[DE]CONSTRUCTING DESIGN: ON THE FRAMEWORK OF GOODSCAPES
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‘... we need modes of thought that recognise design as a practice within culture and that bring to bear on its study the methods that have been used to understand other cultural practices and their resultant artefacts [...] the study of design as culture seeks an understanding of design practice in the wider social field where it occurs.’
Victor Margolin
The Politics of the Artificial’ (2002:51)

Introduction

One of the main matters of discussion in the design discourse recently is the fostering of a design climate that would cultivate the application of design thinking in vast areas of the society. Along the same lines of what Manuel Castells (2000) denominates the milieu of innovation and Richard Florida (2002) names the social structure of creativity, the creation of a space that actively promotes the use of design, develops the infrastructure necessary for it, and fosters a synergy with the human capital is of growing interest to designers, institutions, industries, governments, and society in general.

The artificial creation of such spaces may be questioned in relation to its effectiveness, but nonetheless, resolutions and actions must be taken to at least build the foundations for a design structure. Some of these measures are taken by governments at regional and national levels through the creation of design policies. However, as John Heskett (1999) stresses, there is no theoretical framework to identify different modes of design policy, nor to assess their impact on national economies. The existing documents focused on design policies appear to be more descriptive of their objectives and implementation plans than on making a critical analysis or evaluating their impact.

The purpose of this paper is to analyse the current course of design policies around the world from a global standpoint, by introducing a framework derived from cultural anthropology. The paper is structured in two sections: it will first introduce the theoretical framework of global cultural flows devised by anthropologist Arjun Appadurai (1996), and it will present my own concept of Goodscapes; secondly, it will examine how this theoretical framework can be a useful means to identify the opportunities and weaknesses of design policies from a global, dynamic perspective. The analysis is structured along two lines: design policy as a component of the Goodscapes paradigm, and in correlation to Ideoscapes, Ethnoscapes, Financescapes, Technoscapes and Mediascapes.

Due to the limitations of resources to investigate various design policies from around the world, this paper is mainly based on the research papers from more than 24 countries presented in the following publications:


1 Australia, China, Denmark, Estonia, Finland, Germany, India, Ireland, Italy, Japan, Latin America, Malaysia, New Zealand, Norway, Russia, South Korea, South Africa, Spain, Sweden, Thailand, Turkey, United Kingdom, United States, and Vietnam
Although generalisations are seldom recommendable, in this case it is possible to find enough similarities amongst the various policy initiatives to provide a preliminary analysis using the Goodscapes framework. For further understanding, it is necessary to concentrate on one initiative or country with explicit and extensive information. The objective of this paper is to draw attention to matters that – from a global, interactive perspective – design policies tend to overlook. If the following remarks fail to consider the specifics of the design policies, I apologise in advance. This analysis is based on documents by various authors so it might not show the entire spectrum of the situation. For this purpose, however, these papers have allowed an overview of the general conditions; I thank all those authors that have contributed to the discussion on design policy.

The Five Dimensions of Arjun Appadurai

The anthropologist Arjun Appadurai (1996) describes the processes of globalisation as ‘a complex, overlapping, disjunctive order [...] The complexity of the current global economy has to do with certain fundamental disjunctures between economy, culture and politics [...]’ (Appadurai 1996:32-33). Although a worldwide interaction has existed for many centuries, originally mainly due to warfare and religious conversions, Appadurai stresses that in today’s world that interaction has a new intensity: the process has accelerated by means of technologies and innovation shifts and exchanges, especially in transportation and information. All these forces and accelerated processes have created a new global cultural economy, characterised by dense, intersected and inconsistent arrangements.

Appadurai (1996) proposes a framework to describe and explain these complex processes and disjunctures. His model is based on the metaphor of landscapes to explain the perspectival relations between the actors and the environments of the present global scene. The suffix –scapes is used to visualise modern global phenomena as the outcome of different landscapes, which overlay, shift and flow constantly, distressing each other and being perceived differently in diverse contexts and moments. The framework proposed by the author considers five dimensions of global cultural flows:

- **Ethnoscapes:** The landscape of persons who constitute the shifting world in which people live: immigrants, tourists, refugees, exiles, etc.
- **Technoscapes:** The global configuration of technologies moving at high speeds across previously impermeable borders.
- **Financescapes:** The global grid of currency speculation and capital transfer.
- **Mediascapes:** The distribution of the capabilities to produce and disseminate information and the large complex repertoire of images and narratives generated by these capabilities.
- **Ideoscapes:** The ideologies of states and counter-ideologies of movements, around which nation-states have organised their political cultures.

**Goodscapes: the Sixth Dimension**

The framework proposed by Appadurai (1996) would be ideal to describe the current interactive, dynamic and overlapping processes within design, if only it considered one more dimension: Goodscapes. I propose to build on Appadurai’s construction of landscapes in order to reflect on the different processes of products, services and systems within the global economy where design plays a significant role (Bello 2004). Goodscapes refer to the paths, paces and experiences of the conception, production, distribution, exchange, use and disposal of goods: products, services and artificial systems, both physical and virtual. The paths, volumes, speed and scale of Goodscapes are dependent on their relations with the other landscapes, and on
the relations among the other landscapes themselves, as the production and use of goods is an outcome of the experiences and actions of people, ideas, technologies, media and finance.

There have been concepts in design theory to describe the weight of the sum of products that surround us, and of the interaction among them, the actors (producers, users and public in general), and the environment. Victor Margolin (1995) aggregates objects, activities, services and environments in a constellation that he calls the product milieu, always defined by its tangible characteristics but accounted for by its actions. It is an interactive presence in the world; hence it is flexible, lively and even aggressive. As it both facilitates and inhibits action, the product milieu becomes clearly a social practice. From another perspective, Andrea Branzi defines the metropolis as ‘a general system of construction of the design universe... [that] holds in its capacious bowels all the individual projects, whether they are homogeneous, discontinuous, or dissociated from each other, and from the metropolis itself.’ (Branzi 1988:20). 

Branzi emphasises the complex reality that any project faces when it is created: it is both a proposal for the modification of this reality, and part of a system for its representation.

What differentiates Goodscapes is that it positions the flowing agglomerate of products, services and artificial systems in relation to five specific dimensions. All together these keep redefining themselves and the local and global realities.

**Design Policy within the Goodscapes Paradigm**

The shift from an industrial society to a knowledge and informational society (Castells 2000), and furthermore to a creative economy (Florida 2002) is reflected in major changes to the production systems of regions and nations: from tangible objects to services, complex systems, concepts, networks, and (virtual) realities. ‘Design, confronted by the complexity of this new environment, is falling behind in its knowledge and practice [...] it is struggling to redesign design.’ (Ferrara 2002:118). Coinciding with this view, Manuel Castells anticipates that ‘architecture and design are likely to be redefined in their form, function, process and value in the coming years’ (Castells 2000:448). Initiatives committed to design, and especially design policies – understood as the endorsement and proceedings of a government to encourage the use of design by the public and private for local development – should be targeted to assist designers, industry and communities to deal with the new challenges faced by design.

This requires that design initiatives, whether policies, projects, products, services or systems, envision wider perspectives that consider the strongest forces felt in today’s global conditions. The framework of Goodscapes is helpful to analyse the current design policy movements around the world because of the international conditions in which they operate. On one hand, design policies are the measures taken by governments who are aware that the modern mechanisms of production and consumption have been revolutionised by the processes of globalisation, mainly driven by the new technologies and a liberalised market economy. On the other, the process of design in the production, flow and consumption of goods is a major contributor to the distinctiveness of the era of post-industrialism.

Design policies ought to be particular and purposeful. First, the general state of design in a country or region is dependent on macro and micro-level factors, such as government will, education levels, investment in R&D, level of industrialisation and economic development (Hytönen 2003), and in the light of the Goodscapes paradigm, dependent on global processes and orders. Second, a design policy is usually focused on one or more goals, as for example, on the development of business and industry, on general and professional education, on public services, or on the definition of a national identity (Hytönen 2003).
A clear objective in all the design policies analysed is the common effort to integrate into global networks of design, production, and consumption. In the eyes of governments, these networks will not only strengthen their competitive advantage but will make them players of the modern world; they will integrate them into the new global landscapes. Koshi (2002) points out three global issues that are directly affecting the development of design: 1) the World Trade Organisation and the liberalisation of trade markets, 2) the emergence of the knowledge economy, specifically the expansion of Intellectual Property generation through design, and 3) the convergence of technologies.

Design policies themselves – amongst all projects flowing in the Goodscapes – are dependent on the performance of the other five landscapes, but they have as well the capacity to transform the conditions for them. For instance, a design policy (Goodscapes) can only dawn from the right combination of ideological state of mind of the government (Ideoscapes) in the right economic conditions (Financescapes) with a clear technological purpose (Technoscapes), where the human resources (Ethnoscapes) have been well-informed (Mediascapes) about the capabilities of design thinking. Subsequently, a functioning design policy (Goodscapes) can assist economic growth (Financescapes) and technological development (Technoscapes), building up a design promotion system (Mediascapes) that will ultimately change how people perceive design (Ideoscapes). These are processes that are not bounded by physical borders, but flow across a new global space while completely transforming the sense of locality.

Design policies worldwide fail to consider the flow of products, services and artificial systems within and between borders. These flows, present from conception during the design process to the final disposal of a product, certainly affect the product relationship with the producer, the consumer and the environment. For example, there is no consideration of the fragmentation of the production-consumption chain: a product concept developed in France by Korean, Namibian and Australian designers, which is set to be produced partly in China, partly in India and partly in Brazil, and finally sold on the American continent to users from practically every nationality.

Some countries have succeeded in integrating the different initiatives to develop design, through design policies or other means, from professional designers’ organisations, to industry, to educational institutions, to the government and the public. However, most countries are institutionally disarticulated, which only accentuates the segmentation and the inequality in production and consumption systems.

**Design Policy and the other Cultural Landscapes**

When design policies are analysed in relation to the other cultural landscapes, it is possible to question the relationships between them (see Diagram 1), which will raise questions that those involved in the policy-making process should consider.

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**Diagram 1**

<table>
<thead>
<tr>
<th>Goodscapes</th>
<th>Ideoscapes</th>
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<tbody>
<tr>
<td>Flows of products, services &amp; artificial systems</td>
<td>Ideological, political motives</td>
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<tr>
<td>Design climate or milieu</td>
<td>Import &amp; export of design ideas</td>
</tr>
<tr>
<td>Processes of design, production, use &amp; disposal</td>
<td>General &amp; particular design paradigms</td>
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<tr>
<td>Fragmentation of production &amp; consumption processes</td>
<td>Perception of design</td>
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The following is a summary of the analysis of those correlations:

**Ideoscapes:**

There are similarities between design policies of different countries, although they are focused on their own context’s needs. Their common ideological aims are: 1) to create a design climate, 2) to define a national/regional identity, 3) to generate and attract new ideas, and 4) to develop a competitive innovation system. A clear development path can be recognised, with a shift from the pursuit of efficiency towards wellbeing and equality, a transition from quantity to quality, a growth from economic development to sustainability and welfare, and an expansion from tangible products towards complex design proposals and methodologies.

There are conflicting movements to, on the one hand, modernise the countries’ design movement by the integration of Eastern and Western design culture, while on the other, to resist a global design culture by promoting the country’s own cultural and design identity. For example, identities are marketed as brands, and international intellectual property rights are transforming the operations of SMEs in developing countries. The flows and exchanges of design experts between and within nations result in the absorption of ideas, styles, trends and updated information.

The design paradigm is closely related to the concept of the creative economy where creative human capital is the base for development. Therefore, design knowledge is being expanded into various levels of education (from primary education to professional training to civil society), to different communities, to different fields, and to different physical places.

