Users' Creative Responses and Designers' Roles

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The user-oriented approach, highly valued these days as a panacea for a successful design, still produces user-unfit designs. One reason for this is that user needs often are not seriously researched and addressed. Designers dealing with design problems related to the "public interest," such as public space and the furniture installed in it, tend to set up restrictive standards that may not meet the actual needs and preferences of the users. Moreover, designs related to public interest, are generally difficult to alter. Also, unlike product designs for individual uses, users of public space cannot exercise more choice in selecting products (in fact, they sometimes have no choice). Therefore, our objective should be designs with a high degree of "userfitness."

By borrowing the ideas of "reader-response theory" originally applied in literary studies, and using some empirical examples of user-modified designs, I will attempt to argue in this paper that users have their own preferences and their own creative ways (or tactics) for dealing with user-unfit designs. Instead of trying to foster "one-size-fits-all" designs on users, designers, especially those who generate designs for public use, should reconceptualize their role and see themselves as facilitators to allow more flexibility and opportunity for users to actualize designs and participate in the decision process.

The Designer as the Only Expert?

In Precisions on the Present State of Architecture and City Planning, Le Corbusier clearly demonstrates early modernist thinking about planning and design: "We all have the same limbs, in number, form, and size; if on this last point there are differences, an average dimension is easy to find. Standard functions, standard needs, standard objects, standard dimensions."[1] *Besides categorizing all users as "average people," he also considers them to be donkeys who do not know where to go or what is good. He sees planning/design as an active force and the only means of distributing the benefits of the modern age to all. Thus, he claims: "My task, my search, is to try to save these men of today from misfortune, from catastrophes, to establish them in conditions of happiness, of everyday happiness, of harmony."*[2] *It is obvious that Le Corbusier sees planners as experts, and sometimes as the only experts who can provide true order in*

1 Le Corbusier, *Precisions on the Present State of Architecture and City Planning* (Cambridge, MA, and London: The MIT Press, 1991), 108.

2 Ibid., vii.

cities. In short, he builds his ideal city, an ordered city, according to his physical construction, his configuration, his sense, and of course, his social values.

We cannot deny that Le Corbusier's modernist assumptions seem today to have been circumscribed by the limited perspectives of his own time, and some people have questioned the humanity of his concepts of planning and design. More and more designers have begun to consider the diversity of users.[3] However, is it enough for designers only to remember that they should design for diverse users? Unfortunately, many programs still train design students to work in a way that makes them the decision-makers. Users, especially those with little education, seldom have an opportunity to participate in the decision process. In other words, although one may regret Le Corbusier's modernist thinking and agree with the existence of human diversity, in the design process, the prevalent focus still is on designers. Quite a large number of designers still expect and believe that they are able to predict users' ways of operating, predetermine users' likes and dislikes, and then produce appropriate designs. However, the facts tell us that designers today still find that their ability falls short of their ambition. They cannot generate a design, especially a design for public use, to suit a broad range of users. The most discouraging thing to designers is that users' needs and wants continuously change.

Reader Response

The reader-response concept, which was advocated in literary studies in the late 1960s, give us a new perspective on users' preferences and, in turn, allows us to rethink the role of designers. According to "reader-response theory," a literary work is not an object which stands by itself and offers the same view to each reader in each period. Reading, like "using" in design practice, is not an identical process for everyone.[4] On the contrary, reading always is situated within specific conditions, and a rereading will actualize a different work.

Unlike traditional thinking in which the reader is passive, in reader-response theory, the reader is considered both an active participant in the text and a detached spectator of it. The reader has his or her subjectivity of individual interpretation. Although the text is produced by the author, neither author nor text can fully control the reader's response. It is the reader who brings the text to life, and thus brings the work into existence. Or rather, it is in the act of reading that meaning is realized. Reader-response shifts the formalist view of the text as a static, timeless, piece of language to the dy–namic, temporal, and subjective stance of the responding reader.

A New Way to See Users' Ways of Operating

Although the idea of reader-response originally was used in literary research, the arguments provide us with valuable insight into how users interact with designers and designs. In fact, more designers

3 Pat Jordan and William Green, *Human Factors in Product Design: Current Practice and Future Trends* (London; Philadelphia, PA.: Taylor and Francis, 1999); Molley F. Story, James L. Mueller and Ronald L. Mace, *The Universal Design File: Designing for People of All Ages and Abilities* (North Carolina: North Carolina State University, 1998); Larry E. Wood, *User Interface Design: Bridging the Gap from User Requirements to Design* (Boca Raton, FL.: CRC Press, 1998).

