the need to recognize the world in which the child is actually living. America is not a nation of educational aborigines, awaiting the Gospel from abroad... None of the Montessori 'missionaries' who have come here in the past five years came from countries in which the scope and complexity of the culture is comparable to that of this country. [Rambusch, Ibid.].

The need to place Montessori education in a viable American context was a recurrent theme in the organization and conduct of the AMS. Applebaum (1972) compares the objectives of the AMS and AMI

The AMS goal [was] to insert Montessori insights into the American culture as opposed to the goal of the AMI [which was] to simply establish Montessori schools in the United States [p. 177].

The AMS was to act as a change agent in all of the richness of Havelock's definition. The American Montessori "model" of education did not exist and could not have existed fully realized, prior to its diffusion. It was in the process of evolution from the moment that I and a few others realized that "American Montessori" was not the same thing as "Montessori in America." The AMS, in its beginnings, did operate from the center outwards and did manage centrally, for a brief period, the diffusion, training and provision of resources and incentives. Later, following Schon's model, the AMS became the center of centers and the "proliferation of centers" model developed.

Montessori was literally rediscovered in America in the early 60's. She was granted the hearing denied her on her earlier American visits of 1913 and 1915. A group of young parents who believed her ideas had particular relevance to their lives, seized upon her thought and pedagogical practices with enthusiasm. The vitality of the American movement sprang from a lack of retrospective personal adulation of Montessori. None of the founders of the American Montessori movement had known Montessori in life. They were all free to make the life of the movement their motive force, not the memory of a lost leader.

There were never very many people involved in the American Montessori movement, just a handful who devoted to it their time, that of their spouses and children, and their life's blood. Young parents let nothing stand in the way of their founding hundreds of Montessori pre-schools. Mothers demonstrated their willingness to do everything, from swimming to Holland for the Montessori "didactic apparatus" to leaving home for extended periods of time to become trained Montessori teachers.

The American Montessori Society had as its goal the creation of a viable American Montessori educational experience for as many children as possible. The AMS was less clear that this would mean, over time, an indigenous version of Montessori education. Mario Montessori would have been happy had I chosen to act as merely a "conveyor" for Montessori education. Then I would have passed it on as he offered it to me, without modification. Although it is doubtful whether the "linker" performs in such a limited way, clearly this was the preferred operating procedure for a disciple. But I was not a

"disciple;" I was an "innovator," the first to take Montessori education "up." I was also Schon's (1971) "product champion," characterized by motivation, total involvement and investment of self in the innovation. I was a catalyst, agitator and advocate for American Montessori education and I became the "process helper" for its installation. Many conflicts arose in the course of my "process helping" which related to the ascribed definition I had as a "solution giver" in the minds of many Montessori aficionados. To many parents, Montessori education was an "answer." When I countered their queries with a question, they felt betrayed. I organized a structure of study groups and schools. I diagnosed problems by a constant effort to keep "ahead" of the field. I organized AMS as the most relevant of all resources, I offered solutions where I could to problems. I took the risks of gaining acceptance for the American Montessori movement by acting as its spokesperson. The major risk involved solutions to problems which came not from the side of American culture. The stabilization of the Montessori movement occurred as much by default as by design. The resources of the AMS were too meager to solve all of the problems posed by the Montessori clients; many clients solved their own problems and became in their turn, the center of their network, developing Schon's "proliferation of centers" diffusion model, which took, in the American Montessori movement, a regional turn. My own change efforts were focused on attempts to meet the needs of a client system while at the same time seeking to expand it. Conflicts within the AMS leadership concerning the view that the AMI had of our "work," were continual. Part of the group lived in the shadow of Mario Montessori's smile; part believed

that the AMS need not look beyond itself for authority, because of its representative composition.

In 1959, I turned my attention to the organization of an American teacher training program. Acting as any self respecting "branch manager" would, I wrote to Amsterdam for a teacher trainer. I requested help in establishing an AMI approved training program. Mario Montessori sent Elizabeth Stephenson, a "reliable" trainer. (I took this to mean, even then, that she was someone devoted to the "headquarters" message and proof against any aboriginal blandishments which we might offer her.)

When Betty Stephenson embarked to conduct the first American training course, her reticule contained the standard store of anecdotes about Montessori's life, repetitious statements from Montessori's written works and a standard set of procedures for the manipulation of the Montessori didactic apparatus. This was the core of the Montessori teacher training. It was completely a-contextual, based on the assumption that children the world over were more alike than different. This training was, after all, the best that any of Montessori's disciples could offer in lieu of her living presence. The manipulation of the "ritual objects" of Montessori pedagogy was the core of the teacher training. It was what Montessori had in fact disseminated as training in her lifetime, but then such manipulation was situated in the rich context of her living and evolving thought. Not only were Montessori's disciples limited, but what was needed in all of our opinions was a formulation of Montessori education from the side of the culture.

The controversies over teacher training which developed between the AMS and the AMI centered not only on the legitimacy of the trainers but on the issue of cultural accommodation. John McDermott (1963), professor of philosophy, explicator of Dewey and James and a founder of the AMS, forced the AMS leadership to address this question. He argued that

The contentions of the traditional Montessorian about the universal similarity of children for purposes of education displays a basic naivete about the extraordinarily powerful and irreducible interrelationships between a culture and the child's development of a modality of consciousness [p. 18].

He reminded Montessorians that any thinker had to be updated and made relevant to the time and the place in which he was "read."

Is it so strange that Montessori is in need of updating when no philosopher of education has ever developed more than a handful of practical suggestions which were instituted beyond his own historical period? Plato, Rousseau, James, Dewey and Montessori have made contributions to the basic vantage points from which a Paideia can be structured. To look at them as specific scriptures is to misread both their intentions and abilities. The genuine question here is whether a thinker's basic insights deserve to be reformulated.... [p. 19].

McDermott was concerned that the American parents who constituted the American movement had far too parochial a perspective. They showed concern neither for the world's children nor the nation's children, just their own children. He reminded the Society that the Montessori movement was but one among thousands of social movements in America. American culture was not inhospitable to peripheral movements as long as they stayed peripheral and made no bid to move to the center of the culture. The question which American culture asked was this.

Is this movement to be of service to itself and to its adherents or to the community overall [Ibid.]?

This, he explained, was the principle of evaluation and acceptance.

If the American Montessori movement was interested only in the children of its parent supporters, then it would be a movement with a private history. If, on the other hand, the American Montessori movement was interested in a communal orientation, then it might hope to make a permanent or residual contribution to American culture. Further, if the decision was made in favor of a residual contribution, then the very least required of those attempting this was

the effort to maintain an operational insight into the ways in which growth and change occur in America...Of particular significance for the American scene is the tradition of public education and the needs of an egalitarian-oriented society [Ibid.].

McDermott ascribed the revival of interest in Montessori to two factors:

...a willingness to read [Montessori] afresh in the light of new developmental contributions to learning theory and the urgent need for guidance, new or old, in facing the crushing problems of school systems that are not fulfilling their function of educating all the children [Ibid., p. 18].

McDermott's challenges went unheeded for a decade. Not until the mid-70's did Montessori education reach the American public schools. McDermott was so clear on the issues of cultural accommodation that it is surprising, in retrospect, that we were not clearer about what we were actually doing to the AMI model of Montessori education. Since I had been trained in Europe in the recent past, I raised a number of questions with Mario Montessori concerning how American teacher training ought to be conducted. My first suggestion dealt with the importance of training only college graduates. This decision

would serve as a first step in establishing an American Montessori teacher training program which would ultimately have parity with other American early childhood training programs. The AMS position was that the European teacher trainers we had been sent as disciples of Montessori were dealing with her insights as dogma "inspired by original contact with the charismatic personality of Dr. Montessori," (Applebaum, p. 147) but with little understanding of our culture's specific problems. In all of my subsequent correspondence and discussion with Mario Montessori, my "American" tendency kept surfacing. It was apparently unheard of for national groups to question the format and content of the AMI teacher training, since that training was an extension of the training Montessori had given in her lifetime. Mario Montessori had a hard time understanding this "American" tendency.

In Spring, 1962, the AMS asked me to negotiate an agreement with the AMI to grant AMS a franchise for the training of teachers in America. The AMS hoped to obtain

the franchise for training of teachers, including a statement that AMS teacher training standards 'be reflective of United States teacher training standards,' thus allowing AMS to develop a course which is noteworthy on the American university post-graduate level... [Ibid., p. 145].

Seen in retrospect, such a hope was unrealistic. If the AMI granted such power to AMS, there would be no way for the AMI to control AMS affairs. Teacher training was the AMI's major instrument of control. Instead, the AMI was utilizing a "two national society's" strategy by negotiating, independent of the AMS, with other American groups wishing Montessori training groups apparently more pliant to the AMI's definition of Montessori, than were I and the AMS. All through 1961,

the Educational Advisory Board of the AMS and I formulated our view of the Montessori revival in America as a social movement. Such a revival would require trained teachers acceptable according to American professional standards. Applebaum (1972) describes our work:

They had determined that to meet this goal it was necessary to train teachers to meet American professional teacher training standards, i.e. a college degree courses in Child Development and in historical and Philosophical Foundations of American Education [Ibid., p. 146].

Training American teacher trainers would take time. We could "buy" time through continued negotiations with the AMI, particularly if 10% of the AMS's income went along with our negotiations. While we continued to negotiate with the AMI about AMS's status in training teachers, it became increasingly apparent that as quickly as possible enough Americans would need to be trained to make our dependence on European trainers unnecessary.

From the beginning of my interest in Montessori, I believed that we would have an American Montessori experience. I proved to be its itinerant preacher, its circuit rider. What I proposed was a version of Montessori congruent with the culture and with parental concerns; what I envisaged was teacher training which could provide this. Neither the AMI's formulation of Montessori's ideas nor its teacher training practices offered this.

I believe that the evolution of the American Montessori "idea" began with my discussion with Mario Montessori at the Paris meeting on starting a "Montessori-type" school. It extended through everything I said and wrote. What destroying Carthage was to Cato the Elder, Americanizing Montessori was to me. This pre-occupation

surfaced in all of my correspondence and public debates with Mario Montessori. It was formalized by my resignation from the role as the personal representative of AMI and my request that that role be transferred to the newly formed representative national organization. I described this process to the first National AMS Seminar in June, 1962:

...I requested that the mandate for this work be transferred from me to the AMS, because we don't live in a culture where people function as personal representatives except to places like the Vatican where there is no constituted democratic government. As part of the American process, we tend to want an organization to replace the individual...people could not expect their interests collectively to be shared as well by an individual as by a group in which they would share some vote [Ibid., p. 150].

The AMS moved from the definition of itself as a point on the AMI periphery to one as its own "center." The rhetoric of AMS adhesion to the AMI was sustained until that moment in 1963, when the AMS went off on its own, in the most significant way possible, by granting its own teacher training credential. What this meant was that a group of Americans, not personally selected by Montessori or the AMI, became AMS trainers. The AMS break with the AMI over teacher training set in motion two separate developments. (1) It ultimately promoted what Schon calls "proliferation of centers" model and (2) it placed on the AMS the insuperable burden of providing its members with all of the support services they required in their school establishments.

I left the AMS as president at the end of 1963. There were many reasons. At the time those which seemed most important had to do with my mounting frustration at the impossibility of the task the Society had set itself. I recall telling someone that I was sick of being

punched like a bolster in a Macy's white sale. I was the obvious target for all of the Utopian hopes gone sour, the recalcitrant children who refused to become "normalized," the dissatisfied parents, the low reading scores. I was not and had never been the American Montessori. I was the change agent, the innovator who in bringing Montessori education to America, on American terms, helped transform it rhetorically and was then left to transform it practically. The magnitude of the practical task clearly exceeded my resources and energies, and those of the other person in the AMS office- all two of us- now that the national movement was launched. The AMS needed the resources of an NEA to "bring off" what its constituents expected. It barely managed to pay its office expenses.

Schon's statement on infrastructure technology applied painfully to the AMS beginnings. I had nothing but guts and determination and those, unhappily, were not enough. Given as I apparently was to drama in those days, I wrote to Mario Montessori. Along with a spirited discussion of our latest impasse, I relayed the news.

As you may have noticed, from the Minutes, I am tendering my resignation, as the principal executive officer of the American Montessori Society, this coming July... I would prefer a relationship in which I can help in whatever way possible without continuing to assume the problems and absorb all the abuse that has been showered on me from every quarter. I believe that I have proven my loyalty to the ideals of the Montessori movement in a more definite way than perhaps anyone else in this country. It would have been easy for me, ten years ago, to have returned from Europe and submerged the name of Montessori and promoted these ideas in some other way. It was not my intent then to do so. I think this would be a criminal neglect of the genius of Dr. Montessori, as well as an intellectually dishonest move. I continue to believe this to be the case, and yet I cannot help ponder the fact that many of the outstanding people who have become interested in Montessori in the past have

turned away in disgust when they have seen the petty politicking that exists at the heart of this movement. I would not pursue their course; I would only say that I have given the Montessori Society, not only my own time, but that of my husband and children, over almost a decade [AMS Archives, 1962].

For ten years, I had worked to make Montessori education relevant in America. In a modest way, I had succeeded. What Mario Montessori and the AMI had expected me to do was to make America relevant to Montessori education. That would take more than ten years.

My decision to depart from the Presidency of the AMS in 1963 was taken with the realization of the impossibility of the job. As "Johnny Appleseed" I had moved about the country visiting dozens of schools on the circuit in the horizontal band from New York to California. As the AMS became centralized, it was no longer possible for me to do this. Groups that had experienced intimate contact with me in the beginning of my travels were unwilling to have me relinquish the personal style of my initial efforts. The AMS did not experience "economies of scale" as it doubled and trebled its membership. Rather it felt the effects of that serious distortion which occurs when quantitative growth is unaccompanied by qualitative development.

The Montessori "Method"

In America, within the past twenty years, Montessori education has come to mean a series of strategies,- environmental, social and instructional- applied principally to preschool aged children. Those espousing Montessori strategies appear to have persevered in the meliorative hope that these children will prove to be those "new men" whom Montessori persistently envisaged. En route to that transcendent goal, children in Montessori schools are said to demonstrate precocity in

both learning and "learning to learn" skills.

Looking at Montessori in America may mean seeing a small but pithy bank of zealots reliving Montessori's early experiences or it may mean seeing a small but equally intent group of Montessori's successors attempting an incarnation of her attitudes in settings very different from Montessori's lived experiences. In any case, looking at Montessori in any American context will mean seeing a small group.

In a discussion of Montessori as an educational theorist, one would seem obliged to articulate precisely Montessori's theory. Unhappily, Montessori did not advance a theory as the basis of her "method." What was called the "Montessori method" was really nothing of the sort. The original title of Montessori's principle work, published in America as The Montessori Method was A Manual of Scientific Pedagogy Applied to the Education of Young Children in the Casa dei Bambini. Montessori said repeatedly, starting with her first international training course given in Rome in 1913, that she did not wish to originate a method of education, nor was she the author of a method of education. What Montessori intended by her "Scientific Pedagogy" was a marriage of pedagogy and physical anthropology, "devoted, as she said, to the education of men already rendered physically better through the allied positive sciences" (Montessori, 1913). If Montessori can be said to have a method of education, it was the method of anthropometry as an instrument for the training of new teachers, which would lead them to the use of observation as a pedagogical tool.

What Bruner said of Freud could as accurately be said of Montessori.

There is no scientific proof for Freudian theory
inasmuch as it is based on Freud's clinical observation

of specific individuals.and it is not even a theory in the conventional sense; it is a metaphor, a way of conceiving man, a drama [Bruner, 1956, p. 463].

It is precisely the metaphor, the view of man and the drama that are at the heart of reawakened interest in Montessori in America. In her lifetime, Montessori was a charismatic figure. After her death, to those closest to her, she became mythic. Those who had not known Montessori in life, but approached her thought through her writings and an inevitably distorted oral tradition had no remembered charisma to fall back on.

While she lived, Montessori was what was called her "method"; what was called the Montessori method was Montessori. Maria Montessori was born in 1870, the year that Italy became a nation of sorts. An only child of great determination, according to anecdotes of her early life, Montessori chose to study medicine at a time when no woman in Italy had yet done this. Against paternal objections, sustained by a supportive mother, Montessori entered the University of Rome Medical School to emerge with high honors, a unique professional identity as Italy's sole woman doctor, and as a celebrity. The young doctor, Montessori did research in the Psychiatric Clinic of the University of Rome. While visiting asylums to select suitable subjects for clinic treatment, Montessori encountered retarded children who had no one to care for them and so were placed in asylums together with "the stony catatonics, the raging criminally insane, and every variation of human misery between" (Kramer, 1976). Montessori by virtue of her upbringing, was inclined to social reform. In reflecting on the plight of the "idiot" children, Montessori evolved a strategy for their treatment which drew

on the work of two French medical predecessors, Jean Marc Gaspard Itard and Edward Seguin. Both of these men had dealt with idiot children as though their deficiencies were pedagogical rather than medical. Both stressed what Montessori was to call sensorial education; both preached patience and respect for the individuality of each child. Both provided the children in their charge with objects to manipulate, so that in the turning, twisting, comparing and contrasting of real things the children could somehow liberate from the object its conceptual content.

