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Design Education for Laypeople

Traditionally, design education has been aimed at preparing students for a specialist role in one of the design professions. But if design education is to be made available more widely, perhaps to everyone, then it must have very different aims. It will need to be a general education in design for laypeople, not a specialist education for design professionals.

In discussing design education for laypeople, therefore, I assume that we must mean something other than merely a wider provision of specialist education. I assume that we might want to question the *relevance* of specialist education, that we might want to consider *alternatives* to specialist education, that we might want to enable people who are specifically non-specialists to become involved in *critical decision-making* in the design process, and that we might even want to provide some form of counter-courses that will enable these non-specialists to *challenge* designers (and their clients) as to the validity of their decisions.

Beyond this specialist vs. non-specialist dichotomy, we may also want to ask if there cannot be a new pattern of educational provision that does not perpetuate this 'us' and 'them' fragmentation of society; perhaps rather as the 'barefoot doctors' and other social experiments in China have been aimed at breaking down class and specialism barriers.

The layperson's view of design

Through trying to explain what it is I do when I 'teach design', I have found it is very difficult to talk with laypeople about 'design' in the way that my colleagues in design and design research talk about it. What is the layperson's view of design, then?

Firstly, the layperson is aware that there is something known as 'good-design'. But this 'good-design' is manifested in objects that are expensive, difficult to obtain, usually not to the layperson's taste, inconsistent with his or her life-style, generally looked-at more than used, and valuable — i.e. more than expensive, but actually to be preserved rather like works of art.

Secondly, there is something that the layperson is only partly aware of as being 'bad-design'. For instance, s/he is *told* that some things are 'bad-design' (confusingly, these same things were often 'good-design' in the recent past, such as tower blocks of flats); s/he *knows* that some things are 'bad-design' because they are self-evidently bad — they are uncomfortable, unsafe or injurious; but there are many other items of 'bad-design' that s/he does not know about, although nonetheless s/he unwittingly experiences their harmful side-effects or basic inadequacies. (Papanek and Hennessy, 1977)

(In parentheses it might be added that, thirdly, there is a great mass of artifacts and systems that the layperson uses every day, but does not think of as being 'design' at all — from beermats and bootlaces to television and type.)

Finally, the layperson and the designer view each other, darkly, from opposite ends of the design process (Figure 1). Thus one very important aspect of the layperson's view of design is that s/he is very much on the end of it; s/he receives it, has to use it, has it imposed on her or him. S/he might be involved in *making* some of it, but s/he does not decide what to make, nor even how to make it.

Design in general education

Of course, there have been, and continue to be, many attempts to build educational bridges across the gulf that separates the views of design held by laypeople and by designers. For instance, there are numerous night-school and similar extra-mural courses in design for laypeople with enough interest time and commitment to spare. These courses generally aim at raising their students' 'awareness' o 'appreciation' of design, particularly in terms of historical styles and related aesthetic aspects of design.

But in recent years a significant new development of design in general education has been at secondary-school level (Baynes, 1976; Eggleston, 1976; Green, 1974; Harahan, 1978; Archer and Baynes, 1977). In this case, design is being developed as a general subject for school students; much as, say, science is treated as a general subject in schools. In some schools, it may be that little more is in fact being done than to give a fancy new name to the old craft and art subjects (traditionally reserved especially for the less-academic kids); but relaxing boundaries between subjects is anyway to be encouraged, and I'm sure that a lot of fundamental good will also be stimulated by the design-in-general-education movement.

My interpretation of the aims of this movement is as follows:

Firstly, there is the aim of developing more 'design awareness' in the general population. There is a feeling, I think, that developing a more 'design literate' population will have the result of more 'sensible' design decisions being taken in the community. This could be interpreted by a cynic, I suppose, as meaning that more designers will get more work to do, and that community decisions

Figure 1

DESIGNER — STAGE A — STAGE B — STAGE C → USER
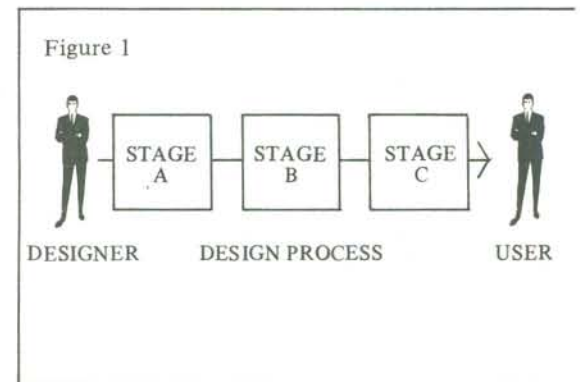
DESIGN PROCESS

will be more in accord with the decisions that designers themselves would take. (In other words, that this is a clever pressure mechanism being set up by the design professions.) However, it could also be interpreted as a very real concern held by designers; that, for example, our Civil Servants tend to receive a particular kind of education that is sadly lacking in the development of certain mental skills which can be broadly categorised as the skills of synthesis, or design.

