Charged Contexts: Difference, Emotion and Power in Environmental Design Research

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Summary

This paper examines the critiques of environmental design research put forward by feminists, phenomenologists, and marxists as exemplars of the postmodern challenge to scientific rationality as it has been constituted and practiced in technocratic design research. Issues of difference, emotion, and power call for the development of environmental design research that (1) situates the researcher, the research project, the participants, and the clients in terms of context, values, and interests; (2) recognizes the practice of research as part of the negotiation of the meaning and form of places; (3) develops processes for recognizing difference and supporting democratic, egalitarian decision-making.

Résumé

Cet article examine les critiques de la recherche sur l'aménagement de l'environnement formulées par les féministes, les phénoménologistes et les marxistes; il les considère comme exemplaires du défi postmoderne à la rationalité scientifique telle qu'elle a été établie et pratiquée par la recherche technocratique sur l'environnement. Des questions liées à l'existence de différentes approches, à des facteurs émotionnels et aux rapports de pouvoir exigent que l'ont développe une recherche 1) dans laquelle la position du chercheur, du projet, des participants et des clients soit clairement définie du point de vue du contexte, des valeurs et des intérêts qui sont les leurs; 2) qui accepte la pratique de la recherche comme part intégrante d'une négociation concernant la signification et la forme des espaces; 3) qui développe des processus permettant d'identifier les différences et d'encourager un type démocratique et égalitaire de prise de décisions.

1. Introduction

Environmental Design Research was spawned by the idea that better human environments could be brought about through the rationalization of environments by the application of scientific study. This intent rested on a great pyramid of beliefs about the nature of scientific knowledge, the environment, and human beings. For the last thirty years, these beliefs have suffered an onslaught of criticism that has led to the

postmodern condition in which science as a privileged form of knowledge has been seriously challenged (Ward, 1993). The very idea of rationality is questioned on many grounds. Among them are the following: (1) The idea of universal reason veiled and legitimated definitions of reality by which dominant groups oppressed others; (2) What constitutes "improvement" depends on your position in the hierarchy; (3) scientific reason does not guide actions, rather it rationalizes in the Freudian sense of using reason to distort perceptions of reality so as to alleviate anxiety and conflicts; (4) The notion of linear, progressive improvement in human life is false. If these critiques are accepted, much of Environmental Design Research is either a meaningless diversion or an instrument of oppression.

These criticisms of what has been taken to be scientific rationality often appear to be, and sometimes are, a critique of rationality, or the use of reason, itself. However, feminist scholars (Gilligan, 1982) and critical theorists (Habermas, 1971,1984) suggest that the problem lies in the definition of rationality employed. My dictionary (Merriam-Webster, 1963) defines rationality by reference to reason and gives several definitions of reason that break down into four types: (1) to be logical or based on explanation and justification, (2) to be intelligent, to be subject to thinking, (3) to be sane, and, as a verb, (4) to engage in conversations, discussion or argument with an intent to influence another's actions or opinions. Which of these definitions might we question as appropriate bases of environmental design research?

In the light of both the critiques put forward and the limited successes of environmental design research to influence the way the world is, the most useful notion of rationality moves away from the first definition, with its emphasis on logic and the implication of a universal rationality that rises above a specific time, place, or person. All of the first three definitions also seem to imply a priority of thinking over feeling and valuing, a premise that has been rejected by most critics of scientific rationalism. Thus, the aspect of rationality that appears to me most critical to retain is best captured by the verb form. Critical theorists (Habermas, 1971, 1984) most cogently argue that reason has the potential for emancipatory consequences when it proceeds by free communication among people, undistorted by unequal relations of power. Such dialogue requires consensual decision making and the subordination of technical decisions to the value consensus achieved.

Since the complete absence of domination postulated in what Habermas (1984) calls "the ideal speech situation" can only be approximated in real life, part of the work of reasoning is to uncover the forms of domination functioning in any context. This paper explores three major claims concerning sources of domination that challenge the idea of scientific rationalism underlying most environmental design research.

First, feminists, as well as other post-modern thinkers, assert that forms of language and analysis considered most valid in society simultaneously arise from and perpetuate practices of domination (Gavey, 1989; Weedon, 1987). Truth can not be understood as universal, but rather as multiple and contingent, and thereby partial. Thus an important aim of scholarship becomes the deconstruction of accepted terms and analysis and the discovery of the interests they conceal and deny (Weedon, 1987). This point of view requires that truth also be understood as a social construction, thus subject to change.