Despite Montessori's insistence that her major debt in the development of her own thought was to Itard and Seguin, she also assimilated the thought of Rousseau and his contemporary, Jacob Rodriguez Pereira, who devoted his life to the education of deaf-mutes. Pereira's contribution to educational practice was his insistence on the training of the sense of touch in their education of normal children. Montessori owed more to Rousseau than she apparently cared to acknowledge, particularly his insistence upon the teacher focusing on the characteristics of the individual knower and on the process of learning rather than on what is to be learned. Rousseau's teacher was to teach the child rather than the "subject." Montessori, as a physician, believed in education as diagnostic and prescriptive. She rejected Rousseau's belief in society as corrupting and elected instead to see nature as correcting. Montessori developed from Rousseau and his successors, Pestalozzi and Froebel, pedagogical strategies based on the notion of the development of the senses as the foundation of abstract learning, in what was to be her idea of an optimal social environment. Montessori owed to

Pestalozzi the notion of carefully structured activities with graded materials, which moved from the simple to the complex, and from the concrete to the abstract. To Froebel, she owed the notion of a protected environment, the notion of the "enclosed garden," the idea of education as basically a process of self-activity and the idea of the child as one unfolding according to an inexorable inner developmental agenda. Like Seguin, Froebel had ritual pedagogical objects, the Gifts and Occupations, which were used in structured ways. Montessori's method, if she had one, was an amalgam of Itard, Seguin, Pestalozzi and Froebel. She combined previous educational theory, the practice of medicine, her experience with retarded children and the strategies of physical anthropology to compose her "method." It was to the eminent anthropologists at the University of Rome that she owed her enthusiasm for anthropometry, the branch of physical anthropology devoted to measurement of human physical characteristics. Montessori apparently believed that if those who worked with children as teachers submitted themselves to the rigors of studying ways to measure them, somehow, a measure of the clinical insight which she possessed might thereby be transmitted to these far less skilled practitioners. As a doctor, Montessori emphasized the study of the individual child, and the careful observation necessary to detect pathology. Her perception of medicine in the light of her inclination to social reform, inspired her to see her "Pedagogical Anthropology," as a means of achieving a scientific pedagogy which could prevent abnormalities in children rather than merely remedy them.

Montessori's first work with ordinary children, was in the slum of San Lorenzo, where she established her first Children's House. There, she gathered children who were otherwise neglected by their impoverished parents and placed them in the care of two unlettered care givers who were absolutely obedient to her dictates. With these children, she used the strategies which she had earlier devised for her "poor defectives," and found, for the most part, that the children were responsive. Montessori began her work by assuming that children before the age of seven would be unable to write and read. On the basis of her experiences with the children of San Lorenzo, she revised her opinion and ultimately espoused early exposure to perceptual and psychomotor tasks which she believed would enhance a child's ultimate ability to learn these skills. The model for Montessori's first Children's House was a well regulated family, with the "directress" as Montessori insisted on calling the teacher, a model of all the virtues and behaviors which the program would hopefully inculcate in the children attending. Montessori's notion of the Children's House may be seen in terms of the preparation of a physical environment, of a social system and of instructional strategies. Together these strands form the skein described by Montessori as the "prepared environment."

The physical environment was to be scaled to the child, and everything within the environment was to be accessible to him. The very furniture and dishes were to call to the child by their fragility so that misuse of them would result in breakage. Any disorderly movements of the child would thereby be brought to the level of the child's consciousness. The physical environment was to be provisioned with

plants and pets as well as the standard assembly of objects devised by Montessori or redesigned by her from those of Seguin and Froebel. The social system was to be so construed that the focus of the child's activity was on the doing of "real" rather than imaginary things; children could learn all of the household arts; they could learn crafts. Each of the activities was so organized by the teacher in advance of the child's tackling it, that the teacher demonstrated the specific activity as a series of discrete separable steps. According to the Montessori canon, door opening involved three separate actions. Step 1 was placing one's hand on the door knob. Step 2 was rotating the knob to free the door opening mechanism from the jamb. Step 3 was drawing the door toward one or away from one, depending upon how the door was hung. Montessori argued that parents congratulated children for opening doors correctly and chided them for opening doors badly. In fact, both performances were accidental if a child had never consciously mastered the anatomy of the act. Since virtually every act of the child was learned, the role of the Montessori directress was one of devising endless systematic scenarios which the child could rehearse in private before performing in public. Socialization was to be a condition of learning, rather than the end of the learning experience. The two cardinal virtues of a Montessori environment were attention and intention,- focus and purpose. Montessori described

A room in which all the children move about usefully, intelligently, and voluntarily, without committing any rude or rough act, is one which would seem to me a classroom very well disciplined indeed [Montessori, 1963, p. 83].

Montessori's major observational emphasis was on the child in his specificity. This meant more often than not, that young children were seen as working and learning alone. Montessori eschewed the use of rewards and punishments. She anticipated by almost half a century the notion of intrinsic motivation. She distinguished between liberty and license. Liberty was the freedom "to do the right thing," license was the disregard for those ground rules of the environment, laid down initially by the teacher and adhered to by the children in degrees ranging from grudging to joyful.

The instructional strategies which Montessori proposed were laid out in detail in her book translated into English as The Montessori Method. She divided up her curriculum into three parts:

1. self mastery and care of the environment,
2. education of the senses and,
3. the indirect preparation for later school learning- Reading, Writing and Arithmetic.

This book contained the most explicit statement of Montessori's educational philosophy.

The transformation of the school must be contemporaneous with the transformation of the teacher an observer, familiar with experimental methods, then we must make it possible for her to observe and to experiment in the school. The fundamental principle of scientific pedagogy must be... the liberty of the pupil, such liberty as shall permit a development of individual, spontaneous manifestations of the child's nature. If a new and scientific pedagogy is to arise from the study of the individual, such study must occupy itself with the observation of free children... [Ibid.].

Montessori emphasized that her school differed from those other schools of the period that imposed arbitrary tasks on children. Hers,

she said, made it possible for the child to develop his natural tendencies by utilizing the materials in codified ways that she had designated for that particular kind of development.

Several of Montessori's metaphors were drawn directly from her study of biology. Life was a superb goddess, she said, ever advancing (Montessori, 1913). While the adult was normative for the species, the child was ever growing and changing. Montessori spoke glowingly of the organism developing in an environment best suited to its needs, of those sensitive periods of development which, if missed, would never be able to be re-experienced in their fullness. Education, Montessori argued should consist in "aiding the orderly establishment of the psycho-physiological functions of the organism" (Montessori, 1913). Montessori reserved the right to determine the kinds of activities that would stimulate children's development at different stages. She appeared to have a unique capacity to translate her insights into operable strategies involving children's use of appropriate materials and activities. Throughout her life, Montessori considered that what she was devising was science; over time, those who looked at Montessori sympathetically would call what she did, art.

The context of Montessori's "scientific pedagogy" was utopian. She looked forward to a "golden time" when the world would be regenerated by a new race of men, and when the Biblical injunction that they be led by a little child would occur literally. Herself, a child of the Risorgimento, Montessori grew up on the rhetoric of promise, although the reality of Italian society bore little relationship to it. Perhaps, it was the strength of her early experience

that enabled Montessori to live through the period from 1915-1945, characterized by George Steiner as "the Thirty Years War," and still keep hoping that somehow the implementation of her original vision would occur (Steiner, 1971). Montessori travelled across Europe to America and Asia on that quest, of the salvific supra-national child, evolving as she travelled into the central figure of a social movement. That movement was based on unflagging fidelity to her person and to her articulated ideas. Montessori at one stage in her career could have situated herself in the free market of ideas through a continued university affiliation and a disinterested relationship to her own "method"; instead she chose to franchise her pedagogical practices and control their dissemination, reserving to herself the sole determination of those fitted to implement them. As Montessori education expanded geographically, it contracted in influence. Montessori became an education anachronism to those who knew she still existed. When Montessori died in 1952, many readers of her obituaries were surprised to find that she had been so recently alive. To them, it seemed as though she had receded into educational history decades earlier. Her latest biographer describes her at the end as

...a grande dame, a symbol to her followers, little known to the rest of the world, no longer considered a major influence in educational thought but a historical relic [Kramer, 1975, p. xi].

During Montessori's lifetime, the Montessori "method" meant all that was connected with the living thought of Montessori,- her attitudes, her ideas and the educational practices she sanctioned. With her death, a new idea of Montessori education began to take hold. Those closest to Montessori during her life, her son, Mario

and the inner circle of disciples who formed the International Montessori Association, continued to perceive themselves as Montessori's inheritors. The rest of the world, saw, if indeed it looked at Montessori education at all, that Montessori's ideas no longer belonged to any one group, but to the ages.

The ANISA Model

There is a group at the University of Massachusetts, Amherst, intent on diffusing "a radical implementation of education itself- a new way based on a new vision," (Jordan & Streets, 1973) called the ANISA model. This group, in the School of Education, is headed by Daniel C. Jordan, Professor of Education, Director of the Center for Human Potential, and much more. What is most impressive about the ANISA model is its comprehensive nature and the erudition which undergirds it.

ANISA means 'tree of life' and symbolically represents never-ending growth and fruition in the context of protection and shelter, and signifies the blending of the useable and fruitful past with a new sense of future [Ibid., p. 290].

The ANISA model represents an example of the "grand" research development and diffusion design, familiar in agriculture and industry, which is committed to large scale research prior to "fielding," and which aims at a mass audience. The model draws heavily on Whitehead's philosophy of organism

as the means of rationalizing a new vision that can integrate the massive knowledge about child development in a way that illumines the nature of man and accounts for the phenomenon of purpose and its role in the continual actualization of human potentialities [Ibid., p. 292].

The ANISA model may be described as a coherent body of theory representing a new direction,

the kind of significant breakthrough - a fresh vision - that curriculum theorists and pedagogues in their most pessimistic moments predict cannot happen for a hundred years... A philosophical basis broadly conceived, has served to inspire a developmental theory that makes possible the creation of a comprehensive curriculum with emphasis on both content and process and a comprehensive guide to teaching to fit the curriculum [Streets & Jordan, 1973, p. 40].

The new direction in education toward which the ANISA model is heading is characterized by Teilhard de Chardin (1959) as one reflective of man's infinite potentialities.

Man is not the center of the universe as was naively believed in the past, but something more beautiful. Man is the ascending arrow of the great biological synthesis [p. 36].

The model can be described as a comprehensive educational plan based upon a view of man as the supreme talisman. Bah'ullah, the educator of the new era, according to Jordan (1970),

characterized man as a treasury of potentialities which could be drawn out through education:
Man is the supreme Talisman. Lack of proper education hath however, deprived him of that which he doth inherently possess. Through a word proceeding out of the mouth of God he was called into being; by one word more he was guided to recognize the Source of his education; by yet another word his station and destiny were safeguarded. The Great Being saith: Regard man as a mine rich in gems of inestimable value. Education can, alone, cause it to reveal its treasures and enable mankind to be benefit therefrom. If any man were to meditate on that which the Scriptures, sent down from the heaven of God's holy Will, have revealed, he will readily recognize that their purpose is that all men shall be regarded as one soul, so that the seal bearing the words, 'The Kingdom shall be God's,' may be stamped on every heart, and the light of Divine bounty, of grace and mercy shall envelop all mankind. [p. 18].

The ANISA model is articulated, for purposes of incorporation, in a secular setting. It embraces all of the value systems through which man defines his relationships to three different types of environments, the physical, the social and the super natural. In the model, attention is paid to the design, operation and maintenance of these several types of environments, within a school setting. One may speak of the organization of physical environments, of social systems and of instructional strategies, and of the environment of the "unknown," the equivalent of the supernatural environment, co-ordinated with every individual's "self" as environment. All of these perceptions have practical correlates in the translation of the ANISA model. It was these correlates with which I was involved.

The ANISA model is a "magnet" version of the "center-periphery model of innovation diffusion." It might also be considered, in its educational guise, as a social movement. Hadley Cantril (1941), in The Psychology of Social Movements, suggests that

Each movement arises in a particular social contest; each has its characteristic followers; each its special appeals [p. viii].

Those drawn to participate in the ANISA model came both because of the stunning intellectual clarity which informed it and because of the opportunity it offered them to work with Daniel Jordan, its propagator. A rare person and a genuine innovator, Jordan can be compared to Gandhi in his effect on those working close to him, as I perceived the relationship.

Whatever their identity when they met Gandhi...their pasts have now become part of his life and his death... men and women forever living in a glorious past when historical actuality had been quickened to a rare

intensity and pace...[Erickson, 1969, p. 61].

They felt augmented in his presence beyond personal desert and native capacity...For the numinous person has the strange power to make the participant feel part of him and yet also feel augmented in himself [Ibid., p. 63].

Havelock calls the Research, Development, and Diffusion model, of which ANISA is an example, "the most systematic conceptualization of processes related to educational innovation [p. 12]." Its chief proponents are Brickell (1961) and Clark and Guba (1965). There are at least five operative assumptions within this model:

1. that there is or ought to be a rational sequence in the development and application of the innovation.
2. that there must be long term, massive funding. (ANISA enjoyed a quarter of a million dollar grant from the New England Program in Teacher Education, as the seed money for implementing its basic research.)
3. that a division and co-ordination of labor is necessary to harmonize with the rational sequence and planning.
4. that the target consumer is more or less passive but rational, and will accept and adopt the innovation if it is offered to him in the right place, at the right time, in the right form.
5. that those who espouse this orientation accept the high cost of initial development prior to any dissemination activity because they anticipate long term benefits in the efficiency and quality of the innovation, given the intention to disseminate it to a mass audience.

The prototypes for this model exist both in industry and agriculture.

Havelock suggests that this model is "itself a grand strategy for planned innovation" [Ibid.].

ANISA became involved with the field site in Maine the most traditional way in which "planned change" is negotiated between universities and school districts. John Skehan, Superintendent of Schools of the School Administrative District 22, Hampden, Maine spoke to a Parents Meeting at the Earl C. McGraw School on November 28, 1973 and described publicly for the first time the events that led up to the District's formal involvement with the ANISA model. He described the lengthy "palaver" which had gone on between his office, and the Title III officials in the Main State Department of Education, during the various phases of grant seeking. He noted that bureaucracy moves in wondrously slow ways and as proof of this statement recounted that the day before seven McGraw teachers were to go to Amherst for the previous summer's program, the final grant arrangements had still not been completed.

What Mr. Skehan was describing was a typical "on high" decision making strategy that is characteristic of schools. (There is substantial evidence that this kind of decision making often results in very little change.) The Ford Foundation lamented that throughout the 1960's it was

...difficult to make a dent in the public school system. It bends, absorbs and springs back into its original form. Moreover, many of the reforms attacked the problem from the top down. They sought to change teachers and curricula without focusing enough on the day-to-day political and community life of the schools [Matters of choice, n.p.].

Mr. Skehan and Willard Hillier, principal of McGraw looked upon the ANISA model from their vantage point as cautious, "down East" administrators.

Roy Nisbet, the Maine Field Agent for the New England Program in Teacher Education (NEPTE) who "brokered" the Title III grant gave three reasons why Hampden seemed to him a good spot to implement the ANISA model:

1. McGraw school had a physical plant that offered the best context for an innovative program.
2. The McGraw school, as a K-3 school, was the ideal site for a Title III project which would have a three year funding cycle. By starting with the kindergarten and first grade in Year I, and moving up a grade level a year, by the end of Year III, the whole school would have been exposed to the model.
3. The McGraw school was already known for innovative thinking. It enjoyed a fine reputation in the community. The ANISA model would be perceived as a logical extension of what had been going on at McGraw in its three years of existence.

In the lingo of innovation diffusion, Mr. Skehan's decision to seek Title III funds for innovation at McGraw was an example of "authority innovation" decision making. What is an "authority innovation" decision? It is a decision forced upon an individual by someone in a superordinate power position. There are two sets of people involved in such a decision, the deciders and the adopters. There are obvious difficulties at the implementation level when decisions are made in this way, however normative it may be for formal organizations. The change agent in this setting meets adopter responses ranging from enthusiastic to hostile. This proved to be the case with the McGraw teachers. When a group of ANISA people arrived to tell them about the model that their superintendent had chosen for them, it was the first the teachers had heard of

the model or their involvement in the model.

The initial arrangements made for McGraw staff training by the ANISA directors and the Hampden Superintendent reflected the 1973 Summer School time table at the University of Massachusetts. The first plans involved seven teachers spending the whole summer session at Amherst. When these teachers learned of the plans made for them, they reacted with alarm and the summer program was adjusted to meet their needs. The final two weeks of the summer training were held in Hampden and included the whole McGraw staff. In retrospect, the decision to shift the final weeks of the training to Hampden demonstrated not only flexibility at the "center" of the center-periphery model, the University of Massachusetts, but also attention paid to peripheral feedback. The original summer plans for the McGraw teachers were made without their involvement. When they were consulted, the plans were changed.

From the beginning of the "installation" year, the stresses on ANISA "center" at Amherst were enormous. The ANISA model went to the field in four different, far flung locations simultaneously. This effort required of the "center" enormous energy and resources. Virtually the entire ANISA staff spent the year in the field. The focus of the model during its research and development phases was on the content of the innovation. The ANISA staff was far stronger theoretically than it was practically. Few members had any consciously acquired skills in the area of "planned change." Although the ANISA model could be considered as fully articulated in its essentials, prior to diffusion, the practice of the model was not and could not have been so articulated.

