A critique of design methodologies appropriate to private-sector activity in development

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Abstract
In the corporate world, design has received increasing attention over the last 50 years and is now firmly embedded within almost all aspects of corporate activity. This article explores the role of design in development. Design is widely used and understood within capitalist economies to denote a diverse set of tools, used to maximise market share, sales, and profits, and support market differentiation and brand identity of products. The progress of two convergent design-related threads is charted briefly: the growth, since 1950, of a view that design has a real contribution to make to social responsibility and sustainability; and the increasing evidence of design-like skills being used in development contexts. The article reviews several alternative models that are being developed and concludes with a number of short case studies, which illustrate these models and highlight the potential of their largely process-based methodologies for private-sector activity in a development context.

Introduction
'Design aims to seduce. The sign of a great design is not that it performs the task for which it is intended particularly well, but that it demands to be possessed', began the opening article of a special issue of the Independent Magazine (Hirst 2002:3). There is overwhelming evidence, in industrialised, capitalist countries, that design is seen and valued by industry and government for its ability to weave a sales-boosting, profit-generating spell over all aspects of business. This is not to deny the contribution that design, used wisely, can bring to efficient and effective business and to consumers in a wide range of contexts.

Over the last 50 years there has been a small but growing interest in the role that design might play in the alleviation of poverty in today's peripheral regions and countries. The history has been one of small numbers of designers and educators, usually working alone and sometimes with the spasmodic support of design bodies or international organisations, making uncoordinated, disconnected excursions into this territory. The moment may now have arrived for a more coordinated move into this arena. While this is not the focus of the present article, such a move might even benefit wealthier nations as they are forced to confront the impact that diminishing resources, destabilised
climates, and demands for more equitable access to resources will have on their own lifestyles and quality of life.

As industrial designers, we seek to bring our experience of practice and research in development contexts to bear on an examination of design methodologies that are appropriate to private-sector activity in development. We are founder members of a multidisciplinary research group interested in the role of design and design education in development; and our primary interest is in the design of consumer products, including craft-based products, mostly, but not exclusively, within the private sector.

Western perceptions of design

Throughout its short, formal history, the practice and theory of design has been linked to industrial production, and in turn to a capitalist framework. Commenting on Buckminster Fuller, an early design pioneer and thinker, Nigel Whiteley states that he had high hopes for the activity of design but a low opinion of its links to industry. 'Design, Fuller believed, could solve the world's problems if it dealt with the real issues and concerns rather than the phoney desires dreamt up by capitalist manufacturers and their lackeys ... industrial designers' (Whiteley 1993:95). Other designers and commentators, however, assert that serving capitalism is the prime activity of the profession. Whiteley quotes various sources who suggest that design is simply a support function for commercial activity: 'To put it simply, the design process is a planning exercise to maximise sales and profits', says Design for Profit in the Department for Trade and Industry; 'Industrial designers are employed primarily for one simple reason: to increase the profits of the client's company', states Dreyfuss (quoted in Whiteley 1993:17).

Other design professionals would lend support to Fuller, even though his somewhat pessimistic point of view offers no real solutions. Papanek (1974:6), for instance, states that '[t]here are professions more harmful than industrial design but only a few of them. And possibly only one profession is phonier ... marketing ... [D]esigners have become a dangerous breed.' Ekuan argues that '[d]esign seems to be in a state of stagnation in terms of both ideology and activities. One gets the impression that design has drawn apart to simply keep watch while the world grapples with numerous problems' (Ekuan 1997:7).

It could be concluded that design activity has wilfully contributed, on a massive scale, to the excesses of consumer society in the so-called developed world. In a world where a minority of the population owns most of the world's wealth, much of the original idealism and altruism of the early design movement exemplified by Fuller and Papanek has been lost and design has acquiesced in the capitalist merry-go-round. Western or Northern concepts of design have forsaken the discipline's capacity to contribute to the quality of life in favour of its role in adding value and increasing sales and profits. Design in the 'developed' world bears much of the responsibility for peddling visions of a lifestyle that, if not immediately unsustainable for the
Western/Northern minority, is certainly unattainable for the majority of the population in the South, which for the most part lives in poverty.