Second, by questioning the value neutrality of scientific rationality, the separation of subject and object, of fact and feeling are also called into question. This point

has been made generally by feminists (Daly, 1985; Harding, 1986) and by phenomenologists in relation to environmental experience (Seamon, 1987).

Third, feminists (Katz & Monk, 1993; Women and Geography Study Group of the IBG, 1984) and marxists (Castells, 1977; Harvey, 1973), as well as those concerned with inequalities based on race (Gilkes, 1988) assert that power relations strongly affect the form and meaning of the environment, as well as the nature of research and actions based on the research. In contrast to postmodern scepticism about the generality of knowledge, these researchers and theorists strive to reveal general forms of inequality pervasive in their societies.

Each of the issues identified challenges the technocratic type of environmental design research that has dominated the field. As the issues of difference, emotion and power have been developed, they each also pose problems for the other that require careful analysis and evaluation of possible alternative approaches to environmental design research.

2. The Idea of Difference

The idea of difference is central to the postmodern critique of scientific reason, as it is to the critique of language and art (Ward, 1993; Weedon, 1987). As Ward (1993) points out the postmodern critique can become a justification for the *status quo*. Specifically for the interests of this paper, if the critique is understood as a complete denial of reason and the assertion of the isolation of the individual, or even of categories of individuals, then collective action to improve felt inadequacies, injustices, and inequalities has no legitimacy. Further, the use of technical knowledge, even in pursuit of democratically agreed upon aims, and with an awareness that the knowledge and action are provisional, is denied. This state of affairs is really only tolerable to those satisfied with the status quo.

One of the sources of the postmodern analysis can be found in feminist thought in the assertion that reason and science have been used not to seek truth but to justify male privilege. Yet some strands of feminism offer not a complete denial of rationality, but rather a broadening of its definition (Belenky, et al, 1986; Gilligan, 1982; Harding, 1986). Gilligan's analysis of gender differences in moral reasoning contrasts the male quest for universal rationality that rises above a specific time, place, or person with the more embedded reasoning style of many women. She asserts that men tend to try to separate themselves from the context through the process of reasoning. The solution to moral dilemmas is achieved by individual reasoning about the observed properties of the situation and application of an analysis of universal rights and obligations. Women, in contrast, propose dialogue and joint problem solving among those involved in a problem as the best route to a solution. Gilligan's contrast between a style of reasoning that stresses separation versus one that emphasizes connection has fundamental implications for environmental design research. The approach to environmental design and planning practice described by Schneekloth and Shibley (1993) illustrates some of the consequences of focusing on a concern for the ongoing relationship among people in environmental design consultations.

An analysis that legitimates the value of connectedness and mutual responsibility also ameliorates the socially regressive aspects of the idea of difference taken to an extreme. The easiness of acting on these values should not be overestimated. A false sense of homogeneity may legitimate actions while covering over real difference and

leading to exploitation and oppression. However, efforts to change the environment in ways that benefit groups other than those with the most power and resources depend on the generation of a sense of mutual interest and responsibility. Thus developing methods of research and practice that reveal difference while contributing to the possibility of mutual understanding and action is a priority for environmental design research and practice (Franck, 1989; Riger, 1992; Schneekloth and Shibley, 1993).

The achievement of a particular goal is subordinate to the notion of valued processes (Franck, 1989; Leavitt & Saegert, 1990). This commitment avoids idealism because the physical, social, and psychological world are seen as continuous rather than discreet. Empowering dialogue must move concurrently with empowering actions and environmental changes (Clark & Saegert, in press; Saegert, 1992). The legitimacy of the analysis of a problem and its solutions arises out of the negotiation of both the meaning of terms and the forms of reasoning, negotiations in which existing power relations must be made evident and questioned.