This is therefore related to a second aim, which is to regard design in general education as a way of teaching creative problem-solving to laypeople (de Bono, 1970; Thring and Laithwaite, 1977). This is already a well-oiled bandwagon which must have earned one or two of its more prominent promoters a sizeable financial return on their creative investment. But it is nonetheless an honourable aim.

A third possible aim of the movement is to introduce young people to the idea that they might adopt a career as a professional designer. Bright school children tend to see their career opportunities in terms of being a scientist, a manager, a computer programmer, a stock broker, and so on, but rarely do they see themselves as a designer. Perhaps one welcome outcome of this seeding of the idea of a career in design would be the raising of standards in the design professions. But would we like to see the increased competition and the possibility of twisted emphases towards 'academic standards' in the selection of applicants to which this leads?

Another aspect of design in general education that I would like a little more thought to be given to, is the relationship between 'understanding' and 'accepting' design decisions. The new design-literate population should presumably 'understand' design decisions (in say, town planning or transport engineering) a little better than their parents do now; will this mean they 'accept' these decisions more — or just the opposite?

The current population seems to me to be surprisingly willing to accept design decisions. We accept living in tower blocks, driving dangerous cars, using shoddy goods, travelling in expensive, uncomfortable, rare buses and trains, working in unhealthy factories, suffering juggernauts through our towns, and the destruction of our neighbourhoods for the sake of new road plans. (Only roads — comparatively recently — and obvious mistakes such as Concorde seem to have aroused much public opposition.)

Why is this? Is it perhaps because the layperson's view of design is of the rather sudden appearance of immutable artifacts — fixed things that others provide? Is it that the layperson sees design solely in terms of products, with no awareness of the underlying design process — a process that can be influenced and controlled so as to generate *different* products? If the movement for design in general education wants to maximize its social effectiveness then it must concentrate on education in the design *process* — including the socio-economic and political backgrounds to design decision-making — rather than merely on enhancing the layperson's 'appreciation' of design products.

General design in education

A second significant development in design education has been the idea that design can be a general subject at the higher education levels, too. This idea spawned the courses that seek to educate interdisciplinary or generalist designers (e.g. Jones, 1970).

Initially, these courses appeared at post-graduate level, providing an education in the new design research subjects that were not then available as part of undergraduate design education. But undergraduate education quite soon caught up, and the new subjects (design methods, computing, systems approaches) were introduced as a generalist part of what still aimed to be a professional training. Now, we have some undergraduate courses that are *not* aiming at the established professions, but which offer a degree in design as a general subject.

What are the aims of this latest development in design education — a non-specific education in design skills?

One rather parochial aim is simply to provide the teachers for the kids who will study design in general education. Thus, some of the new non-specific courses are appearing in teacher-training colleges.

A broader aim, possibly, is to provide society with a new kind of generalist designer, who does not fit neatly into any of the established professions. But I wonder if this is a feasible aim, now that the sixties' flush of enthusiasm for generalist, systems approaches has faded with the dulling of the white heat of the technological revolution?

Something similar to this more general approach to design is also appearing in what can only be regarded as a 'social responsibility in engineering' movement. (See, for example, Thring, 1973, and the SOTEP (Socio-Technical Projects) and GEE (General Education in Engineering) projects — Goodlad, 1977. Some engineering teachers seem to be getting ready to question the motives, as well as the continued feasibility, of so-called technological 'progress'. In doing so, they must inevitably adopt a new orientation to the teaching of design; one which does not assume that the professional role of the engineer is that of a narrow technocrat charged with 'neutrally' implementing the often socially irresponsible demands of industry.

The problem with this latter development is that I don't think we really know enough about the relationships between design, technology and society (Cross, Elliott and Roy, 1974). Many engineers and other designers have a rather simple, technological-determinist view of the impact of technology on society; the view that technology is an independent force, causing effects in society. The relationship between technology and society is more complex than simply one-way, and somewhere in the middle of the interaction is design (Roy and Cross, 1975).

The designer is the key technologist. Whether you believe that technology shapes society or that society shapes its own technology, in the centre of that relationship is the design activity. Designing is decision-making at the interface between technology and society.

Now design as we know it — industrialised, rationalised, automated — is inextricably bound up with the conceptual world-views of Western, advanced technology (Dickson, 1977). But advanced technology is facing an unprecedented set of crises and criticisms. If that technology seems unlikely to survive much beyond the turn of the century, then design as we know it has an equally unlikely chance of survival.