**Technoscapes:**

A main driver for design policies is the development of competitiveness and innovation capabilities towards the use of design, separately or jointly with other ‘technology policies’. Tech-
nological environments evolve from the introduction, digestion and absorption of foreign technologies towards the creation of original and innovative technologies and applications. Yet, there is an uneven development and use of technologies in the world, known as the digital divide.

Technology is affecting design in two ways: in the production methods themselves (from designing assisted by computers to specialised production processes and distribution systems), and in the applications of technology through design (e.g. ICT applications, and software and hardware). There is a shift from mass production towards specialisation and diversification of products and services. Design is the interface between the technology and the user, and therefore, there are appeals to integrate design and technology policies.

The development of new technologies, and the transfer of those technologies together with innovative applications, is a key factor dominating the new design paradigm. Most of the policies have a clear focus: import technologies and develop applications, develop grass-root innovations, or develop new technologies. One very important point to consider is how technologies are currently encouraging two opposing movements: bridging (e.g. ICT) and dividing (digital divide) communities.

Mediascapes:

The regional and national design promotion systems are the core of most design policies as the mean to circulate design knowledge. The main aims of design promotion are: 1) to inform the industry of design capabilities and advantages of its use, 2) to educate the public in general about design, 3) to update designers of the development of design education and practice locally and globally, and 4) to promote a society in which creative minds are developed and nurtured.

Several promotion initiatives coexist in the same context to reach a wider domestic and/or international audience, through printed media, exhibitions, awards, grants, and digital databases. The various institutions involved in the promotion systems, such as Design Councils, Design Centres, Consultancies, and R&D Centres, serve as interfaces between the government, the industry, the educational apparatus, the designers and the society.

Although the promotion system is probably the most developed part of design policies, the new media for promotion is still not fully exploited. On the one hand, there are many actors that do not participate in the design discourse, and on the other, designers should be outstanding at creating a communication system to explain and diffuse the ideas created by the design community.

Financescapes:

Historically, there has been an imperative need for governments to adjust to new economic structures, mainly produced by the transition from socialism to a market-orientated system, and from protected to liberalised economies. Peripheral economies consider that a governmental policy is necessary to facilitate the development of strategically competitive capabilities.

Thus, design policies are mainly economic strategies for liberal, market-orientated economic development. The common measures are strengthening the international competitiveness of local products, the endurance of local industries over international competitors, the increase of exports, the creation of new jobs, the generation of business opportunities, and the development of SMEs’ design and management skills.
Governments are supporting public and private sectors through design policies by the creation of new types of enterprises, the provision of grants and tax reductions, and the construction of incubators; industry is fostering the internationalisation of brands, promoting R&D programmes, and building local and international communications and cooperation networks. The gradual trend to outsource design represents an opportunity of entrepreneurship in design services.

The economic factors, international competitiveness and world trade are major drivers for the implementation of design policies. Governments understand that there is a direct relationship between the overall competitiveness of a country and its effective use of design, as the study conducted by the New Zealand Institute of Economic Research (2003) shows. On the other hand, the economic factors often overshadow the benefits for society in general, and although many policies mention the social, cultural and ecological benefits that design can provide, these always are secondary targets.

**Ethnoscapes:**

The main resource that makes a design policy function properly is the human capital, so education, development, actions and committed leadership are concerns in design policies. Design communities, organised in associations, institutions, partnerships, etc., communicate the advantages of design thinking, and assist with its application to industry, the government and the society in general.

Cultural identities have been lost in many regions in the face of the modern processes of industrialisation, and design is seen as a tool to recover and revitalise traditions and local industries, in order to convert them into a competitive advantage. Alternatively, crafts and indigenous knowledge are considered the predecessors of design and the source of innovation and design activities for today’s industries, generating innovative local brands.

The diversification of consumers and users call for R&D to understand their needs, wants, and lifestyles, while there is a concern to improve the quality of life for all, and to foster design initiatives to include the disadvantaged, isolated and excluded in everyday life. Even so, as mentioned before, the social aspects are secondary concerns in most design policies.

Although there is a call for a ‘design for all’, cultural and social capital does not seem crucial to these initiatives. It is quite alarming that the majority of studied design policies lack an interest in ethnic and excluded communities.

It is also patent that there are two forces pulling and pushing design policies: one towards a global integration by the creation of networks, collaborations and exchanges, and the other towards a reinforcement of local, regional, and national identities.

**Conclusions**

The complexity of the world today seems unmanageable, and this reflects on design practice. Design policies need to structure and foster a climate for the application of design capabilities for the benefit of the society. However, this is not an easy task. As Er (2002) identifies, there are two major problems in the current formulation of design policies: firstly, the narrowing of design policy to the equivalent to design promotion without including the creation and nurturing of design resources and infrastructure, and secondly, the isolation of design policy in relation to other macro and micro government policies in related areas (science, technology, innovation, etc.). This paper adds a few reflections to the table of discussion.
In general, there is a simplistic approach to the binary of local and global in the design discourse, as if they were two separate bodies. However, there is a constant interaction between both – a process that Roland Robertson (1992) calls *glocality*. Trying thus to frame it as two separate entities, with a defined border which allows changing sides at will, is no longer of any use. Much more would be accomplished during policy-making if more dynamic, holistic methods were followed to decide what would benefit the society in general and the specifics of each locality.

From the generalities found in the two references analysed, design policies still have a long way to go before they truly respond to the demands of the new world economy. García Canclini (1995) points out that cultural policies are still made as if economic globalisation and technological innovations are not reorganising identities, values, beliefs, and the ways we relate to each other. Design policies seem to face similar difficulties.

*Bibliography*

*Main references:*


*Specific references:*


DESIGN RESPONSIBILITY IN GLOBAL OPEN SOCIETIES
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Abstract

Most of the recent developments in design research are related to the logical and rhetorical aspects of design. The biggest challenge has been to advance in the ethical realm. More than ever, the designers of the artificial are facing moral decisions. Inspired by the political ideas of Karl Popper this research investigates the issues concerning design responsibility. What ought to be our basic moral values in a global open society? Can designers play a role in reducing misery, violence and egoism? What are our responsibilities for increasing freedom and education of the new citizen? These are extremely difficult questions, but they need to be urgently addressed by design research. What follows should be seen as humble conjectures on our responsibilities as creators in this human-perturbed world, to hopefully keep the discussion alive and achieve some progress, even if just a little.

1. Introduction

At a macro-level, design is already recognized by organizations and nations as a crucial factor for economic success. Because of its strategic power, design has emerged as a topic of political importance and many countries have invested and developed policies to make design a priority. As a response to this high level demand, research in the field of design has advanced and new frameworks, methods and tools are constantly being proposed. However, very little progress has been made on issues associated with our responsibilities as creators. Like negligent parents we have a tendency to see only the positive side of our creations and very rarely we assume responsibility for what is negative. Design is not neutral, as one might think. It changes and alters the environment; it changes and alters people’s life. Our values towards the future deeply influence our creations.

The present situation in this human-perturbed world requires profound changes. Humankind’s celebrated ability to create the new, the artificial, seems to have transcended our individual and collective ability to think about the purpose and consequences of our creations. There is hunger and misery coexisting with excess and waste, environmental damage coexisting with clean technologies, violence, egoism and lack of freedom coexisting with great advances in human knowledge. Despite theses terrible things, ours might be the best of all possible worlds, as Leibniz1 suggests. We cannot do anything about the past but we can certainly better plan the future. And here is where design matters, for planning is the real essence of design. In opposition to design processes are accident, chance and chaos.

Our problems are increasing in number, scale and complexity. Many of those induced by the population explosion that we are currently experiencing. That is not to say that there is not enough space for everyone, there is plenty of space and resources for everyone, but not in the unbalanced way we are living.

People are more connected than ever before and this brings new challenges as well as opportunities. On one hand, the network-effect that is so present in our communication and economy constantly blocks people’s ability to think and act critically and freely. On the other hand, the power of networks is enabling people to produce social and cultural changes at a rate never seen before.

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Our markets are also becoming extremely competitive. Completely changing the way we work and live. Competitive forces, acting now at a global level, are causing designers of the artificial to create products to satisfy the users’ increasing needs of status and ostentation. Creating a society dependent on material possession, which consequently produces more waste.

More changeable than ever, technology is also playing an important role in our lives. It is hard to keep up-to-date with our technology. Even doctors, who have to make life and death decisions are not capable of being totally aware within their own fields. This avalanche of new, powerful technologies produces high degrees of anxiety for it is very hard, at this speed, to distinguish and control the good and bad sides. And still we know that this is just the beginning, we are just discovering our tools.

More than ever before, design has become a fundamental discipline and research in the field is experiencing unprecedented momentum. However, difficult ethical questions cannot be placed outside of the main debate. This paper will attempt to touch on the causes and consequences of our lack of responsibility as creators and the potential for positive action. Inspired by some simple lessons from the Austrian philosopher Karl Popper this paper hopes to bring new insights to an existing debate, to insist on keeping it necessarily fresh, and despite all the terrible things, to keep thinking optimistically about the future. For “Optimism” as Popper points out, “is a moral duty”.

2. Lessons from Popper

Karl Popper is regarded as one of the greatest philosophers of the 20th century. Few have written with such clarity on a diversity of topics as Popper. He was a strong critic of the idea that our knowledge starts with observations. He believed that what we observe will depend on what we expect to observe, that we learn without induction, and that we build our theories by a process involving guesses or conjectures and refutations or critical tests. For him, all life was a trial and error process of problem solving.

Popper brilliantly demonstrates that although some of our theories might survive a number of tests, our conjectures will remain conjectures; they can never be proved as true. And although we cannot prove our theories, we can disprove them and this means they can be tested in a process, which he named - falsifiability. No number of observations of white swans will ever prove the truth of the statement “All swans are white”, but a single observation of a black swan is enough to disprove it. Based on these insights Popper develops and applies his theory of growth of knowledge to a range of epistemological, scientific and social problems, including the demarcation between science and metaphysics, the logic of scientific method, the way we use language, how we understand history and the dangers of public opinion.

Popper is also recognized as a defender of critical debate, freedom and democratic ideas and an impartial critic of any form of totalitarianism, arrogance and pessimism in all intellectual fields.

He was born in 1902 and remained an active writer and lecturer until his death in 1994, where he was working on the ideas of open futures, vehemently interested in calling people’s attention to recognize their responsibilities and reminding them of the implication of their actions to the future. Popper argues that the future is open and one should approach it with optimism and all intellectual modesty.

It is very hard to synthesize in a few paragraphs the work and ideas of anyone, especially when the person is a thinker with such an impressive range and intellectual depth. However there are many lessons we can learn from Popper, especially his latest work that can be extremely useful for addressing the issues of design responsibility. Briefly, some of those are:

- The lesson that we have to deal with our problems with a multidisciplinary perspective – For Popper, specialization is a mortal sin for the philosopher; according to him, we are students not of disciplines, but of problems.

- The lesson that we should avoid spending too much time and energy on endless digression about verbal problems. What Popper named “essentialism”, was for him the surest path to intellectual perdition. According to Popper, we shouldn’t let ourselves be goaded into taking seriously problems about words and their meaning -- “What must be taken seriously are questions of fact, and assertions about facts: theories and hypotheses; the problems they solve; and the problems they raise”. For him there are tangible social problems we should act upon, such as, reducing misery, violence and increasing freedom.

- The lesson that we should improve our institutions. That we have to develop mechanisms for avoiding bad leaders doing too much damage. Popper believed that democracy was not to be ‘the rule by the people’ but the change of government without bloodshed. He points out the advantages of gradual reform over revolution, in which all institutions are destroyed and have to be rebuilt.

- The lesson that freedom depends on responsibility. Popper points out the need for a society in which the freedom of each person is compatible with the freedom of other persons. Even at an advanced age he was alerting people about the destructive power of television in society, especially its role in training children towards violence. As he saw it, television was corrupting humankind, a powerful thing that like anything else that threatens freedom, needed to be restricted.