3. Emotion, Value and Environmental Meaning

Other aspects of feminist redefinitions of rationality also have significant implications for this field. Feminist definitions of rationality stress the intertwined and dynamic nature of thinking and feeling, of value and reason (Harding, 1986). Feminist environmental design research frequently demonstrates that environmental choices and actions of women and men differ as a result of different values hold. Historically, women have attempted to organize around their alternative visions of the place of domestic work in their own lives, and in the lives of the community, and to literally build a different world (Hayden, 1980). On the negative side, many aspects of man made space are viewed by women as inappropriate or threatening to their own goals and projects (Matrix, 1984). Even when women and men share the same home, they often assign different meanings and values to it (Saegert, 1980).

However, the thrust of this work derives more from its interest in difference than from its assertion of the significance of values and feelings. Indeed, most environmental design research arising from the tradition of environmental psychology emphasizes the subjective, psychological aspects of the experience and use of environments.

However, feminist environmental design researchers have not strongly challenged methods of study based on standardization and quantification. Since the 1970's feminist rallying cry that "the personal is political", feminist have assumed that assertions of objectivity usually mask patriarchal efforts at domination. On the basis of this belief, many feminist social scientist (Reinharz, 1992; Riger, 1992) have outlined approaches to research that require careful listening to the voices of those studied, together with attention to the context of the lives of participants, as well as to the context of the research. But only infrequently have feminist environmental design researchers adopted approaches that self consciously attempt to hear and transmit the voice of the participants in the research (Christensen, 1988; Leavitt & Saegert, 1990).

In the field of Environmental Design Research, phenomenologists more frequently than feminist have asserted the essential subjectivity of environmental experience. The emphasis placed by phenomenologists (Relph, 1976; Seamon, 1987) on the personal meaning and value of environments touches a responsive cord in the experiences of users, designers, and researchers of places. It highlights the contrast of these values with the pursuit of rationalized places dominated by goals of efficiency, cost

effectiveness, economic productivity, or even "healthiness" that seem to be the justification for environmental design evaluation.

Within the scientific and technological paradigm, the researcher, and presumably those who fund, design, own, and manage settings, believe that research findings can be used to predict and control behaviour. This goal contrasts with the phenomenologists' goal of expanding awareness, deepening the experience of environments, and promoting personal growth and caring.

The claims of phenomenologists to access to a deeper truth than that founded on empirical research can be questioned from a number of directions. For one, it is not clear that the two are as mutually exclusive as adherents often state. Christensen (1982) has proposed that phenomenology provide a grounding by which empirical science can be connected to the lived world. She states that phenomenology "interprets and renders a critique of the meanings held by the agents of their world, meanings that exist independent of, and prior to, any scientific explanation of them"(p.55). It is also possible to view understanding based on personal experience as a limited and perhaps distorted basis that could be illuminated by external accounts of behaviour or social outcomes. For example, many women and girls will say they are treated equally in their workplaces or schools. Yet empirical studies of the same situations show the women earn less for the same jobs and the girls receive less attention in the classrooms than boys (American Association of University Women, 1992). The postmodern critique of language as a carrier of oppressive self awareness (Weedon, 1987) provides another ground for doubt. From yet another point of view, the marxist critique which highlights differential relations to the mode of production as the underlying force in environmental change (Harvey, 1973) places individual experience in a derivative and often clouded position.

Despite these criticisms, phenomenologists do call our attention to dimensions of people's experiences of place that can expand the more functional qualities that usually dominate research. Seamon (1987) has reviewed the contributions of phenomenologists as they relate to four themes: (1) environmental experience and lifeworld; (2) place; (3) home, journey, and community; and (4) architecture as place making. The use of these themes in environmental design evaluation can open up the variety of dimensions of human experience of environments, including the neglected bodily senses of movement, touch, hearing, temperature as well as social, emotional, and cognitive dimensions (Relph, 1976; Tuan, 1977). Perhaps resulting studies would have a more enlightening impact on both participants and clients if a wider domain of experience were tapped. Such work could bridge, or at least explore, the gap between functional and aesthetic criteria. Perhaps also, application of such research would result in more sensorily pleasing and socially and personally meaningful environmental design.

While openness to the multiple dimensions of place experience does not appear to characterize most environmental design research, there are some precedents in the literature. For example, applied researchers Farbstein and Kantrowitz (1978) produced a manual to introduce users to the idea of environmental design evaluation that included exercises aimed at increasing awareness of the environment along all of these dimensions. Another manual aimed at users and managers of mental health facilities (Architecture Research Construction, 1979) employed similar techniques and linked them to design and planning exercises.