What will be the 'alternative' design process of alternative technology? The aims of the generalist design movements must now be to answer this question. (See Cross, 1975, for a presentation of the relationship between design and technology.)

We are all users

The whole thrust of these developments in design education — indeed, the whole thrust of the design research movement — has been towards re-creating design as a *general* subject. The belief of this movement is that there is a common process underlying virtually all design practice, and that the barriers between different design professions are essentially artificial, or merely concerned with the differences between different products but not different processes. This belief spawned the idea of the interdisciplinary designer and the generalist designer.

It spawned something more interesting, too.

Professional, single-discipline education incorporates an education in the belief-system of that profession. It includes, usually implicitly but sometimes explicitly, the development in students of professional attitudes, beliefs, standards, ways of seeing — and operating on — the world. Quite early in a professional education, the student will begin to identify with his professional peer-group. The result is that, as a designer, he begins to design towards the standards and expectations of that peer-group. His work becomes at least as much orientated towards the demands of his peer-groups as it is towards the intermittent demands of his differing clients and users. But interdisciplinary design, non-professional design, generalist design, has no such established peer-group to identify with, and no such belief-system to adopt. If you don't have a professional view-point, then whose point of view *do* you take? The answer seems to have been that generalist designers tend to sympathise with and to take the view-point of the user.

When did 'the user' become an established concept in design? It must be related to the increasing specialisations and separation of roles in design, and also to the growth of bureaucratisation in design, since 'the user' is usually quite distinct from 'the client'. The idea of 'user requirements' is

to modern design. The requirements, the needs, the functions of an artifact are, supposedly, the first considerations of a modern designer.

But in the context of professional design this has helped to create the us/them dichotomy — 'they' (the users) have needs that 'we' (the designers) can observe and define (or even create) on their behalf.

This in turn led to what some people have seen as traits of an inhuman de-personalisation of design; the objectification of 'users' as mere statistical entities, and the denial of individuality (Jones, 1977). Part of the reaction against this has been the idea of bringing the user back into the design process — of user participation in design (Cross, 1972; Elliott, 1975). The idea of 'letting' people participate in the design of their own environment has really only served to emphasise how much the role of the professional designer is tightly embedded in the interwoven structure of our society and our technology. Despite the liberal intentions of participation experiments, they do little to change the roles of designers and users, they do little to affect fundamental design decisions, they do nothing to undermine the monolithic socio-technical structure of the 'comfortable, smooth, reasonable, democratic *un*freedom' (Marcuse, 1964) of advanced industrial culture. Roszak (1968) has reminded us that 'one of the great secrets of successful concentration camp administration under the Nazis was to enlist the 'participation' of the inmates'.

I think it was that other successful wartime administrator, Winston Churchill, who was supposed to have had the wit to remark, 'We shape our houses, and our houses shape us'. In other words, to some extent, perhaps to some considerable extent, what we are — as individuals — is defined and constrained by what we use.

This observation is not limited to contrived experiments in environmental psychology, but applies to every detail and to the whole technological *context* of our everyday lives — our 'language of social action' (Dickson, 1977). If it's true, then it seems to me to raise a fundamental question that designers ignore: 'who has the right to design for someone else?' The radical answer must be, 'No-one'.

Yet there isn't anyone who lives in a completely self-designed environment. Very few, maybe none, of the objects that any of us uses are self-designed. This is even true for designers. Perhaps even designers ought to recognise that *we are all users*, that we are all laypeople, that we are all dominated by the design process? If we were to recognise the implications of that, we might stop talking about *participation in* the design process and start thinking about *liberation from* the design process.

The user's role in the design process

How is the user's role in the design process defined and controlled at the moment? (Figure 2)

Starting at the sharp end of the process — that is, starting from the layperson's point of view, on the

clearly, with the benefit of hindsight, fundamental

receiving end — the user has an obvious role to

play *as user*. This role has theoretically been growing in the recent past, as designers have espoused the idea of 'design-in-use', that the design of the artifact should not necessarily ever be regarded as 'finished' but can continually be remodelled, revamped, reconstituted and reinterpreted.

However, designers have been rather careful to de-radicalise the concept of design-in-use, by giving it legitimacy in their own terms. So no matter what the user does to change the design, the result is still within the concept of what the designer intended; it is still a designed result, it can still be identified as essentially the work of the designer, not the user. Thus we have had the legitimating concepts of indeterminate architecture, ad-hocism, graffiti redefined as art, loose-fits, and all the other use-now, live-later concepts. The essential message of each medium is that the user never wins.