For all that, the discipline of design has enormous potential to raise the quality of life even in a low-income context. Design does not have to be linked to high levels of material consumption. There are signs of a small but growing body within the discipline that is seeking a more socially responsible role for design. A manifesto issued by a group of designers back in 1964 and reissued and updated in 2000, declares: 'There are pursuits more worthy of our problem solving skills. Unprecedented environmental, social and cultural crises demand our attention' (Adbusters 2000). A review of the 2001 Superhumanism Conference in London found that 'designers are increasingly conscious about their social role' (Macdonald 2001:29). Victor Margolin suggests that '[d]esign must disengage itself from consumer culture as the primary shaper of its identity and find a terrain where it can begin to rethink its role in the world' (Margolin 1998:89).

It is timely, then, to consider design as a truly professional, humanitarian, social, and ethical activity, engaged in theory, research, education, and practice. It is widely acknowledged that designers have transferable skills and that much of the value of a designer's contribution resides in the process skills that s/he brings to the project or problem, as distinct from her or his contribution to the quality and properties of the resulting product.

**Design in a development context**

There are examples of formal design education in the mid-nineteenth century in parts of the former British Empire. As early as 1851 there are examples of art and industries schools in India (Ghose 1995). The concept of design as a factor in development, however, came much later. Some would say that the 'development era' began with the inaugural address of President Harry S. Truman in January 1949 (Esteva 1992). Certainly, the published evidence points towards the conscious inclusion of design as a factor in the development field from the years immediately following the Second World War. Others would argue, however, that this was merely the birth of 'development as practice' or 'intentional development' and that development as a concept has a much longer history (Thomas 2000b).

Post-war reconstruction, especially in Europe, was needed in order to provide the markets necessary for the re-orientation of the US manufacturing industry back to peacetime production (Esteva 1992). According to Ellwood (2001), the release of funds and consequent rate of progress was too slow to satisfy the US government, so the Marshall Plan was implemented in 1948 in order to speed things up. Part of the wider remit of the Plan included a number of primarily US-led design-based initiatives in Europe and Asia, focusing on trade links. Over the next decade, as European countries began to recover, attention switched to other continents. Ellwood notes that '... the ffrD (International Bank for Reconstruction and Development) turned its interest to the newly independent countries of the Third World, where it became widely known as the World Bank' (Ellwood 2001:31).
President Truman's inaugural address seems to have encapsulated this new focus: 'We must embark on a bold new program for making the benefits of our scientific advances and industrial processes available for the improvement and growth of underdeveloped areas', he stated. He went on to say: 'Greater production is key to prosperity and peace. And the key to great production is a wider and more vigorous application of modern scientific and technical knowledge' (quoted in Ullrich 1992:275).

According to Er and Langrish (1992:2), '[t]he first international approach to industrial design in developing countries was a US government initiative'. In 1955 the US Congress approved a plan to survey crafts-based activities in developing countries. The initiative was administered by the International Cooperation Administration (ICA), as industrial design was part of the remit of the aid programme, and the ICA approached a number of US design firms to be involved. The purpose was to survey crafts-based activities in specific countries in order to recommend initiatives that could improve the quality and competitiveness of such products on the open market, especially in the USA.

It is significant that this first recorded design-based intervention in development recognised the importance of the crafts to the economy on both a national and an international scale. It is also clear that this initiative was part of a wider picture of development activities initiated by the USA at this time, running concurrently with the Marshall Plan in Europe (Er and Langrish 1992). Esteva (1992:7) asserts that this development activity served the '... hegemonic design of the United States', arguing that '[w]hen Truman pronounced on development, it was an expression of the World power of the United States'. This is contextualised by Thomas as follows: '... development has to be analysed in relation to capitalism .. , and the history of development should be viewed over the whole period of the domination of the industrial capitalist system' (Thomas 2000a:775-776).

During the 1960s and 1970s, inter-governmental organisations became interested in design as a tool in the development process. In 1970, the United Nations Industrial Development Organisation (UNIDO) hosted a conference entitled 'The Development of Engineering Design Capabilities in Developing Countries', one of the main recommendations of which was the establishment of a series of design centres based in developing countries to promote the practice of product design. In 1973, UNIDO commissioned Gui Bonsiepe, a leading proponent of design in a developmental context, to write a report entitled 'Development through Design'.