- The lesson of the value of education and critical discussion. Popper believed that education has a direct link with freedom; education makes one understand the limits of its own freedom and consequently reduces the need for censorship or laws. He dreamt of schools where young people would learn without boredom; in which one did not study for the sake of passing examinations. He believed that education was the way for self-emancipation, and that the truly enlightened thinker, the true rationalist, would never want to talk or convince anyone of anything, for all the time he or she is aware that they may be wrong. Free opinion formation is precious, not only because this brings us all close to the truth, but also because one should respect free opinion formation as such.


3. Design and Responsibility

During the second half of the 20th century, critics started to more vigorously question the role of ethics in design and design practice. From the 1970s Papanek, for example, challenged industrial designers to direct their skills towards real need by encouraging designers to con-
sider their moral, social and environmental responsibility. Whiteley\(^8\) added to this debate in the 1990s questioning predominant design values and drawing attention to a continued “marginalization of socially useful design”. Towards the end of the 20th century designers acknowledged the accelerating limits placed on the planet by past generations and started to more conscientiously explore the effect of design on society and the environment.

But despite ongoing discourse surrounding the importance of designing for improved human and environmental condition, thinking in the new millennium has remained skeptical about the responsibility debate and its impact on mainstream design. A concern that “ego-centric visions” continue to be celebrated over “sustainable solutions”\(^9\) points to deficiencies in current design models to support expectations for the future. With myriad alarming global issues at the fore, there has been an insistence by many in the design community that a more immediate and drastic mind shift is needed to embrace social and environmental concerns through design.

Fortunately, to address issues of responsibility, new approaches in design are developing. Fuad-Luke for example has advocated for a kind of ‘slow design’ that aims to sustain the well-being of humankind and the environment by working outside the acceleration of economic progress. In a similar vein, McDonough and Braungart’s inspiring ‘Cradle to Cradle’\(^10\) framework, offers designers a model that draws from natural systems and seeks to employ restorative and cyclical processes towards a more sustainable future.

By examining the broader issues of social responsibility and its connection with design, it is possible to appreciate the importance of the ethical undercurrent that is shaping much of today’s design. Torn between a desire to rise to the challenge issued by environmentalists, scientists and economists to make an immediate effort towards a sustainable future, while simultaneously surviving financially in a society still strongly influenced by a dominant capitalist paradigm, designers have to make difficult decisions. There is a growing confidence that designers have the potential to be educators and agents for social reformation. This ability to effect positive change is evident in the increasing examples of socially charged work and the concerns of many design writers. To aid a paradigm shift in the way that designers approach their designing so that people and the planet are top of mind, some instruction is still required. Accordingly, the potential for design to be altruistic and better integrate responsibility needs to be explored.

4. Patterns of Responsibility

In a recent study on social responsibility\(^11\), a selection of Australian and New Zealand design companies was examined. The research followed the modus operandi of designers identifying themselves as considering social and/or environmental responsibility as a prominent characteristic of their design practice. What emerged was a strong sense of personal ethics among those interviewed. The designers indicated a range of influences, from their parents to their teachers, from Chomsky to Papanek, that helped shape their personal ethics and the spirit of their design practices.

While much of the impetus came from the company founders themselves, external models such as The Natural Step and The Triple Bottom Line frameworks were also referred to as useful tools, adding structure to business operation and guiding decision-making. These models revolve around an effort to have as a central focus of their business practice, the concerns

\(^11\) M, Brasell-Jones, *Design for People and Planet*, University of Otago, Dunedin, 2005.
of the community and the environment. The ensuing effort goes beyond standard business and governmental requirements suggesting a more altruistic rationale.

Rachlin\textsuperscript{12}, points out that altruistic behavior may be learned and maintained over an individual’s lifetime, without any special inherited mechanism. He explains that individual acts of altruism, each of which may be of no benefit (or of possible harm) to the actor, may nevertheless be beneficial when repeated over time. To illustrate this action he uses the example of a woman who runs into a burning building to save someone else’s child. For him, patterns of altruistic behavior transcend case-by-case decisions. “Once we abandon case-by-case decisions, there will come times in choosing between selfishness and altruism when we will be altruistic even at the risk of death”.

Although varied, the different business and ethical models referred to by the participants, spoke a similar language of altruism and a consideration for people and the planet. This approach then acts as a catalyst for action throughout the supply chain. It was expressed by interviewees for example, that in promoting themselves as prioritizing ethical values, they attracted like-minded clients. It is this simple appreciation for another’s ideals in terms of business exchange that extends client/designer relationships beyond simply providing a service.

Despite experiencing an era of increased interest in social and environmental issues there are relatively few design companies working within obvious ethical boundaries. This suggests a stronger need for individuals to behave in a way that does not encroach on the opportunities for future generations. Rather than having a position on the periphery, as participants in the research found themselves, designers addressing socially responsibility need to enjoy a position that is more mainstream.

Having ethical motivations in place is perhaps the cornerstone to developing a designer’s responsibility. The challenge is then exercising these principles through practice. It may be through improved patterns of responsibility like those expressed by Popper, that future designers seek reasons to tailor their designing to include social and environmental concerns.

5. Towards A Humankind-Centered Design

In a recent article\textsuperscript{13}, Charles Owen, professor of the Institute of Design in Chicago, points out that the current policy-making process is not efficient in confronting today’s problems. He argues that uniformed decision-making is no longer tolerable and that partly by its own fault, design is far from the advisory committees of the big decisions, which now have global consequences. He suggests that design thinking offers a better way to find information, gain insight from it, organize it, evaluate it and project inventive concepts and that is what is missing in the advice used for policy-making. Professor Owen highlights the role of design education in preparing designers for assuming leadership positions and introduces the need for what he calls International Design Institutes, an institution oriented to be a working example of design thinking, broadcasting the values, benefits and culture of good design; demonstrating the best principles of sustainability and adaptivity.

The human-centered design approach is maybe the most advanced logical and rhetorical concept design research has produced. It changes the focus from technology and from the designer to the user, to their needs and desires. However, the reasons this approach has become a trend has more to do with the economical benefits it brings to the companies who adopt it, than due to any ethical values. Human-centered design is still a limited concept; the designers

\begin{itemize}
  \item \textsuperscript{12} H, Rachlin, “Altruism and Selfishness”, \textit{Behavioral and Brain Sciences Journal}, (2002) 25, 239–296
  \item \textsuperscript{13} C. Owen, “Societal Responsibilities: Growing the Role of Design”, \textit{Institute of Design}, IIT, 2005.
\end{itemize}
of the artificial have to think urgently of the broader picture, something like a humankind-centered design. And, this means an ability to influence the big decisions and to think in long-term goals. Misery, violence, egoism and environmental damage will not be solved quickly, maybe it will be necessary few generations, but it needs to be initiated. Maybe, companies can value this humankind-centered design as well. It might become a strong differentiator with positive economic consequences.

Similarly, Popper’s conclusion that education is a solution for increasing freedom, education is also the solution for increasing design responsibility. Bertrand Russell\(^{14}\) suggests that the education of character should start at very young age, before the age of six. As any future ethical development will be consequence of the virtues learned at childhood. Therefore, the learning about design responsibility may need to start before tertiary education. Design is also responsible for educating the new citizen. Design education needs a curriculum that encompasses logical, rhetorical and ethical dimensions of design targeted at helping students to become literate leaders, with power and capability to positively influence any human creation. Design research should keep insisting on the debate of design responsibility, sharing any new knowledge, examples or approaches that can contribute to a more responsible use of human creativity.

A number of designers interviewed in the previously mentioned study had been involved in information sharing at different levels. One avenue for distributing knowledge is through publications such as newsletters. Digital Eskimo produces an electronic newsletter called D.mail, which covers topics such as “sustainable design, ethical business, progressive social and ecological projects” and news from the studio itself. Some of the participants have also given seminars to the design community and design students about “what we do and why we do it”. This sharing of wisdom through websites, publications and seminars contributes to a richer body of knowledge to draw from and arouse others. Some designers are also members of networks and online resources, which are instrumental in supporting positive practices. Design by Nature, for example, is a shared resource aiming to “inspire, educate and empower” designers as well as offer a forum for discussion. We are just beginning to explore the power (or potential for) of spreading knowledge through networks.

6. Conclusion

Our environment and our open global societies are currently at risk because of the irresponsible use of human-creativity. Our powerful designing capabilities differentiate us from other species; however, design is advantage only when used responsibly. So far we have just developed our designing processes, now we have to learn how to use it according to a collective, long-term plan. Design is linked to what we are and what we will eventually become. Design research is also responsible for what is to come. As Popper urges, “we all have a duty, instead of predicting something bad, to support the things that may lead to a better future”.

OUR HOME BECOMES FOREIGN: A LOOK AT OUR PLACE IN INTERNATIONAL DESIGN RESEARCH
Jon McNeill, Fiori research and strategy, USA

In the 1970s, anthropologists began to question some rigidly held tenants of the discipline, issues such as the separation of researcher and findings, the positioning of the researcher within cultural power structures, and the subjectivity of social science research. These topics helped elevate cultural anthropology to a fuller understanding of the previously hidden factors at play within ethnography. In the business world, however, “objectivity” is still a golden calf, upon which strategies and products are supported.

Simply put, applied anthropology has largely ignored the post-modernist critiques that modified its parent discipline. This hasn’t resulted in devastating breaks because we focus our energies on mostly business-oriented goals, and business goals rarely leave room for hermeneutics and grey areas. While the complete embrace of post-modernism in design research is probably too extreme, an understanding of our influence on the process and a mindfulness of audience interpretation—both tenants of post-modern ethnography—would lead to more complete, and therefore more successful, research.

This dynamic became especially clear when common cultural identity roles were reversed for me, in the Fall of 2004. When assessing one’s own culture with a foreign audience in mind, as I did for clients in Korea, Ruth Benedict’s contrapuntal methods of analysis become problematic. No longer does the process focus on juxtaposing a foreign culture with one’s own. Instead, the result is found through disciplined comparison of the reality of one’s native culture with how one’s personal experiences have shaped that reality. The task of looking at my own culture with outsider’s eyes, and relating these findings back to these same outsiders, provided me with a fresh understanding of my role as a design researcher, and a vision of the next steps that design research should take.

Buying Into A Mass Premium America

In September of 2004, Fiori got an unusual request for a stateside research and strategy firm, but one that will become more common as interests outside of America realize that they can not only compete in the American marketplace, but can succeed. Our client, the largest corporation in Korea, wanted to break into the burgeoning “mass premium” market in America; a market that, in Korea, they dominated. However, their attempts to sell these same Korean products to Americans had met with little interest. They needed to understand how Americans defined “mass premium,” since it was clearly different than their own concept. We would be working with their American design team, based in San Francisco.

The “masstige” or mass premium market in America continues to make both the luxury and middle-class brands salivate, and everyone thinks that they can stake a claim in this middle ground between “mass” and “class.” The numbers, after all, don’t lie. Discretionary income is at an all-time high, due in part to cultural trends such as men and women waiting longer to marry and have children, while their salaries continue to increase. However, while yesterday’s high class would turn their noses at shopping at Costco and Sears, this new breed of consumers are “trading up”—saving for the widescreen plasma TV by cutting coupons and buying store-brand cereal.

The terribly difficult thing about the mass premium space, though, is the continual, forceful downward pull from luxury to mass market. As styles, materials, and functionalities filter into the mass premium market from either the professional or fashion worlds, the eventual demand from the masses for a diluted, mass market product erases the “masstige” status of both brand
and design—and thus the search for the next signifier of luxury begins anew. Thus, since Trading Up1 was written, many of the brands that the authors highlight have since moved out of the sphere they helped to define. It was our duty to study the infatiguable markers of mass premium; those qualities that could stand the test of passing trends and the downward march to mass.