The year in Hampden at McGraw was one in which the "creation of the setting (Sarason, 1972)" for ANISA occurred. It was the year in which appropriate incarnational strategies were being devised.

ANISA went to the field as a complex, comprehensive model utilizing, ostensibly, the simplest form of innovation linkage, that of the change agent as "conveyor." One could argue as Havelock (1975) does, that the client of the Research, Development, and Diffusion model, typically seen as a passive though rational recipient of ideas, would only need to be told about the model in order to implement it. Obviously, this was not the case. What I was doing in Hampden was creating a setting (Sarason, 1975) for the ANISA model, which involved me and the two ANISA staff members who constituted with me, the ANISA team at McGraw, in a variety of other change agent roles.

The ANISA model as a first generation phenomenon, one in which its architect was its principal diffuser, was centered in Daniel Jordan. The Montessori movement, during Maria Montessori's lifetime was similarly situated. This identification of the propagator with the model meant that whoever went to the field with the ANISA model went, in some sense, from Dan Jordan. It also meant that Dan Jordan's field visits were reckoned of more worth than those of his emissaries.

In Hampden, the distance from Amherst created the possibility of the ANISA team developing an original, rather than a derivative relationship with the clients. It was possible to develop what Schumacher (1974) calls a "semi-autonomous unit within a large organization." Some of the characteristics of such a unit are the decision making at the level closest to the "action," in the field, and the possibility of

each unit retaining its own identity, standing on its own record. As an experienced change agent, I disposed of a great deal of on-site authority. I was in constant consultation with Amherst, however, since it would have been ridiculous to minimize the importance of Dan Jordan in the entire ANISA enterprise, both at "headquarters" and in the field.

Although each of the field sites was separately staffed, with some ANISA people who were specialists riding the circuit of all sites during the installation year, the sites were kept separate from each other. All were connected through the Amherst center. There was little knowledge of what was occurring at the other sites relayed to us at Hampden, except through Dan Jordan. Schumacher (1974) suggests that the "principle of identification" permits a small sub-unit of a larger organization to retain its own identity and stand on its own record. (In the case of a business, this would mean a separate balance sheet.) During the installation year, such a balance sheet was not kept, metaphorically speaking. The entire ANISA effort was lumped together by "headquarters." Of course, test results of the innovation were kept separate for each site. However, no distinction among change efforts at the four sites was made. This could have been because the ANISA "center" assumed all sites were more alike than different, and the transmission of the model involved largely identical strategies or it could have been because it was a beginning year for everyone, and striking a performance average may have been seen as a way of uniting all the "branch managers" in a common evaluation. Those of us at Hampden felt we were both separate and special, by virtue of our experiences there.

Havelock (1975) defends the strategy of the "temporary system" as one of the most effective of linking strategies. It was one I elected to use in organizing the ANISA group at Hampden into a team. As part of my contractual arrangements with headquarters, I asked for a stable "team" at Hampden. My reasons derived from two separate sources. First, the ANISA staff members available for Hampden were young and inexperienced graduate students. By organizing them into a "team" rather than as individuals, I believed that each team member could operate from particular strengths and be free from the burden of ascribed omniscience that is typically placed on change agents by clients. The scale of the McGraw school, a principal and 16 teachers was one in which it was possible to get to know each teacher well, and one in which each team member could learn to do "everything." Miles suggests that people in "temporary systems" are linked indissolubly for relatively short periods of time, highly motivated by the intensity and "ad hococratic" nature of their common work. A further characteristic of "temporary systems" is the abdication of hierarchical roles, within them.

The ANISA team at Hampden consisted of myself as Co-Ordinator, Michael Kalinowski and Linda Pratt. My two team mates, in their late twenties, make up in enthusiasm and willingness what they lacked in experience. They were certainly not experts in any of the areas of the model, merely specialists. If they were called "scholars," then it was in the sense of being "students," not "savants."

[The] three of us... stayed together for the whole year, saw ourselves as a team and were seen by the Hampden staff as a team... We experienced the excitement and commitment of a brief and intense time together, doing a difficult job [Rambusch, 1975, p. 57].

From the beginning of our work together, we were conscious of the implications of "teaming." In a jointly written "Introduction" to the Hampden Log (1974), a summary of our work from September, 1973 to March 1974, we say:

Teaming is a very important part of the Hampden experience and it has also become the style for the last entries in the Log. Teaming has made itself manifest in three ways:

1. in extensive preparation for each visit.

This time was not considered in the original plans for ANISA training and the Hampden team has given up a great many of their weekends to see that, having rehearsed together in private, they are ready to perform in public.

2. in co-operative execution of plans on site.

We have all learned to do everything at McGraw. No one person is in charge of any activity to the exclusion of the others. McGraw offered all the team members the opportunity to work, each in his own style. The team has developed a candid relationship with Willard Hillier, the principal, who thinks of himself as the team's fourth member (and has a team sweater as evidence.)

3. in personal growth through the unique opportunity that teaming offers.

Like all associations which persist over time, people who work in an atmosphere of enforced intimacy, even if it be of their own choosing, have their waxing and waning periods. We are no different. It is particularly gratifying that all three of us have become skillful in the central concern of planned change, the confrontation and resolution of conflict. We have never spared 'the bad news'; part of our concern was to give feedback on the life of the school which would enrich the principal's perceptions as Administrator. We have done that [pp. 1-2].

My attachment to the strategy of "teaming" and of "temporary systems" was not shared by ANISA "headquarters." As an accomplished change agent, and one employed to "make Hampden work," I was free to use whatever "installation" strategies seemed appropriate.

Organizing the Hampden group as a team was my response to an awareness of very unevenly skilled colleagues. What bound together all of those working in all of the ANISA field sites was a common hope, not a common set of incarnational skills. One might characterize that hope as the shared arrogance of commitment. Sarason (1972) sees it as a basic ingredient of all "new" settings.

[It is] a guiding idea which lends distinctiveness to the proposed setting and which, in one way or another, is considered to be better or superior to the ideas behind existing settings [p. 33].

Another feature of the whole ANISA group's perception of the field enterprise, also described by Sarason, was the model's non-competitive definition in comparison to other models.

...the competition between the new and the existing settings is viewed minimally, or not at all, in terms of limited resources, but rather in the realm of ideas or values [Ibid.].

My perception of the "headquarters" attitude toward the organization of each of the four field sites was that, in a linkage model based on "conveying," staff members, outside their own specialist contributions were more or less interchangeable. I took issue with this (1975).

...the notion that the missionaries who bring the Word of God to the aborigines were interchangeable is a fantasy indulged in only by religious superiors [p. 59].

My point of view was reflected in a Log entry.

The first requirement for the 'installation' of any innovation is empathy with the client...We have demonstrated our empathy in Hampden. We believe that working as a team was an important part of being able to do this... Any people will not do at any site. Just as there needs to be a 'match' between the child, where he is, and the encounter arranged for him, so are we persuaded that there needs to be a 'match' between a team and a school. We and McGraw have found that match. It is that which has made the year, despite the incredible amount of work, worthwhile [pp. 3-4].

What this statement demonstrates is the perception that the Hampden team had of its work and the perception it had of the McGraw staff's perception of its work. A later assessment, after the departure of our group, was made jointly by ANISA "headquarters" and the McGraw staff. In this informal assessment, the McGraw staff was not asked to rate the performance of the group as a team, but as individuals. Not surprisingly, the McGraw staff rated the individuals, according to their perceived strengths and weaknesses, very much as I had done at the beginning of the school year [ANISA Archives, 1974].

The first order of business for the ANISA team at McGraw was not an attempt to focus on the content of the ANISA model, but to create the social ecology within the school that would make possible the implementation of the model. This began with a conscious co-operative redesign of all of the classroom environments and a study of all of the routines of the school. Following this, a study of the consequences of redesign was undertaken to ascertain the effectiveness of new strategies. What the McGraw teachers discovered was that re-organization of time and space often resulted in "miraculous" changes in children's behavior. The orientation of all of the early encounters of the ANISA team and the McGraw staff was that of creating a trust relationship between change agents and client. My own operational style owed a great deal to what the literature on "planned change" calls "the human relations perspective (Chin and Downey, 1971)."

A primary concern of the "human relations" school of planned change has been on the largely unintentional changes caused by human interactions. According to the literature, (Baldrige, 1972) the "human

"relations" approach focuses on the individual and peer group relationships. The change agent is concerned with how organizations can be modified so that the needs of individuals within them can be met. Argyris (1964) argues that everyone has a need for "psychological" success, and that an organization may be structured to hinder people's satisfaction of this need. Recognizing that the control and authority systems in bureaucracies do not work, the change agent orients the "brokerage" toward alternative strategies in dealing with individual's needs outside formal channels.

During the first year at Hampden, I perceived my task as site co-ordinator as one of "setting the stage" for the ANISA model; I was persuaded that attempts at "top down" implementation were doomed to failure. The deciders of ANISA at Hampden, John Skehan and Willard Hillier, were not the adopters. The adopters who had not been heard at the decision making level certainly needed to be heard at the implementation level, prior to the implementation of the innovation. Looking at the McGraw school as an "organic social unit," which Goodlad (1961) suggests has the best potential for being "changed." I saw the need to involve everyone in decision-making, both in the ANISA team and in the client system.

Where I had painted a mural in my early Montessori days, using large brush strokes to create a dramatic transcontinental effect, at Hampden, I worked as a miniaturist, making everyone of a limited number of brush strokes "count." Katz & Kahn (1966) suggest that there are weaknesses in the use of the "human relations" approach to change if it is used in isolation. They suggest that the series of steps from

changing individual attitudes to changing intergroup relationships and finally to changing the whole organization - each step being the logical consequence of the one before it, is problematic.

In short, to approach institutional change solely in individual terms involves an impressive and discouraging set of assumptions [which] include, at the very least: the assumption that the individual can be provided with new insight and knowledge; that these will produce some significant alteration in his motivational pattern; that these insights and motivations will be retained even when the individual leaves the protected situations in which they are learned and returns to his accustomed role in the organization; that he will be able to adapt his new knowledge to that real-life situation; that he will be able to persuade his co-workers to accept the changes in his behavior which he now desires; and that he will also be able to persuade them to make complementary changes in their own expectations and behavior [pp. 391-2].

The corrective for such an approach is to be found in a serious consideration of formal systems and formal bureaucracies within which the change is to occur. The "political systems" approach to organized change directs attention primarily to what Baldrige calls "system" levels within the organization - administrative structures and the social environment. This approach focuses on authority structures, communication channels and evaluation patterns. The focus of ANISA at Hampden, as seen from a "central office" perspective was on policy execution, since the debate and conflict about goals, values, and strategies had already been resolved. My concern was to pay attention to the way in which the ANISA goals became McGraw policies.

I worked with Dan Jordan and the Amherst support staff in an atmosphere of mutual trust and cordiality. There were numerous discussions during the year on the way in which authority was managed within the ANISA teams. Obviously, the juridical authority within the

Hampden team rested with me. However, I was willing to share my authority with my teammates in a way that appeared, at least from the discussions I had with Dan Jordan, to be unique. There was little contact between the sites. In the "center-periphery" sense we were all connected to Amherst and if to each other, then through the Amherst "switchboard." I heard from time to time of the good things happening at the other sites.

There are parallels between the developmental stage of the ANISA model during my Hampden work and the Montessori movement during Maria Montessori's lifetime. Dan Jordan was in a situation similar to that of Montessori before she left the University of Rome and struck out on her own to "franchise" her own educational model. The university setting represents a free market of inquiry. To work within a university setting is to invite criticism and evaluation. Dan Jordan was willing to do this as Maria Montessori was not. He was the ANISA model; the ANISA model was he, in the sense that he was it's ultimate interpreter as well as proximate "manager." The model was fully articulated in its essentials, prior to diffusion and it was fully realized in its essentials in the person of Daniel Jordan. Dan was the "center" of the center. The diffusion effort was, as Schon (1971) suggests, "the movement of an innovation from a center out to its ultimate users." Directed diffusion, was certainly a centrally managed process of dissemination training, and provision of resources and incentives. What was not fully articulated, prior to the diffusion of the ANISA model was what I choose to call Metapedagogy, the "teaching of the teaching." That became one of the concerns of those involved in the field.

Teachers, according to the ANISA model must understand the nature of learning competence and the practical means to achieve it.

A clear understanding of learning competence as it relates to the total body of theory underlying the ANISA model is important because it can drastically increase the teacher's power to facilitate the release of the potential by providing guidelines for gearing learning activities to each child's developmental level. It also enables the teacher to take what is useful from any given theory, integrate that with pertinent aspects of other theories and apply them in teaching.

The ANISA theory is "spelled out" in each of the traditional educational categories of Development, Curriculum, Pedagogy and integrated with those of Value Formation, Environmental Organization and Administration. The following Process and Content summary Table gives an indication of the totality of the model's scope.

The Anisa Process and Content Curriculum
Summary Table

The Child:

actualizes these potentialities (process)	as he interacts with these environments,	assimilating these bodies of information (content),	utilizing these symbol systems,	thereby forming these values (content fused with process),	on which these higher-order competencies are based.
Psycho-motor	Physical	Physical and biological sciences, and technology	Math	Material	Technological
Perceptual					
Cognitive	Human	Social Sciences, history, human relations, communications, law, human rights	Language (s)	Social	Moral
Affective					
Volitional	Unknowns	Philosophy, religion, aesthetics, humanities, and	The Arts (as expressions of ideals or structuring of the unknown)	Religious	Spiritual
	Self	All of the above as they relate to Self (which is important for physical, psycho-social and spiritual health)	All of the above applied to the Self	Personal identity or character (all of the above combined into the Self)	Personal effectiveness (all of the above combined into this aspect of the Self)

The ostensible work of the Hampden team, like that of the three other field sites was the re-organization of the institutions through the theoretical entry points provided by eight of the ANISA "specifications" representing various domains. They were:

1. Co-operation
2. Attention
3. Laterality
4. Verticality
5. Classification
6. Seriation
7. Figure/Ground
8. Inflection

The organization of all of the "environments" envisioned in the model was a further goal. This involved the team in the reorganization of all of the physical environments, reconfiguration of the "shape of the day" and analysis of Curriculum and Teaching strategies. We also concerned ourselves with an analysis of the informal structure of the school, the identification of "opinion leaders" and the locus of resistance to what we were trying to achieve. A typical field visit would involve:

1. A renewal of contact with the principal and a discussion of his needs. (This planned initial session came to be called "Willard's Worries.")
2. Observation and demonstration Teaching in the Classrooms.
3. Grade level meetings on analysis of current curricula.
4. Whole group meetings on the "specifications."

5. Video taped presentations of new teaching materials and instructional strategies.

6. Review of Environmental and behavioral management strategies.

Reading and Math were the major curricular concerns of the McGraw teachers, so these subjects provided our major curricular focus for the first year. There was time arranged for small group and individual teacher meetings and a strong feedback loop established between the team and the Principal, Willard Hillier. This made it possible to ensure a follow up of all of the suggestions which were left at each visit's concluding meeting. I (1975) maintained that

the most critical person for the success of the ANISA model at McGraw was the Principal, Willard Hillier. His was the responsibility for overseeing the incarnational process on a daily basis. He is an outstanding administrator who had the respect and confidence of his staff long before the ANISA team arrived. From the beginning of our work together, he continually translated theory into imaginative administrative practice. He proved to be the most effective ally and advocate the ANISA model had in Hampden.]

The major accomodation which the ANISA Hampden team made in its work was the utilization of Havelock's (1973a) "process helper" model of change agentry rather than that of simple "conveyor."

Havelock's 'process helper' role is one in which the change agent begins a six step negotiation with the client. The first step is building a relationship; the second step is helping diagnose the client problem; the third step is helping the client acquire relevant resources; the fourth step is helping the client choose a solution; the fifth step is gaining acceptance for the solution the client has chosen. The final step is stabilizing the innovation and generating in the client the capability for self-renewal [p. 11].

ANISA at McGraw in 1973-74 provided an illustration of the "process helper's" staged behavior. "Process helping" as a change strategy at

McGraw was dictated by two factors- my own firmly established personal style of effecting change and the upscaling of the original diffusion design from one in which the school would change a grade a year to one in which the whole school would change, starting immediately. The teaming strategy which I chose enabled us to be many different places at the same time and to respond to the many different simultaneously felt needs of the Principal and the teachers.

The building of the relationship, Havelock's first "process helper" stage begins the day the change agent and the staff meet for the first time and extends to the day the change agent departs. In a typical change agent negotiation with a client, within the school "culture," there is "undoing" as well as "doing" to consider. The McGraw teachers needed to be motivated concerning an innovation they had not themselves chosen, and they needed to be assured that their skills, as we started our work together, were adequate for the implementation of the ANISA strategies. They also needed assurances that we would not try to change everything that they were doing. In fact, we changed almost nothing at the beginning, preferring to observe in the classes and assess the effectiveness of the teachers' current strategies, which were various. McGraw had an interesting mix of very capable experienced and inexperienced teachers and incapable experienced and inexperienced teachers. The principal, having hired the teachers, was in charge of assessing their performance. Our task was to alert him to our observations of their classroom interactions, while not threatening the teachers by our presence in their classes. By focussing initially on the physical redesign of their rooms, in order to provide a more effective social

system, we made it respectable to discuss problems openly from the start of our work at McGraw. We reorganized the kindergarten environment during the summer, and thereby demonstrated to the whole school within a week after the children started school, how effective classroom reorganization could be as a technique for managing children's behavior.