In 1976, the Royal College of Art (RCA) in London arranged a symposium on the social contribution of design entitled 'Design for Need'. According to Professor Frank Height, this was held in response to disquiet among many professional and student engineers and designers about the lack of opportunities to use their talents in ways that were socially useful. The papers presented at the symposium represented a broad spectrum of thought on the subject. Professor Sudhakar Nadkarni from India emphasised the need to concentrate resources on developing the village economy and argued that designers who want to be of benefit to rural economies should become part of
the community. Their primary role would be to create jobs, so the designer should train local people who can then train others. Gui Bonsiepe's contribution, 'Precariousness and ambiguity', concluded as follows:

*My Summary based on eight years of continuous work in peripheral countries: 'Design for dependent countries' should read 'Design in dependent countries' or 'Design by dependent countries'. The centre does not possess the universal magic formulae of industrial design which have to be propagated to the inhabitants of the periphery whom the intelligence agencies ideologically conceives as ... [the] ... underdeveloped ...* (Quoted in Bicknell and McQiston 1976:18)

In January 1979 UNIDO and the International Council of Societies of Industrial Design (ICSID) organised a joint meeting under the banner 'Design for Development'. This was the first international meeting to discuss the role of industrial design in less developed countries (LDCs) and also the first time that industrial design had been suggested as worthy of inclusion in national development plans. The meeting issued the Ahmedabad Declaration on Industrial Design for Development. The Declaration contains four key phrases (or recommendations), summarised below:

*The meeting for the Promotion of Industrial Design in Developing Countries convened by [UNIDO] ... Solemnly declares ... [That] ... design can be a powerful force in the developing world ... [D]esigners must have a clear understanding of the values of their own societies ... That design in the developing world must be committed to a search for local answers to local needs, utilising indigenous skills, materials and traditions ... That designers from every part of the world must work to evolve a new value system which dissolves the disastrous divisions between the worlds of waste and want, and preserves the identity of people's and the priority areas of need for the vast majority of mankind.* (p. 3)

The Declaration then sets out a ten-point plan of action, which is biased strongly towards institutions. More than 20 years later, however, there is little evidence of action by either of the two organising bodies on this front (ICSID and UNIDO 1979).

At the 1982 Design Policy conference, Mohammed loos commented on the impact of design, delivering a damning critique of designers as elitist and under the control of the free market at the expense of designing for the poor and marginalised, stating that '[t]he irony of the situation in the Third World is that despite not designing for the poor; designers do have an impact on the poor in the sense of making Third World people lose self-confidence in their autonomous and indigenous designs, cultures and lifestyle' (loos 1982:23). At the same conference, Williams also explored the wide-ranging and damaging impact of Western advertising on the values and aspirations and choices of people in the developing world (Williams 1982). The negative impact of such interventions from the perspective of the 'recipients' in developing countries is summed up by the poet Rabindra Nath Tagore: 'We have for over a century been dragged by the preposterous West behind its chariot, choked by dust,
deafened by noise, humbled by our own helplessness, and overwhelmed by the speed. If we ever ventured to ask "progress towards what, and progress for whom?", it was considered oriental to entertain such doubts about the absoluteness of progress' (Tagore 1941, opening quotation in Silitoe 2000, no page).

**Questioning the Western model**

While Western interest was rising in the potential of design as a development tool, there was limited but growing critical questioning in developing countries of the appropriateness of the dominant model of professional design practice underpinned by a design education system developed in Europe and North America. As noted above, Sudhakar Nadkarni argued that the role of the designer is to contribute to job creation by training local people. Jacqueline Corlett (1997) highlighted the differences between the requirements of developing countries and those of post-industrial nations, pointing out that it is neither feasible nor desirable to transplant educational programmes, and proposed a more informal approach based on work-based training and participation. 'Designers have a unique set of skills through which many sections of society can have their needs met; an ability to blend imagination and facts, applying them in a relevant way to real issues' (Corlett 1997:5, paper 9).