4 Elizabeth Freund, *The Return of the Reader: Reader-Response Criticism* (London; New York: Methuen, 1987); Wolfgang Iser, *The Act of Reading: A Theory of Aesthetic Response* (London: Routledge & Kegan Paul, 1978); Hans R. Jauss, *Aesthetic Experience and Literary Hermeneutics* (Minneapolis: University of Minnesota Press, 1982); Walter J. Slatoff, *With Respect to Readers: Dimensions of Literary Response* (Ithaca, NY: Cornell University Press, 1970); John Storey, *Cultural Consumption and Everyday Life* (London, New York: Arnold; Co-published by Oxford University Press, 1999).

and scholars have considered the "user" in a similar way to that in which the reader is interpreted in reader-response theory, although the term is not explicitly quoted. For instance, in Good City Form, Kevin Lynch considers the user(s) as a person or group of persons experiencing a work of architecture or city design in his, her or their own way.[5] *In The Condition of Postmodernity, David Harvey sees the user of a built environment as an "escapee" whose practices are not completely determined by the built form.*[6] *In The Design of Everyday Things and The Practice of Everyday Life: Living & Cooking, Donald Norman and de Certeau, et al. also remind us of users' diverse and individual practices, and ways of interpreting designs.*[7]

Similar to the idea of the incompleteness of a text, we can say that a design has no real existence until it is used. Thus, it is the participation of the individual user that gives a design its meaning. In other words, a user may be seen as a design's true producer, who actualizes the design by filling in its gaps or indeterminacies of meaning. This kind of user creation and participation can be called an act of production.

An example is the footbridges in Hong Kong which were designed only for pedestrian traffic. However, the fact is many of these bridges have been redefined as social gathering places by housewives, as resting places by older people, as business places by hawkers, as playgrounds by skateboarders, as a scribble-canvas by youngsters, as homes by beggars, and so on. All of these people produce and redefine the meanings and functions of the footbridges when they use them. Some people do not even care about their original predetermined/assigned meanings and functions, and in some cases, such as when salesmen set up temporary booths on the bridges to promote their products, their new defined meanings and functions go against the original intentions of the designers.

As another example, in order to promote Chinese traditions and healthy habits, and to discourage card games and gambling in public places, the Hong Kong government has built many concrete chess tables in the city's parks and playgrounds since the 1980s. However, the fact is that many older persons continue to play cards (gambling a small amount of money) in the parks and playgrounds, as before. Although these tables are used, their meanings and functions are different from those intended by the designers and policy-makers. The tables only provide the older people with more available and convenient places to gather and play cards.

The use of new exercise facilities in parks and playgrounds is another good example illustrating users' responses. Originally, the government imported the facilities (including, racks, bars, slides, and frames), as well as the objectives behind them, from foreign countries in order to promote a healthy life-style for Hong Kong residents by encouraging daily exercise. However, these kinds of facilities are not used as planned all the time, and eventually some of them have become racks for people to sun-dry their quilts, winter

5 Kevin Lynch, *Good City Form* (Cambridge, MA; London: The MIT Press, 1981).

6 David Harvey, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* (Oxford, New York: Blackwell, 1989).

7 Donald A. Norman, *The Design of Everyday Things* (London: The MIT Press, 1998); Michel de Certeau, Luce Giard, and Pierre Mayol, *The Practice of Everyday Life: Volume 2: Living & Cooking* (Minneapolis, London: University of Minnesota Press, 1998).

Figure 1
A small sitting-out area in Hong Kong. In public space, sitting is not only a physical activity, but also a social activity. People like to use street furniture in their own ways. (All photographs courtesy of the author.)

Figure 2
A children's playground in Hong Kong. We can always see many older people doing their morning exercises like this. They climb on benches, play-structures and sometimes steep slopes. They like to invent obstacles to their own liking for excitement.

Figure 3
An underground walkway in a new town of Hong Kong. In planning, subways are only designed for circulation. However, many homeless people like to use these places as their homes, drug-takers as their havens, young people as their graffiti studios, and hawkers as places to earn their living.

Figure 4a
An old market street in Hong Kong. Some small stalls (metal-shell pitches) were built along the sidewalks and the roadway in the 1970s. The stall owners liked to extend their areas, sometimes even blocking the movement of the trams. (Source: Hong Kong Urban Council)

Figure 4b
The traffic of the street is relatively busier today and the government has cleared away some of the stalls as part of its plans for urban redevelopment. The stall owners still like to use the roadway not only as a place to earn their living but also as their home. They use chairs collected from garbage collection points to construct their own boundaries, and are able to invite their neighbors to sit down and chat for a while.