A more conventional role for the user is at the *purchase* stage of the process. Here we are offered the illusion of consumer-power through the free play of market forces. Just as 'you can have any colour as long as it's black', so also 'you can have any life-style we care to sell you'. This selling of life-styles has become a means not only of promoting a standard life-style but also of defusing alternatives. The trappings of every alternative life-style of the past decade — from flower punk to punk — have been put on sale overnight.

Design-by-purchase has also been legitimated in designers' terms by the institution of design awards, design approval badges on goods, special 'good-design' shops, and consumer 'education', so that we all know what we really *ought* to buy. Anyone who doesn't buy the best buy is degenerate.

At the *production* stage, I've already noted that the user not only has no say in what to make, but also in how to make it. The few experiments in workers' co-operatives have been unable radically to alter their products or processes, and the management response to the Lucas shop-stewards' 'Alternative Corporate Plan' (Cooley, 1977) was instant and total opposition.

Stepping further back along the design process, we find the user sometimes being encouraged to take up a role in the *detail design* stage. The essential idea here is that of the kit-of-parts approach to design: the designer provides the kit and the rules of operation, the user decides how to assemble the parts. The implementation of the idea now ranges from book-shelves to bedroom cupboards to whole houses. Yet once again the role has been de-radicalised, and the designer has legitimated the outcome in his own terms by writing the rules and by developing concepts of aesthetic 'complexity' and randomness in design, which *need* to 'allow' user participation in design.

Even at the *preliminary design* stage, designers are finding ways of safely defining a role for the user, by legitimating the design achievements of traditional culture, folk design and vernacular styles, so that we find that it is quite possible to have, for instance, 'architecture without architects'. This is also where we have seen the experiments in design participation, in which the users can make any decision for themselves as long as it's not a fundamentally important one.

Significantly, resistance to user involvement in design tends to increase the further back along the process we go, until we reach virtually total rejection of any user involvement in making the *brief*. (Witness the management response to the Lucas shop-stewards' proposal for 'socially useful' products.) People still have to protest violently if they want to get into any fundamental design decision-making — into deciding what should be designed.
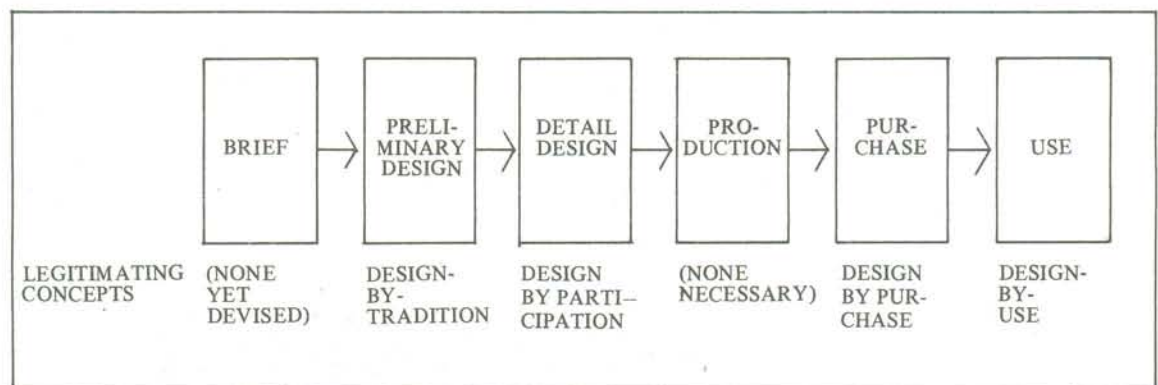
Conclusion

So the emphases that I think are worth making in design education for laypeople are:
a) on the process of design, rather than its products
b) on the socio-technical context of design decision-making, rather than on technical expertise
c) on deciding what should be designed, rather than on detailed designing.

This kind of education needs the development of courses that tend to be about the politics of technical change rather than about the professionalism of maintaining the status quo, about the implications of design rather than the practice of design, about problem-finding rather than problem-solving, and about designing for yourself

Figure 2
The design-production-use process, and the various legitimating concepts that have been devised for each stage.

LEGITIMATING CONCEPTS	BRIEF	PRELIMINARY DESIGN	DETAIL DESIGN	PRODUCTION	PURCHASE	USE
	(NONE YET DEVISED)	DESIGN-BY-TRADITION	DESIGN BY PARTICIPATION	(NONE NECESSARY)	DESIGN BY PURCHASE	DESIGN-BY-USE

rather than for someone else. Many people might not regard such courses as 'design' education at all — but I think it is the kind of design education for laypeople that all of us need.

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