Singanpalli Balaram (1998), a senior faculty member at the National Institute of Design in Ahmedabad, presented a particularly Indian view of the role of design in a development context, in which 'selected young individuals are trained in foreign universities; foreign consultants are called in to give training[,...] ... and institutions are set up as "replicas" of foreign institutions ... '. He went on as follows: 'Such training is not guided by the socio-cultural, economic and political conditions prevailing in the country. Such a system of training, once set up, is difficult to change because trainees from such a system produce trainees of the same order for tomorrow, forming a vicious circle' (p. 58).

Balaram argues that design educators are increasingly feeling that Western design education methods and practice do not fit with 'the roots and anthropological patterns of these cultures'. This suggests that ' ... there is another kind of design which is prevalent largely in the Third World ... [S]uch design is developmental in nature and is non-tangible or invisible to people who are used to looking for an end product'. He proposes an alternative design process: 'Instead of "parroting" borrowed design processes and education ... it must be an appropriate process which fits the people, their cultural minds, their economic conditions, their own skills and their available resources'. He sums up this alternative approach as follows: 'What is now required ... is not a skilled designer ... but a broad based, socially well integrated, humane designer with a broad global vision' (Balaram 1998:61).

Margolin (1998:89) cites the example of Curitiba in Brazil as illustrating the broad application of design methods in a political context:
[T]he former Mayor, ... an architect, established an Institute for Research in Urban Planning to identify problems within the City that could be addressed by designers whatever their field of expertise ... [This] enabled Curitiba's design staff to invent projects in response to discovered needs.

The projects addressed ranged from bus routes to carts for informal collection of garbage for recycling.

Alternative models for design in developing countries
In discussing possible alternative models for design it is worth highlighting a recent encapsulation of current 'global' thinking to which these models would represent an 'alternative'. In the Foreword to a British government White Paper (DFID 2000) providing an overview of an agenda for development within a global economic context, Prime Minister Tony Blair argues for drawing 'the poorest countries' into the global economy by 'increasing access to modern knowledge and technology ... and new trade and investment opportunities for all'. Blair writes that 'if this is not done, the poorest countries will become marginalized, and suffering and division will grow, and we will all be affected by the consequences'. This is a mixture of a general perception of economic benefits that automatically follow from joining the global economy, and equally general anxieties about the consequences 'for all' if that does not happen-the carrot of trade and investment opportunities for all and the stick of suffering and division.

The alternatives we propose here, albeit in the form of design-led development, are driven by consideration of a different, broader range of criteria for success. A recurrent starting point for new models for design, manufacture, marketing, or management relates to the needs and circumstances of small and medium-sized enterprises (SMEs) and the markets they serve, whether in a development context or in an industrialised country. These initiatives are commonly supported through partnerships between industry and education or training in the form of new courses involving workplace study, and research consultancy involving knowledge transfer.

The authors prefer the term 'enterprise' rather than 'corporation', with its connotations of smaller-scale, learning organisations typified by a new mix of commercial research-led activity, often in partnership with universities, research organisations, governments, charities, and foundations. Such an enterprise is also capable of working less formally when necessary, and typically develops new strategies, skills, and working practices in direct response to the needs and circumstances of their markets as well as embracing culturally, economically, and in terms of technology the contemporary imperatives of sustainability and ethical operation more easily than can traditional industrial corporations. In a development context this type of design-led enterprise often has its origins in the craft sector.

It may, therefore, be more fruitful to look for examples of pro-development design strategies and practices among SMEs rather than among the ranks of
multinational corporations. (One possible exception to this is the Freeplay Energy Group, described below.)

In the field of design there are a small number of programmes arising from such enterprises, some of which have attempted to operate almost entirely within the informal economy. These initiatives focus on the need for design training as a prerequisite for design activity within enterprise culture. The principles and practices being developed and applied in this sector stand in marked contrast to those of the major corporations, including those working in the notably design-led sportswear sector (Oxfam GB et al. 2004).

The following four training programmes, each of which is aimed at artisans and crafts workers, are actively involved in producing items for sale.