Our first September visit covered the following Agenda topics:

1. Renewal of contact with the staff after the summer
2. Review of "child space" (physical environment) and ground rules
3. Observation in classrooms
4. Preparation of a videotape on ANISA at McGraw and
5. a presentation on individualized reading.

During meetings held with the teachers at various grade levels, we discovered that the teachers preferred "straight ability grouping" in subject matter, that 2/3 of the children in the school read at grade level or above and that "McGraw has children transfer in because of its good reputation for teaching reading [Log, p. 46]. Early Log (1974) entries signal the role of observation in the second stage of Havelock's "process helper" model, "helping diagnose the client's problem [Havelock, 1973a, p. 11]."

September 11, 1973. Child space plan of summer working well...[Kindergarten] children grouped for activities on rotating basis...looks hard for teachers to give degree of individual attention they would like. They need more self-directive activities for children...The kindergarten, in terms of management, is a model for the rest of the school, although Willard feels it politically unwise to underscore this fact, at this moment [p. 48].

September 28, 1973. [Transitional first grade teacher] in charge of a group of 23 children in second year of school as "first graders"...teacher works actively with

both individuals and same groups. She stoops to each child's level and thereby establishes eye contact. She also administers consistent re-inforcement [p. 55].

The observations made by the ANISA team members in the McGraw classrooms were shared routinely with the principal, and the teacher involved, and formed the basis for Havelock's third state of "process helping," "helping the client acquire relevant resources" [Havelock, Ibid.]. An example could be found in the way in which one of the first grade teachers was handling a class of children she defined as "immature and unready for first grade work [Log, p. 59]." After observing in her class, the ANISA team suggested that she redesign her room and redefine its function as a first grade. By the elimination of all of the kindergarten equipment which seemed to be signalling the children that they were really not in first grade, we helped do this. The Log entry for this project is:

The spaces were redeveloped, materials reorganized and [the teacher] redefined the way the children were to use the space. [NMR] spent the morning modeling the teaching behaviors in handwriting which [the teacher] observed...Several of the children who were considered 'hopeless' at 'doing their names' were able to do these exercises correctly...[p. 60].

The fourth step of the Havelock model, "helping the client choose a solution, [Havelock, 1973a, Ibid.] meant at McGraw helping the teachers choose literally hundreds of solutions for every management and instructional problem, with which they were having difficulty. There was no thought of imposing arbitrarily new teaching techniques. We discussed the benefits and limitations of every kind of practice, modeled those practices with which the teachers were unfamiliar so they could see "how they worked" with children and videotaped all of

the teachers existing practices so that they could assess their effectiveness. The ANISA team, and particularly myself were seen, at the beginning as "solution givers." Where I had information, I shared it, because as we were trying to help the teachers become more effective, the children were waiting.

Throughout all stages of the operation, complete help and support came from Willard Hillier, the McGraw principal. He attended every staff meeting, observed with the ANISA team in the classes, and videotaped the teachers and children. He had both the juridical and the moral authority to act as a model for change. As the staff explored change strategies together, the groundwork for acceptance of the changes was laid. The teachers began to feel that we had hardly left and we were back, once they discovered how long it took to implement even the simplest of the changes they decided upon.

The stabilization of the innovation, according to Havelock [1973a, Ibid.], prepares the way for the clients to become their own change agents. In the installation year at McGraw, what the ANISA team did was to help in the alteration of the social ecology of the school so that the model could "take hold." Looked at in the context of a three year change effort, the first year represented both the first stage of the Havelock model and all five stages of it, as they related to the myriad changes desired by the clients.

In an ongoing program, one of the hardest tasks is to exit gracefully, paving the way for the next group sent from "headquarters." Since Willard Hillier acted as the principal staff developer throughout the "installation" year, the discontinuities due to changing ANISA

They chose McGraw as the preferred site; they negotiated with us for the format of the 'lab' school to be part of the program; they preferred to let us teach while they watched. It was a measure of our friendliness that we refused to accept their suggestion, but set up instead a team taught multi-age group in which the whole staff participated [Rambusch, Ibid., p. 12].

All of the 1973-74 ANISA staff members left at the end of the "installation" year. Willard had a hand in picking our successors. There was not a feeling that "team changing meant diminution of effectiveness."

As a center-periphery model of innovation diffusion, ANISA at McGraw could be judged along two complementary dimensions:

...the energy and resources represented by the ANISA 'central' staff and those represented by the McGraw team [Hampden Log, p. 4].

My work with the ANISA model involved me deeply in field concerns. I respected the enormity of the "center's" task, given four field sites I presumed to be as complex as Hampden.

I held in an occasionally precarious balance the requirements of the change agency and those of the client system. Happily, the tight rope held.

St. Mary's School

St. Mary's School in Hamilton, Ohio, provided me with an opportunity to initiate small scale gradual change in an already established school. I met three representatives from St. Mary's the day I arrived in Cincinnati, in late September, 1974. They knew that Xavier University had received a grant from the Jergens Foundation to establish a Montessori training program for elementary teachers and that I had been put in charge of it. They came to Xavier, hoping that I would help them realize their ambition to include in the Montessori preschool

program they had started three years earlier, a Montessori primary unit.

St. Mary's had served as a parochial school in Hamilton, a blue collar industrial community, near Cincinnati, for eighty years. Eight years ago, the religious order that staffed the school withdrew its teachers because of a decline in religious vocations. When the pastor announced the impending school closing to his parishioners, they asked him to keep the school open by hiring a lay faculty. From that time on, the school was characterized by a spirit of renewal and an interest in innovation. In 1972, the young, energetic principal, Paul de Fazio, started a Montessori preschool program at St. Mary's as a community service. As the first Montessori class in the area, it brought increased enrollment, publicity, and parent interest with it. With my arrival at Xavier, St. Mary's saw an opportunity to respond to growing parent pressure for an upward extension of the Montessori program. The St. Mary's school board members realized that if the school undertook a Montessori elementary program, the school would require redefinition as a community facility. This redefinition would insure the continuation of the school for the parish children and, due to the preschool's success, would represent a limited risk as an innovation.

At our meeting, the St. Mary's visitors explained how important they felt my work with them would be. They assured me that the pastor, the school administrator, the staff, and the parents were supportive of a redefinition of the school. I was interested because the school offered the possibility of small scale gradual change from a conventional to a Montessori format. I agreed to visit the school and see

whether it met the needs I had for a Montessori elementary rehearsal site to test strategies I planned to incorporate in a Montessori public school, the following year.

A week later I presented myself at St. Mary's to assess its chances for becoming "Montessori-ized." I discovered an old school building, an obviously competent principal, a small, enthusiastic staff and set of dysfunctional instructional strategies. In addition to the Montessori preschool class, St. Mary's had three large groups of multi-aged children. The first, second, and third graders shared a room as did the fourth, fifth, and sixth graders. The seventh and eighth graders comprised the junior high school class. Although the "grades" were designated as "levels" each of the teachers dealt with the children at each grade level separately from the others in the room. This meant that each teacher had an instructional load two or three times greater than a teacher of a single grade would have. The multi-age grouping was St. Mary's response to a declining enrollment, nothing more. I had an opportunity to observe in all the classes, speak with the teachers and get a feeling for the life of the school. I found a warm, friendly place managed by authoritative adults, both firm and comfortable with children. It seemed a good place for me to begin my work.

The strategy for initiating change came from the primary teacher at St. Mary's. The principal had asked her to suggest a curriculum area in which she wanted help. Her choice was Math, a subject she had a lot of difficulty teaching. It was my intention to reorganize instructional strategies at St. Mary's by offering demonstration teaching outside the classrooms, so that no teacher would feel that my presence

in the school was as a critic of what was going on.

I returned to Xavier to assemble a team of teachers and videotape technicians who would visit St. Mary's weekly and offer the teachers and children a mathematical "medicine show." The format for each visit included lunch with the whole St. Mary's staff and a replay of the videotape of the morning's work with the children. At lunch, we discussed the math needs of all the classes and by spring had the whole school involved in our Thursday visits.

The work I did at St. Mary's followed closely Havelock's (1973) "process helper" version of the change agent. I began "building a relationship" with the St. Mary's group, the day they met me at Xavier. At that meeting, they discussed their needs, and I, mine. The initiative was theirs. As an "outsider," I had an operational advantage at St. Mary's. I was seen as an independent expert, due to my Montessori reputation. I was also the university professor who "drew" the group to Xavier. I was using the "Johnny Apple-Magnet" variant of the center-periphery model of innovation diffusion, operating simultaneously at the "center" and on the "periphery." Jan Henry (1975), a graduate student working with me at St. Mary's, saw my advantages as considerable.

She could bring an objectivity to the issues made possible by her nationwide range of experiences with other social systems seeking change. Her association with Xavier's Education Department gave her a power base and yet her special purpose for being at Xavier and her outside funding gave her a freedom of movement necessary to be able to work at St. Mary's [p. 2].

Homophily was a major factor in my favor at St. Mary's. The whole American Montessori movement had been built on a Catholic "educated

parent" constituency. I was very much at home at St. Mary's because of my background, and St. Mary's was very much at home with me.

[Rambusch] was a Catholic, a mother, a Montessorian and an educator and was, consequently, very aware of the organizational needs and constraints of the parochial school. She spoke the same language, knew the system, and identified with its aspirations as an insider would do [Ibid.].

In the stage of "building the relationship" at St. Mary's, it was necessary that I allay the twin fears of the Board and teachers that the change they sought would prove too costly in terms of materials and retraining and that "Montessori-izing" the primary grades would prove too radical or disruptive. My style was non-threatening. I was seen as "warm and unassuming" and as "responsive to the needs of St. Mary's; she made their vision seem feasible [Ibid.]." From the beginning of the work, all the planning included both principal and teachers. The notion of "team building" was invoked and everyone involved in the implementation level was included. We moved very slowly in the Fall, giving everyone a chance to "buy in" to the proposed and demonstrated change. Part of the strategy for helping the staff decide favorably was the provision of math workshops in the use of materials we would be using with the children. The teachers, not directly involved in the "medicine show" were able to assess the needs of their children, on the basis of their workshop experience, and send children from their classes down to help us out, on Thursdays.

Havelock designates Stage Two of "process helping" as "diagnosis." Everyone on the St. Mary's staff had suggestions concerning what the school needed. The discontinuity between the learning strategies of the lockstep reality of the cosmetically "non-graded" structure of the

school. The first "level" teacher, both pregnant and frantic at the time I met her, saw the futility of having three grades in a single room and dealing with the children as though they were in three separate grades. She found that the workbook approach she was using in arithmetic was not "concrete enough" for some of her children and for others was too far removed from the "hands on" experiences they had just left in the preschool. Although thirty children appeared unmanageable from a conventional centripetal standpoint of teacher direction, from a decentralized centrifugal one, they did not. The opportunities for change were present. The group had already been theoretically "ungraded." The teachers were ready.

[There was] a young cooperative staff and administration, mixed age grouping of children, classes of manageable size, room for expansion provided by a spacious hallway between the Montessori class and the first, second, and third level class, and flexible scheduling that would allow innovations to be introduced at any time [Henry, Ibid.].

Havelock (1973) suggests that the school must possess the capacities necessary for achieving its goals: resources (people, time, money, materials, and facilities) and skills (the ability of the school to train its own people or recruit those needed.)

St. Mary's was fortunate to have a large building, interested parents who were willing to volunteer, state funding for teaching materials and a year to work on the proposed innovation. The videotape equipment from Xavier was a good mechanism for training teachers inexpensively, on the spot, using very little extra time. Each day that the Xavier team went to St. Mary's and worked with the children, a videotape was made of the morning and replayed at noon for the teachers and principal during their lunch together. This allowed immediate feedback of the progress of the children; it allowed St. Mary's teachers to view the modeled behavior of a different teaching style

that they could then try out themselves, modify or reject; it occasionally allowed them to see their own teaching strategies [Ibid.].

Seeing modelled behaviors, different from those in use, was a help in changing teacher behaviors. Goodlad (1973) suggests that

if teachers are to change, they must see models of what they are to change to; they must practice under guidance the new behaviors called for [pp. 60-61].

I made an initial decision to create a "neutral" space in the hallway between the classrooms and in the Media Center, a little used multi-purpose room. During the mathematics "medicine show," I taught children individually and in small groups, after establishing "ground rules" for the whole group, at every meeting. Both Xavier team members and St. Mary's teachers were invited to observe and, if they wished, join me and the children. I used the program much as I had the ANISA "lab school" in Summer, 1973, to train staff as well as clients.

By leaving the classrooms undisturbed for the entire first year, I allowed the St. Mary's teachers to see alternative teaching behaviors before they were asked to evidence them. Modelling, not rhetoric, was my way of persuading the teachers of the value of the proposed change. Using neutral space for demonstration allowed me to show the teachers how other adults dealt with their children. The goal of "Montessori-izing" St. Mary's would be realized the following year when the whole school would become a neutral space, if the innovation proved acceptable to the staff and feasible to the administration.

The objective was to move eventually to an individualized program that would link the Montessori class to the primary and later, to the intermediate class, philosophically as well as practically. The trick was to accomplish this without making the change seem too big to the staff, administration, parents or children [Henry, Ibid.].

Havelock's third stage of "process helping," "acquiring relevant resources," occurs through the implementation process. Observation, dialogue and feedback were going on constantly at St. Mary's. The principal and I were in telephone contact between visits. I shared with the St. Mary's staff progress reports on the planning of Children's House, the Montessori public school alternative, and on the planning of the Xavier elementary teacher training program I was designing. Since I was involved in a variety of programs in other places, at the same time I was working at St. Mary's, through talk and videotape, I was able to show them how what they were doing with the children was similar to other teachers' changing styles. I also brought to St. Mary's, in the course of the year, other Xavier specialists.

Stage Four of Havelock's model is "choosing a solution." Sarason (1971) insists that change be presented from the client's vantage point if it is to be successful and lasting.

Where one starts [the change process] has to be with a problem that is discussed and presented to the target groups,- not as a matter of empty courtesy or ritualistic adherence to some vague democratic ethos, but because it gives one a more realistic picture of what one is dealing with. An obvious consequence that those who need to follow a recipe will find unsatisfactory... [p. 217].

The task of innovation at St. Mary's had both long and short term goals. The long term goal was the establishment of an open, decentralized way. The constraints placed on the children, during their new math experience, were few. They were told that they had to be "serious," which was described as purposive behavior. They could work alone, with partners, or in small groups, once it was clear that they were "serious." They were responsible for putting their

work away and, thereby, recycling the environment. As part of the math program, the Xavier team diagnosed the children, according to Piagetian stages of development, teachers shelved workbooks, and we substituted for them concrete learning experiences which required that children keep records. The children were enchanted with the program and the teachers were relieved of some of their math teaching responsibilities.

The plan was welcomed and supported by the staff and children. One child's mother told the principal, 'He'll never admit he's sick on a Thursday. He might miss Math [Henry, Ibid].'

The children looked forward to Thursdays and the teachers were getting what they wanted, help with math, help with management of the children and modelling of a new way to teach, without having to give up teaching for a year to be retrained in a university [Ibid.].

Havelock says that the solution must be adaptable to the client. St. Mary's and the solution to their math teaching problems, the ostensible entry point for long term innovation, "found each other." As the year progressed, first, the primary class, then, the intermediate class, and finally, children from the whole school came to take part in the Thursday morning program. Older children, who were having difficulty in learning math, became teaching assistants who were trained to work with much younger children. This opportunity helped them consolidate their own learning. When the five year olds from the Montessori class outgrew their environment in January, they, too, joined us in the hall and Media Center on Thursdays.

By January, 1975, it was clear to all of us that important changes were beginning to take place. Havelock's fifth stage, "gaining acceptance," was beginning. Individual teachers were noticing changes in

children's behavior in many different situations. Everyone in the school wanted to be involved in what we were doing. Rogers (1967) suggests that change agents look for generalized change, rather than a particular change.

Perhaps change agents should seek to provide their clients with a more favorable basic attitude towards change and spend fewer efforts in campaigns to secure the adoption of a single innovation [p. 281].

The new ideas brought to St. Mary's did not constitute a single innovation but a "family" of innovations. Teachers were invited to try everything in a new way. The impetus for the effort did not come from Montessori principles alone. The generalized notions of "open" education were presented to the teachers who then saw the need to realize them practically in new ways. The commonplace concerning child development, enumerated by Stephens (1974), are the following:

1. Learning begins at birth.
2. Learning is continuous.
3. Learning is personal.
4. Learning is purposive.
5. Learning is self-motivated.
6. Learning requires that materials be appropriate to the child's level of development.
7. Learning requires that the child be the director, not the receiver.
8. Learning requires the active participation of the child.

I was seen as the person responsible for changed teacher behaviors.

