A "Social Model" of Design: Issues of Practice and Research
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Introduction

When most people think of product design, they envision products for the market, generated by a manufacturer and directed to a consumer. Since the Industrial Revolution, the dominant design paradigm has been one of design for the market, and alternatives have received little attention. In 1972, Victor Papanek, an industrial designer and, at the time, Dean of Design at the California Institute of the Arts, published his polemical book *Design for the Real World* in which he made the famous declaration that "[t]here are professions more harmful than industrial design, but only a very few of them."[1] The book, initially published in Swedish two years earlier, quickly gained worldwide popularity with its call for a new social agenda for designers. Since *Design for the Real World* appeared, others have responded to Papanek's call and sought to develop programs of design for social need ranging from the needs of developing countries to the special needs of the aged, the poor, and the disabled.[2]

These efforts have provided evidence that an alternative to product design for the market is possible, but they have not led to a new model of social practice. Compared to the "market model," there has been little theorizing about a model of product design for social need. Theory about design for the market is extremely well developed. It cuts across many fields from design methods to management studies and the semiotics of marketing. The rich and vast literature of market design has contributed to its continued success and its ability to adapt to new technologies, political and social circumstances, and organizational structures and processes. Conversely, little thought has been given to the structures, methods, and objectives of social design. Concerning design for development, some ideas have been borrowed from the intermediate or alternative technology movement, which has promoted low-cost technological solutions for problems in developing countries, but regarding the broader understanding of how design for social need might be commissioned, supported, and implemented, little has been accomplished.[3] Nor has attention been given to changes in the education of product designers that might prepare them to design for populations in need rather than for the market alone.

The field of environmental psychology has attempted to respond to the environmental needs of the vulnerable. Those work-

1 Victor Papanek, *Design for the Real World; Human Ecology and Social Change*, 2nd ed. (Chicago: Academy Chicago, 1985), ix. We have used Papanek's 1985 revised edition rather than the original one of 1972 because he made a number of changes from one edition to another, and we wanted to draw on his most current thinking. For a discussion of Papanek's concept of socially responsible design, see Nigel Whiteley, *Design for Society* (London: Reaktion Books, 1993), 103–115.

2 See, for example, Julian Bicknell and Liz McQuiston, eds., *Design for Need; The Social Contribution of Design* (Oxford: Pergamon Press, 1977). This volume is a collection of papers from a conference of the same name held at the Royal College of Art in April 1976.

3 There is an extensive literature on appropriate technology. For a critical introduction to the subject, see Witold Rybczynski, *Paper Heroes; A Review of Appropriate Technology* (Garden City, NY: Anchor Press/Doubleday, 1980).

ing in this field use an interdisciplinary approach to research, and implement solutions that create better living spaces for such populations as the mentally ill, the homeless, and the aged.[4] Architects, psychologists, social workers, occupational therapists, and others have worked together to explore the intersection of people's psychological needs and the landscapes, communities, neighborhoods, housing, and interior space that increase feelings of pleasantness, arousal, excitement, and relaxation, and decrease feelings of fear and stress.[5] There has not been a similar effort in the field of product design.

A "Social Model" of Design Practice

In this paper, we want to begin a new discussion of design for social need by proposing a "social model" of product design practice and suggesting a research agenda that would examine and develop it in the same way that comparable research has supported design for the market and environmental psychology. Although many design activities can be considered as socially responsible design—sustainable product design, affordable housing, and the redesign of government tax and immigration forms, for example—we will limit this paper to a discussion of product design within a process of social service intervention. Although we base our discussion on the intervention model used by social workers, a similar model could also be applied to collaborations with health care professionals in hospitals and other health care settings, as well as to joint projects with teachers and educational administrators in school settings. The model could work as well with teams of experts engaged in projects in developing countries.