*Design for profit, Kenya*
Designers Kieron Crawley and Aelsa Buckley, both VSO volunteers in Kenya, together explored ways in which design could aid the artisans with whom they were working. The result of this collaboration was a training course of half a day a week, held over five weeks, introducing design to local artisans. Buckley says the course was: '... aimed at Jua Kali artisans and introduces the concept of product design and development as a profit generating activity within small and micro enterprises' (Buckley and Crawley 1994:2). The key concepts were that design can be used to attract customers and to build customer confidence in products, and to build the confidence of the artisans. The course produced generally good results and attracted support from a number of sources, in particular from the DFID desk officer. The course was run some 24 times in Kenya, Somalia, and Tanzania (Fathers 2002).

*Discovering design, Bangladesh*
This project is aimed specifically at the textile industry in Bangladesh, where Codett, who has lived and worked in this situation, argues that designers have a critical set of skills which could be of decisive importance to a nation's development: 'By part of their training and something of a natural inclination, designers are able to perceive and act upon potential problems and opportunities' (Codett 1997:10). She notes that these skills point to another important reason to introduce design education in developing countries: 'There are skills that designers possess in analysis and synthesis, which could be used for other purposes than the creation of objects. This "discovery" appears to be encouraging designers to view their skills in a much more general context than has hitherto been offered. Surely this is the central key to understanding why design education is vitally important in development situations' (p. 10). She designed a training programme that fits the specific skill needs and the socio-political environment in which it was run. The programme...

... focused initially on encouraging general skills of design process and methodology, applying these to meet a variety of present and future needs and demands. Basic marketing skills are presented in a similar framework, as the designer in small craft business is primarily a bridge between the maker and the markets. (Codett 1997:11, paper 9)
The programme was put together with a local consortium of textile manufacturers who released their workers three mornings a week for two months. In 1997 it was still in its infancy but ably demonstrated the need for such programmes in developing countries and the potential for design collaboration initiatives with small enterprises (Codett 1997).

**The National Design Centre, Sri Lanka**
Unlike the other examples, this initiative was conceived and run by an institution set up by the government of Sri Lanka: the National Design Centre. The course is full-time and modular and, if all elements are taken, can take up to three years to complete and lead to an Advanced Diploma in Multidisciplinary Design. The course was originally conceived to support and train artisans and consists of a 12-week introductory basic design section, a 52-week section where the artisan majors on a specific craft, a 20-week design project, and a 42-week period of workplace training (Fathers 2002).

**The Motivation Charitable Trust, Sri Lanka**
The investigation by the UK-based disability organisation Motivation into appropriate methods for design training included a course for seating technicians at their workshop facility in Ragama, Sri Lanka. The taught element of the course was run every morning over a two-week period and followed up with a practical exercise each afternoon. The course consisted of 12 elements beginning with an introduction to the benefits of design and culminating with a product-evaluation stage. It adopted a Western course model, but its methods of delivery differed greatly, with each stage supported by examples and exercises relating to projects being run in Motivation's workshops. The exercises developed from the briefing stage through to an evaluated prototype of a simple wheel assembly. The relevance of the exercises and the intensive nature of the course, coupled with a low staff to student ratio, produced impressive results (Fathers 2002).

Each of the above programmes concentrated on trainee artisans and attempted to relate design training to a local need, but each had its own distinct characteristics.

**Opportunities presented by new technologies**
One of the more obvious positive aspects of globalisation is the rapid growth and access to information and communication technology (ICT). Although it is often asserted that more than half the people in Africa have never used a phone, mobile-phone technology now has the potential to facilitate communication for certain sections of the rural poor where landline telecommunications are unfeasible. James Fathers' experience with rural artisans in South India revealed an increase in the ownership of mobile phones, where previously artisans would have had to travel some miles to the nearest phone booth. In Bangladesh, loans were made available for individuals in remote communities to buy a mobile phone and set up a local 'telecentre', which provides access to communications for the community and income to the individual (DFID 2000). Radio is accepted as one of the primary
means of communication in developing countries, with an estimated 80 per cent of the world's population having some form of access.

