From greed to need: notes on human-centred design

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Abstract

This exploratory paper identifies some of the critical debates that have resulted in the city problematic. The context for this discussion is the need for transition from an approach to design that serves the few who are economically privileged, to a situation whereby design confronts some of the challenges associated with the less fortunate in our global society. A key outcome of the inquiry is that a better understanding of affiliation is essential if interdisciplinary design process is to succeed.

Keywords

excess, urban development, human need, design education

The need for togetherness

In 1994 Tony Fry argued that 'Need is that which we have, it is a part of our being amid the world. Need comes to us from beyond us…Our being, the world of our being, need and design all have to be thought together'. It is 'the world of our being' that is the concern of this paper—the state of human kind and the habitat within which it resides in its most deprived state. The challenge in Fry's argument is to consider what it means to contemplate the 'together'? With this in mind, the aims are to:

- contextualise human need in relation to problems in the urban environment;
- explore notions of global reality, design philosophy and design education;
- identify key challenges for a model of design education that aspires to work interdisciplinary;
- feature examples of post-graduate and undergraduate learning and teaching activities.

The 'problem' with cities

According to Fry (2009), the act of human settlement and the 'loss of being sustained' by the natural environment marks the beginning of excess. The development of settlements and the social structures that evolved as part of this process in the form of territory and occupation, and the transition from a rural to predominantly urban existence, established a concept of economy that lead to 'relational disengagement'. In particular, Lefebvre has suggested that the transition from rural to urban reached a 'critical point' in sixteenth century Western Europe (Kofman and Lebas, 1996, p. 122).

The problems we see in many of our urban environments today are rooted in this period. Lefebvre states that 'In so-called developing countries, the breakdown of agrarian structure pushes dispossessed peasants, ruined and eager for change, towards the cities. The shanty

towns welcomes them…' (Kofman and Lebas, 1996, p. 125). Significant residential areas of cities such as Mumbai in India, Nairobi in Kenya, or the cities of South America such as Sao Paulo, perform this role in modern times. Shanty towns, or favelas, lack basic amenities. They have no running water, sewerage or electricity and little access to employment or education opportunities, health facilities and public transport.

At the end of the twentieth century, Rio de Janeiro had as many as 1 million people living in such conditions, representing ten percent of the city's population, some living in settlements with a population of 100,000 people (Waugh, 2000, p. 443). In 1990 the urban areas of Latin America, Africa and Asia inadequately housed 600 million people who were considered to be under constant threat due to insufficient water, sanitation and drainage provision (Allen and Thomas, 2000, p. 436).

It is difficult to see how this situation can change when we consider projections for population growth in the short term. In the ten years between 2005–2015, projected population growth in some capital cities will continue. Mumbai is likely to increase from 18.2m to 21.9m; Mexico City from 19.4m to 21.6m; Sao Paulo from 18.3m to 20.5m; Cairo from 11.1m to 13.1m (UN DESA 2005). And yet European cities such as London and Paris are likely to remain stable. Design (or perhaps more significantly the absence of design) makes a significant contribution to this contrasting scenario. The meaning of design in this context is not only as a 'visual phenomenon', but also what Punter and Carmona (1996, p. 2) define in terms of broader social and environmental terms, as well as 'design as a process'.

In this sense, the difference between continued growth, and stability, is likely to depend on how urban planning utilises design. 'Metropolitan growth can happen spontaneously, or by design' (UN Habitat, 2008, p. 187). But, how do we know about design, or design knowledge, other than what is visible? We will return to this.

The 'problem' with knowledge production

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Epistemology is the part of philosophy that is about the study of how we know things. Various ways have been developed to classify 'how we know'. Francis Bacon (1561–1626) used seven categories: history; poetry; mathematics; natural philosophy [natural science]; moral philosophy [ethics]; logic; and rhetoric. In the late nineteenth century, Melville Dewey attempted the same exercise on a larger scale, using ten headings: Generalities; Philosophy & psychology; Religion; Social sciences; language; Natural science & mathematics; Technology (Applied sciences); The arts; Literature and rhetoric; Geography & history. Other systems have since developed. Hirst and Peters describe seven 'forms of knowledge', and Philip Phenix prefers to explain knowledge in terms of 'realms of meaning'. These realms consist of: Symbolics; Empirics; Esthetics; Synnoetics; Ethics; and Synoptics. (Woolman, 2006, p. 144–147). In general educational terms, these various 'ways of knowing' fall broadly into the two areas of Science and Humanities (Cross, 2006, p. 2)

However, it has been argued that the two areas of Science and Humanities do not adequately accommodate how we conceive and realise 'new things' (Archer, 1975, Cross, 2006). How do we plan, invent, make and do? How do we utilise forms of representation? It has been argued by Archer (Archer, Baynes and Roberts, 2005, pp. 8–15) that such 'thinking and doing' activities need to be recognised as belonging to a 'third culture'. In the early 1970s Archer described that culture as 'design'. His preference for the term 'design' drew together the 'doing' associated with the fine and applied arts, with an appreciation of 'material culture' that, he argued, did not appear to be a concern of the sciences of the humanities.