Figures 5a-c
Chinese people traditionally believe that sun-drying quilts and winter clothes is the best way to kill germs. At every change of season in Hong Kong, many playgrounds on public housing estates look like laundry places rather than places for ball games. On sunny days, instead of using the facilities for exercise, many people (especially in public housing estates) like to use them to sun-dry their quilts, clothes (even underwear) and sometimes salt-fish, dried food, herbs and Chinese medicine.

clothes, and sometimes even salted fish. (Chinese people traditionally believe that sun-drying quilts and winter clothes is the best way to kill germs. Even though many laundries nowadays offer quilt-washing and other such services, many housewives and older people still like to dry their quilts and clothes in the sun, particularly in the period of transition between the seasons.) Today, since this kind of drying practice is widespread and almost impossible to stop, some of the housing management offices have compromised by allowing specific timeslots for people to dry their quilts and clothes on these facilities. Therefore, at every change of season in Hong Kong, many playgrounds on public housing estates look like laundry places more than places for ball games.

In short, all of the designs mentioned above redefined by the active participants (users) in ways that were different from those of the designers, planners, or policy-makers.

It should be noted that the object of this paper is not to devalue either professional designers or their designs. However, it should be noted that users expect and act differently, and sometimes contradictorily, to designers' expectations and decisions. When we review current designs and plans, particularly those claimed to be designed and planned in the public interest, professional designers and public officials frequently employ various strategies to get users to follow the predetermined modes of practice. However, on the contrary, users do not always follow exactly what the professionals decide and expect. This kind of response in de Certeau's words, is a "reception," "tactic," or "creative act." This means that users, particularly deprived groups and poor people, seldom act directly against the policies given, defined, and designed by the professionals. Most of the time, it's just that users' ways of interacting with the provided designs are simply difficult to predict.[8]

A New Perspective on Designers' Roles

As mentioned at the beginning of this paper, more and more designers are recognizing the diversity of users' needs and wants. However, I question whether or not users' needs and wants can be satisfied without understanding how they operate. Thus, this paper proposes that we shift our attention from the designer and the design to the user. This shift of attention is not intended to devalue design, since designers still need to play an important role. Nor does this shift of attention only mean recognizing the diversity of users' needs and wants.

First, designers must recognize that they should not, and are not able to, make decisions for users. This means that they should not impose their value judgments on users. Most major products are tested extensively these days. Manufacturers also heavily invest in market research to discover what consumers want, like, and need, and develop new products accordingly. Similarly, many designs of products and systems, especially those used in the public environ-

8 Kin Wai Michael Siu, *The Practice of Everyday Space: The Reception of Planned Open Space in Hong Kong* (Ann Arbor, MI: UMI, 2001).

ment, such as urban plans and street furniture, must incorporate users' diverse individual and cultural needs. Policy-makers, planners, and designers should make decisions only after careful and serious consideration of the particular needs and preferences of different user groups, particularly those of the minority groups.

Second, in parallel with recognizing that they should not and cannot make arbitrary decisions for users, designers also should recognize that users have the right to actualize and modify designs to make them more suitable, to their needs and desires.

Based on these two recognitions, there are two alternatives which designers should seriously consider: (a) allowing more "gaps" for users to fill in, and (b) encourage user-participation in developing designs. Allowing more gaps means that designs should offer more flexibility, and encourage users to modify them. For instance, in designing a community park, or public space furniture, the design with the highest degree of userfitness is the one which allows and encourages residents to voice their preferences, and to make modifications to fit their community and individual needs.

However, even providing more gaps for users to fill still puts them in a somewhat passive role, since the degree of user influence still depends on the designers' decision and providence. How then should the design process change to become more user-autonomous? Among the various design approaches and processes, "user participation" (also known as "participatory design") is one of the best. As its name suggests, user participation allows users to engage in the design decision-making process. This opportunity to participate not only results in better user-fit solutions, but also an increased sense of having influenced the design decision-making process, as well as an increased awareness of the consequences of the decision made.[9] This is not very obvious if the design is just a product for a small number of people in a particular group or social class. However, it is very significant if the design involves a more diverse and greater number of users. Moreover, in some designs related to the public interest, such as the design of a playground or a set of street furniture for a public housing complex, user participation also promotes a sense of community by bringing together people who share common goals. To designers, participatory design provides more relevant and up-to-date information. Creating a methodological framework enables the use of rational decision-making methods without affecting the creative process.[10] In short, user-participatory design means different things to different users, and even to the same users, depending on the issue, its timing, and the environment (physical, cultural, social, political, and also religious) in which it takes place.

According to Henry Sanoff, we can categorize user participation in seven major forms: representation, questionnaires, regionalism, dialogue, alternative, co-decision, and self-decision.[11] Representation is a form of design in which the designer represents the

9 Randolph T. Hester, *Community Design Primer* (Mendocino, CA: Ridge Times Press, 1983); Henry Sanoff, *Integrating Programming, Evaluation and Participation in Design: A Theory Z Approach* (Aldershot, Hampshire: Avenbury, 1992).