The study, though serving as my case for post-modernist theory within design research, had a duration of only four weeks from recruit to report, involving twenty-four participants in middle-America Chicago and grassroots-savvy Portland, Oregon. But oftentimes in the world of corporate research, short studies have wide-reaching goals. We were to refine a map of the market as it pertained to our client, complete with marking a “sweet spot” for product development. This information would be used to not only inform the San Francisco design team’s future projects, but also how their executives in Korea would evaluate product decisions and successes. All of that, that is, if they agreed with what we found.

What we found framed our marketplaces in sharp contrast—while in Korea, mass premium consumers tend to value flashy, feature-rich merchandise, our study found the American masstige market focusing on refined, fashionable details incorporated into a professional-grade product.

**Feature Premium Meets Refined Detail**

An anecdote included in Renato Rosaldo’s fantastic repositioning of modern anthropology, *Culture & Truth*, illustrates how the familiar culture of the anthropologist becomes new when he is forced to look at his own people through an outsider’s eyes. Rosaldo had been living amongst the Ilongot tribe, a tribe that still practiced headhunting, when notice came that he had been drafted into the Vietnam War. His “participants” pleaded with him to not participate in what they felt was an immoral act. To this tribe of seasoned headhunters, ordering one’s “brothers” to risk their own lives in war was distasteful. As Rosaldo states, “My own cultural world suddenly appeared grotesque… My loss of innocence enabled me and the Ilongots to face each other on more nearly equal ground, as members of flawed societies.”2

While my relationship with the Korean conglomerate did not deal with headhunting and war, it did involve two separate cultural opinions about which feature sets, pricing, and aesthetics constitute a widening, very lucrative market.

If I had studied this subject in Tokyo, or Seoul, my mind would have been in a different place. Most products in the discussion would have been foreign to me, and I would have been more willing to take the traditional step back as a researcher and look for patterns in how the participants interacted with the items. But in the banality of Chicago, where I am surrounded by my very American-ness, I was forced to look at my own purchasing patterns, and my own mental models.

Too often a product goes from research ideation to production without anyone asking themselves how much their own experiences color the product. Design anthropology clearly differs from straight-laced academia in that a certain weight is put on the researcher’s personal aesthetic style. To ask myself how my previous experience influences my results is not an attempt to root out all traces of myself, but rather, to understand them. Consultants are hired in part for who we are as individual creatives, not just because we gather information soullessly.

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I argue that this self-reflexivity allows design research to better express how each product comes from the participants and from ourselves, the processors. This is not navel-gazing, and it is certainly not elevating the designer above the participants’ responses. Instead, a perceptive on how personal experiences and aesthetic tastes affect our final recommendations can only help create a product that is more mindful of consumer needs, while also incorporating designer expertise. In the complicated interactions between research, design, and the real world, ignorance is not bliss; it handicaps results.

While a study commissioned by a foreign client put this issue into sharp relief, any study within a familiar setting could benefit from this deliberate introspection. Most often, “the field” for design researchers and applied anthropologists consists of our native culture. In these cases, I speak about my own culture to my clients, who are also immersed in this culture. The threads between my clients’ experiences, my participants’ experiences, and my own become incredibly intertwined. While this familiarity with the studied culture can help us know when a theory or model “feels right,” it invariably leaves room for personal experiences to cloud—or change—the data. Realizing our own place within the discussion can keep us mindful of where the findings end and our own lives begin.

Interpretation

But I argue that self-reflexivity is not enough; we also must anticipate how this information will be received and by whom. Another way to look at what we do is through the eyes of a storyteller. We innately know which parts of the story are vital to the telling, and which pieces can be left out, because most often our audience is comprised of people who have shared many of our own cultural experiences. When we present our stories, we engage in a little planning beforehand: noting personalities, corporate politics, and possible problem areas with the client that may complicate the way we tell the story. We anticipate their response based on previous experience or our personal reactions to the material. But this preparation usually does not enter into the level of overall program strategy. A study involving foreign interests, though, puts the issue of the audience in sharper relief. It takes a certain discipline to relate the details that may seem like common sense to someone immersed in a society—details that would be glossed over in a different situation—and it takes a certain amount of study to know how to communicate the story at all.

To acculturate us to the types of deliverables that had gone over famously in Korea, we were given a few sample reports. They relied heavily on pictures to make up for the definite language barrier, and were basically glossy design boards. While we did want to define “mass premium” by including design boards full of pertinent products, we also needed to mold their previous knowledge about the segment to a fuller, qualitative understanding. Misinterpretation was a looming issue, and we struggled to find some sort of common ground on which to clearly base our recommendations.

Before the study began, our clients showed us a document containing their best guess up to that point in defining the mass premium market, but after our analysis it was clear that it had major inconsistencies. However, we ultimately made the decision to rework their previous stab at the market instead of creating a new one. Even though creating a new map of the space would have been easier for us, and perhaps a better representation of the marketplace, we felt that placing the discussion in a familiar area would erase any doubt as to what we would recommend. It clearly juxtaposed where our research added to their concepts, and where it differed.

We presented the information to the team from San Francisco in such a way that they in turn would be able to relay our recommendations to their sponsors in Korea. After the presenta-
tion they would place the models and the design imperatives into their own briefing on the American market, which would then affect their subsequent product offerings.

Moving toward a universal language

After the information delivery, the San Francisco team contacted us to relate to us how well the study had fared overseas. While we did not get to see how their team had shaped our deliverables, the products since released into the American market have incorporated our recommendations with great success. And, if I judge our work the way that all consultants do, they are now returning clients.

My experiences raise the questions of how far we as researchers should really go in understanding our audiences, and how explicit we should be in calling out our own influence in the process. The next step, now that design consulting has been incorporated into the global economy, is to research the audience along with the participants, so that we can be sure to actually communicate with them. And while we cannot panic our clients by revealing the subjectivity of qualitative research, we must be more mindful about how our presence alters the dialogue. Though it is still our task to bring companies and consumers closer to a lucid, one on one interaction, we must admit that our role has never been, nor should be, distanced and objective.
DEVELOPING LOCAL ARTISANS BY DESIGN
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Keywords: Handcraft jewellery, Local artisan, Industrial Design

1. Introduction

This paper is about an SME development project funded by the European Commission, and implemented by the United Nations Development Programme in coordination with the GAP Regional Development Administration of Turkey. Objective of the project was to improve trade capacities of the local artisans producing ‘Telkari’ entrepreneurs located in Mardin, in the Southeastern Anatolia Region by providing design development services through the GIDEM offices UNDP the project titled “Developing Silver ‘Telkari’ Handcrafting” is conducted between February 2004 and May 2005. Author of the paper task was work as an design expert in the project.

On another level, Mardin is a historical city that has a significant potential in Tourism sector and the number of tourists visiting the city is expected to increase considerably in the future. Thus, silver “Telkari” producers are willing to improve their production techniques and market the “Unique Mardin “Telkari” Handcrafted Products” to the tourists and later to the foreign markets as well as on alternative distribution channels. However the sector is not ready to take advantage of the expanding market. First and foremost the craft is unfortunately endangered due to the lack of resources and apprentices. Secondly, the limited number of silver “Telkari” designs especially designs to be used as interior decoration material is yet another obstacle for increasing sales.

Because of the new masters don’t grow up in last 20-30 years, thousands of years Telkari production tradition is limited by producing counted models. In last years with the stability trend in political and economical situation of the region is the main dynamic of tourism revival. New master’s generation showed interest to this handcrafting because of newly developing economical potential.

Designing and developing their own products that appears as a critical problem can be solved by making Telkari artisans’ to design by themselves. For solving this problem, project works has been extended with workshops to teach new approaches and methods to the telkari masters and apprentices. This paper includes project process, new Telkari models designed by author and the proposal of a methodology which can be used by artisans to develop new designs. Methodology also aims to manage process control.

The project constituted of 4 phases; Research phase, First workshop, New designs, Second workshop

Author worked as design expert in the project to improve new designs and conducted two workshops with artisans to teach them design and designing. Also author conducted field studies, hold meetings with the local artisans and develop new jewellery designs compatible to telkari techniques. New designs are now being produced by local artisans. Conclusions of the project and the obstacles of working with handcraft artisans are explored in this paper.

2. Telkari

Silver “Telkari” handcrafting is an art that has been implemented in the upper Mesopotamian plain since 2000 B.C. Today, Mardin and Midyat are the two centres where artisan jewellers
are pursuing this unique artistic handcrafting activity as micro enterprises. Approximately 15 artisans in both provinces process 1.500 kg of rough silver per annum and create an added value of 150% to the rough material used.

**Telkari handcrafting process:**

1. *Melting silver in a pot:* 950 rough Silver bars and the rummage silver pieces are melted in a pot which is heated by LPG.
2. *Casting:* melted silver is poured into the 50x1.5x1cm cavity on a steel block.
3. *Rolling silver rod:* Silver rods are rolled in different grooves on rolling machine from thicker to thinner. After this process different wire Silver rods is made between 1mm and 0.3 mm wires optionally.
4. *Circular Rolling:* After making silver stripes, they are rolled in flat rolls.
5. *Making leitmotives:* In this stage generally Telkari artisans, mostly apprentices, prepare multitudinous motives separately which will be used in their original products they are producing. ‘Kakil’, on of the main motives, are prepared in its basic form and they are adjust according to the place they shall be in.
6. *Preparing frames of the product:* Main frame of the product is formed. This frame is both structural component and motive holder of the product.
7. *Putting motives in the frames:* Motives are put in the frames according to the artisans’ design.
8. *Welding motives and the frames:* Motives set in the frames are welded with silver powder.
9. *Clearing products;*
10. *Final forming;*
11. *Polishing*

3. **Telkari in Mardin**

Telkari carrying out in two place, Mardin and Midyat by limited artisans and workshop who are completely Syrians. Syrians are the Turkish Orthodox Christians whom are the one of the first tribe accepted Christianity in the Middle East right after birth of the religion. In Mardin, center of city, there are three artisans. Suphi Hindiyerli, is a master working as a teacher in Telkari course belonging to Mardin governship, came back to Mardin after 25 years living in Istanbul. He is a typical example for the loss of in skill of mastery of handcrafting.

In Midyat number of artisans, although much in respect of Mardin, is less than ten. These masters are also completely from Syrian community whose names are; İsa Ergin, Musa Ergin, Nuri Ergin, Abut Demir, Aziz Dilmeç, Ercan Didiş, Melek Akyol, Sami Akyol, Gebro Tokgöz, Hilal Yaşılı. New apprentices are working in the workshops and learning handcrafting near these artisans.

General aspect of today’s Telkari handcrafting is low profitable though it’s labour dense process. Presently products that are being producing in Mardin are the traditional products which have many years of past. Brand new and different products aren’t being developing. Monotony of products leaves behind the characteristics of Mardin Telkari and in this respect products are getting their prices according to their weight in grams not to the product itself. Because of artisans’ competetitions in Mardin depends on reducing prices instead of product differentiation reduces the prices to the reasonable minimum limit. Workshop producing same models have only the price as a competition tool.

It is observed that Telkari artisans are hesitant and conservative in producing new models except their ordinary ones. Authenticity deprivation decreases general interest to the Telkari handcrafting. Producers in Mardin and Midyat prefer to produce in few numbers from tradi-
tional small models, and one piece or sometimes none from bigger models. Low product variety causes low number sales per client.

As a consequence, nowadays, prices of Telkari, so the prices of Telkari labour move at the possible minimum levels. Low profit ratio creates unwillingness in general for old artisans and they tend to commerce. As a necessity of commerce increasing product range makes them to bring new products from out of Mardin. The threat is tradesman choose profit margin of ready-made products. Local workshops enhance their product variety by buying from China and Beypazarı. Beypazarı is a town in the capital of Turkey which realized a great development in being a touristic place. Beypazarı announced Telkari as its authentic handcrafting although they know it by an Armenian artisan whom migrated from Mardin one hundred years ago. Beside Telkari other types of silver works, importing from Istanbul constituting most of the products in the shopwindows, and their ratio is increasing gradually.