Archer (Archer, Baynes and Roberts, 2005, p. 10) argued that 'the scientist is concerned with theory, that is, with generalisable knowledge. He is not necessarily competent or interested in the practical application of that knowledge, where social, economic, aesthetic and other considerations for which he does not possess any theory may need to be taken into account…There also seems to be a measure of agreement, by no means universal, that the humanities exclude the making and doing aspects of the fine, performing and useful arts.' Archer depicted history, philosophy and social science on a continuum between the

Humanities and the Sciences. But the third culture of design placed literary arts, performing arts and fine arts on a continuum between Humanities and Design. Physical science, technology and useful arts sat on a continuum between Science and Design. Archer's model, depicted here in Figure 1, suggests that these six areas had otherwise been excluded from education in the Sciences and Humanities. Cross (2006, p. 2) identified that the values of each culture

- in the sciences: objectivity, rationality, neutrality, and a concern for 'truth';
- in the humanities: subjectivity, imagination, commitment, and a concern for 'justice';
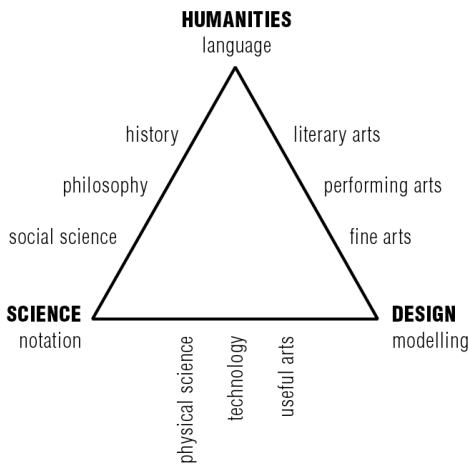- in design: practicality, ingenuity, empathy, and a concern for 'appropriateness'.

Figure 1: Archer's proposed relationship between Humanities, Science and Design. Source: Archer, Baynes and Roberts, (2005), p. 12.

The values associated with design identified by Cross place high value on action and experience and the culture of design is something that is evidenced through the material outcomes that affect the quality of everyday life. It's uniqueness is that it uses the material world as its starting point, and through appropriation is able to synthesise values associated with the sciences and the humanities on the basis of what is appropriate. Consequently, it is important to consider the epistemological nature of design, for need, because its nature requires that knowledge production takes into consideration a reflexive social process of mutual determination and learning from other people.

The 'problem' with design education

When we consider the rapid growth of many cities, and the existence of poor quality environments that do not serve basic human needs, among other factors, it is argued here that the absence of design thinking contributes significantly to the cause of this. This is evident on two levels. At the professional level, Punter and Carmona (1997, p. 1) suggest that the design component of planning is an area of conflict between architects, planners, developers, the public, councillors and officers, community groups and leaders, often seen as a 'superficial phenomenon'. Such conflict arises from a lack of harmony, a poor tolerance of interdisciplinary empathy and perhaps too much specialist and compartmentalised knowledge.

On a less formal level beyond the built environment professions, designers from other areas of expertise, such as those trained in the arts, are unprepared for the challenges the built environment presents. Victor Papanek (1984, p. 285) suggests that designers are educated to pursue 'an equal mixture of self-indulgent and self-expressive bohemian individualism and a materialism both profit orientated and brutal.' In general, designers do not tackle the 'real' problems that exist, but focus on problems that allow them to indulge themselves and their clients in maximising the economic and cultural opportunities rather than the real social needs of others. Papanek used a triangle to depict this reality,

seen in Figure 2. A considerable challenge therefore exists for design education if it aspires to serve the needs of a wider community of beneficiaries.
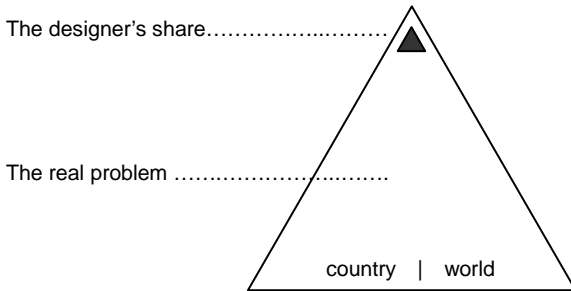
The designer's share…………....……….