[Rambusch] opened the teachers' thinking to change, making the innovations appealing because they worked, making them non-threatening because the teachers were

not forced to change in any prescribed way, and offering professional help with their problems when they need help: right now [Henry, Ibid.].

As a follow up to the math program, the teachers asked me for help in teaching language arts. In the Spring, I made two trips a week to St. Mary's, one for math and one for language arts.

The final stage of "process helping," is called "stabilizing the innovation and generating self-renewal." Havelock (1973) describes it.

When a change agent has succeeded in gaining acceptance, he is very much inclined to think that his job is done and that it is now up to the client to take over the task of long term maintenance [p. 133].

However, it is while the change agent is in the midst of his work that he must begin his leavetaking. The change agent must plan his disengagement as carefully as his involvement. I had contracted with St. Mary's for one year. They and I knew I would leave at the end of that year. I made arrangements for another Xavier Montessori staff member to come to St. Mary's the following year to carry on what I had begun. I met with the St. Mary's staff during the Summer, 1975, and helped them plan their environments for the coming year. They attended my Xavier 656 workshop on strategies for "Montessori-izing" elementary curricula. I moved on "to other projects, other problems, and other clients." [Havelock, 1973, p. 45].

Rambusch had always placed her work as a change agent at St. Mary's and in the Cincinnati Public Schools in a larger context: that of initiating Montessori elementary programs in on-going social systems [Henry, Ibid.].

The work at St. Mary's appears very modest, in retrospect. It involved a handful of teachers, a single administrator and a small school. Yet, St. Mary's was a fine example of Schumacher's contention

that people are themselves only in small, comprehensible groups. It was possible to affect the entire future of St. Mary's by providing, at their request, a response to an immediate need, while working for a long term goal. In the years following my work there, St. Mary's converted completely to a Montessori program in its primary and intermediate grades; its enrollment increased to the point where it was no longer possible to accept more children. The St. Mary's Board got what it wanted, a viable change which made possible the continued prosperity of the school and a redefinition of it to provide it with an extra-parochial constituency. I got what I wanted as a change agent, the chance to demonstrate to colleagues at Xavier and the Cincinnati Public Schools that change can occur most effectively when it is planned in manageable, incremental steps. Havelock's staged "process helping" behavior benefited all of us who worked at St. Mary's.

Children's House

The establishment of a network of alternative schools within an ongoing public school system seems like a good idea. Clearly, school districts are in trouble. They are under pressure to relieve tensions caused by de facto segregation and by the flight of white middle class families to the suburbs. Reading scores in urban schools are declining steadily. The notion of the neighborhood school is eroding. Short of starting all over again by redistricting schools or abandoning the neighborhood school rhetoric, school systems must find ways to respond to Court Orders on Desegregation and to provide educational novelty for disgruntled parents.

The career of innovation in public education has been a checkered one. Innovation means change and like all self-perpetuating bureaucracies, public education is resistant to change. For every change proposed from the outside, the bureaucracy tends to exert equivalent counter-pressure from the inside to keep things as they are [Rambusch, 1976, p. 6].

Donald Schon (1971) describes such bureaucratic behavior as the application of "the law of dynamic conservatism" or "fighting like hell to keep things the same." School systems prefer innovations which are not organic changes, requiring the revamping of the bureaucratic structure from within, but cosmetic ones which are externally applied and which placate protesting parents and taxpayers. These, according to John Pincus (1974)

...do not require complex changes in management, structure or organizational relations. Such innovations help to satisfy staff and client demands for change without requiring from the organization the difficult task of self renewal [p. 119].

The magnitude of the public schools' resistance to change has been matched by magnitude of energies expended in attempts at changing. In Matters of Choice: A Ford Foundation Report on Alternative Schools, the Ford Foundation which generously supported change efforts in the 1960's, renders the following verdict:

...large scale efforts in the 60's failed to produce large scale changes partly because it is so difficult to make a dent in the public school system. It bends, absorbs and springs back to its original form. Innovations directed at whole school systems have not worked. Those directed at organic units within a given school system may work. The public alternative school appears to many school officials to provide the best organic intrasystem unit, if it can interface effectively with the bureaucratic structure. Situating alternative schools in their historical context, the Ford Report maintains that alternative schools have risen from the ashes of past attempts at school reform [p. 4].

The Cincinnati Public Schools under the leadership of Donald Waldrip, Superintendent, and the Cincinnati Board of Education have committed themselves to an apparently radical change in educational offerings. Cincinnati parents were offered a smorgasbord of instructional possibilities for the 1975-76 school year, in an effort to reduce racial imbalance, retain white middle class presence in the urban schools, and develop community educational leadership. With a pending Court suit on Desegregation, alternative schools appeared to be a winning bet. Alternative schools provide for voluntary integration; they appeal to both black and white middle class parents; they promise to develop a new kind of school-community partnership; they involve busing.

Are alternative schools as good as they sound? The story of the development of a Montessori alternative, Children's House, Mount Adams, is instructive in assessing the promises and the perils of the alternative strategy. Cincinnati has a ready made constituency for Montessori education. There are thirty seven preschool programs in the greater Cincinnati area. The Montessori approach to education is eminently respectable among the community's option makers. One can rarely find an influential business or social leader who has not had or does not know of a child attending one of the prestigious Montessori preschools in the community. The idea of Montessori education is "elitest" in the minds of many. Bringing Montessori education into the public schools signals the introduction of private school quality education into the public sector. In the development of Montessori programs in Cincinnati, the institution of higher learning that has played the

most significant role is Xavier University. In 1962, I was invited to Cincinnati as the President of the American Montessori Society and prime "mover and shaker" of the American Montessori movement, by William Hopple, Headmaster of prestigious Cincinnati Country Day School. As a result of that visit Country Day started a Montessori program and from this initiative, Dean Raymond McCoy organized a graduate level Montessori teacher training program at Xavier. Both the American Montessori Society and the Carnegie Corporation supported the Xavier program. Its graduates started their own Montessori preschool classes for children whose parents, like their teachers, represented the white Catholic upper-middle class.

In 1973, the Montessori program at Xavier took another direction. The new director, Ramona Drennan, was interested in relating Montessori to the Urban Community and solicited Foundation funds to organize a Montessori elementary teacher training program which would prepare teachers for public schools. The Andrew Jergens Foundation provided funds for the first year of the proposed planning cycle and the Martha Holden Jennings Foundation for the "installation" and "consolidation" years. I was invited to design and manage the project as the most credible and knowledgeable "American Montessorian." Meyer (1975) has described my work:

Some innovations are diffused with the assistance of individuals or groups who act as diffusers. The impact of the decisions and activities of these diffusers can significantly affect the diffusion process and subsequently the pattern of adoptions. Nancy McCormick Rambusch and the American Montessori Society engaged in diffusing an American Montessori education and their involvement is crucial to the total picture ...both Rambusch and the society

ultimately hoped to diffuse Montessori education into the American educational system... [p. 10].

As additional support, Meyer has cited the relevant research to show that change agent success relates positively to the following factors:

1. extent of change effort,
2. degree to which the program is compatible with needs,
3. extent to which the change agent works through opinion leaders,
4. the credibility of the change agent.

Aside from diffusing the Montessori movement nationally, I came to Xavier, after a field experience with ANISA, another educational model.

Work with the Cincinnati Public Schools began the moment I arrived at Xavier. As part of an alternative network, a Montessori K-3 public school had been mentioned. My informal responsibility was to see that the school "happened." From the beginning, I worked with Robert Crossett, a remarkable public school administrator. We started with the thought that there might be a black school in the community which could act as a "magnet" for a Montessori school and thereby draw white children into a black neighborhood. (Black neighborhoods have generally proven ineffective as "magnet" sites. However, Montessori education might serve as a counterpoise, we argued.) We explored this possibility with the principal and staff of the Hoffman School, an all black elementary school near Xavier. After considerable "palaver" with the group, the Hoffman teachers voted against the conversion of their school to a Montessori school for two reasons: 1. they were the last ones asked their opinion and 2. they did not think that Montessori strategies, as they understood them, would be appropriate for their children. I

mindful of Sarason's (1971) jeremiad on public school change, started looking for a separate school building in an appealing white neighborhood. Due to the departure of the expanding School for Creative and Performing Arts (SCPA) from its outgrown Mount Adams premises, the perfect school building became available to the Montessori alternative. Although a monument to Victorian artistry, the proposed building served just the right number of children for the school, two hundred. From the vantage point of the Montessori preschool, two hundred children is an enormous number; from the vantage point of the school administration, two hundred children was the smallest administrative unit that would prove acceptable. (Two hundred children was to become the basis for later Montessori modules.)

At the same time as the Mount Adams premises were chosen, a contract was negotiated between the Board of Education and Xavier to provide formally for the services that I had been providing informally under the Jergens grant since the previous September. I asked not to be named the consultant in the contract but Chairperson of a Xavier University Consulting team. Under the terms of the contract, the Xavier University team was to be involved intimately in all phases of the school organization, from the design of the physical environment through determination of the program, organization of the school's social system, time table, and inservice staff training. The role of the principal designated as that of "instructional leader" was played by the Xavier team. As early as September, 1974, I had spoken to Crosset about the possibility of having a principal named so that in the planning stages, the principal, the central office, and the Xavier

team would work together organizationally. The creaking wheels of bureaucracy in the Cincinnati school system did not turn up a principal until the following July when virtually all the planning had been done. This would of course cause difficulties during the school's first year of operation.

When the Montessori alternative was announced publicly in March, 1975, it emerged as a two hundred child K-3 school to be housed in the old Mount Adams public school. Crosset and I were elated since the tendency of the central office was to place alternative programs within existing neighborhood schools and have the program co-ordinator report to the building principal, who more often than not was unsympathetic to the alternative program. From the beginning, I had insisted on the Montessori alternative as a separate site with its own principal.

Montessori education is really very different from traditional elementary education. It has many of the same descriptors as "open" education. It is organized in mixed age groupings. The day is divided into large unblocked periods of time, reminiscent of the "integrated day." Montessori education places emphasis on diagnostic and prescriptive teaching and on peer interaction. It is process oriented and up to the present time in America has been largely confined to a preschool formulation which is very different from an elementary one. Thus has Montessori education as experienced in America been free of much of the pressure for performance and accountability plaguing public education.

Like ANISA, Montessori elementary education going to the field in America was a theory in search of an appropriate practice. This

state of affairs would cause inevitable "facade" problems (Smith & Keith, 1971). Because Montessori instructional strategies had been codified in the preschool, all those connected with the Montessori alternative, despite my continued insistence on the tentative nature of its formulation, expected the same thing to be true. Maria Montessori and some European disciples had developed a so-called "advanced" curriculum which was a logical extension of the preschool program, in that, it posited as a point of departure, a child's ability to read, write, spell and compute at about a third grade level of competence. We, in Cincinnati, were in the business of organizing an integrated racially balanced public school in which children would be enrolled on a first come, first served, basis and in which no particular credit would be given five year olds with Montessori background. One of our major concerns, particularly with regard to those older children whose parents had chosen this alternative as a second chance for them, would be their acquisition of basic skills. The Montessori "advanced" curriculum was a free-standing phenomenon, inventively organized but unconnected to the public school curriculum which we were using as our point of departure.

In staffing, the Montessori alternative promised to utilize a novel pattern. In addition to being certified public school teachers, the teachers at the Children's House would all be credentialled Montessori teachers (that is they would have had training in Montessori principles and practices as they applied to preschool children.) This staffing provision assured some communality of staff training before the school got under way.

In mid-April, 1975, an organizational meeting for prospective parents was held in the Mount Adams school, Children's House's future home. The meeting was packed. Crosset spoke for the Cincinnati Public Schools and then turned the meeting over to me to explain the actual format of the school. I emphasized the role of the physical premises in the design of the program and indicated that the program would be an accommodated version of Montessori education as many of those present might know it. I spoke of the school as belonging to the parents and reminded my hearers that in America, unlike any other country with an interest in Montessori education, American Montessori education had been a parent movement from the beginning. Some questions regarding "orthodoxy" were asked. Where were the three year olds? I said I supposed they were at home or possibly in Montessori preschools. I explained that one of the significant differences in the design of this school, compared to any other Montessori elementary school was that there would be no children younger than five, since five was the usual public school entering age. This school was to be a Montessori public school, not a public Montessori school, no mere semantic distinction. The school would, I explained, reflect a series of concerns other than those of a typical "womb to tomb" Montessori school, which accepted children at three and "grew" from the bottom up. To the question concerning teachers with advanced European Montessori training, I replied that whatever teacher training seemed appropriate for the school in its beginnings would be represented in the school staff. The school was described as "bottom heavy" since more than one half of the children would be five, assuring them four years of attendance in the school.

Work continued at all levels through the Spring and Summer of 1975. The Creative and Performing Arts school did not plan to vacate the Mount Adams premises until August, which meant that the Children's House group was not able to take the school over until that date. There were innumerable examples of central office foot dragging which necessitated daily consultation between Crosset and me. We met at least once daily, often early in the morning or late at night from April until mid-July when the principal was finally named. Before that, Crosset and I chose the teaching staff, and made the arrangements for the "second" adults in each of the "homebases," as we called the classrooms, to be interns from the new Montessori elementary program I was designing at Xavier. Parents started enrolling their children and, as we had anticipated, the school filled quickly and a waiting list developed.

In determining criteria for admittance to Children's House, two "Montessori" issues of particular interest arose. (In dealing with matters connected to Montessori ideology, it is well to remember that it is always a question of a very few people feeling very intensely.) One issue was the starting age of the children; the other was the weight to be given children on the basis of previous Montessori experience. In response to a request from an AMI group in the community, the Superintendent called a meeting to discuss these issues. At the time of the meeting, there was no legislation in Ohio permitting public school funds to be spent on preschool education. The real issue of the meeting was which of two competing views of Montessori education would triumph in the plans of the public school. From the side of the

purists, the school should enroll three year olds; from the side of the Xavier Montessori team, committed as it was to the American Montessori Society, there was no question of ignoring the pressing concerns of cultural accommodation. In our view, children could enter the program at five, with or without previous Montessori experience and the school would adjust its program to them. I articulated this point of view rather forcefully to an uneasy Superintendent who seemed to see in this meeting nothing more than sectarian infighting. (The real question to be asked was why the Superintendent had called the meeting without notifying Crosset who was in charge of the project.) The meeting, as one might suspect, was inconclusive particularly since Xavier already had the consulting contract with the Board of Education.

A central issue in the development of the alternative public school, whatever its definition, relates to the role of the principal. According to textbooks used by aspiring school administrators, their job is two fold, management of the school premises and leadership of the instructional program. In the alternative we were designing, the role of instructional leader was, and had been from the beginning, mine. Since the Cincinnati Public Schools did not supply a principal at the early stages of the school's development, Crosset assumed that function. He is a superb administrator as well as a remarkable person, vitally interested in providing everything needed to make the Montessori alternative work. He and I knew that after a year of working and planning the school together, any principal who assumed leadership of the school would find that all of the critical decisions had been made, and that his "instructional leadership" prerogative had been system-

atically usurped by me. I did not and do not see this as bad, merely as inevitable, given the way the Cincinnati public schools operate. I was grateful for the year working with Crosset.

In an alternative as different as Montessori from the garden variety neighborhood school, the instructional leadership function of the principal will necessarily be minimal in the planning stages. Why? Because, typically, he will not know anything about Montessori or its optimal public school formulation. In recruiting for the principal within the school system, this lack of omniscience was not confronted head on. I understood perfectly that administrative decisions made in the principal's office could seriously affect what happened in the "homebases." Throughout the planning year, Crosset had stopped arbitrary central office decisions which would have scuttled our fledgeling program. It is alarmingly easy for top level administrators to modify plans for an alternative until the alternative becomes ideologically indistinguishable from a neighborhood school.

I maintained to Crosset that administrators were not necessarily instructional leaders although they did have a life and death power over programs akin to that of a Roman father. In the Montessori program what was needed was a sophisticated manager, someone who could administer the program within the school system, and yet maintain the identity of the program. All of the pressures on school principals are for convergence; by their very definitions alternative programs are divergent. Although the principal of the Children's House was chosen at the eleventh hour, it was hoped he could do this. In its beginnings, the Montessori alternative would need the continuing

services of a Montessori expert, if only because much of what constituted a Montessori alternative program was in the process of codification. It is clear that in my dealings with Crosset and the central office of the Cincinnati Public schools, I embraced the full spectrum of Havelock's change agent definitions; I was catalyst, solution giver and resource linker as well as process helper.

Sarason (1971) suggests that the most important reason to consider change by starting with the principal is "his relationship to the problem of change."

We begin with the principal because any kind of system change puts him in the role of implementing the change in his school...I have yet to see in any of these proposals the slightest recognition of the possibility that the principal, by virtue of role, preparation, and tradition, may not be a good implementer of change [Sarason, pp. 111-112].

Sarason further concludes that those who wish to effect change, by not recognizing this fact, "are far from knowledgeable about the culture of the school." Sarason's arguments are most persuasive and have, for me, the congeniality of lived experience.

All the candidates for the principal's job at Children's House had risen from within the ranks of the Cincinnati school system.