Difficulties in practice of Telkari is the main reason not being in demand by young generations of artisan families in last 20-30 years. Nowadays workers in workshops are the only the artisans whom had an interval for years and the young people who had an interest to the profession after the developments in political conditions of the region and the touristic affinity.

3.1 Conclusion for the Telkari in Mardin

Most important conclusions can be notice about the Telkari in Mardin;

- If the national and international rivals of Telkari handcrafting out of Mardin is taken into consideration, it is obvious that originality is inevitable. Reflecting local features gets importance.
- Design works on Telkari have to develop on two different aspects; first is designing brand new and different products, and second is designing new and original motives.
- Processes of convincing local artisans to design new products and to make them taking part in such project are to plan regardfully.
- Project has to be planned to make artisans to design new products continuously.
- New telkari designs have to be applied by masters and detecting probable practice problems is necessary for familiarizing them with designing and applying new products.

4. Project Process

Whole project was consist of extensive design work which was aiming not only creating new product and also developing a methodology to be followed by artisans. Researching cultural values to be used in new models increased the work density. Project flow chart is;

(see pp. 23-24)
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Globalization and sustainability

Project definition

Local cultural research

Marketing research

Research of traditional Telkari motives

Research of contemporary jewellery trends

Concept

Preliminary sketches

Consistency of concepts and preliminary designs

Eliminating alternatives

Presenting preliminary designs

Evaluating Telkari product range

Developing new product concepts
5. Primary Workshop
5.1 Aims of the Workshop

More dynamic structure of the jewellery, gift and accessories market create their own fashions. Telkari handcrafting that related all those market, must catch the same characteristics for adaptation and enhancing sales. For this obligatory the fundamental tool is developing new designs and new models continuously.

Important point is, new models have to be designed by artisans. In this respect, first workshop is conducted with artisans with considering this point. Beside this workshop supplied the chance of observing reactions of artisans to the developing new models.
5.2. Workshop

Workshop is conducted with two steps in two days. First day, at the first step, with a seminar all the telkari artisans informed about the Telkari, known as Filigree, in the world. Observations and evaluations about Suriye, Croatia, Istanbul and Bey Pazari made Telkari, are told.

After the seminar, frames on the paper, belonging to a figure designed by author, are given to artisans and requested to adorn them with patterns as they wish. During and after the workshop it is argued and evaluated with artisans, potentials of the new model on production, sale and marketing trends.

![FIGURE 2. Samples from workshop](image)

Different new frames belonging to two figures beside the frame they already did once are given to artisans to be made after the workshop. Filling one of them is requested. Second day frames that they adorned are collected, their new models and their approaches about new models and developing new models are discussed. Model designed and adorned by author is produced for analyzing the time spent for production of a design they totally not used to.

5.3 Conclusion of First Workshop

- Workshop was beneficial determining and observing reactions of the artisans relevant with new models.
- Artisans are insistent on producing models they used to and they are tending to criticizing new models.
- Seminar, at the beginning of workshop about designing pointed out that this kind of lectures is useful for them and their tendency about new models can be observed.
- For the first time, artisans interpreted and evaluated Telkari, they are producing, with a different view
- After the workshop, lots of different adornment works by every artisans indicated the huge variety of alternatives can be obtained with one frame.
- Despite all this works artisans are hesitant to design new models. This made obvious the necessity of planned education program instead of short workshop
- Designs which are developed as project outcomes have to be a specimen in place of commercial product, that reflects cultural heritage of Mardin

6. New Designs

In the project it is appeared that merely designing new Telkari models isn’t sufficient for the artisans’ progress. In this respect more easy and convenience ways of enhancing product vari-
ety are told artisans. As a beginning phase concepts for new product ranges are developed. New concepts formed with using actual and global themes, considering dynamic marketing characteristics of jewellery and accessories.

- Animal Figures Theme,
- Zodiac Theme,
- Music Instruments Theme,

One of designs from Animal Figures Theme is used in the first workshop for adornment practice. After the workshop, within a small lecture other themes are explained and discussed on designing new products.

Designing new Telkari models as the main objective of the project is put off after this phase. According to initial project program, limited in number models would be designed by the author. But all the observations obtained from researches pointed out that to give models to artisans and expect them to use new models by themselves wouldn’t be productive enough for the project progress. So, carrying out new models with artisans and determining difficulties while they practicing, is important to modify the models for optimum application. Two points are fatal for new models. First is designing models considering Mardin cultural features, second is new designs have to be easy for artisans’ practice. Making of new adornments have to be similar to the ones they used to.

In this section designing models considering Mardin cultural features, will be extended. Beside well known architectural adornments, Mardin region have endless cultural wealth that depends on many civilizations’, settled in the area through the history. Different languages and different religions in Mardin are the indicators of the diversity.

“Civilizations” theme is selected for the conceptual base both accent cultural features to the adornments of the Telkari handcrafting and make artisans to sustain designing new Telkari products with the same source by themselves. Throughout the over 5000 years civilizations, such as Asurs, Roman Empire, Seljuk Empire, Arabian, Artuklular, Ottoman Empire, and Turkish Republic leaved great cultural affluences to the region that creativity can be nourished.

Heritages of the countless civilizations are not used solely designing new Telkari products but also designing new patterns and motives different from ‘vav’ and ‘kake’ patterns which are presently being used by local artisans’. Furthermore basic motives of Telkari handcrafting are interpreted for creating brand new patterns.

FIGURE 3. “Belief”, “İnanç”
7. Second Workshop Phase

Second workshop is conducted for detecting the problem while they are producing new designs. Aim of the second workshop is, more than augmenting familiarity like in the first, developing the new models that will be designed, with considering the production problems. In the workshop progress, with the participation of the masters to the design process;

- Examining the production of new patterns and motives,
- Describing new models to the artisans,
- Opinions of the artisans about the new designs,
- Observing the problems arose in the production process,

Workshop planned as three days. Before these three days, a preliminary meeting has organized with the telkari masters Adnan Sağlamoğlu, Suphi Hindiyerli and Master Hanna, who will participate in the workshop.

On the second day, after the preliminary meeting, measured drawings belong to one of the new designs, could be used as templates are given to masters. Before giving drawings new design are explained to them. Same drawing is given both of them. Right after the ending of the first one’s production, second ones and the other’s drawings would be given to the artisans. Workshop goal was to produce at least five models in three days. Telkari masters was able to produce only the first model in the workshop process.

8. Conclusion

Comparing production time of models Telkari masters get used to with the production duration of the new models considerable difference appeared. Production of a new design, which is given with all the measurements on the paper, has taken approximately 24 hours. Although always producing a handcrafting for the first time needs more time, that duration is excessive.

Telkari artisans because of the low profit margin, they have to produce plenty numbers of Telkari. This aspect makes them to produce the traditional models they well know and the models they can produce in fastest way.

Moulded Telkari products, coming from Istanbul and Far East, threat can be converted to advantage with producing with underlining value of handcrafting. Underlining handcrafting needs to produce elegant models.

It has to be taking into consideration that Beypazarı went to the fore by product variety and developing global models. Mardin Telkari requires designing new models that reflects its own cultural features. This project structured mainly for the aim of educating artisans about designing. Furthering Telkari more than a wire work and to get the sustainable development can be able by benefit from roots of Mardin.

Designed products in this project emphasize cultural heritages of the civilizations of Mardin with considering traditional motives and producing methods. Identity of the region is used in models by motives and patterns. On the other side contemporary consumption trends are quoted.

Telkari artisan candidates have to be grow up with new product development custom. This can be organized civil institutions.

For sustainable development of Telkari, it has to be founded new public institutions that support and promote Telkari art.
Design Methodology

For developing new Telkari designs a Design Method developed and proposed according to the social - economic conditions of the Telkari masters and existing situations in Mardin:

![Design Methodology Diagram](image)

FIGURE 4. Design methodology

References:

Ensici, A., 2005 Gümüş işçiliği ve Telkari Geliştirme Projesi Raporu, Mardin, UNDP
TRANSFORMING TRADITION FOR SUSTAINABILITY
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Abstract

This paper aims to explore the possibilities of transforming the traditional knowledge into modern life. It focuses mostly on design in development area. My point of view will mainly Indonesian, but similar cases can be found also in other developing countries. Since there are many misleading product development cases—for the sake of ‘modernisation’—that in fact have contributed to more complex social and environmental problems, my paper will seek the understanding of this critical issue: what should be the spirit of any innovation or product development; should it be more targeted for enriching human values, or rather for stimulating human infinite drives? With emphasizing sustainability and environmental issues, this paper argues that the application of inventions, innovations, or product developments should not be driven only for economic advantages, but rather first for necessity that centred in people needs. The relationship between products and people then will emphasis more on the quality rather than quantity. To deal with this issue, this paper proposes two main discussions: to look back to tradition, and to explore the possible model for the implementation of particular valuable traditions into the product development process. The model shows five significant components of tradition that might be used to create the utility and image of the new product.

Introduction

Many objects, so-called primitive, indigenous, or traditional that have been inherited from generations, have shown their excellent qualities in practical use and design, even some are still in use today. In traditional and indigenous knowledge and practice, we often find undoubtedly harmonious balance between aesthetic and function, physical and ideological purpose, and economic and ecological decision, resulted by thousands of years accumulation of practice experience and collective wisdom. Howes (1980), a social anthropologist, in the past four decades has shown that various indigenous knowledge and practices often have a comparative advantage for sustainable improvements of people’s live, concerning to their ability and empirical understanding of localised eco-systems.1 In Howes opinion, it is important to explore the use of such knowledge that might be assimilated with existing sciences and technology. Later on, in 1995, in “The Cultural Dimension of Development” a number of scholars from multi-disciplinary fields generated further discussion on indigenous knowledge system and its role in the development process.2 The papers, which consist of evidence of collection of research from many countries and resources, show great variety of the usefulness of indigenous knowledge for improving sustainable live. They also note that in many areas, traditional and indigenous knowledge is far more relevant and functional than had been labelled as a primitive or inferior class of knowledge.

There are some factors why indigenous technical knowledge receives many great concerns. Tradition has become a tool by many countries to create identity as a ‘counter-culture’ against the dominant culture or globalisation. As Brynjulf Alver (1992) notes, “Giving tradition a new life became a national pursuit…everywhere in local society today there is a strong need

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to state one’s identity.”³ Perhaps for today the most concern are the socio-economic, cultural and environmental arguments. Modernisation has not only brought many new advantages for human lives, but it also has resulted its dark sides: the man-made ecological disasters such as ‘energy crisis’, infinity of products and consumer goods that resulting disposal culture and degrading our environment.

The increasing awareness of the valuable traditional knowledge has also stimulated United Nations Development Programme (UNDP) in 2001 to publish volumes of book concerning indigenous practices from different disciplines, such as economic, environment, agriculture, medicine, social policy, and appropriate technology.⁴ These volumes present the wide range of successful innovation projects that are based on local traditional knowledge in the developing countries like Asia, Latin America and Africa. Emphasising on sustainability, they promote local solutions, make use of local materials and knowledge, innovative in meeting social needs, and for the end, they can improve the livelihood of local community.

While traditional knowledge and practices have been widely explored, intensively studied, and implemented in various fields for development purposes, this is rather not yet a hot topic in design profession. Generally speaking, this issue is not quite new, as Viktor Papanek in 1972 has already proposed the use of design for revitalising ‘vernacular design’ to improve the quality of lives of local community.⁵ For Papanek, traditional knowledge is a valuable asset or capital for designer who works in the development area. He points out that design should be more sensitive to the masses of people who live in poverty spread in many parts of our globe. After Papanek, during the decades, a number of design scholars and institutions such as Design Without Borders and Design for the World have proposed the similar critical issues from various points of view.⁶ What all have in common is to argue that the role of design have been addressed too much for increasing competitiveness for industries, or stimulating more consumerism; design indeed has more responsibility also to the global social and environmental problems, so that it supports sustainable development of the majority of people. However, this vision has never become a mainstream. As Victor Margolin (2002) mentions, the proposals from Papanek and other scholars were remained marginal and did not bring significant impact on the industrial design profession.⁷ Still, urban modern societies and the industrial manufacturers are those who mostly receive the benefit of design services; the rest of the world remains untouched.