Phenomenologists also present a challenge to environmental design researchers by their distinction between "insideness" versus "outsideness" in the experience of place. Almost by definition, researchers will tend to experience place as outsiders, whereas those users most affected by a particular environment are most likely to experience the place as insiders. Rowles (1978, 1983) has sensitively employed the phenomenological concepts of physical, social, and autobiographical "insideness" to interpret the ways elderly residents of a dilapidated Appalachian community adapted to aging. Based on his analysis of the positive attachment residents had to what would appear to an outsider as a fairly uninviting environment, he focuses primarily on the significance of preserving place and memory.

Coming from a feminist perspective, Leavitt and Saegert's study (1989) of Harlem residents who saved and rehabilitated their landlord abandoned buildings also employed extensive open-ended discussions and participant observation to understand the meaning of place and the actions that occurred in the context. After first starting with more structured methodologies, they turned toward the grounded theory approach in order to do justice to the experiences and goals of study participants. They found that residents, acting on their intimate everyday experience of place, were able to contribute to physical and social change and renewal when both private landlords and governmental agencies were unable to do so. The central leadership roles played by the elderly and women grew out of the close relationships these groups had with their physical and social environments. This work implies that the process of environmental design research can contribute to the making of satisfying places by documenting and sharing the experience of "insideness" that users wish to preserve and build on, as well as by supporting insiders in the role of place makers.

However, in feminist work the focus on "insideness" was an attempt to give voice to the interpretations of the environment that sought to challenge the interpretations provided by dominant economic and political institutions. Phenomenologists rarely attend to differences in power and resources that lend credibility to a particular definition of the environment. Rather, the attainment of the fullest meaning is seen as the product of the disciplined exercise of sensitivity. Buttimer (1976, 1980) has offered a method to deepen the intersubjectively validated meaning of environments which involves dialogue among community members about the qualities of places, thus leading to raised environmental consciousness. However, her apparent ease in judging that others have adapted to "placelessness", while she has not, suggests that she believes her own phenomenological awareness more accurately defines the true qualities of "place" than that of her neighbours. Her method contrasts with the grounded theory research described by Rowles (1978,1983) as do her conclusions. For Rowles (1983), the attachment to a dispersed and sometimes idiosyncratic network of places can be as interesting and important an experience of place as attachment to a clearly defined and coherent region.

In contrast to feminist approaches, phenomenologists do not clearly present a role for environmental design research in the improvement of environments. As Sime (1986) has pointed out, much of the writing in this tradition argues for preservation of existing settings that are related to people's identities without addressing the building of new places, not the issues of change and multiple social identities affecting any place.

The aspects of environmental experience brought to light through the more intersubjective approach to phenomenological analysis could be used to argue for greater participation of users and potential users of environments in environmental design. If places are uniquely and complexly experienced by particular people as integral aspects of their personal histories and identities, then each persons experience must be treated in its own terms. The person must in some way speak for him/her self. Phenomenologists would probably be united in that conclusion. However, participatory research also involves users in decisions about the future of their environments. This active aspect goes beyond the work of most phenomenologically inclined environmental social scientist, although it seems often to be implied. Indeed, phenomenologist Dovey (1985) includes control over a place by its users as one of the defining characteristics of a "healthy" place.

4. The Universal Individual or the Situated Author

Feminist geographers criticize the phenomenological school of thought in their discipline for presenting the person essentially in the universal, and by weight of history, male voice (Women and Geography Study Group of the IBG, 1984). Phenomenological studies fail to address systematic inequalities and injustices in environmental experience, perhaps more completely than the scientific objectivism they criticize. Scientific claims to truth rest on the belief that logic and a reliance on empirical evidence should lead all persons to the same conclusions. Seamon (1987) states that the validity of phenomenological studies derives from intersubjective corroboration of intuitive insights, without necessary recourse to either logic or empirical evidence. Phenomenological writing primarily presents the insights of the author and his or her account of what is believed to be the experience of other people.