We begin with the obvious; a person cannot become a principal without first being a teacher for a number of years. The major justification for this seemingly reasonable requirement is that unless a principal has had a long experience in teaching and in managing a classroom he cannot appreciate or understand the goals and problems of a teacher and therefore cannot be of much help...[Ibid.].

Sarason suggests that "being a 'leader' of children and exclusively of children does not necessarily prepare one for being a leader of adults." [Ibid., p. 112]. Teachers are typically loners; the self-contained

teacher in the self-contained classroom is normative in most elementary schools. What principals learn from being teachers is that the best principal is one who deals with each teacher as an independent contractor. If a "good" teacher is designated as potential principal material, then such a person will certainly have become responsive to the desirability of the status quo, rather than that of change. Once one decides to become a principal, whether for prestige or money, one enrolls typically in an academic graduate program in educational administration. In this program, one learns that the principal is both the plant manager and the instructional leader of the school. Teachers are often unclear about exactly what a principal does, but they rarely think of him as their leader.

What is interesting is that teachers rarely, if ever, responded in terms of ...the principal's educational or leadership role, his evaluation function, his role as representative of the teachers to other administrative bodies, and the importance of personal as contrasted with professional relationships with him [Ibid., p. 114].

In other words, teachers do not read the educational administration textbooks that are so avidly studied by aspirants to the principal's office.

E. F. Schumacher speaks of the emphasis that the central office places on order as opposed to the emphasis placed by semi-autonomous units within large organizations on entrepreneurial spirit. (Alternative programs display this latter tendency.) From the moment the principal takes over a program or a school, he is under pressure from the central office to make it converge with the tendencies of the larger system. A Ford Foundation report on alternative schools suggests that

any alternative program may work if it can interface effectively with the bureaucratic structure. The question one must ask is whether any alternative program that is really alternative in organization and management can interface with the bureaucratic structure without losing its identity or being diluted to the point of triviality.

The real conflict the principal faces is to be found in the discontinuity between his perception of his role and what he usually does. Sarason puts it succinctly.

To understand the dilemma of the principal, one must begin by recognizing that he views his role, as do many others, as implying leadership. Whatever his motivations for seeking the position, they did not include being a housekeeper, a highly paid clerk, or embattled figurehead. Initially, at least, the principal expects and wants the school ('his' school) to bear the stamp of what his conception of what good education and a school are. The principal wants to be and to feel influential. His dilemma begins when he realizes that words and power, far from guaranteeing intended outcomes, may be ineffectual and even produce the opposite of what he desires. When he encounters hostility and resistance to his recommendations and ideas for change...he feels he has one of two alternative means of response: assert his authority or withdraw from the fray. The usual consequence of either response is to widen the psychological gap and to increase feelings of isolation of those involved [Ibid., p. 129].

A principal's possible feelings of inadequacy are certainly exacerbated in a situation like that of the Montessori alternative program. He comes in late and discovers that the school is both planned and is radically different from anything he knows. He must deal with an "instructional leadership," in the form of an outside consultant and expert, not particularly responsive to the internal economy of his perceptions.

The dilemma of the principal is further complicated when he has to deal with people who have a different type of expertise and with whom the principal is not in the role of leader.... The consequence of this interaction is that the principal is constantly wrestling with the problem of leadership, which increases in strength over time, that he is losing the battle, that he is not the leader he expected to be, or would like to be, or that others expect him to be [Ibid.].

A further dilemma he faces is that the changes he is expected to implement come, not from him, but from other sources in the system.

Regardless of whether or not the principal likes the proposed changes, he is in large part responsible for implementing these changes in fact and in spirit [Ibid., p. 130].

The principal chosen for Children's House, Ron Staggs, had been a teacher and an administrator in the Cincinnati school system for fifteen years. He was interested in becoming a principal. Whether his interest included an alternative or Montessori school may be viewed as academic since the only principal opening advertised by the Board of Education in Spring, 1975, was at Children's House. There were three applicants for the position. School administrators in Cincinnati had expressed concern among themselves about the definition of the principal's role in alternative schools. The School for Creative and Performing Arts was used as an example of a school in which the director of the alternative program had far greater power than the principal. Clearly, alternative schools posed a threat to the principals' definition of their role. When Staggs was chosen, he explained to the already selected Children's House teachers his view that Montessori education was compatible with his own educational philosophy. The teachers were stunned. It had not occurred to them that his point of view mattered. They were all there because of their shared allegiance

to Montessori.

Staggs, Crosset and I got to work immediately, addressing the problems which needed resolution before the opening of school. Staggs and I were understandably tentative in our dealings with each other. I had worked virtually alone up to this point, making all of the major organizational decisions regarding the school program with the complete support of Crosset, Stagg's boss. Now the principal had arrived to take over "his" school. By the time that Staggs was named principal, the Xavier summer workshop, which all of the Children's House staff attended, was almost over.

Education 656 was listed in the Xavier University catalog as a course in elementary Montessori teaching strategies. I drew together the skills of environmental design, behavioral management and instructional strategy. Forty people attended all or part of the course. The Children's House staff, teachers and interns, attended; the St. Mary's staff was there. The course provided an opportunity for all those with whom I had been working during the previous school year on related projects to work with each other. The course was organized as a "temporary system (Miles, 1963)." There were curriculum working parties in all of the elementary content areas, charged with developing field manuals for the use of the whole group. It had never been my intention to attempt the development of an entirely new American Montessori elementary curriculum, but to reconfigure one from two sources, the public school curriculum and the "advanced" Montessori curriculum, developed in a European vacuum, where it fitted a school, in its beginnings, committed to the teaching of basic skills. The 656 "experience" was characterized

by intense involvement, high energy and morale in all participants. Each of the groups representing separate schools did its own planning. I met with each group once a week, outside of class time. Intraschool groups became acquainted and such outcomes as the "teaming" arrangements for the school year were negotiated.

When the Children's House staff assembled on August 20, 1975, their first question to Staggs and me was "Who is in charge?" It was clear to them that I had assumed leadership in the area of instruction; they also assumed correctly that Staggs was in charge of the school. The teachers, bound together by common Montessori aspirations and training, had spent part of the summer developing a Behavioral Charter for the school, in which they outlined the principles upon which they intended to base their common effort. Staggs agreed with this charter, although he had no hand in formulating it. A great deal of negotiation was necessary to get the lines of authority both straight and true. The problem that faced Staggs and me at that point in time was one neither of us had caused. He wanted to be principal of a school; I was there to make sure the school was an American Montessori alternative. We had to work together. If we could not, then both of us would have been "done in" by the rhetoric of educational administration which dictates that, in order for the principal to be leader and manager, the program must be so organized that it fits him rather than he fitting it.

The "installation" year at Children's House reflected problems endemic to any beginning innovative effort, problems of exhaustion, extrapolation and acculturation.

The exhaustion problem surfaced even before school opened in September, 1975. The staff spent the time from the end of summer school until the day school opened, working around the clock, painting, refinishing furniture and making materials. Although parents contributed much of their time, the burden of having the environment "prepared" for the children fell on the Children's House staff. Montessori trained people are fanatical about the preparation of the physical environment, when compared to ordinary teachers and administrators. The staff would not agree to have as much "environment" prepared as there was time to prepare. It had to be perfect for the first day of school. Since SCPA did not vacate the Mount Adams premises until August 5, that left scarcely a month to get the new school in shape. This kind of activity exacted a physical toll. The staff was tired by the time the children arrived. Through continued work at night and on weekends throughout the year, the staff was exhausted by Christmas and ill by Spring. Pneumonia and mononucleosis were common. The cost of setting up the Montessori alternative with limited funds in a short time, by trading off staff energies for purchased services was not reckoned by anyone but those involved. Within the budget constraints imposed, there was no other way the work could have been done; yet, the "early burn out" phenomenon, common to exemplary programs, was a high price to pay. Exhaustion from physical work in the environment gave way to exhaustion in behavioral management of the children. Children came to Children's House with many different life histories; their ways of behaving were as varied as their backgrounds. The staff had to develop a consensually achieved set of limits for each of the "homebases," as well as for the

school as a whole. The behavioral charter, drafted by the staff in the preceding Summer, specified adult attitudes towards children, but not the strategies to actualize such attitudes. Often, the teachers failed to maintain the behavioral boundary conditions specified by the charter. The racially mixed group of children, two hundred strong, that arrived one September morning in seven buses and a taxi would have challenged the most experienced teachers; the group almost "undid" the Children's House staff, young, enthusiastic, but inexperienced as it was. In the school's first year, the staff mood swings were mercurial. Before school started the mood was ecstatic; it quickly became desperate, and then paralytic. Finally, in the Spring, the staff began to realize that it would have to settle for less than it had originally hoped. Then the mood was one of resignation. Because the Children's House staff hoped for so much, it saw its limited first year attainments as a deficiency, rather than as an inevitability.

The tendency of the disciple is to feel inadequate to the message of which he is the unworthy bearer. In fact, many of the first year problems at Children's House were related not to the staff, but to central office organization, the time frame of planning, and the scale of the operation. The staff felt or was made to feel, to an inordinate degree, unequal to the Montessori "hope." This feeling was both denied and confirmed by standardized test data on the Children's House children. The more than one hundred Children's House five year olds did splendidly on a standardized measure, ending up in the 7th percentile; the older children did not do well, by comparison. The principal was very concerned about the test scores. The staff felt

that too much attention was being paid to the scores, and resented the evaluation of their year's efforts on this basis. Thus unfolded a typical alternative school dilemma. The principal focused on the Montessori "message." The scores were useful in providing base line data for later testing and a "fix" on concepts not understood by children in terms of test responses. This data provided us with important "back to the drawing board" information. The staff feared that the drawing board the principal had in mind was one resembling the neighborhood schools of his past experiences. The task I had was the rethinking of Montessori strategies in light of the test information.

The problem of extrapolation was the second one that surfaced during the first year of Children's House. All of the teachers had been trained as Montessori preschool teachers, in addition to training as public school practitioners. Their notions of Montessori practices appropriate to primary age children were refracted through this training. They tended to "extrapolate" the "Montessori" they knew from their preschool experiences to the other children they were teaching. In matters both of behavior and instruction, such extrapolation seldom worked. Children initially abused materials and ignored teachers. The firmness necessary for dealing with so heterogeneous a group of children was difficult for some of the staff to muster. It became clear that extremely directive adult behavior was critical to the conduct of the program. While the teachers and interns were struggling with issues of "process" and "translation," the principal was operating from the side of "product." Apparently, he had expected there to be a fully developed "Montessori" elementary curriculum available to the

teachers from the first day of school. No such document existed. What did exist was an elaborate elementary curriculum devised for "womb to tomb" Montessori schools, predicted on already acquired skills of literacy, with no connection to American public school curricula. Such a curriculum was of limited relevance to a Kindergarten through Third grade school whose major emphasis, in its beginning, was on the acquisition of basic skills.

The curricular content of the Children's House program reflected the Cincinnati public school curriculum. The instructional strategies, whether for small group or individual teaching, derived from Montessori principles. The teachers acquired slowly and painfully, in the course of the first year, the skills necessary to establish a feedback loop between children's independent work and their knowledge of it. A major difference between the Montessori preschool and the Montessori elementary school may be found in the role played by learning materials. Although sophisticated Montessori practitioners understand that even at the preschool level, the materials are not the curriculum, unsophisticated practitioners recognize this at the elementary level. The concepts children learn exist independent of the materials used to teach them. At the elementary level, the role of the Montessori materials may prove ancillary. For every concept not learned through interaction with a particular material, a teacher must assume that other materials and other strategies can be found which will do a better job for an individual child. A child's mere interaction with materials does not insure his grasp of the concept imbedded in the material, nor does the provision of materials within the classroom

insure learning. Dewey (1926) criticized "progressive" teachers for thinking this.

There is a present tendency in so called advanced schools of educational thought to say, in effect, let us surround pupils with certain materials, tools, appliances, etc., and then let pupils respond to these things according to their own desires. Above all, let us not suggest...to them what they shall do, for that is an unwarranted trespass upon their sacred individuality since the essence of such individuality is to set up ends and means.

Now such a method is really stupid. For it attempts the impossible, which is always stupid; and it misconceives the conditions of independent thinking [p. 4].

Although the Children's House teachers did not assume that the children would learn automatically simply by being in the same room with learning materials, their training made them somewhat reluctant to engage in large amounts of directed teaching. This attitude changed somewhat in the course of the first year.

What Montessori education lacks is a "metapedagogy." It is this that I see as necessary for teachers working in schools like Children's House. Such a pedagogy would cue them to the similarities and differences in any "teaching act," when applied to children at different developmental stages. The ANISA model points in the direction of a "metapedagogy." Montessori teacher training does not provide this, and probably never will, given the enormous resources needed to devise a comprehensive innovation model. Using the Cincinnati public school curriculum as a point of departure, I expected teachers to make the connections between it and appropriate Montessori strategies. Clearly, such connections were far from apparent to the teachers. It was my intention, as part of my consultant function, to evolve a "double

entry" bookkeeping system for curriculum, comparing the ledger's left side, the public school curriculum, to the right side, the appropriate Montessori experiences, relating both to Piagetian developmental stages and to the expectations reflected in standardized tests. This work barely got started during the first year of Children's House.

The teachers were aware that accepting public school curricula without question could mean accepting teaching strategies inherent in such curricula, without question. This, they were unwilling to do. The principal favored traditional strategies, in the absence of any others. The question I always posed was what strategies had they tried, before deciding they didn't have any. Both principal and teachers looked to me as "solution giver," each time an instructional problem arose. Often, I had no easy answers.

The third difficulty that the staff encountered during the first year of Children's House had to do with "acculturation," in the sense in which Sarason (1971) uses the term to represent the encroachment of traditional school practice on innovation. Our major responsibility was the creation of a real alternative school and with it, appropriate instructional strategies. I believe that the whole group was committed to this task. Until we started Children's House, there was no such thing as an American Montessori public school. We had no mental picture of what such a school had to be like. Rather, we had a clear picture of what we did not want it to be. Pincus (1974) points out that school systems are often content with generating the illusion of innovation, while not actually providing or supporting it in fact.

If the language of the schools is 'neither practical nor scientific,' but metaphorical and literary, it may be often the case that school personnel will be more interested in the language of innovation than in the complexities of translating that language into innovative practice...For the school's purposes, verbal adoption of innovation may be entirely sufficient...[p. 125].

An ever present danger posed by the Cincinnati Board of Education, was the point of view thus described. A number of Board members seemed willing to settle for the illusion of innovation if such semantic daring would prove convincing to the Court in the upcoming desegregation suit. I called the constant struggle to keep the teacher-pupil ratios down and the level of funding for the second year adequate to the school's needs, "successive bureaucratic erosions" of the program. (These strategies were more obvious in the tactics used by the central office when we started to plan a second site in January, 1976.) We were creating a public school which violated both the canons of the system and those of traditional Montessori thinking. We meant Children's House to be different and to stay different.

Working in the Cincinnati alternative school network has given me a perspective on how both "center" and "periphery" operate in a large scale bureaucracy. I started out by acting as an interstitial link between university and school system. As I was generating the design and specifications of Children's House, I was seen as an outside expert, a solution giver. As the school moved into its "installation" year, I retained this identity while developing another, that of process helper to many constituencies.

I saw at first hand the complexity and peril that change efforts face in entrenched organizations. I resonated with Sarason's (1971)

anxiety concerning the resistance of public education to change. I experienced Schon's (1971) "law of dynamic conservatism" at work; however we acted in the field, we faced a central office "fighting like hell to keep things the same." Both the elected and the appointed policy makers shared this orientation. Since I arrived in Cincinnati in 1974, every major Ohio city north of here has been brought to Court on charges of school segregation. Cincinnati's turn is next. The superintendent of schools who initiated the alternative network has been forced to resign and the schools face a two million dollar deficit in their next year's operating budget. The alternative school network has been unmasked as a purely political response to the impending court suit and parent disenchantment.

Children's House has been expanded to a second site, despite the negative change agent strategy I used to alert the Board to the folly of expanding an alternative network they show no inclination to support with any more than rhetoric. I characterized the central office behavior as "successive bureaucratic erosion" of the planned program. Pincus (1974) pointed out that many school districts use rhetoric as reality in selling innovation. Smith and Keith (1971) call this "the alternative of grandeur."

Within Children's House, my role as outside expert has accorded both well and ill with that of process helper. The inevitable tension that exists between my role and the principal's derives from what Sarason calls "the culture of the school and the problem of change," as well as from the emergent nature of the definition of American Montessori public education.

C H A P T E R V

CONCLUSIONS AND RECOMMENDATIONS

Clues from research on innovation diffusion suggest that both diffuser characteristics and the manner in which the diffuser organizes and interprets the setting for change are indices of effectiveness. Meyer (1975), a geographer, in Diffusion of an American Montessori Education deals with both of these aspects of diffuser behavior.

Implicit in discussions [of communication channels] are the actors in the diffusion process and the environment in which the process operates [p. 4].

A number of researchers, Brown and Cox (1971) and Karlson (1958) stress the role of these actors in the patterns of diffusion. If change agents perceive some market factors as highly relevant, they may make locational decisions based on these ideas. Meyer's approach to the diffusion of American Montessori education pays particular attention to the impact of diffuser decision making, "a relatively unexplored behavioral approach to the diffusion process [p. 17]."