Based on this concern, this paper will seek the possible implementation of design for revitalisation of traditional knowledge. This aim is not for a romantic indulgence, anti modernism, or call for going backward to a primitive stage. It rather attempts to explore the possibilities of bridging modernity and tradition harmoniously while we, designers, shaping our material culture environment.

Design: traditional versus modern

The concept of traditional in this paper refers to a term according to or being tradition that covers any established method, practice, beliefs or customs, passed from one generation to the next. The word traditional is usually associated with things such as oldness, static, indigenous, or primitive; as contrasted with modern that expresses dynamic, newness, present, and progressive. Hilde Heynen (1999) in “Architecture and Modernity” describes the concept of modern that means present, current, new, or momentary as the opposite to the past, old, or the notion of no longer being which all might be an attribute for traditional. Thus, she also notes:

“Modernity is what gives the present the specific quality that makes it different from the past…Modernity is also described as being a break with tradition, and as typifying everything that rejects the inheritance of the past.”

In “Culture Against Man” Jules Henry (1963) attempts to describe the essential different between the primitive and modern worlds. In primitive culture, as a rule, one does not produce what is not needed, thus objects are made in the quantity and at time required. As a contrast, resulted by contemporary dynamics, modern culture lacks of property ceiling. In Henry’s view, the most obvious gap between these two cultures is that while the primitive culture produces a fix bundle of wants that resulting stability; the modern culture creates infinity of wants that resulting restlessness. Nevertheless, Henry also defines two important poles of human life: one is ‘value’ and the other is ‘drives’. Value refers to all kind of things that most human being would like to be: love, harmony, kindness, quietness, fairness, contentment, fun, honesty, relaxation, and simplicity. Meanwhile, drives are other element of human being resulted by driven culture such as achievement, competitive, profit, expansive, progressive and mobility. It is drive that always demands security and a higher standard of living. People in the modern society live between the fight of this two poles. Unfortunately, the situation seems to be unbalance. In one side, there are so many institutions and supporting instruments available for facilitating human’s drives, while in the other side, there usually lacks of support if one seek for value.

When we try to reflect design profession from Henry’s model of cultures, design seems to operate by negotiating between two tensions of contrasting poles between ‘primitive’ and ‘modern’ culture, or between ‘driven culture’ and ‘values’; in which such condition often becomes a source of the essential dilemmas in design profession. In Margolin’s definition, design, now has to choose between two models of development: expansion or sustainability. The ‘expansion’ model closely related to ‘driven culture’ in Henry’s term, and the ‘sustainability’ model fit with the ‘value’. The question is, can design combine these two contrasting goals in its activities? How should we deal with this dilemma? This paper, however, will not attempt to provide the answer, but it rather explores how design can contribute to minimise the problem.

Problematic in design: Indonesian cases

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In general, the process of modernisation in developing countries is fairly more complex than those in the developed countries. In Indonesia, one of the common problems usually is that: industrialisation, new technology, and design, which have been imported from western culture, often operate without any correlation with traditional or local culture. Consequently, many implementations of design or technology, which is separated from cultural contexts, will usually become a main obstacle in reaching the goal of sustainability.

Sulfikar Amir (2002) argues that the significant problem has also occurred by the lack of design policy in most third world countries. In Amir’s point of view, the problem cannot be solved only through the materiality of design. What more important is how to produce design policy in national level that placing design not only as a tool to increase the competitiveness that beneficial only for the minority (industrial manufacturer) but it should also be generated for empowering the majority of people, with their particular social and cultural conditions.

Generally speaking, people have already learnt a lot from a number of cases showing how important to consider the traditional knowledge when any action of modernisation was being implemented. In extreme, some cases have shown such conditions where we sometimes just have to look back to tradition, and re-apply its old methods and practices. We witnessed, for instances, in agricultural field, after long time of using pesticides, now the farmers start to re-adopt the traditional ways of organic farming, sometimes with combining it with new technology which are more ecological sounds. Nowadays, traditional way of using natural dyes for textile production is more recommended than using the chemical one. And there are still many similar cases have been found.

Focusing on design case, such as in architecture, the application of western concept of modern housing in Indonesia has changed most of traditional way of dwelling, affecting also the changes in wider socio-cultural and environmental contexts. In many parts of Indonesia, traditional houses are usually made of natural material such as wood and bamboo. Nowadays, modern houses that are made of concrete material have replaced many of them. Considering that Indonesia is a country where earthquake is the annual agenda, the use of concrete with lack of implementation of sophisticated building regulation, often bring more damage and lost of lives when the catastrophe happen. The report of recent earthquake in Nias Island Indonesia showed that the wooden traditional houses are proven to survive better than the concrete one. Furthermore, in the place where humidity is high, concrete houses have more risk in having mould problem comparing with the bamboo or wooden houses, which by nature, their structure provide sufficient ventilations. From social point of view, not surprisingly, the implementation of modern concept of interior might cause the change in the relationship between members in the family, and the family with its community such as the neighbour, and the visitors. The open space concept of most Indonesian traditional houses accommodates the family members to communicate and take care each other tidily. Inside the house where there are no strictly divided rooms, the mother can still look after her baby while working in the kitchen. She can even join the conversation with her husband and other son, which take place in the dinning room. She will also know right away which neighbour comes in front of the door. This concept of space keeps all the members always in a good contact. As a contrast, in a common modern house, this condition is often impossible. In most modern houses, there are many rooms inside the house, and spaces are rigidly divided into formal division with formal function. Each room has a door to provide more privacy to each member, but isolates the frequent ‘in touch’ and communication between family members as used to be.

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Another case is in packaging design area. Like in many parts of the world, nowadays, everywhere in Indonesia even in a very remote area, goods that are made of plastics, include food packaging design, have gradually become part of daily life replacing the traditional one. It is very reasonable, since they are economically more practical to be produced and cheap. Thus, some traditional cakes that used to be wrapped in banana or coconut leaves, today are covered by plastic sheet. Most of them now have lost their original taste and get easily rotten in the place where the degree of humidity is quite high. Some similar problems occur also in some plastic kitchen utensils that are traditionally made of plaiting bamboo, rattan, or wood. Today, the use of plastic or styrofoam for meal boxes significantly increases replacing the traditional bamboo boxes. Compare to the traditional meal boxes, these new food packaging objects probably have no superior value but economical. Visually, the shape looks unattractive. From ‘function’ point of view, the common use of stapler nails for fixing the lid creates difficulties to open and re-close the lid properly. Ecologically, the waste material contributes more problems to environment. Furthermore, a great concern also should be addressed to the lost of social and cultural meanings of the objects. My aim, however, is not to argue that plastic should not be used in the field of food packaging design. In my opinion, the use of plastics, which has both advantages and disadvantages should be wisely controlled and planed, to fit with the condition of people and its nature.

These brief examples of design cases illustrate, first, how important design should serve and meet the environmental, social and cultural activities of the society. Secondly, for many cases, design should be based on tradition; means that local traditional and indigenous knowledge is a valuable asset for design especially when using it for development work in a specific condition. Design can effectively contribute to sustainable development of societies only if it can collaborate their traditional knowledge in its plan.

**Design based on tradition**

How we assimilate tradition with modernity? How to transform old tradition into our modern life? This paper proposes a model that specifies the components of tradition and its transformation process into a new object or product. In this model, there are at least five important components in tradition, which act as a foundation for creating a new object, product, or artefact. These components might be divided into two main groups as (1) physical category, such as materials, techniques, gestalt, and (2) immaterial category, such as images, and hidden factors.

*Materials* consist of all kind of raw materials that usually construct the traditional objects. It can be wood, ceramic, terracotta, bamboo, rattan, stone, natural fibre, rubber, glass, and metal. Techniques are any kind of indigenous technical knowledge, such as production technique, skill, tool, process, and all kind of facility. *Gestalt* covers the object usability, form, size, shape, or even idea and concept. *Images* can be any form of local nature, shape, ornament, colour, myth, story, people, or artefact. And finally *hidden factors* deal mostly with things that can only be measured qualitatively, such as local custom, belief, characteristic, ideology, and culture. Independently, each component has a ground for giving a shape and building the whole utility and image of the development of new object. In practices, the new object may represent whether only a ‘single-dominant’ component or a combination of components. Thus, the final result of the development will be contextually characterised by the main premise of each situation and condition. Some development might be approached from revitalising traditional technique, and some might prefer to improve local material.

In a more concrete practice, transforming tradition can be described as following. To develop the new object or product, we can apply the traditional material, or techniques, or the combination of them. For instances, many traditional bamboo basketries, rattan furniture, and ce-
Dramatic tableware might be re-designed whether based on local material with the improvement of production technique, or local techniques with combination with new material, or using both local material and techniques in generating a new form or function of product. New design of cooking utensil, like ‘wok’, can be inspired from the image, shape, and function of the old/traditional one. The new wok can be a combination of the traditional material such as wood and bamboo for its handles, with some new materials (for example aluminium-stainless steel), and perhaps with introduction of a new production technique. The new object sometimes also designed to represent the value of cultural identity by promoting local images (ornaments, colours); it is usually produced for tourism or souvenir goods. In this case, local image is highly exposed and functions as the centre of the product, allowing it to use also absolutely new shape, material, or technique. The examples of these might be found in many artefacts such as decorated ceramic jars, carved wooden boxes, or textile and cloth products. Conceptually, design might be represent very modern shape, but actually it reflects some hidden factors, such as local culture, belief, norm, or habit, which are visually unseen. Although it might be quite difficult to justify the content of tradition’s transformation concerning that no strong identity appear, such as in the use of local material or technique, in this case, the essence of the object lays in the expression of its form language. It is said, a modern object with the spirit of tradition.

In this context, design is successful, only when it can generate sustainability. The mendong carpet is one example of successful design. In West Java, a team of designer has worked together with local community to develop their traditional hand woven carpet products using material called mendong. The new designs, which are based on local material with some little improvement in weaving technique, and exploration in various pattern and size, have opened new markets and also new working places for many people. More importantly, this project has brought the local community as the actor in sustaining their livelihood, by improving their own traditional practical knowledge.

However, great exploitation of particular raw material from nature may harm to the quality of environment. Dealing with this issue, in Cirebon, as centre of rattan furniture producer, besides continuously keeping the traditional technique, a new concept of design has been introduced, which applies new materials, such as metal and wood as a structure, reducing more than 35% the use of rattan in most furniture product.

This model of sustainable transformation of tradition, however, can only work effectively when local people, the craftsmen, or the producer are put as a centre in the design process. It is also very important that any improvement in material, process, or technique that belongs to traditional knowledge, should not express as a designer’s expansion, but rather as collaborative exchange knowledge between designer and local people in fulfilling their need and desire. Closing the discussion, let us hear what Norman Uphoff (1996) notes:

“… process is often more important than product within indigenous culture spheres. How things are done is more important than what is done, with great emphasis placed upon social relationships and preserving the harmony and integrity of the community and culture, more than on individual recognition or advancement.”

**Conclusion**

Many traditional knowledge and practices that still exist in many parts of the world are valuable inheritances and lesson to life, due to their ability to suit with the people’ needs in har-

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mony with their nature environment. Design, both seen as practice and policy, plays an important role in transforming and applying various traditional knowledge and practices, and sustaining the improvement of the people’s livelihood. Understanding the socio-culture and environmental dimension of particular society, will avoid any mal-application of design that often result contra-sustainability. This is to say that design should be based on tradition.