When the author uses extensive interview data to support insights, the difference between phenomenological and positive, empirical social science research begins to blur. The major difference, and a significant, one appears to be that the audience for phenomenological work should be able to feel, not just understand logically, the truth of the statement made. Seamon (1987) stresses that phenomenological methods require an insiders understanding. He states that "descriptive insights are presented to phenomenologists and other interested individuals who must then decide if the descriptions are in harmony with their own seeing and understanding" (p. 7). His harshest criticism is reserved for those who presume to gain insights from phenomenology without clearly grasping its assumptions about the inseparable nature of the individual and the world. The unique individual appears to be the arbiter of truth at the core of phenomenological thought.

Within conventional scientific and technological environmental design research, the universal aspect of individual knowledge lies in the processes of knowing. With effort, discipline, and sufficient intelligence, all individuals use the same logical operations to verify (or more strictly, to fail to falsify) publicly available empirical observations. For the phenomenologist, the universal aspect of individual knowledge lies in the invariant structure of reality, lying behind the appearances that are the empirical observations of the positivist. The universal aspects of method can not be specified as operations but rather as attitudes of care and sincerity, of thoughtful and careful experiencing.

While feminists environmental design researchers may have given less methodological weight to the essential role of subjectivity in experience, they have pioneered an effort to recognize their own subjectivity. For example, Katz and Monk (1993) situate themselves geographically and socially in the first chapter of their book on the life courses of women's experiences of the environment. Influenced by psychoanalytic concepts and the multiple currents of the critique of positivism, some who do not state explicitly feminist points of view (Chapin & Cooper-Marcus, 1993) also assert the importance of "placing" the author. For both groups, the author explicitly recognizes the non-universality of her/his perspective.

The phenomenological insistence on the unity of being-in-the-world affirms the intertwined nature of place meaning with physical attributes of the place, social ties, and shared meanings (Relph, 1985). Neither the environmental, nor the personal, nor the social aspect of place can be separated or reduced to aspects of the other. But the socially structured nature of these ties and meanings receives little attention, along with their saturation with power relations, conflicting interests, and differential access to resources. Seamon (1987) argues that the phenomenology of social structure and the political economy would appear possible, although usually at odds with the personal predilections of phenomenologists. Interestingly, both Seamon (1987) in his review of phenomenological thinking about person-environment relationships and Winnett (1987) in his review of empiricist-positivist approaches end their papers with discussions of the shortcomings of each position in dealing with the broader cultural, social, political, and economic context.

5. Power, Place and Environmental Design Research

Like feminists environmental design researchers (Spain, 1992), urban theorists influenced by a marxist perspective (Castells, 1977; Harvey, 1973) have been most articulate in analyzing power differentials underlying the form of the physical environment, its meaning, and processes of environmental change. Unlike feminists, marxists have relied primarily on an analysis of the political economy to account for these differences, ignoring gender as an axis of inequality, and also remaining silent on other issues of difference, such as ethnicity or sexual orientation. Nonetheless, marxist inspired work has illuminated severe constraints on the potential for applying environmental design research for the improvement of the "human" environment.

Marxist have seen the battle over the form and function of the environment as contests between use values, especially for the working class, and profit, as exemplified in Ward's (1993) discussion of the postmodernism of reaction versus the post modernism of resistance. This perspective raises obvious issues for most applied environmental design studies, which are almost always focused on some set of use values: satisfaction, ease of doing ones job, health, comfort, etc. Even criteria based on efficiency of production have obvious human factors components. However, if the primary force driving specific land use developments is the increase of value for exchange, these use-based criteria may have very little to do with the values owners wish to realize in the design of their property.

The marxist work also seriously challenges the idea that by affecting rational decision making the environment can be made better. The rationality demonstrated by marxist researchers is that of capital accumulation, not of individuals or even collective decision makers (Harvey, 1973; Smith, 1979; 1986). These authors illuminate the kind of technical rationality that Habermas (1971; 1984) attributes to the political economic system which provides a steering mechanism for the accumulation of wealth

and power. Its institutionalized nature assures that these goals will be pursued regardless of the individuals or groups involved.