The primary purpose of design for the market is creating products for sale. Conversely, the foremost intent of social design is the satisfaction of human needs. However, we don't propose the "market model" and the "social model" as binary opposites, but instead view them as two poles of a continuum. The difference is defined by the priorities of the commission rather than by a method of production or distribution. Many products designed for the market also meet a social need but we argue that the market does not, and probably cannot, take care of all social needs, as some relate to populations who do not constitute a class of consumers in the market sense. We refer here to people with low incomes or special needs due to age, health, or disability.

To develop a "social model," we will draw on the literature of social work, a practice whose principal objective is to meet the needs of underserved or marginalized populations. Central to social work theory is the ecological perspective.[6] Social workers assess the transaction that occurs between their client system (a person, family, group, organization, or community) and the domains within the environment with which the client system interacts. Various domains that impact human functioning are the biological, psycholog-

4 The intellectual histories of thirteen first-generation thinkers in environment and behavior studies are presented in *Environment and Behavior Studies: Emergence of Intellectual Traditions,* Irwin Altman and Kathleen Christensen, eds. (New York and London: Plenum Press, 1990).

5 See Jack L. Nasar, "The Evaluative Image of Places" in *Person-Environment Psychology: New Directions and Perspectives,* 2nd ed., W. Bruce Walsh, Kenneth H. Crain, and Richard H. Price, eds. (Mahwah, NJ: Lawrence Erlbaum Associates, 2000).

6 This same perspective is used in environmental psychology.

ical, cultural, social, natural, and physical/spatial.[7] The physical/ spatial domain, which concerns us in this paper, is comprised of all things created by humans such as objects, buildings, streets, and transportation systems. Inadequate or inferior physical surroundings and products can affect the safety, social opportunity, stress level, sense of belonging, self-esteem, or even physical health of a person or persons in a community. A poor fit with one or more key domains may be at the root of the client system's problem, thus creating a human need.

For example, some preschool children are misbehaving. An initial diagnosis blames their parents for having poor child-rearing skills. A social worker is asked to organize the parents into a group in order to teach them better child-rearing practices. The assumption here is that the parents will apply these skills, and their children's behavior will improve. When the group meets, the social worker learns that the parents are under tremendous stress due to multiple problems: lack of money because of the inability to find a job; low wages in available jobs; scarce transportation to get to work in distant places; unsafe surroundings; broken playground equipment on a cement lot; and inadequate and unsafe elevators in their apartment buildings. It is clear that the issues with which the parents are dealing go beyond poor child-rearing skills, thus requiring that other factors, including those in the physical/spatial domain, be addressed.

Social workers tend to follow a model of generalist practice, a six-step problem-solving process that includes engagement, assessment, planning, implementation, evaluation, and termination. The entire process is conducted in a collaborative manner with the client system. Other human service professionals may be brought in as part of the intervention. In the engagement phase, the social worker listens to the client system and gets a sense of the presenting problem. In the next phase, assessment, the social worker looks holistically at the client system's interaction within the various environmental domains. The aim of an assessment is not to take a problem at face value but to look more deeply and more broadly at the client system in the total environment to get at the roots of the problem. The outcome of the assessment phase is a list of different needs to be addressed. In the third phase, planning, the social worker collaborates with the client system to prioritize the needs, trying to determine what is most pressing. Then the social worker and the client system brainstorm in order to devise different solutions. They talk about various ideas and collaboratively decide what will work best. Together, the client system and the social worker make a list of goals and objectives and decide who will do what by when.[8] In the implementation phase, the intervention is guided by the goals and objectives that have already been agreed upon.

In settings such as hospitals or schools, social workers are members of teams that include other professionals. Among these

7   See L. Allen Furr, *Exploring Human Behavior and the Social Environment* (Boston: Allyn and Bacon, 1997), 3–12 and C.B. Germain and A. Gitterman, "The Life Model Approach to Social Work Practice Revisited" in *Social Work Treatment: Interlocking Theoretical Approaches*, Francis J. Turner, ed. (New York: The Free Press, 1986), 618–643.