The real problem …….……………...………

country | world

Figure 2: Papanek's depiction of the designers contribution to solving 'real'

problems Source: Design for the real world, 1984, p. 56.

Why is it important to discuss epistemological issues and knowledge production in design?

- To enhance a critical perspective among graduate and undergraduate students in the design.
- To re-think design in different ways: the consciousness of the word 'design' beyond its mundane meaning in contemporary culture.
- To address the crisis that has developed (and continues to develop), in the 'material culture' of our cities.

As a form of scientific enquiry, design can be discussed in relation to physical and social science paradigms. This view suggests it has a double rationality: the mathematical paradigm for the explanation of physical phenomena and the paradigm for the understanding of social

phenomena. The first kind of rationality is the mathematical paradigm for the explanation of physical phenomena, it is structured based on the causality, following the assumption: the occurrence of an entity B depends on the occurrence of an entity A. Explanation has to do with technical rationality, it has to do with technical skills and competencies. The second kind of rationality is the paradigm for the understanding of social phenomena. It is structured based on intentionality, which is the property of being "about" something else, following the theory: "this happened, so that the other will happen". Understanding has to do with the problematization of social phenomena in order to intervene. Intentionality points to the future and it has to do with setting criteria and priorities for action. This is of high relevance in the construction of design education priorities, and design curriculum.

The understanding of the epistemological direction of design and its double rationality is crucial for the understanding of the possibilities for design to intervene in the huge challenges we are facing today as well as the challenges for developing a design education agenda. Design education that is orientated towards the satisfaction of the few meeting the needs of relatively wealthy individuals or institutions, is sustained by privileged economic circumstances, and is symptomatic of design for greed. But how does design serve those who do not have the economic means, or status to influence those who do? This is too big a question to answer here.

Ways need to be found to integrate 'intention' and to re-think the relationship between design and our understanding of value. Changes in design curriculum offer the opportunity to consider the role of intention/intentionality in design education and the value ideas in which the intention is based, in order to respond to broader demands and expectation of contemporary societies. The unsustainability of excess demands that the humanitarian needs of millions of people are factored into this as a matter of urgency.

Intentionality and intention is grounded in value ideas, and reference to values presupposes appreciation of values. This kind of appreciation enables us to evaluate how design education feeds a system of greed, rather than a system of need. What are the values present in these two

types of design education orientation? The reference to value, for example in the context of the Third World housing discussed above, forces us to evaluate the role of design education in the enhancement of human life dwelling conditions. In this case, it means how design education is addressing the gap between people in need and people in wealthy conditions, and how we can provide tools in design education that will result in modes of dwelling to enhance human life.

What does a design curriculum look like that examines above all else the need for shelter and the organisation of the environment that is safe and secure? In most urban environments the spread of shanty towns, *favelas*, or the informal habitat of the homeless on the sidewalk, are features of contemporary urban life. Are these considered desirable places to live? Do they satisfy basic human need in the provision of basic amenities such as food and fresh water? How does living in the poor conditions of a *favela* or on the streets affect a person's health?

Due to the pervasive impact of housing on all aspects of human life, considering the challenge of sheltering poverty indicates that the future of design education carries a huge social responsibility, one that the sciences and humanities are perhaps less able to address. In a world with one and a half billion people in absolute poverty (Fry, 2009), design must reconsider its reliance on the cultural and economic context that is so often championed by the media, and consider the view expressed by (Grayling, 2001.p. 142), 'one of the measures of a good society is how it treats the poor' but 'it is not always easy for those who are not poor to know how to do this well'.

Developing design curriculum

One of the significant aspects of Fry's comment at the beginning of this paper is not that it identifies the basic human characteristic of need as a human trait, but that it does so in the plural rather than the singular. It relates to a wholeness of being rather than a component of being.