Among marxist influenced urban theorists, Castells (1983) presents a more complex and multidimensional analysis. He argues that the struggles over urban form and meaning derive from struggles over three issues: (1) use value, (2) identity, cultural autonomy, and communication, and (3) territorially based self-management. The battle between use value and exchange value arises as a by-product of the increasing power of capital and its growing internationalization. However, the other two arenas for struggle derive not uniquely from capitalism but from the power and control mechanisms of imperial states. He sees struggles over identity, cultural autonomy, and communication as linked to the global change in modes of development. While he does not discount industrial development as still significant, he adds to it an informational mode of development based on the production and control of information rather than goods. This mode of development promotes the one way flow of information and opposes actual communication among members of a community. It seeks to replace indigenous meanings of environments based on experience with mass produced and broadcast images disconnected from lived experience.¹

In his discussion of the joint effects of the internationalization of capital and the informational mode of development, his writing echoes the lament of the phenomenologists regarding the spread of "placelessness":

"The new urban meaning of the dominant class is the absence of any meaning based on experience. The abstraction of production tends to become total. The new source of power relies on the control of the entire network of information. Space is dissolved into flows: cities become shadows that explode or disappear according to decisions that their dwellers will always ignore. The outer experience is cut off from the inner experience. The new tendential urban meaning is the spatial and cultural separation of people from their product and from their history. It is the space of collective alienation and individual violence, transformed by undifferentiated feedbacks into a flow that never stops and never starts. Life is transformed into abstraction, cities into shadows." (314)

He differs from the phenomenologists in that he articulates a clearer and more empirically testable proposition concerning the reasons for "placelessness" and he sees it as a political condition, against which collective struggle is possible.

Castells states, but fails to develop, the idea that struggles over identity have as a primary component sexual identity. One of the case studies he presents concerns gay men's struggle for an identity space in San Francisco, California. However, his absence of development of the relationship between gender issues and identity, as well as his enigmatic reliance on one reference to Freud, leave his theory rather barren in this regard. The extensive work of feminist theorists and environmental planning and design researchers is ignored (Ardener, 1981; Hayden, 1980; Sacks, 1975; Simpson, Dixler, Nelson, & Yaktrakis, 1980; Wekerle, Peterson, & Morley, 1981).

Feminist scholarship not only expands the scope of our understanding of the relationship of identity to environmental design and planning, it also challenges the distinction Castells makes between struggles over identity and struggles over distribution. This separation fails to recognize that gender and other forms of difference

This point has been explored from a more theoretical perspective in Henri LeFebvre's (1974), La production de l'espace (Paris, Editions Anthropos).

systematically form hierarchies of social oppression by which less dominant groups are excluded from access to resources and power (Clark, in press; Clark & Saegert, in press).

Castells designates the third area of conflict over the form and function of the environment as a fight for self-management by inhabitants of small, local territories against the centralized state. Here again his ideas accord with those phenomenologists who believe that healthy places are ones in which users have control over their experience. Again he differs in his historical and social interpretation of places in which users have control and those in which they do not as being determined by power struggles between citizens and central authorities.

Most feminist researchers share this analysis but include struggles over patriarchy as a factor limiting women's control of their own environments. Feminist research and theory has perhaps gone farther than either marxists or phenomenologists in attempting to construct models of participatory research and planning practice that take into account power struggles among participants (Franck, 1989; Leavitt & Saegert, 1990). Both marxists and feminists arrive at the conclusion that particular participatory practices and struggles must be linked to broader social movements to achieve real changes in the way the environment is designed and produced.

6. Power and Participation in Environmental Design Research and Planning

Participatory practices have often been described in environmental design research, but often, too, have been shown to fail at critical points (Conan, 1987; Schuman, 1987). Hester (1987) has offered a scheme for understanding the relationship of participatory design and planning projects to social justice. He identifies inaccessibility of valued environments, exclusion from valued environments, and unequal distribution of resources as three major issues for planners and designers interested in social justice. By mapping changes in a local community along these dimensions, planners and designers can evaluate the success and failure of their efforts. He concludes that the high level of continued inequality of distribution of resources within the United States and among nations suggests that the last two decades of work of participatory planners has not achieved the goals of social justice. Yet he ends by calling for greater awareness by researchers, designers and planners of how their actions affect social justice and injustice. Participation, he states, should remain an important tool but one tempered by constant efforts to improve unjust conditions and represent the interests of those too powerless to participate. He emphasizes the need to negotiate interests by mediation and log rolling as well as by facilitating direct action on the basis of self interest. Unlike some of the marxists, and feminists discussed previously, Hester appears pessimistic about the emergence of broader social movements as catalysts for change. Perhaps, the postmodern cautions raised against the idea of linear progress and the universality of interpretations of history provide a good starting point from which to undertake evaluations of the changes brought about by collective action.