8   Aspects of the client system/social worker relationship are also evident in *participatory design* but, in this relationship more authority is assigned to the designer whose professional knowledge differentiates his or her ability to conduct a design project from the users or clients, no matter how involved the latter are in the planning process.

might be psychologists, speech therapists, occupational therapists, and probation officers. The team works collaboratively to assess a problem and different team members intervene as needed. The ways in which product designers could participate in a team process with human service professionals are yet to be explored particularly the designer's involvement in the physical/spatial domain.

Lawton describes a research project for the elderly that sought to learn about the deficiencies in the home environment and the way people cope with them. A social worker, an architect, a psychologist, and an occupational therapist visited the homes of fifty highly impaired older people who were managing to live alone. One of the team's findings was that many of the people they observed had set up "control centers" in an area of their living room that allowed them to view the front door and, through a window, the street. The nearby placement of a telephone, radio, and television also enabled them to have social contact with the outside world. Additionally, on a table within reach were medicine, food, reading material, and other items of use. If a product designer had been on this intervention team, he or she would no doubt have been stimulated to create products that could serve the low-mobility needs of this older population.[9]

To advance the discussion of how the product designer might collaborate with an intervention team, we would like to suggest several options. During the assessment phase, the designer, either as a member of an intervention team or as a consultant, might be able to identify factors that contribute to a problem. In the planning phase, a designer could develop intervention strategies related to the physical environment. During implementation, the designer could create a needed product or work with the client system to design one.

These strategies differ from Papanek's proposals for social action in *Design for the Real World.* Papanek pits socially responsible designers against a commercial market that thrives on the production of excessive and useless products. By harshly criticizing the market economy, he limits the options for a social designer. Papanek argues that socially responsible designers must organize their own interventions outside the mainstream market, yet he gives little guidance as to how this might be done. We believe that many professionals share the goals of designers who want to do socially responsible work, and therefore we propose that both designers and helping professionals find ways to work together. In short, we believe that designers will find many more allies in professions related to health, education, social work, aging, and crime prevention than are evident in Papanek's analysis.

Nonetheless, Papanek's book is extremely helpful in describing the kinds of social products designers might create. Using as a framework a socially-oriented design office, Papanek provides long lists of products that address social needs. Among these are teach-

9 M. Powell Lawton, "An Environmental Psychologist Ages" in *Environment and Behavior Studies: Emergence of Intellectual Traditions,* 357–358. A research study on the spatial needs of the elderly in Hong Kong was conducted by the Research Group on Urban Space and Culture, School of Design, Hong Kong Polytechnic University, in conjunction with a social service team at St. James Settlement. Using the Wan Chai district as the research site, the group, which was comprised of designers rather than architects, proposed a number of new spatial arrangements to help elderly people function better in cramped apartments. See Kwok Yan-chi Jackie, ed., *Ageing in the Community: A Research on the Designing of Everyday Life Environment for the Elderly* (Hong Kong: Hong Kong Polytechnic University and St. James Settlement, 1999).

ing aids of all kinds including aids to transfer knowledge and skills to those with learning difficulties and physical disabilities; training aids for poor people who are trying to move into the work force; medical diagnostic devices, hospital equipment, and dental tools; equipment and furnishings for mental hospitals; safety devices for home and work; and devices that address pollution problems.[10] Some of these products, particularly medical and hospital equipment, are already produced for the market, but there are certainly many that are not manufactured because a market cannot be identified for them.

An Agenda for Social Design

Design is most often understood by the public as an artistic practice that produces dazzling lamps, furniture, and automobiles. This is how it is generally presented by the media and the museums.[11] One reason why there is not more support for social design services is the lack of research to demonstrate what a designer can contribute to human welfare.

A broad research agenda for social design must begin by addressing a number of questions. What role can a designer play in a collaborative process of social intervention? What is currently being done in this regard and what might be done? How might the public's perception of designers be changed in order to present an image of a socially responsible designer? How can agencies that fund social welfare projects and research gain a stronger perception of design as a socially responsible activity? What kinds of products meet the needs of vulnerable populations?