The means of powering such devices has, however, been a perennial problem. In the late 1950s, at the instigation of the US military, Victor Papanek developed a single-band radio powered by heat from either a candle or possibly dung (Papanek 1972). The potential of this means for communicating health information prompted the inventor Trevor Baylis to take a new look at the problem. He developed the concept of a radio that was powered by a clockwork mechanism. Two entrepreneurs in South Africa took up the idea and production began in 1995. Although the original aim, to address a need in developing countries, was pursued with orders from major aid agencies such as the International Committee of the Red Cross (ICRC), the company soon began to develop along two quite separate lines. With significant sales already going to the developed world, the non-profit Freeplay Foundation was set up in 1999 to support the sustainable delivery of radio information to vulnerable populations. One of its most recent projects, developed in collaboration with its commercial parent organisation, is the 'the lifeline radio'. Described as 'the first radio to be produced solely for humanitarian use', it was developed specifically as a non-commercial solution to the need for radio in this context.

Freeplay is a positive illustration of the potential of design and development in a globalised context. The original concept has been maintained and developed, although it could be argued that one of the key factors that made this possible was the development of a range of products to appeal to consumers in developed economies.

Case Studies

The following two case studies from the authors' fieldwork show ways in which new predevelopment models of 'design' are evolving in and through development contexts.

Wheelchair Technologists' Training Course (WTTC)  
This course was developed and conducted by the 'Motivation Charitable Trust' ('Motivation') and based at the Tanzanian Training Centre for Orthopaedic Technologists (TATCOT). The course was developed in response to an overwhelming demand to run individual projects for wheelchair design and manufacture throughout Africa, by devising training that will provide a supply of skilled technologists, with some design skills, across the continent. It aims to work with existing indigenous skills and knowledge and to develop new ones. It is Motivation's first project to prioritise training as a key requirement for long-term sustainability-and furthermore 'to train people from all over Mrica in everything they need to know to establish and run a wheelchair workshop'. Motivation also uses local trainers to teach students how to design and build wheelchairs suitable for their local environment, and how to manage a successful production and distribution service. As a result of this unique course, which began in 1999, the Tanzanian government now recognises
Wheelchair Technology as a profession, while the WTTC awarded the world's first recognised Certificate in Wheelchair Technology.

The WITC students come from all over Africa-so there will be a wide variety of resulting designs, responding to a wide range of situations and needs. The project's structure was devised by the core project team, working from first principles and the local context, in the absence of any precedent. Projects conducted by Motivation elsewhere in the world provided valuable experience and transferable, generic skills. The course employs a systematic approach to the technology of wheelchair design, manufacture, and use. It has moved beyond the 'traditional' basis of local training for carrying out repairs, and doing repairs and making chairs for others, to acquiring a greater all-round knowledge of the technology and the process of basic design and production.

The project and course teams acknowledge that they have gained greater skills and knowledge in education and training as the course has proceeded. The indigenous course staff and graduates have similarly acquired greater skills and knowledge in the broad field of technology, which for this purpose is understood to include some design-related topics, e.g. problem solving, design evaluation, costing, and design management. Graduates have also learned more about designing and building wheelchairs suitable for their local environment; managing a successful production and distribution service; and teaching students to develop ways of ensuring that wheelchairs are available to the poorest members of their community. These skills will eventually be applied by the graduates in training their own clients.

The initial outcomes were judged to have met the initial requirements; there is a tested, generic course design, with one cohort of graduates and another currently enrolled on the course gaining the range of skills and knowledge intended. The WITC has been evaluated by Motivation against the original objectives through following up the graduates in their own countries. This initial evaluation indicates that this is possibly one of Motivation's more sustainable projects to date, and believes there is high potential for replication elsewhere. Already, some interest has been expressed by other accredited prosthetics and orthotics centres.

The Avakasha workshop programme, India

The Avakasha workshops were initiated by Poonam Bir Kasturi of the Srishti School of Art Design & Technology, which is an independent higher education institution started by the Ujwal Trust in 1998 in Bangalore.

The workshops, which follow a capacity-building agenda, were developed from extensive experience in design interaction with crafts artisans. The concept of the workshop, as the name suggests, is a two-way flow of information between the facilitators who have had formal design training and the artisans who have a wealth of indigenous skills and knowledge, often the result of generations of experience with materials and processes.