A number of accounts of environmental design research make a good case for the value of participation in the control of ones immediate environment as being an important, if intermediate, step in the development of the capacity to act collectively in broader arenas. Conan (1987) has recounted a case in which architects' inquiry into the potential positive meaning of a deteriorated Gypsy settlement near Marseilles, and

the subsequent design process, helped to redefine the social and personal relationship of inhabitants to the settlement. Conan has proposed that architectural ethics should include a commitment to developing a "holding environment" for clients through supportive interactions that allow the most alienated to become more demanding. These environments would then promote further human development of users.

Leavitt and Saegert's research (1990) showed that, by acting collectively to change landlord abandoned buildings in New York, tenants and neighbourhood residents found ways to make them more liveable, despite limited economic and social resources. In this process, the buildings and the community became positive aspects of residents' identities rather than symbols of their "outsideness" in the society at large. Older people and women whose lives were more bound by their homes and neighbourhoods played a crucial leadership role in transforming the physical place and symbolic meaning of these environments.

In their article on evaluating evaluation research, Zimring and Wener (1985) cite three studies in which user response to a newly designed facility were directly and positively related to the degree the user participated in the evaluation process. McNally (1987) has described a California Forest Service survey in which research was used as an initial means of engaging often excluded members of the community in natural resources planning. Similarly, Ventriss (1987) believes that the use of personal interviews as part of a participatory planning process was one essential ingredient in creating and sustaining broad participation and support from those less able to participate.

The firm of Architecture Research Construction (ARC) (1985) has successfully worked with former mental hospital patients to define the qualities of place they desire in a group home, to design their home and to construct it. The results were not only satisfactory to the residents and positive for their group functioning, the process seemed also to have a therapeutic effect and increase the comfort of group home residents in the community. All of the work discussed in this section suggests that a participatory approach to environmental design and its evaluation allows both the design and the evaluation to be a satisfying part of the process of place making.

An important key to participatory research and design involves joining the different interests, feelings, and values of individuals to that of larger groups that can work collectively for environmental change. While Habermas (1971, 1984) and various feminist writers (Weedon, 1987; Young, 1990) have theorized the social practices required for fuller and more just democratic political processes, theories dealing directly with the physical environment, in this regard, are scarce.

7. Individuals, Social Structure and the Negotiation of Places

Pred (1984) has suggested a useful analysis of the linkage of the individual and social structure to place by his integration of "structuration" theory and time-geography. He (Pred, 1984, 279) defines place as follows:

Place...always involves an appropriation and transformation of space and nature that is inseparable from the reproduction and transformation of society in time and space. As such place is not only what is fleetingly observed on the landscape, a locale, or setting for activity and social interaction... It also is what takes place ceaselessly, what contributes to history in a specific context through the creation and utilization of a physical setting.

The significant aspects of Pred's work for Environmental Design Research include (1) a definition of social structure as pre-existing rules and power relations among people; (2) an understanding of the relationship between place and individuals on the one hand and social structure on the other growing out of the idea of individual and institutional projects and paths; (3) a conception of place as the material, time-space component of projects and paths that make them possible while also constraining them; (4) a view of place as the medium through which power relations become specific activities in time and space; (5) a view of place as the process "whereby the reproduction of social and cultural forms, the formation of biographies, and the transformation of nature ceaselessly become one another..." (Pred, 1984,p.279); (6) a definition of place as temporally dynamic; (7) a recognition that places exist as part of the flow of peoples activities, and thus integrally in connection to other places.

Similar points have been made, although in very different language, by Alan Wicker(1987) in his most recent reformulation of behaviour setting theory. Pred (1984, 281) emphasizes the individual and socially produced, fluid existence of place in his definition of a project and its time-space components:

A project consists of the entire series of tasks necessary to complete any intention-inspired or goal-oriented behaviour. Each of the sequential tasks in a short- or long term project is synonymous with the coupling together in time and space of the paths of two or more people or of those persons and tangible resources, such as buildings, furniture, machinery, and raw materials.