When considered in the context of art and design, we have already noted Papanek's views on how designers are educated—problems arise

due to the traditional emphasis placed on individual practice, rather than collaboration. Thinking of this from a disciplinary perspective, need is an independent desire, a necessity for something called 'self-actualisation'. This is something we strive for and promote through our sense of identity and belonging to a particular kind of affiliated group. We identify with this at a basic level when we name the activities in a professional or discipline specific way. This relates to our need to self-actualise, and Maslow (Lang, 1995, p. 161) defined this in 1987 by stating 'A musician must make music, an artist must paint, a poet must write, if he is to be at peace with himself. What a man can be, is what he must be'. This pursuit of self-actualisation describes the state of being for the creative individual. In art and design education it derives from an approach that has been described by Phillida Salmon as 'experiential', 'subjective', 'idiosyncratic', and 'private' (Prentice, 0000, p. 26). We might therefore assume that if the artist, or designer, wishes to participate in interdisciplinary action, these characteristics will need to be overcome. What can be achieved 'together', as Fry puts it, is the real objective. How can we achieve this?

Papanek (1984, p. 61) called for more design focus on real problems—the kind of problems that exist outside of the 'luxury' sector of the 'technological, moneyed, and cultural 'elite' of each nation'. He talks of the design neglect evident in our inner cities and rural areas, educational tools, hospitals, doctor's surgeries, diagnostic devices, farm tools. He locates these issues in the middle of his 'triangular' representation, the same triangle upon which he suggests most design activity is located at the peak. The relevance in this depiction becomes more apparent when mapped onto Maslow's hierarchy of needs. In Maslow's triangle, the centre of the triangle is occupied by the need for affiliation. Affiliation means to be connected. (According to the Compact Oxford English Dictionary the origin of the word is derived from the Latin *affiliare,* meaning 'adopt as a son').

If we think about the implications for the development of design curriculum, understanding notions of affiliation on a global scale, rather than self-actualisation, arguably presents the biggest challenge for the art and design practitioner, and design education. In visual terms, this will require addressing what Papanek (1984, p. 56) calls 'real' problems,

where there is less room for the fulfilment of individual 'creativity', and more focus on a better understanding of function, reliability and usability. This is a social concern that requires artists and designers to think about how their work relates to others. This requires the ability to 'think sociologically' (Watson, 1995, p. 9) and understand how social processes and structures can be affected, not by individual action (as they have perceived their role to be in the past), but by collective action. This course of action challenges artists and designers to shift from a position whereby self-interest, manifested in self-expression, is transformed into what might be called social-interest and social-expression. The outcome of such action must bring the greatest happiness to the greatest number of people, a view expressed by John Stuart Mill in *Utilitarianism*.

Designing appropriate learning experiences: two project examples

Developing design curriculum that promotes intentionality is one way that students can engage with issues relating to human need. The following outlines two short projects that demonstrate how design education is responding to the need for more social responsibility, challenging the educational paradigm that has persisted in art and design subjects.

The first project was first initiated in 2005 (by one of the authors of this paper) for undergraduate students entering their final year of a Graphic Design programme in the United Kingdom. In 2006 the same project was adapted for postgraduate art and design students from a range of disciplines including Fine Art, Graphic Design, Textile Design, Fashion Design, Fashion Marketing and Communication, and Interior Design. At undergraduate level, students were from the United Kingdom, having experienced a traditional undergraduate degree in graphic design. At post-graduate level, students were predominantly international, with approximately 75% from overseas including the Middle and Far East, Europe, United States, South America and Africa. The project, entitled 'Needs Must' ran for two weeks at the start of the academic year, and has three stated aims:

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- To further develop your communication and team working skills;
- To further develop your personal approach to art and design;
- To encourage you to develop and work with content that is intellectually stimulating.

The project encourages students to discuss and debate difficult concepts such as 'moral order', as well as review the balance between social, cultural and economic factors in their own approach to work. Students consider how design decisions are made, are introduced to approaches to design that consider human need, and question received wisdom about certain kinds of design activity. Asked to work in pre-determined interdisciplinary teams, students are required to produce a group response that is practice based and may take any form, as well as a personal statement about how the issues explored in the project relate to their own practice. The outcomes need not be highly finished. It is the ideas that count and the artefacts can be 'lo-tech' in the level of finish. The work is not assessed, but serves as a useful opportunity to socialise students and stimulate thinking about issues behind the production of design objects. Outcomes vary in form, and range from video production, performance art, stage plays, cake making, installations, serious business propositions.

In general the project offers a valuable learning experience that teaches students to work and communicate in groups about issues that their life experience to date has not prepared them for, for a variety of social, economic and cultural reasons. Observations about how students respond to projects of this nature is that some reject the notion of working in multi-cultural groups (they are free to do so), particularly those studying fine art where the emphasis is not usually on team work. Others embrace new found principles and go on to negotiate their whole period of study exploring the relationship between social issues and their disciplinary specialism. One such case is a student who explored the relationship between corporate social responsibility and branding and identity design.