This paper proposes five components of tradition that can be transformed and revitalized into a new object or product, such as materials, techniques, images, gestalt, and hidden factors. Each component, or a configuration of some, can be formulated as a basic concept for further development of new product. From this model, however, there are many things still have to be explored. Some applications will probably fit better with artistic approach denying functionality or the economic benefit. Further study should be conducted to find out which approach(s) of this model can be applied for resulting the most appropriate sustainability.
GUATEMALAN ARTISAN DEVELOPMENT THROUGH INDUSTRIAL DESIGN

Percy Hooper, North Carolina State University, USA; Ovidio Morales, Universidad Rafael Landívar, Guatemala

For generations, the artisans of Guatemala have produced high quality floor tiles and roofing tiles by employing the most basic materials and manufacturing processes. The typical process involves digging three types of soil from the local terrain, adding buckets of water and trampling the mixture with their feet. They then press the mixture into molds and smooth the surface with a machete. The tiles are left to dry in the sun. After the tiles are stacked in brick enclosures with cords of wood, the wood is set ablaze and left to cool for a week. The results are top quality masonry units that are used in local construction and exported around the world. The work of these artisans is considered by government economists to be an untapped source of economic potential in the less developed areas of the country.

This is just one example of the traditional artisans’ skills still practiced as some of the national treasures of Guatemala. Other equally fascinating artisan skills include the crafting of furniture, metalwork, pottery, jewelry, and weaving. In cooperation with the Guatemalan government, the Industrial Design students and faculty of the Universidad Rafael Landívar are currently collaborating with local artisans to help them expand their “product line” for broader sales and marketing in the United States.

This narrative relates how the Landívar design program orchestrated their design student/artisan collaboration and how this educational coalition is now being expanded to partner with Industrial Design students from North Carolina State University via Internet.

Ovidio Morales, professor, designer and co-author of this work explains how the student/artisan collaborative, named Proyecto Cuatro, or Project Four, originated.

University opened its doors in 1987, the program paid special attention to the inadequate compensation offered to the local artisan – handcraft and agriculture industrial development. Since that time, our industrial design program has provided society with trained design professionals capable of transforming raw materials into products, having such results as furniture designers, lamp designers, and product designers. As the only University in Guatemala to offer Industrial Design, we are making the market aware of the potential of our professionals. Being a Jesuit University, we promote social projects to aid people and communities by applying our own discipline. One such program is Project Four. It is a design course in our industrial design masters program. It is called project four because it is the fourth sequential project out of a total of 8 semester project courses. Its main purpose is to engage students in real life design problems, specifically in artisan products. By virtue of an agreement signed with the artisans of Antigua Guatemala, our students are able to work in the artisan’s actual workshop. The goal of the course is that students be able to design, with the skill and guidance of the artisan, new and innovative products. The collaboration is a true partnership because, the artisans, who may work in wood, silver, jade ceramics and some metals such as bronze, offer their workshops and knowledge to the students. And, in exchange, the industrial design department offers training to the artisans in related design fields, such as 2-dimensional design and methodology.

At the start of the course, the students take part in a six-day field trip called “Gira Artesanal”. On the trip, they visit different artisans’ workshops throughout the country. They visit artisan communities in the regions of Cobán, Petén and Izabal. Of course, the artisans’ shops are contacted in advance to facilitate the tour. The goal of this trip is that the students not only see and understand the production process, but for them to appreciate that what the artisans do is
part of their life. Artisans’ products and techniques are inherited from generation to generation and is part of the Guatemalan culture. This awareness helps the student approach the project with the proper degree of respect for the culture and the artisans’ way of life.

The teacher facilitates the student/artisan interaction. First, the artisans give the students a short talk that includes information about the materials, tools and processes. After that, the students are allowed to take pictures and converse with the artisans. Some of the questions posed to the artisans are about costs and manufacturing processes. All such questions are promptly answered by the artisans. Not only do the students get to see the production process up close, but they get to try their hand at using the artisans’ materials and techniques. Guided by the artisans, students are invited to experiment with a range of techniques.

Immediately upon returning from their trip, the students turn their attention to research. They form research groups to investigate such topics as “National and international market tendencies in the design field”. The report is presented to the whole group in an audio visual presentation. This information will help each student discern if there truly is a market need for his new product. After the students use their research to gain a better idea of who the artisans are and how they work, the young designers receive their assignments to work with specific artisans of Antigua Guatemala who have previously agreed to participate in the project. Why Antigua? There are two very practical reasons. Antigua has a diverse community of artisans and it is very close to the university campus.

The Process

While working closely with his assigned artisan in his workshop, the student observes his mentor and asks questions until a design challenge becomes apparent. He then undertakes to find solutions to the problem. Over several trips to the Antigua workshop, the student proposes and assesses possible solutions. He also brings his work-in-progress to the professor for assessment at regularly assigned times. Students are expected to visit the artisans’ workshop for a minimum of fifteen visits during the project to consult with the master craftsman and to create his own work under the artisans’ direction. The student visits are verified by forms that the artisans must sign and date showing that the student did indeed participate in regular workshop sessions. Nearing the end of the semester, the students must present their creations to the faculty of the university design department. The compulsory documentation includes a thesis report describing the student’s research, alternatives of design, final proposal, renderings, plans with measures and scale and bibliography. With that requirement now satisfied, the students next make a grand two-day presentation celebration in Antigua, Guatemala. What they have to show is full documentation and a finished prototype of their new product. This is a product designed to respond to the needs of the artisan using the materials and processes found in his own shop. There the artisans gather with the students, faculty and parents to view the completion of the semester’s work. In addition, the Guatemalan artisans association is present to see the fruits of the coalition’s labors, along with members of the press and representatives of AGEXPRONT, The association of artisans of non-traditional products. The sixteen week adventure is complete.

Interviews

As an interested observer from North Carolina State University, I visited with several students and artisans who had participated in the 2005 Project Four initiative.

Artisan Juan Antonio Juarez explains that his family has been in the metal working business since 1890, when his grandfather had a booming business shoeing horses. When the horses became scarce in Antigua, his family began making decorative ironwork for homes. Now, his
creations of gold and silver are on display in museums and his work has represented the country of Guatemala in international conferences of craftsmen of precious metals.

A few doors down the street, Edi Haroldo Gaitán and his father Joaquin are builders of fine wood furniture. Their family has been in the woodworking business for five generations. As a testimony to the durable quality of the work done by Edi’s family, I asked the purpose of thick leather sheets soaking in a bucket at the entrance of his shop. Edi turned and pointed to a sturdy, yet gracefully designed dining room chair that had had the seat pad removed. “The leather is for that chair.” He explained. “The chair was built by my grandfather thirty years ago. The owner has just brought it back to our shop to be reupholstered.”

Both Edi and Juan Antonio are artisans who have enjoyed participating in the Project 4 collaboration with Rafael Landivar students. When asked about their experience with the young designers, both men started by stating that they have been involved with the program since it first started four years ago, and they are looking forward to continuing with the students next year. They were obviously pleased with the result of the students’ apprenticeship. I asked the men what, if anything, they felt it necessary to explain to the students right at the beginning of their collaboration. Edi stated that a problem he needed to address right away was the matter of dimensioning. “The university students learn to measure in metric, but in our shop, we only use English measurements. Students learn pretty quickly that it’s not so easy to convert 3 and 3/8 inches into metric. Additionally, the students must learn the limitations of the material. There are some things you can build out of wood, but other forms are better crafted out of other materials.”

Juan Antonio responded candidly to the same question. “The students have to learn that everything they imagine can’t necessarily be made. Imagination is important, but in order to build anything, they have to come down out of the smoke and face the reality of what can actually be made with the materials you have.”

Universidad Rafael Landivar Professor Hector Ponce couldn’t agree more. “Paper will accept anything you can draw. But when it comes time to actually make it, that’s when the reality of the difficulty appears. The design is modified a little at a time. But, the modifications must be seen as improvements along the way.”

Demonstrating that he has taken that counsel seriously, Luis Medrano, a student in the Project 4 program, displays the set of home accessories he has crafted under the tutelage of Juan Antonio. The black, metallic wall lamp matches the waste basket and candle holders. But, the beauty of this creation is more than just skin deep. Luis’ fingers fly over the keyboard of his laptop computer until a professionally crafted Flash presentation appears on the monitor. This presentation, which was composed to show his design process from beginning to end, marks its beginning much earlier than some would expect. As Luís guides me through the animated presentation, he explains that before any student could choose a product to design, he first had to establish a concept rooted in ancient Guatemalan culture. In Luis’ case, he chose for his inspiration a Guatemalan folk tale recounting a clever man’s escape from certain death. The imagery of that triumph becomes the basis for the design of the family of household products. Juan Antonio seems proud of his young student’s achievement.

When I asked professor Ovidio Morales what results he sees from the work of Project Four, he answers simply, “DEVELOPMENT. Due to participatory industrial design, with the help of students aided by their professors, artisans can better their lifestyle by having a greater economic income. That additional income comes from selling better “designed products” that answer the needs of the market. For example, Mr. Marvin Perez, a member of the Artisan’s Association of Antigua, was recently able to sell his wood dining room furniture for up to
Another plus is that students and artisans get to interact on a very professional level, and a very good friendship grows between them. Even though the project ends at the end of the semester, some students visit their artisan mentors on a regular basis, just to have a cup of coffee and chat, now in a relaxed friendly situation/environment. From the students’ point of view, working in a real life situation gets them the tools to make future real life work decisions. Now, they know more about their Guatemalan heritage and they see that the artisans’ work is part of their culture. They feel concerned and aware that it is up to them to keep the tradition alive. They are also aware that industrial design through a better product can improve the artisans’ economic level by providing better, well-designed products to sell. That is true development in the eyes of the industrial designer!!"

The Next Step

After speaking with the participants in the Project Four initiative, I believe our graduate Industrial Design students at NC State could benefit from the academic experience enjoyed by Rafael Landivar students. For that reason, Ovidio Morales and I are preparing to conduct a joint studio with our respective design studios in an upcoming Project Four outing. Because of the costs involved, our first collaboration will be “virtual,” with all information being conveyed by Internet. Our first design challenge will be to address the needs of the tile making artisans depicted at the beginning of this article. Our goal is to further the improvement of the Guatemalan artisans by publishing the effectiveness of this program and seeking grant funding to make further academic collaborations possible.

Ceramics Shop
(Taller de Cerámica en Torno)
Rabinal, Alta Verapaz
Artisan Oscar Xitumul
with industrial design students

Artisans Community Nu Kem
(Comunidad de Artesanas Nu Kem) Tactic, Alta Verapaz
Student Lucía Lobos
Necklace
Silver and Jade
(Ixmucané Aguilar, 2003)
Flower base and

Earrings
Silver and Jade
(Melissa Pelaez, 2005)

Necklace
Silver and Jade
(Jessica Palacios, 2005)
Candle holder
Iron
(Luis Pedro Quiñonez, 2003)
INDUSTRIAL DESIGN COLLABORATION WITH AID TO ARTISANS GHANA
Glenn E. Lewis, North Carolina State University, USA

This is a project that began with a very narrow focus, entitled: Integrated Rural Arts Product Development Innovation: 3-D computer-aided Concept Visualization Methodology.

The objective of this activity was to provide Ghanaian artisans an opportunity to view photorealistic 3-D virtual product concepts comprised of traditional design, form, and function to serve as design inspiration. In addition to juxtaposed traditional design, visualization of product concepts integrating assemblies of components from artisans of different regions.

The hypothesis is 3-D computer-aided concept visualization will encourage collaborative relationships with diverse artisans resulting in an expanded breadth of ethnocentric contemporary and perhaps innovative products capable of responding to and capturing segments of rapid changing western markets.