In contrast, Wicker starts from the tradition of ecological psychology in which behaviour of individuals is seen to arise significantly from the nature of the setting, both its physical and social components, as they are brought together in the setting program. His reconsideration of behaviour settings, however, emphasizes the constantly constructed and negotiated aspect of behaviour settings and their temporal dynamism. By interpreting behaviour settings as negotiated, Wicker identifies a role for a more phenomenological study of behaviour settings because now the intentions and experiences of particular individuals become relevant. His call for grounded research also opens the door to qualitative, if not strictly phenomenological, approaches to research.

Wicker's analysis of the life cycle of behaviour settings exemplify his attempt to bring together the contributions of specific people to behaviour settings with an awareness of the strength of pre-existing patterns of behaviour in established behaviour settings. He suggests that the critical aspects of setting success and failure differ over time. For example, in preconvergence phases, individual and group intentions and characteristics may be more important whereas later in the life of a setting, setting culture and standing patterns of behaviour may determine activities to a greater extent. He speculates that increased routinization may threaten the settings functioning by preventing proper attention to boundary relations with other settings. In addition, by including the possibility of setting demise in the life cycle of behaviour settings, Wicker's emphasis on settings as negotiated orders could lead to the possibility that maintenance circuits in behaviour settings may be insufficient to coerce or induce individuals into remaining in the setting.

Wicker specifies more concretely than Pred the nature of the connection of particular settings to other settings in terms of the flow of resources, people, information, products, and so on. In contrast, Pred seems to view the stability of spatial/temporal

places as deriving more from the power relations and social structuring of individual projects. Change in places thus reflects change in projects as they are mutually shaped by individual intentionality, power relations and social structure and the irreducible qualities of time and space such as the inability to be in two places at the same time and the competition for resources among projects. Pred, more than Wicker, emphasizes conflict in intentionality and the role of power relations in the negotiation of place.

8. Implications of Difference, Emotion, and Power for Environmental Design Research

These two very rich conceptions of place raise some significant questions for environmental design research. Both suggest that a researcher must approach an environment by asking where it came from and where it is going in order to develop appropriate evaluation criteria. Both also imply that the answers to these questions are not necessarily given but rather emerge from the negotiation of interests within an already existing social and time/space arrangement that supports some activities, discourages others, and makes some impossible.

Environmental design research is part of that negotiation. The degree of consciousness of this role a researcher brings to the situation, the interests with which the researcher is aligned, and his/her skill in negotiating are likely to affect the outcome of the work. At the same time interested parties may use the research in an attempt to direct the future development of projects with in a place, to command resources, and to increase the amount of power they have.

Methodologically, this analysis points to the necessity for grounded research and an action research orientation (Saegert & Glunt, 1989). Grounded research includes the use of multiple data sources to determine the nature of the setting, its links to other settings, the significant actors and stakeholders, and those affected by the nature of the setting as either users or nonusers. Rather than presuming criteria for assessing an environment, a grounded research strategy develops them on the basis of these multiple forms of information. However, unless the project is also viewed as action research, the negotiation of the values and interests to be satisfied will not be a conscious part of the process.

Structurationists, feminist and marxist environmental design researchers remind us that the existing environment emerges from much larger historical patterns of social relationships. Examples of environmental design research that explicitly and successfully focus on changes in the larger social, economic, and historical context are rare. Rather, most focus narrowly on a static definition of a particularly environment or class of environments without analyzing the changing role of the setting in the broader world.

We must begin by redefining environments, not as neutral entities that "fit" better or worse for all or large groups of individuals, but as charged contexts that we enter, affect, and are affected by. Environments should be understood as *loci* of specific social and individual projects that support, oppose, constrain and facilitate each other. For example, the function of schools, hospitals, workplaces of particular kinds, etc. should be placed within a historical analysis that takes into account both local and more distant social, economic and physical dynamics. Research studies must then be developed and understood as expressing preferences for some projects over others. Therefore the values, loyalties, and goals of the researcher must be explicitly consid-

ered, while at the same time allowing for changes in these as a result of the researchers engagement with other actors in negotiations over the nature and future of places.

The perspective put forward in this paper complicates the nature of environmental research and design. At the same time, it makes it more exciting by linking the study of the details of particular place development to the more general effort to understand the development of the physical and social nature of society.

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