The involvement of active change agents in the diffusion process according to existing research, speeds up the process and may affect the kind of adopters and their spatial pattern as well...Rambusch and, subsequently the AMS, saw themselves as client-oriented change agents...If a change agent is client oriented, this presumably could lead to an accurate perception of the market surface [pp. 65-6].

I saw parents as the most responsive population for Montessori's ideas and the diffusion of these ideas as a grass roots phenomenon. I created a horizontal band of Montessori adherents which stretched from the East to the West. Meyer (1976) examines further the role that propagators of innovations in "making important decisions concerning the diffusion

of...innovation [p. 17]."

The propagator of a social innovation may not deliberately establish agencies for diffusion purposed, but his activities and decisions undoubtedly establish nodes from which subsequent diffusion at a more local level takes place [Ibid.].

My circuit-riding travels during the beginnings of the Montessori movement, during which I established small study groups of interested parents everywhere I went, created the "nodes" that Meyer refers to.

[Propagators] may decide where nodes of diffusion should be encouraged, establish policies relating to the marketing of the new innovation and perhaps control the infrastructure necessary for adoption of the innovation [Ibid.].

Establishing a Montessori school to act as a model for later school foundings, establishing the first American Montessori teacher training program and the American Montessori Society as infrastructures of diffusion were activities which I controlled, singlehandedly. Although I was deliberate in my development of these structures, the form I gave them was intuitively chosen.

Rambusch's definition of a marketing surface consisted of middle class parents, especially Catholic parents. She envisioned a horizontal band of adoptions from New York City to Los Angeles...Rambusch's marketing surface would therefore correspond geographically to the distribution of Catholics in the United States. [Such a] correspondence is apparent [pp. 68-9].

In her discussion of reasons for change agent success, Meyer correlates my efforts with the principal success predictors in the literature. She notes that both contact and homophily are important characteristics and suggests that my tireless peregrinations to groups of people, very like myself, upper middle class Catholic parents, were a significant "pay off."

Rambusch, an upper middle class Catholic parent, originally identified her clients as others like herself...and this homophily certainly increased her opportunity for contact with them. Since she travelled quite extensively,...her amount of effort and frequency of contact did not decline with distance as rapidly as might be expected. She was client-oriented, modifying Montessori's approach and teacher training to create a program compatible with the needs of her clients. Part of her success as a change agent also related to her ability to work with opinion leaders...Rambusch encouraged adoption by influential professionals...who founded the first school affiliates [pp. 78-9].

Meyer concludes her study by validating the importance, in the diffusion of American Montessori education, of the diffuser's role and the diffuser's perceived market surface. My perceptions of an audience for American Montessori education proved accurate. Since my perceptions to some extent preceded my change efforts, at least in the "before-the-beginning" phase of the American Montessori movement, an interesting retrospective question which one might ask is, "How did you know who your clients were and where you should put your energies to achieve your goal?" My answer is that I knew intuitively, that what I did seemed right at the time. My conscious focus, like that of virtually all diffusers was on the content of the diffusion effort, not on the diffusion strategy. Yet, what I chose as strategies, worked. Only in reading accounts like Meyer's (1975), have I become aware of the deftness of my intuitions. Certain of these I transferred to my intentional change efforts.

An important element in my "shaping" of the Montessori message for an American audience was in the conversion of the message from a "vertical" to a "horizontal" one. Where the Montessori movement in the lifetime of Montessori had been organized from "on high," I organized

the American movement, standing next to the clients, who, like myself, were drawn to Montessori education. The ultimate center-periphery model that developed into the AMS was also horizontally conceived. I was first among equals, in the American organization. This client-centered strategy carried through all of my change efforts drew me to both the tentative formulations of Sarason and to the "process helper" model of Havelock. Both of these models of change agent behavior accorded with my experience and my temperament. While working as Coordinator of ANISA at McGraw, at St. Mary's and at Children's House, I was able to demonstrate to the teachers any strategies with children which I promoted. I saw my willingness to run the risks with the children, in full view of the teachers, as an important part of my client-centered role.

Homophily, likeness to one's clients, was another critical feature which I carried from my early Montessori experience into later change efforts. As the Montessori movement developed, it attracted audiences other than Catholic parents; as I grew professionally, working in many public and private settings, my professional experience and my credibility increased so that I was able to relate to increasingly varied groups of teachers and administrators within school settings. Professionally and temperamentally, I was seen as "open minded," possible evidence of my client-centered orientation. I spoke of Montessori education as one of many possibilities in Early Childhood Education, "better" only to those parents who chose it for their children. The bias I evidence for cultural accommodation of Montessori in my documented struggles with the AMI was further evidence of this tendency.

Meyer suggests that my work with opinion leaders in the early Montessori days was a critical factor in successful diffusion. Opinion leaders in a nascent movement mean competition for leadership roles within the movement. I understood intuitively that the brightest and most influential people who could be found to promote Montessori ideas were those who would want to take charge of the sectors they were organizing. By creating a network of opinion leaders throughout the country, I was able to aid in the development of a shadow system of regionalization, from the beginning of the American Montessori movement.

Meyer (1975) quotes me as saying 'At the root of the geographical distribution are individuals [p. 69].' In the three successive change efforts, ANISA at McGraw, St. Mary's and Children's House, the awareness of the opinion leader role caused me to look closely at the social ecology of the school systems to find out where the actual power within the teacher groups was. In all of my intentional change efforts, I paid as much conscious attention to the context of the change as I did to the substantive change, agreeing with Sarason, that finally, the context might prove to be the truly critical issue in the effort. In launching an intuitive change effort such as the American Montessori movement, I created an infrastructure for its diffusion as I proceeded. Meyer (1976) signals the importance of this.

[Change agents] facilitate the diffusion process by providing information about the innovation to potential adopters, and if the innovation is...a particular type of activity, they also make adoption possible by providing the infrastructure [p. 18].

First I organized a model school, then, a model teacher training program, then a national society. I ignored the infrastructure which

already existed in the area of early childhood education, other nursery schools, other teacher training institutions. This I was able to do because in the late 1950's, the Early Childhood infrastructure was very weak. With the advent of massive federal spending for Head Start in the mid-sixties, the picture was filled in by a profusion of professional and para-professional detail. There was no longer the kind of "unclaimed" territory which had made my Montessori efforts possible.

In all of my intentional change efforts, the infrastructures required immediate and serious attention, from the "before-the-beginning" stages. The ANISA model involved two different infrastructure universes, those of the university and those of the public school system. In the ANISA effort, Meyer (1976) would describe my change agent function as that of an "agent dispatched by the propagator to operate a propagator-established diffusion agency." The negotiations for the job were not made by me, but by those who sent me in co-operation with those to whom I was sent. To function effectively, I needed an understanding of what all these arrangements implied to all three parties involved, myself as change agent, the senders, and the receivers. At both St. Mary's and Children's House, I represented simultaneously, the sending infrastructure and the change agent, but not the receiver, the school or school system. My function at St. Mary's paralleled most closely Havelock's "process helper" since I was able to fashion the effort, using this as a change agent role model. As someone in a policy making position at the University that sponsored my St. Mary's work, I found that I was linking the university, represented by my point of view, with the client, St. Mary's, through strategies which also reflected my

own point of view, this time as change agent. The same situation obtained in the Children's House endeavor, since I was, from the University's point of view, the Chairperson of a team answerable to myself.

In successful innovations, there are a number of client dispositions which must be taken into account, from the beginning. These are outlined in Implementing Organizational Innovations (Gross, Cinquinta and Bernstein, 1971):

- 1) The degree to which members of an organization have a clear understanding of the innovation will be positively related to their ability to implement it. If they have an ambiguous understanding of the innovation then they will be unclear about what is expected of them. If they have an erroneous interpretation of the innovation, then their efforts at implementation will be misguided.
- 2) A staff's ability to implement an innovation will be a function of its capacity to carry it out. If teachers lack the skills required to perform in accord with the demands of the innovation, then it will be impossible for them to carry it out.
- 3) Their ability to carry it out will be a function of the availability of the tools and resources required by the innovation.
- 4) Existing organizational arrangements must either be compatible with the innovation or must be changed. If arrangements in existence prior to the introduction of the innovation are incompatible with it and are not changed, then it will be more difficult for organizational members to carry it out.
- 5) However, if all these conditions are fulfilled, it does not follow that the staff will implement an innovation. Staff members must be motivated to expend the time and effort required for implementation.
- 6) The extent to which these five conditions are fulfilled will be a function of the performance of the management. If ambiguity or confusion exists in the minds of the staff, management is in the best position to clarify the situation. Furthermore, the authority to establish training programs, and [to] provide materials and tools required for the innovation is lodged in management. In addition, only it has

the power to make change in organizational arrangements that are in compatible with the innovation. And management, too, is in the position to offer the types of rewards and punishments that can motivate the staff to expend the time and effort required to implement an innovation [pp. 702-703].

At the "installation" stage of an innovation, the change agent must make a realistic assessment of the staff's capacity to undertake the change. It is at this stage that such an assessment typically occurs, given the fact that those who decide on innovations and choose them, "the deciders," (Carlson, 1965) are not the same people as those charged with implementing the changes. These are teachers already in the school who had no hand in the decision to select the change. The teachers are the "adopters." When the change agent arrives on the scene, as I did at McGraw, the task at hand is perceived as "making change happen," not "hoping change will happen." Making change happen means using a variety of on site strategies, dictated by client needs and the situation as the change agent finds it. The "installation" year of any change must be characterized by delicate negotiations with all of those involved in the client system. This aspect of responding to the "setting," so important to Sarason (1972) from his experience at the Yale Psycho-Educational Clinic and to me, throughout my career, leads me to increase my support of Roger's (1967) typology of successful change agents. Ideas are not their own delivery systems, especially in bureaucratic settings. They require, in their first field instance, the brokerage of skilled diffusers.

A second lacuna in the Gross, Cinquinta, and Bernstein perception of what is involved in brokering change, from the client side, has to do with the notion that "management" is capable of meeting all of the

conditions they outline. In a change effort in which the training of the teachers is paramount, the management, i.e. the principal, may not even be involved. As the teachers become more aware of the ecological conditions necessary to foster change, they will hopefully gain "management" support in bringing these about. But they may not. I have had extensive experience with the Children's House principal, who was put in a position of "omniscience (Sarason, 1971)" and made policy determinations, against an innovation to which the entire staff was committed. Granted, the principal did not do this in the conscious awareness that he was subverting the innovation. But the effect was the same as if he did. Management is only in the "best position to clarify [any] situation" when management knows what it is talking about. Merely deciding on an innovation does not ensure the ability to understand its practical administrative implications. If the McGraw principal and teachers judged the "installation" year of ANISA to be successful (as they did, according to informal instruments devised by the ANISA group at the University of Massachusetts) then their attitudes as they recorded them, and as I perceived them, derived in some measure from the fact that the principal not only studied the innovation along with the teachers, but acted as its principal proponent in implementation, a point not made by Gross, Cinquinta, and Bernstein. The ANISA model places great emphasis on a "theory of administration," in anticipation of just this kind of dilemma.

McGraw School, St. Mary's School, and Children's House all represent units within a bureaucratic structure. The administrators of each of these schools was answerable to a policy making group without

having much input into that group's determinations. In two of the change efforts, McGraw and St. Mary's, teachers already on staff were the targets of training and the diffusers of the innovation. Their major qualification as innovators was that they were "there." At Children's House, already trained Montessori teachers were recruited for the innovation.

Gross, Cinquinta and Bernstein speak grandly of teachers having a "clear understanding" of the innovation, as a point of departure. If the innovation is an administrative one, such as modular scheduling or Individually Guided Instruction (IGE) and is a discrete behavior separable from all others, then such a statement might make sense. It makes little sense in a discussion of ANISA at McGraw or Montessori at St. Mary's. Complex innovations which involve not only discrete administrative and pedagogical strategies but an alteration in the social ecology of the school must be "lived" to become clear. In a Research, Development, and Diffusion model of change, such as the ANISA model, not until the model was in the field was it possible to speak of clients having more than a theoretical understanding of it. Theory does not necessarily translate directly to practice, as we discovered at McGraw, and as I have discovered throughout my Montessori effort. To achieve the goals of the ANISA model at McGraw, the ANISA team, studied the social system, conferred with the principal, and devised ways unspecified in the theory but compatible with present or "hoped for" teacher practice to implement it.

Comparisons between my change efforts, along the dimensions suggested by Sarason (1972) in "the creation of settings," may prove

helpful. The first dimension is the innovator's "sense of urgency."

Each [setting] reflects in some way a public problem, and in the minds of those who create the setting there may be a sense of urgency that they can do something about the problem, but there is no external pressure on them to create the setting [p. 33].

In my early Montessori work, I was motivated by a strong sense of urgency, concerning possible educational options for my own children, given what I saw around me. The public problem was the limited choice offered parents by parochial education and existing preschool educational programs. There was no external pressure on me to do anything about these conditions. I perceived to do so as a personal mission.

The impulse behind the development of the ANISA model came from within Daniel Jordan, its architect. It was in response to the broadest assessment of existing cultural and moral conditions and existing educational options within them, that he developed the model.

At the present time the world of humanity and the different cultures it represents are in the midst of the most extensive crises ever known to man. The ways we have learned to feel, think, and act are no longer functional...

These crises are forcing humanity to seek a new culture - one that is universal and therefore functional for all men everywhere; one that can create a new race of men, new social institutions, and new physical environments [Jordan, 1970, pp. 12-13].

There was no external pressure on Daniel Jordan to develop the ANISA model. He was impelled by a personal sense of urgency to do this. The public problem which served as the basis for his action was his perception of the world as being in a state of collapse; his response was the formulation of an educational model which aspired to create a "new race of men [Ibid]." The public problem which confronted the Board of St. Mary's school was the declining enrollment of parochial schools.

There was no sense of urgency to create a new setting, in response to this. This impetus came from those members of the Board and faculty who had been involved in a Montessori effort for younger children. The public problem which confronted the Cincinnati Board of Education was the de facto segregation of many of its schools and an imminent Court Suit. The pressure to respond to this state of affairs was real enough and was felt by the Superintendent of Schools' the creation of new settings, an alternative school network was not at all an obvious response to this state of affairs. It was a response concocted by the Superintendent because he believed in it and was willing to sell it to the Board of Education. All of these settings were personally motivated by individuals. In the cases of St. Mary's and the Cincinnati Board of Education, pressures were present to resolve "public" problems, but not necessarily in the novel ways proposed to each group.

The second dimension of "setting creation" is that it is the work of a single individual, at least in its beginnings.

Second, the felt need for the setting as well as the decision to try to create it is that of a single individual who is and remains, for some time, the leader, the organizer, the mover [Ibid.].

I was the single individual who felt the need for an "American Montessori experience," and create it. I also remained the leader, organizer and mover, during its formative period. The break between the AMS and the AMI, which occurred over the notion of legitimacy in teacher training, signalled the coming of age of the AMS. It was at that point that I resigned as president. Dan Jordan not only created the ANISA model but continues to lead, organize and move it. He has a double definition as innovator and university professor which provides him with

the context to do this effectively. In the St. Mary's effort, Paul de Fazio, the principal in whose tenure the Montessori preschool developed, qualifies as the person assuming the "mover and shaker" role. He sheperded the proposed project through the Board, and supported the principal, in the beginning stages of implementation. In the development of the alternative school network in Cincinnati, Donald Waldrip, the Superintendent of Schools was Sarason's "single individual." He presided over the first two years of the effort and presumably would have continued in this role, if the Board of Education had not engineered his removal from office.

A third dimension of "setting creation" centers on what Sarason calls "the guiding idea."

Third, there is a guiding idea which lends distinctiveness to the proposed setting, and which, in one way or another, is considered to be better or superior to the ideas behind existing settings [Ibid.].

Both the "American Montessori" idea and the ANISA idea were such distinct notions, not easily confused at the rhetorical level with other educational options. In the case of Montessori in the Cincinnati Public Schools, one could consider this a sub-set of the distinct idea of "alternative schools." The choices of programs, schools for the Creative and Performing Arts, schools without walls, bi-lingual schools, IGE schools, Montessori schools, were made on the basis of these programs' "differentness" from the offerings of the conventional neighborhood schools. Along with the idea of "different" was that of "better," at least to those parents who chose those options for their children. To the central office administrators, the whole smorgasbord of choices was seen as the principal choice. The notion of "better"

was clearly incarnated in both the early Montessori and the ANISA models. Why else would parents or school districts involve themselves in the discommodation of change, if the change were not perceived as "for the better?"

The idea behind all of my change efforts was that of minimal competition, in the realm of ideas and values, Sarason's fourth dimension.

Fourth, the competition between the new and the existing settings is viewed minimally, or not at all, in terms of limited resources, but rather in the realm of ideas or values [Ibid.].

The "Montessori" idea was truly non-competitive with other educational approaches in the minds of its partisans. It offered another kind of life experience to children, not merely another kind of curriculum or instruction. The ANISA model also functioned in the "non-competitive" context, as seen by its propagators. It offered a quality of training and insight to teachers that they perceived as simply not available to teachers working with other models, in other settings. Part of the perceived uniqueness and therefore "non-competitiveness" of the ANISA model was to be found in its scope and scale. As a grand Research, Development and Diffusion model, it proposed a comprehensive rather than a specific strategy for innovation.