The purpose of the workshops is to empower a range of artisans in basic design and development skills which in turn will enable them to manufacture
products which will be more suitable for their chosen markets and will command a higher price. The approach used by these workshops differs from other programmes with similar aims in a number of ways: traditionally, interventions to empower craftsmen in this context have consisted of one-off workshops taking place over one to two weeks. The Srishti programme consists of four separate six-day workshops over a period of 18 months with the same group of artisans. As a result of the second workshop, an additional series of monthly half-day feedback sessions was also built into the programme to facilitate ongoing experimentation and innovation between the workshops. The guiding principles behind the timescales of this programme are determined by the capacity-building needs of the artisans rather than the budget. While reaching smaller groups, this approach enables a more intensive and extended learning experience. Little or no evaluation is built into the projects, primarily because for this to be meaningful it would have to chart changes in artisan practice over a period of time. Project funds seldom cater for such elements.

In the A vakasha workshops, the fact that the programme runs over four sessions allows for evaluation between the workshops and of the programme overall. The monthly half-days also allow for increased mentoring and feedback to ensure any confusion is addressed. The content of traditional workshops is generally based on Western design training methods, which at best are delivered by local design educators who can communicate effectively with the participants. However, there is little opportunity for the participant to influence the content of the workshop.

With the Srishti model, although the content has been based primarily on Western design teaching methods, efforts have been made to allow for artisan participation in determining the workshop content. A participatory evaluation method was piloted by Fathers based on an existing visual-mapping and storytelling technique, which enabled the participants to map their own experience and perceptions of the process they use in designing and developing artefacts. This in turn facilitated group feedback on the development process and also served as a reference point throughout the workshop.

Alongside this activity, Kasturi has developed innovative programmes for undergraduate students, which equip them with the essential skills, attitudes, and experience to interact with artisans in developing products for the benefit of the wider society, embracing the principles of capacity building. Recent projects have included a modular terracotta composting-bin developed in collaboration with a community of potters to meet a local need and provide a long-term income source for the artisans.

Conclusions

The design profession is still struggling with its identity, more than three decades after Western designers began to question the human and social role of design; and there is little evidence that design, particularly within the
corporate sector, is making any progress in setting goals, standards, and strategies that derive from or respond to social needs.

On the positive side, design-like activity (process) is beginning to be recognised as making a valuable contribution in development situations, and pro-development activities involving design are on the increase, especially within the informal sector, supported by some activity in educational institutions.

Generic design skills and processes are being developed predominantly by small organisations and individuals ('enterprises') and used to address distinctively different situations and needs. Typically this activity is characterised by a wide range of strategies, skills, and knowledge focusing on the design process rather than on its end product. Examples include:

- capacity building;
- participation;
- job creation;
- training of trainers;
- sustainability;
- work-based training;
- responding to local need and working with available resources;
- recognising and working in partnership with indigenous skills and informal designers; and
- using political power.

One area of global corporate activity that is likely to have a significant and potentially positive role in development is ICT. Communication is a key factor in accessing information and knowledge, networking, facilitating more rapid development of enterprises and, along with the rise of the support infrastructure, contributes to models of sustainable employment in both the developed and developed world.

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Notes

1. The definition of industrial design used in this paper is the area of expertise concerned with the conceptual, formal, and material properties of three-dimensional products for consumption, to be produced by industrial production processes (Fathers 2002).

2. The original First Things First Manifesto published privately by Garland in 1964 includes the visionary proposal that 'the prior call on our skills will be for worthwhile purposes'.
3. The Freeplay Energy Group, originally called the Baygen Power Company, was launched in 1994 to develop wind-up products, based on the principles invented by Trevor Baylis.

4. Jua Kali is Kiswahili for 'fierce sun'. It is also used to describe activities in the informal economy.

5. Motivation (www.motivation.org.uk) is a 'UK registered charity working primarily in developing countries to improve the quality of life of wheelchair users'. Its vision is to 'initiate self-sustainable projects that will improve the quality of life of as many wheelchair users worldwide as possible'. The case study on which this summary is based was originally presented by Tim Coward at the 2002 Design History Society Annual Conference, London, 7-9 September.

6. A vakasha means 'listening to crafts'.

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