A multifaceted approach can be taken to explore these and other questions. Survey research and interviews with human service professionals, designers, and agency administrators can be conducted to gather information on perceptions and attitudes, and to solicit suggestions for change. Content analysis of archival data such as journals, periodicals, and newspapers can be used to gain insight into how the media report on issues of social design.[12]

Another research method is participant observation. This entails designers entering social settings, either as part of a multidisciplinary team or alone, to observe and document social needs that can be satisfied with design interventions. For example, this was done in the research project conducted by Lawton that we described earlier, except that an architect rather than a product designer was on the investigative team.

Research that centers on the development and evaluation of socially responsible products is also important. To create new products, designers have to conduct research on how to translate their ideas into finished designs. They are obligated to evaluate these products in actual situations to test their effectiveness.[13] A good example of socially-oriented product design research is MIT's

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10 Papanek, *Design for the Real World,* 63-68.

11 There are some exceptions among museum exhibits such as the Cooper-Hewitt National Design Museum's exhibit on Universal Design, *Unlimited by Design,* held at the museum between November 1988 and March 1999.

12 As an example, the February 2001 issue of *I.D.* magazine edited by Christopher Mount, presented profiles of forty socially conscious designers and architects.

13 In *Design for the Real World,* Papanek provides numerous illustrations of socially responsible projects that students designed under his supervision.

AgeLab, where Joseph Coughlin, a professor of engineering, and a team of colleagues and graduate students are testing and analyzing new technologies to improve life for the elderly. Although some of the research involves technology that can help the elderly drive more safely and possibly at an older age, much of the investigation relates to the home where such products as an in-home health center and a transit system that would allow people to schedule rides are being considered. Finally, the social design field should have a compendium of case studies such as AgeLab that document examples of relevant practice.

The combined research methods we have outlined are intended to explore questions that range from the broad social context within which designers work to the specifics of developing a product for a particular client system. The scope of research for social design includes public and agency perceptions of designers, the economics of social interventions, the value of design in improving the lives of underserved populations, a taxonomy of new product typologies, the economics of manufacturing socially responsible products, and the way that such products and services are received by populations in need. Until now, the social interventions of designers have been hit-or-miss, with few successes to point the way towards social support for more of the same.

The Education of Social Designers
Design skills cut across all situations, but skills in relating to vulnerable or marginalized populations rather than to a brief from a manufacturer need to be developed by future social designers. Students of social design will have to learn more about social needs and how they are currently addressed by helping professionals. They might do an internship with a clinical team in a psychiatric hospital, a community agency, or a residential facility for the elderly. They would also need a stronger background in sociology, psychology, and public policy. As far as we are aware, no university programs specifically train social designers. We can, however, cite as a good beginning the one-year certificate program of Archeworks, a private educational institution in Chicago, founded in 1994 by Stanley Tigerman and Eva L. Maddox, that is dedicated to advancing a socially responsible design agenda. Each year, Archeworks introduces a small interdisciplinary group of students with varied intellectual backgrounds to a process of social design that has resulted in a number of projects and studies including a device for people with Alzheimer's Disease to facilitate their getting into an automobile, a head-pointer designed for people with cerebral palsy, and a new model office environment for the Illinois Department of Human Services. In most cases, projects have been conducted in collaboration with social service organizations or agencies, and many have been funded by grants from public and private sources.[14]

14 *Archeworks: An Alternative Design School, 2002/200.* (Chicago: Archeworks, n.d.). For an overview of Archeworks, see the school's website www.archeworks.org.

Conclusion

Our purpose has been to describe a new "social model" of design practice and to suggest a research agenda through which important questions related to the emergence of such a practice can be addressed. A "social model" of design practice is needed more than ever, and we are hopeful that concerned designers, design researchers, helping professionals, and design educators will find ways to bring it about.