Figure 2: Student outcomes for the 'Needs Must' project Source: Robert Haland 2007.

A second educational experience is an elective discipline, available since 2003 to undergraduate students of an Architecture and Urbanism program in Brazil. Students are mainly from São Paulo, Brazil, and also exchange students from South America and Europe. Students are required to create new forms of design re-using recovered materials.

Recyclable material collection belongs to a Brazilian vernacular practice of re-attributing value to the garbage, mainly created by deprived people. Collecting materials is a spontaneously created economy that uses the waste discarded in Brazilian cities for self-employment and self-generation of income. The main methodological approach was provided by Paulo Freire and his concept of *conscientização* (conscientization), that is not considered as an end in itself, but is always joined by a meaningful praxis. A relevant aspect is to direct contact between the students, the collectors, the neighborhood as well with the municipality.

Since the beginning of this project, students have produced a remarkable range of products, such as: communication systems, graphic and product design, the development of the recycled materials. They respond to this discipline mainly with the interest in reaching beyond the creation of new aesthetic formulas, intent on building a just and equitable society. Students demonstrate pride in their engagement with the

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cooperative, playing a relevant role in the defense of the collectors by staying on site, demonstrating against public eviction, thus indicating that social commitment, community process, and alternative ways of design for human need are vital for architects or designers, both students and teachers.

Conclusion

This paper has attempted to identify some key issues relating to design, design epistemology and human need, as well as consider some ideas about how faculty members can play an active role in challenging students to reposition their own practice through project work that challenges students to think differently. This raises significant questions beyond the scope of this study—in the context of this working paper it is difficult to answer these with any sense of authority. Nevertheless, the role of design in relation to greed and need has been highlighted.

The underlying logic of design values can be understood in the historical perspective and within the economic transformation of the model of production: from Fordism to post-Fordism (Toyotism), then turning into productivist and neoliberalism. The dominant way of designing changed in this transformation. Today, new questions are on the agenda, an economic crisis is shaking the world. Just taking the housing sector as an example, and what was considered temporary and informal ways of living, at the present time are becoming permanent feature of urban life, such as *favelas*, slums, shantytowns and also life on the sidewalks.

Finalizing this argument, it is important to stress that housing is a basic human right, ensured in the Universal Declaration of Human Rights.[1] Design is tasked with responding to these challenges, and a full understanding of design epistemology is the starting point for addressing this challenge as well as to propose a future epistemology in design.

We have considered this issue in relation to the built environment and the crisis in our cities. What is missing from these environments, causing so many people to live in inferior conditions, when others are fortunate to

benefit from sufficient water, sanitation and drainage provision? Is it the absence of design? We have argued that this may be so. But this is not necessarily the case. Design is present in these environments. One need only to visit the personal living spaces of some of the poorest inhabitants of the favelas to see that design thinking is inherent, exists and is realised through the adornment and personalisation of these habitats (Harland and Loschiavo dos Santos, 2008).

Inspired by the durable work of Victor Papanek's *Design for the real world*, recent writing both academic and in popular media, as well as international design exhibitions, is concerned with design for need. They have generated intense interest because such issues question existing canons, and also because they suggest a new direction for practice and design education.

To examine the boundaries between design for greed and design for need has helped re-situate relations of difference in design approaches as well as relations of power. The discussion of power relations in the context of the habitat is central in the work by bell hooks, the contemporary American philosopher and cultural theorist. She argues that black women have engaged in important measures to counter deprivation and racism. Her book *Yearning: Race, Gender and Cultural Politics* (Hooks, 1990), in the essays "*Homeplace: a Site of Resistance*" and "*Choosing the Margins as a Space of* Radical Openness" recompose our lived spaces as potential places of resistance against all kinds of oppression. She refers to the marginal space as a place of resistance. This suggests that not only is repression an outcome of greed over need, but also resistance. Friedman (2005) captures some of this sentiment by arguing that an economy that includes 'emotional work, human networks, experience and cultural services' will be a significant field of activity in the near future. He also notes three important performance challenges for designers today, emphasising core issues we have attempted to address in this paper. These are to: act on the physical world; address human needs; and generate the built environment.

These notes identify some issues that act as a starting point for further interdisciplinary research collaboration in higher education

curriculum development, across institutional and continental boundaries, in differing social, cultural and economic situations. In particular, the sometimes random observations presented here represent an on-going dialogue that is interdisciplinary, facilitated by a common interest in the potential for design to 'think and do' something about a 'real world' concern.

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[1] Part (1) of the United Nations Universal Declaration of Human Rights (1948) reads: 'Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control'.

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