Finally, Sarason offers a fifth dimension in the creation of settings, which relates to its propagators' view of its "life chances."

Fifth, the chances of success for the new setting are considered high precisely because it is outside the influence of existing bureaucratic organizations which would dilute, subvert or abort the superior ideas or values [Ibid.].

In every one of the change efforts in which I engaged, no matter what the bureaucratic context in which each finally came to rest, there

was a version of this belief present. I frankly rejoiced in the "early" American Montessori days, that I was free from what I now see as bureaucratic and infrastructural constraints. Parents seemed to me a free-form audience. The insertion of "Montessori" into parochial and public schools might be seen as a contradiction of Sarason's fifth dimension, but was not. I maintain that Montessori partisans see their commitment as transcending that of the school structure, and therefore, existing, in some way, independent of it. Thus were the Children's House teachers amazed and dismayed that the principal thought it important that Montessori ideas coincided with his. They could not conceive of this as relevant; to them, the question a mere public school administrator posed was in terms of his ability to administrate a "Montessori" school. The teachers were themselves public school teachers and "Montessorians." They saw themselves as independent of the public school structure, in their "Montessori" definition.

The ANISA model, despite its location in a university setting and its mission to public education, can also be seen as free from the influence of existing bureaucratic organizations. I have maintained and continue to maintain that the ANISA model functions simultaneously as a knowledge utilization model and as a social movement. It is in this latter definition that those associated with its diffusion consider themselves as transcending bureaucracies. The ANISA model embraces all of culture. This further enables its partisans to see any bureaucracy as a specific instance of a much larger principle at work.

The evaluation question which can be addressed to this study is not "Did the innovation work?" but "Was the innovation installed in a setting of altered social ecology?"

The response for the American Montessori experience is "yes." Two thousand Montessori schools exist at present in the United States. When I established the Whitby School in 1958, there were none. These schools represent a broad spectrum of interpretation of Montessori philosophy, but all can be seen to have had a common parent, in the diffusion effort I undertook during the decade, 1953-1963.

Did St. Mary's School and Children's House also develop an "altered social ecology?" As far as can be seen at present, both did. St. Mary's is in its third year of operation in a new social setting; Children's House is in its second year. A second site of Children's House has been opened, with plans for a third and fourth in 1977. All will utilize the model which I devised for the first one, requiring a staff of specially trained Montessori teachers, at the outset.

Sarason (1972) has codified the complexity of the "creation of settings," but not the measures to assess them. That is still left to change agent intuition.

What recommendations might I make, to those proposing to broker innovations, on the basis of my reported experiences and insights?

First, be aware of the complexity of undertaking change. The burgeoning literature on the subject should intimidate anyone dependent on mere impulse to initiate innovation.

Second, if you propose to be the innovator, study yourself in the light of successful innovator characteristics. Whether you look to

Rogers (1967) or Schon (1971), determine your ability to handle ambiguity and marginality. Be realistic about your abilities to discover and work with opinion leaders. Rate yourself on the characteristics the literature reckons as important (Rogers, 1967, Havelock, 1973, 1975).

Third, learn all you can about the optimal strategies for creating settings. To date, Sarason (1971, 1972) has the most relevant information on this aspect of changing.

Four, study the innovation you propose to broker, in light of all the dimensions necessary for its probable adoption and select strategies, accordingly. Determine the audience for the adoption and the best of the brokerage roles to connect with it (Havelock, 1973, 1975). Choose the best media mix to suit the message to be communicated (Havelock, 1975, Hovland, 1957).

Five, master the content of the innovation. This requirement makes sense to a change agent, only when the anterior considerations have been made, unless you are both innovator and diffuser.

Six, prepare to exhaust yourself in the dissemination phase of innovation diffusion. What all innovators know from experience, whether they are successful or not, is the degree of personal commitment necessary to attempt innovation diffusion. It is total.

These recommendations proceed from lived experience. I have attempted to bring together in a single study, information concerning their epigenesis, which proceeds not only from that experience but from the literature dealing with many aspects of change and the changing process, both intuitive and intentional.

B I B L I O G R A P H Y

- Alinsky, S. D. Reveille for radicals. New York: Random House, 1969.
- AMS Archives. New York: American Montessori Society, 1959- .
- Applebaum, P. The growth of the Montessori movement in the United States: 1909 - 1970. Ann Arbor: University, Microfilms, 1972.
- Argyris, C. Interpersonal competence and organizational effectiveness. Homewood, Ill.: Dorsey Press, 1962.
- Baha'u'llah. Gleanings, 259-60. In Jordan, D. C. In search of the supreme talisman: A baha'i perspective on education. World Order, 1970, 5(1), 12-22.
- Baldrige, J. V. Organizational change: The human relations perspective vs. the political systems perspective. Educational Research, 1972, 7(2), 4-10.
- Baldrige, J. V., Deal, T. E., Johnson, R. & Wheeler, J. The relationship of r & d efforts to field users: Problems, myths and stereotypes. Phi Delta Kappan, 1974, 4, (2), 701-706.
- Barnett, H. G. Innovation: The basis of cultural change. New York: McGraw Hill, 1953.
- Binderman, A. J. Mental health consultation: Theory and practice. Journal of Consulting Psychology, 1959, 23, 473-482.
- Bennis, W. G. Changing organizations. New York: McGraw Hill, 1962.
- Bennis, W. G., Benne, K. D. & Chin, R. (Eds.) The planning of change. New York: Holt, Rinehart & Winston, 1961.
- Blau, P. M. & Scott, R. W. Formal organization. San Francisco: Chandler, 1962.
- Brickell, H. M. Dynamics of change. National Association of Secondary School Principals, 1963.
- Brown, L. & Cox, K. Empirical regularities in the diffusion of innovation. Annals, Association of American Geographers, 1971, 61, 551-559.
- Brown, R. Words and things. Glencoe, Ill.: Free Press, 1958.
- Bruner, J. Freud and the image of man. The American Psychologist, 11, 463-466.

- Bowman, P. The role of the consultant. Mental Hygiene, 1959, 43, 105-110.
- Callahan, R. Education and the cult of efficiency. New York: McGraw Hill, 1968.
- Cantril, H. The psychology of social movements. New York: Wiley, 1941.
- Carlson, R. D. The adoption of educational innovations. Eugene, Oregon: The Center for the Advanced Study of Educational Administration, 1965.
- Cass, J. Teachers and change. Saturday Review/World, 1973, Nov. 6, 53.
- Cassirer, E. Language and myth. New York: Dover, 1946.
- Chin R. & Downey, L. Changing change: Innovating a discipline. In Travers, R. (Ed.), Second Handbook of Research on Teaching. Chicago: Rank McNally, 1973, 513-528.
- Clark, D. & Guba, E. An examination of potential change roles in education. In Seminar on innovation in curricula. Columbus, Oh.: Ohio State University, 1965.
- Davis, K. Management communication and the grapevine. Harvard Business Review, 1953, 31, 43-49.
- Dewey, J. The education situation. Chicago: University of Chicago Press, 1902.
- Dewey, J. Individuality and experience. Journal of the Barnes Foundation, 1926, I,4. In Stephens, L. S. The teacher's guide to open education. New York: Holt, Rinehart & Winston.
- Dubos, R. The dreams of reason: Science and utopias. New York: Columbia University Press, 1961.
- Eicholz, G. and Rogers, E. Resistance to the adoption of audio-visual aids by elementary teachers. In Miles, M. Innovation in education. New York: Bureau of Publications, Teachers College, 1964.
- Erikson, E. H. Gandhi's truth. New York: Norton, 1969.
- Ferguson, C. W. Organizing to beat the devil: Methodists and the making of America. New York: Doubleday, 1971.
- Festinger, L. A theory of social comparison processes. Human Relations, 1954, 7, 117-140.
- Fleege, U. Montessori organization in America. Mimeographed paper. New York: American Montessori Society, 1961.

- Ford Foundation. Matters of choice: A Ford foundation report on alternative schools. New York: Ford Foundation, n.d.
- Gerlach, L. P. & Hine, V. H. People, power, change: Movements of social transformation. Indianapolis: Bobbs Merrill, 1970.
- Goddu, R., Ryan, C., Ducharme, E. & Knight, L. The New England program in teacher education. Durham, New Hampshire: New England Program in Teacher Education, n.d.
- Goldhammer, K. The social sciences and the preparation of educational administrators. Edmonton: Division of Educational Administration, University of Alberta, 1963.
- Goldman, S. & Tara, W. Changing knowledge to wisdom: An interview with E. F. Schumacher. East West Journal, 1976, 6(11), 14-20.
- Goodlad, J. I. The schools vs. education. Saturday Review of Literature, 1969, April 19, 60-61.
- Goodlad, J. I. & Klein, M. F. Behind the classroom door. New York: Charles A. Jones, 1970.
- Greenberg, B. S. et. al. Diffusion of news about an anticipated major news event. Journal of Broadcasting, 1965, 9, 129-142.
- Gross, N., Giacuinta, J., & Bernstein, M. Implementing organizational innovations. New York: Basic Books, 1971.
- Gross, R. & Gross, B. Montessori in America. The New York Times Magazine, December 10, 1965.
- Halpin, A. W. Problems in the use of communications media in the dissemination and implementation of educational research. In Goldhammer, K. & Elam, S. (Eds.) Dissemination and Implementation. Bloomington, Indiana: Phi Delta Kappa, Inc., 1962.
- Hampden Log, ANISA Archives, Amherst: Center for Human Potential, 1974.
- Havelock, R. G. Bibliography on knowledge utilization and dissemination. Ann Arbor: University of Michigan, Center for Research on the Utilization of Knowledge, 1968.
- Havelock, R. G. The change agent's guide to innovation in education. Englewood Cliffs: Educational Technology Publications, 1973.
- Havelock, R. G. Dissemination and translation roles. In Eidell, T. L. & Kitchell, J. M. (Eds.) Knowledge production and utilization in educational administration. Eugene, Oregon: University Council for Educational Administration and Center for the Advanced Study of Educational Administration, University of Oregon, 1968.

- Havelock, R. G. Planning for innovation. Ann Arbor: Center for Research on Utilization of Scientific Knowledge, University of Michigan, 1975.
- Havelock, R. G. & Benne, K. D. An exploratory study of knowledge utilization. In Bennis, W. G., Benne, K. D., & Chin, R., (Eds.) The planning of change. New York: Holt, Rinehart & Winston, 1969.
- Havelock, R. G. & Havelock, M. C. Training for change agents. Ann Arbor: Institute for Social Research, University of Michigan, 1973.
- Henry, J. S. A change agent in a small elementary school "Unpublished manuscript," University of Cincinnati, 1974.
- Hovland, D. I. (Ed.) The order of presentation in persuasion. New Haven: Yale University Press, 1957.
- Infield, H. F. Utopia and experiment. New York: Praeger, 1955.
- Janis, I. L. Victims of groupthink. Boston: Houghton Mifflin, 1972.
- Jordan, D. C. In search of the supreme talisman: a baha'i perspective on education. World Order, 1970, 5(1), 12-22.
- Jordan, D. C. & Streets, D. T. The ANISA model: A new basis for educational planning. Young Children, 1973, June, 289-307.
- Katz, E. The two step flow of communication: An up to date report on an hypothesis. Public Opinion Quarterly, 1957, 21, 61-78.
- Katz, E. & Kahn, R. L. The social psychology of organizations. New York: Wiley, 1966.
- Kennedy, G. H. The methodist way of life. Englewood Cliffs: Prentice Hall, 1958.
- Kramer, R. Maria Montessori: A biography. New York: G. P. Putnam, 1976.
- Kuhn, A. The logic of social systems. San Francisco: Jossey-Bass, 1974.
- Kurland, N. D., & Miller, R. I. Selected and annotated bibliography on the process of change. Albany: New York State Education Department, 1966.
- Lewin, K. Field theory in social science. New York: Harper, 1951.
- Lippitt, R. The dynamics of planned change. New York: Harcourt, Brace & World, 1958.

- Maguire, L. M. An annotated bibliography of the literature on change. Philadelphia: Research for Better Schools, Inc., 1970.
- Maguire, L. M. Observation and analysis of the literature on change. Philadelphia: Research for Better Schools, Inc., 1970.
- Mann, F. D. Handling misunderstanding and conflict. Ann Arbor: Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, University of Michigan, Unpublished manuscript, 1967.
- McDermott, J. Montessori and the new America. In building the foundations of learning. New York: American Montessori Society, 1963.
- McGregor, D. M. The human side of enterprise. New York: McGraw Hill, 1960.
- McKeon, R. (Ed.) The basic works of Aristotle. London: Oxford University Press, 1941.
- The Merriam-Webster Dictionary. New York: Pocket Books, 1975.
- Meyer, J. H. Diffusion of an American Montessori education. Chicago: The University of Chicago Department of Geography, Research Paper No. 160, 1975.
- Meyer, J. H. Diffusers and social innovations: Increasing the scope of diffusion models. The Professional Geographer, 28 (1) February, 1976, 17-22.
- Meyer, J. W. Participants, publicity and schools: Elements in the diffusion of American Montessori education. The American Montessori Society Bulletin, 1975, 13 (1), 1-16.
- Miles, M. B. (Ed.) Innovation in education. New York: Bureau of Publications. Teachers College, Columbia University, 1964.
- Montessori, M. The Montessori method. New York: Schocken, 1963.
- Montessori, M. Pedagogical anthropology. New York: Frederick Stokes, 1913.
- Myren, D. T. A distribution of mass media among farmers and the relationship of this distribution to certain socio-economic characteristics. Dissertation Abstracts, 1956, Vol. 16, p. 746.
- O'Brien R. A tribute to Nancy Rambusch on the tenth anniversary of the founding of the American Montessori society. New York: American Montessori Society, 1970.

- Perin, D. With man in mind. Cambridge: MIT press, 1970.
- Pieper, J. Prudence. London: Faber & Faber, 1955.
- Pincus, J. Incentives for innovation in the public schools. Review of Educational Research, 1974, 44(1) 113-144.
- Rambusch, N. M. Learning made easy. Jubilee, 1953, 1(1), 35-42.
- Rambusch, N. M. Learning how to learn: An American approach to Montessori. Baltimore: Helicon, 1962.
- Rambusch, N. M. The American Montessori picture: Some reconsiderations. The American Montessori Society Bulletin, 1963, 1(1).
- Rambusch, N. M. Fielding the ANISA model. The Constructive Triangle, 1975, 2(2), 57-63.
- Rambusch, N. M. Organizing an alternative school. "Unpublished manuscript." Xavier University, Cincinnati, 1974.
- Rambusch, N. M. Montessori as an American public school alternative. The Constructive Triangle, 1976, 3(1), 6-15.
- Richland, M. Final report: Traveling seminar and conference for the implementation of educational innovations. Santa Monica, California: System Development Corporation, Technical Memorandum Series 2691, 1965.
- Rogers, E. M. Diffusion of innovations. New York: Free Press, 1967.
- Rogers, E. M. & Shoemaker, F. F. Communication of innovations: A cross cultural approach. New York: Free Press, 1971.
- Sarason, S. B. The creation of settings and the future societies. Jossey-Bass, 1972.
- Sarason, S. B. The culture of the school and the problem of change. Boston: Allyn & Bacon, 1971.
- Schon, D. A. The displacement of concepts. London: Tavistock Press, 1963.
- Schon, D. A. Beyond the stable state. New York: Norton, 1971.
- Schram, W. Science and the public mind. In Katz, E. et.al. (Eds.) Studies of innovation and of communication to the public: Studies in the utilization of behavioral sciences. Stanford, California: Institute for Communication Research, 1962, vol. 2, 261-282.

- Schumacher, E. F. Small is beautiful. New York: Harper & Row, 1973.
- Selznick, P. TVA and the grass roots. New York: Harper & Row, 1966.
- Smelser, N. J. Theories of collective behavior. New York: Free Press, 1963.
- Smith, L. M. & Keith, P. M. Anatomy of educational innovation. New York: Wiley, 1971.
- Standing, E. M. Maria Montessori: Her life and work. New York: New American Library, 1962.
- Steiner, G. In blue beard's castle: Some notes toward the redefinition of culture. New Haven: Yale, 1971.
- Stephens, L. S. The teacher's guide to open education. New York: Holt Rinehart & Winston, 1974.
- Streets, D. T. & Jordan, D. C. Guiding the process of becoming: the ANISA theories of curriculum and teaching. World Order, 1973, 7(4), 29-40.
- Swinehart, J. W. & McLeod, J. M. News about science; channels audiences and effects. Public Opinion Quarterly, 1960, 24, 583-589.
- Teilhard de Chardin, P. The phenomenon of man. New York: Harper & Row, 1965.
- Watson, G. (Ed.) Change in school systems, co-operative project for educational development. Washington, D.C.: NTL Institute for Applied Behavioral Science, 1967.
- Watson, G. Concepts for social change, co-operative project for educational development. Washington, D.C.: NTL Institute for Applied Behavioral Science, 1967.
- Wilkening, E. A. Consensus in role definition of country extension agents and local sponsoring committee members. Rural Sociology, 1958, 23, 184-197.