10 Henry Sanoff, *Community Participation Methods in Design and Planning* (New York, Toronto, Singapore: John Wiley & Sons, Inc., 2000).

11 Henry Sanoff, *Integrating Programming, Evaluation and Participation in Design: A Theory Z Approach* (Aldershot, Hampshire: Avenbury, 1992), 61–62.

anonymous user through a personal and subjective interpretation of the user's situation. The use of questionnaires consists of the statistical gathering of a user group's requirements, and is an indirect form of participation by an anonymous group of people. Distinct from questionnaires, regionalism considers the specific cultural heritage within a geographically limited area, such that this form of participation directs itself towards the symbolic qualities of a group of users (for instance, a specific community). Dialogue (also called consultation) is based on the concept of using users' knowledge as a source of information, and asking users to comment on the designer's proposal while the design is in progress. It can be considered as a form of two-way communication between user and designer. Most of the time, in this form of participation, the designer reserves the right to make the final decisions. The alternative is a form of participation that goes a step further in involving the user in the design process with the designers. It is based on a process whereby users are given the choice of several alternatives within a fixed set of boundaries. Co-decision is a method of participation that involves participation in a balanced decision-making situation. It involves the population from the beginning of the design process, and aims at the direct and active participation by users. As its name indicates, self-decision is when a decision is made by the users themselves.[12] *Obviously, if a design with a high degree of userfitness is desired, co-decision and self-decision should be the forms of user participation most often used by designers.*

Third, a high degree of user participation does not imply that designers do not need to do anything or should be ignored. In fact, this misconception also is one of the reasons why so many designers still expect to retain the exclusive right to make decisions. On the contrary, in user-participation design, designers should adopt two important roles actively. The first is as coordinators, gathering together different interested groups and professionals, and then as facilitators, assisting users in participating, modifying, experiencing, creating, producing, and actualizing the design.[13] *We should note that advocating increased user participation, as well as considering users' responses, does not intend to disregard design and the professional role and responsibility of designers. In fact, users (especially those with little education) generally are passive when it comes to voicing their opinions at the outset, cannot be relied upon to initiate and coordinate any movement to improve the designs that affect their lives. Therefore, designers should work closely with the various interested and potentially impacted groups (users and professionals such as social workers, landscape architects, and product engineers), and facilitate a supportive environment for working together. During the participation process, designers should give users the opportunity to (a) identify their needs and preferences, (b) set goals, (c) voice their ideas and opinions, (d) make decisions, (e)*

12 Ibid.

13 Ann M. Gibson, *'If Only They'd Asked Us!'—Achieving Effective Participation in the Design Process* (London: National Federation of Housing Associations, 1990); Chu-joe Hsia, "Urban Process, Urban Policy, and Participatory Urban Design," in *Space, History and Society,* Chu-joe Hsia, ed., (Taipei: Taiwan Social Research Studies—03, 1993); Stanley King, *Co-Design: A Process of Design Participation* (New York: Van Nostrand Reinhold, 1989).

be involved in the implementation (if possible), (f) evaluate the outcomes, and (g) set up a mechanism to follow up on post-occupancy conditions.

The second role of designers is to explore the diverse backgrounds, beliefs, needs, wants, preferences, and satisfactions of people, since this kind of feedback can help them to better understand users and, in turn, enhance their participation.[14] *Designers can no longer hide themselves in studios. They need to conduct more empirical research. For instance, it is impossible to understand users' responses to a living environment simply by conversing with them in an office. Even users themselves often do not know how to articulate their dynamic, temporal, and subjective feelings on a designed object, and the needs, hopes, and fantasies of their everyday lives. Therefore, besides reviewing documents and talking with users, understanding users' responses in a design environment also should be based on in-depth observations and an analysis of the users environment. Users and their behaviors are the long-term products of their evolution and culture.*

The designer's job no longer is to produce finished and unchangeable solutions, but to develop solutions from continuous two-way communication with those who will use his or her work. The energy and imagination of the designer should be directed towards raising users' level of awareness about design choices. This means that the final design should arise from the exchanges between designers and users: (a) the designers provide opinions, professional advice, and discuss the consequences of various alternatives, and (b) users give their opinions, and contribute their practical experience.

In summary, this paper attempts to show that user-oriented design is successful only when designers do not think of themselves as the only experts, and when they do not impose their mandatory designs on others. They should respect the value of users' input to the design process. The main concern of designers should be what actually happens when someone uses their design, for that is the ultimate measure of every design's worth.

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14 Kin Wai Michael Siu, "A New Focus in Design Education: Providing a New Perspective for Students to See 'Users,'" in *International Conference Proceedings: Re-inventing Design Education in the University* (Dec 11–13, 2000), edited by Cal Swann and Ellen Young (Perth: School of Design, Curtin University of Technology, 2000), 335–340.