Two organizations served to facilitate this project, Aid to Artisans Ghana (ATAG) and Kwame Nkrumah University of Science and Technology (KNUST), Department of Integrated Rural Arts & Industry (IRA). Aid to Artisans Ghana is a local non-governmental organization that offers practical assistance to artisans and works in partnerships to foster artistic traditions cultural vitality and community well being. Through training and collaboration in product development, production, marketing and business development, ATAG fosters sustainable economic and social benefits through employment creation and income generation for crafts people in an environmentally sensitive and culturally respectful manner. ATAG was also responsible for securing the primary funding for the project through the United States of America Agency for International Development (USAID), the Ford Foundation, and private donors. Funding for the collaborative work with the KNUST Department of Integrated Rural Arts & Industry came exclusively from the Ford Foundation.

ATAG and IRA are long time collaborators. ATAG headquarter in Accra, located at the International Trade Fair Center. Also located on site are the field office, gift shop, gallery and new Internet Café and Media Center. Field office, gift shop, and gallery located at Kumasi, in the Ashanti Region. Accommodating a wider spectrum of artisans nationwide, ATAG has established an office in Bolgatanga, in the Upper East Region for the Northern sector artisans; offices in Kpando in the Volta Region, and at Mankessim for the artisans in the Central Region.

The field representatives dispersed throughout the country is native to their respective regions and graduates of IRA. Matriculating students and graduates have multiple obligations to intern with individual craft production companies or craft production communities, depending on their areas of academic specialization. Graduates of IRA are mandated by the state to serve one year of national service in there respective discipline.

Undergraduate third year second semester students, by virtue of the IRA department course structure are assigned field internships focusing on two distinct media within the curriculum. The media concentrations are Wood, Metal, Clay, Straw, and Textiles.

IRA has a participating network of craft production companies or craft production communities throughout the country. Students rotate between production areas and producers working in their selected media for (2) six-week periods for the semester. Preferences are granted to ATAG affiliated producing areas and where ATAG is currently providing interventions.
through projects. This relationship provides an opportunity for ATAG to monitor and track the program progress.

**Establishing a digital media center**

Discussions regarding the Establishment of the ATAG Media Center began after twenty-four months and several visits to Ghana. Conceptual demonstration projects were completed and presented on subsequent visits. With the positive reception of the 3-D computer-aided concept visualization methodology, the board of ATAG was receptive to the development of an onsite Media Lab. Establishment of a Media Lab served to satisfy a component of ATAG objectives, which is to improve the technical assistance in production capacity to crafts people producers and exporters.

The strategy for establishing the media lab began with the preparation of a comprehensive proposal, which identified the constituency, facility, technology, and personnel. Fortunately, USAID, ATAG’s primary source of funding was receptive to the proposal of expanding the technology component, confirming the media center’s mission to offer technology education to artisans with sensitivity to preserve artistic traditions cultural vitality and community well being. USAID funded the proposal in its entirety.

Ancillary to the proposal was the request for an academic scholarly sabbatical, which coincided with the physical establishment of the Media Lab. Fortunately, the timeframe for faculty eligibility; seven years service minimum qualified me for the sabbatical.

With funding secured and supplemented by the Ford Foundation and private donors work began on the Media Lab. ATAG had a two-story unfinished octagonal building on site, which served as a storage facility identified as the future site of the Media Lab. An architectural design-build firm began renovation of the structure. With construction underway, procurement of technology equipment and software commenced. Procurement of computers, peripherals, and software took place in the USA and shipped via airfreight to Accra.

With the approval of the academic scholarly sabbatical ATAG arranged to accommodate my wife, daughter, and me. We arrived in Accra several weeks prior to the completion of the facility and one week before the arrival of the computers. Fortunately, I enjoyed the company of wife and daughter for the initial two months after which they returned to the states.

Completion of the physical structure, included addition of a second level, poured concrete floor, walls, windows, stairs, and air conditioning. ATAG staff designed and fabricated the computer workstation furniture on site. Installations of ten general-purpose computers were located in the lower level and ten high performance workstations installed on the upper level.

The lower level of the structure is a Cyber Cafe and teaching facility with limited library resources. The upper level accommodates high-end graphic classes and production. Several months after the establishment of the Media lab, ATAG added a high-resolution 3-D rapid prototyping system.

**Media Center Course Development**

Initially the Media Center was to serve as a computer training and product development facility. Artisans would receive training in basic computer literacy, internet browsing, and graphics. The 3-D computer-aided Concept Visualization Methodology served as a key component in Product development.
Many of the artisans had limited to no experience with computers. We believed it essential that a minimum level of computer competency was essential to take full advantage of the facility. Short courses in basic computer operation and internet browsing especially Google Image Searching proved beneficial.

Shortly, after the Media Center opened it was determined that the facility should be accessible beyond the artisans population and self-sustainable. Consequently, the lower level of the Media Center became a Cyber Café, generating funding to supplement other activities. This proved to be far more successful than anyone had anticipated.

Conceptual demonstration projects of 3-D photorealistic digital images created much interest among many artisans and non-artisans alike. Utility graphic applications used in developing presentations such as Adobe Photoshop, Illustrator, Macromedia Dreamweaver, and InDesign attracted attention and many people inquired about learning. The tools routinely used in the upper level of the Media Center for product development and presentation became sought after for courses.

Artisans and others were particularly interested in 3-D modeling. Alias StudioTools serves as our modeler of choice in the NCSU curriculum, we chose Rhino3D as our modeler for reasons of capability and cost. We also established ATAG as the sole distributor for the product in Ghana.

A series of 3-D modeling courses were prepared including; Intro to 3-D modeling, Advanced 3-D modeling, Jewelry Modeling, and 3-D modeling for Rapid Prototyping. Each of these courses has duration of 4 to 5 days. Additional courses included Digital Product Photography, Introduction to digital graphics (Photoshop, Illustrator, and InDesign).

Initially I was responsible for teaching each of the above courses, over time the staff have master the programs and teach the introductory courses. In addition, national service students have matriculated the course and served as instructors over there term of service. I continue to teach the advanced level courses, particularly the 3D modeling, Jewelry Modeling, and 3-D modeling for Rapid Prototyping.

**Product Design and Development and Artisan Business Training**

Product design and development has included the task of adapting and/or modifying existing products as well as creation of new products from local design motifs. Artisan business training has included presentations demonstrating the conceptual integration of product components manufactured by various artisan specialists. Expanding the awareness of artisans capabilities serve to bolster confidence that potential production level can support export ventures.

Presentations and demonstration of new technologies for design and development is the focus of here. Identification and recommendation for the adoption of appropriate design software for product concept visualization was a key task. Planning for training ATAG field representatives is an ongoing progress. Review and revision of guidelines for quality control standards based upon enhanced product development methodologies.

**Curriculum development: KNUST, Department of Integrated Rural Arts, & Industry**

ATAG and KNUST, Department of Integrated Rural Arts & Industry has enjoyed collaboration for years. Artisans and producers affiliated with ATAG routinely contribute to the department by serving as lecturers, and intern host. Through a grant awarded to ATAG from the Ford Foundation, ATAG purchased computers, peripherals, and publications for the depart-
ment. For a portion of one term, I served as a visiting lecturer and shared this responsibility with two other designers from England and Germany. Our schedules were such that we were not present at the same time, consequently splitting the term among the three of us; however, we collaborated via the internet for the duration of the term.

Department of Integrated Rural Arts & Industry in collaboration with ATAG are interested in integrating elements of Industrial Design into their curriculum. Each of the three designers contributed their respective expertise to the students. Technology of course was my area of contribution. With the arrival of the ATAG / Ford Foundation, grant computers it was my responsibility to implement their operation. Upon the arrival of the computers, we discover that a significant portion of the university was the beneficiary of installed fiber optic networked cable. To our surprise, the designated building for our computers was among them, we simply had to have the cable extended into our room. Need-less-to-say this expanded our capabilities tremendously. I discovered that students in the department traditionally research products in periodicals two or more years old. Moreover, in some cases the research only extended to the shops in the immediate village. Even though many of the students were computer literate, they never engaged the computer for anything beyond web surfing, email and word-processing.

The first web base task was to perform a google image search on their designated product and related products. Students were shown how to copy image(s) from the web and save them to a disk. Several students were thrilled to discover that through their search they were presented via google, products that were design and produced by artisans in neighboring villages.

Beyond elements of research techniques, students engaged in a short duration design competition. Ghana was the beneficiary of an exhibit from the Vitra Design Museum called “Take a Seat” which was hosted by the Goethe Institute. The exhibition featured one hundred miniature chair models representing one of the most extensive collections of international chair design classics developed since the early 19th century.

The main goal of the two-week exercise was to introduce students to the Product Design Process. Each student was assigned the task to develop a design for a seat and fabricate a miniature model in the scale of 1:6. Serving as a foundation for this task was a series of lectures on product design, Western design, traditional African product design, Influences of Traditional African product Design on contemporary Western Design, and contemporary African Design. In addition, field trips were made to producers and wood processing facilities including one unique facility that processes bamboo into building materials for retail and commercial use.

Graduate Thesis Projects

West Africa is replete with historical significance that already pervades volumes. We have encouraged the interested graduate students who travel with us to the Ghana to consider contributing to those volumes, by way of thesis projects. We have achieved a level of trust among intellectuals, administrators, and politicians that access is no longer an issue. Facilitation of resources and venues for graduate thesis project(s) are more accessible now than ever.

The first of these projects is titled “Immersive Educultural Multimedia: Balancing Technology and Cognition”, by Timothy Allen. The thesis focuses on allowing users to experience and gain knowledge from a significant historical and cultural monument by means of technology. The historical monument is Elmina Castle located in Ghana West Africa. This huge structure held millions of Africans captives during the slave trade era. The organization,
tempo, interaction, mood, and imagery of this project were designed to provide an experience to its users.

This project includes three-dimensional references, illustrations, and diagrams of the Castle rendered in Alias Wavefront’s Maya. The multimedia piece includes video narration, and stimulating user interaction. This is accompanied by a musical composition, supporting illustrations, and research documentation. The project serves not only to inform people about the history of the castle and its current state but, the multimedia brings to life the experience of the slave trade and the implications it had on mankind. The project was completed as a prototype, which included the interactive functionality, however with only a sampling of the historical content. It was conceived that the project could be copied to CD-ROMs to be sold and dispersed at the castle, it could have a web version available to millions around the globe, and it could be played at various castles and museums in digital kiosks.

At present, there are negations with the Ghana Historical Society with Tim Allen that the Thesis Project concept be acquired and developed in its entirety.

**Continuing Projects**

In my most recent trip to Ghana, an opportunity was presented to ATAG to acquire a former furniture manufacturing facility in a remote region of the Volta area. ATAG would like to create a communal production facility for the artisans capable of producing higher production quantities for export. The African Growth and Opportunity Act (AGOA) signed into law May 18, 2000 as Title 1 of The Trade and Development Act of 2000 by President Bill Clinton and subsequently extended by the signing of the AGOA Acceleration Act of 2004 by President George Bush.

AGOA has been instrumental by reducing barriers to trade; this law has increased export, created jobs, and expanded opportunity for Africans. It has given American businesses greater confidence to invest in Africa, and encouraged African nations to reform their economies and governments to take advantage of the opportunities that AGOA provides.

It is through AGOA that ATAG anticipates a successful venture with their artisan’s network.

The targeted facility originally established in the mid seventies through grants from an external government to enable economic growth and employment for this isolated area.

The original recipient and founder of the facility has curtailed furniture production and established a wood treatment facility elsewhere funded entirely also by external government sources. Due to contractual stipulations imposed by the awarding governmental organization, recipients are prohibited from liquidating resources of the original award. Consequently, the facility remains in tact and in desperate need of managing operators, which ATAG and its subscribers is willing to assume.

At present ATAG is pursuing internal governmental support to lease the facility and identify appropriate human resources to launch the operation of the facility. In addition, my task in conjunction with the artisans is the development of marketable furniture and related products in the form of prototypes. We sincerely believe that product design will serve to create appropriate artifacts capable of penetrating western markets ultimately increasing export, creating jobs, and expanded opportunities for African artisans in the region.