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Preface

Design in Transition

We are witnessing a paradigm shift from a material intensive economy and culture to a very different world where the exchange of symbols is the dominating feature. If in the past materials, artefacts, products and money were the key issues, in the new economy we talk about experiences, concepts, services and brands. Creativity will replace raw materials or harbours as wellsprings of economic growth. Design will have a major role in developing creative economy and society. Design is not limited to serve industry, it can also help us to renew social and health services, the innovation strategies of regions and create barrier free world for us.

Investing to technology is not enough! The benefits of increased investments to technology get smaller, but investing to design opens up new opportunities for applying advanced technologies. Nokia has 20,000 researchers, mainly engineers and 200 designers. It is clear that without the engineers the designers would have nothing to design, but the work of the designers has been decisively important for the phenomenal global success of this mobile giant. Innovation activities become more and more design-lead. The recent study (2004) of SVID showed that companies, in which innovation is design-lead, are economically more successful than companies, which have limited the use of design only to product development.

The new roles, which are opened to designers, require new skills and knowledge to solve complex problems in a creative way in multidisciplinary teams together with experts from technology, marketing, social and behavioural sciences. We also have to develop education which is research based. We should not lose our practical skills, but they are not enough to bring us to the new positions. A good analogy is the development in medicine and engineering. Their present dominant role is based on intensive research work. The same development can happen in design.

Investing to research is not enough. We have to improve the leadership and entrepreneurial skills of our students and encourage their entrepreneurial spirit. Students need also adequate business and management skills and a better theoretical and methodological toolbox.

The universities can not do this alone, they have to find new ways to work with companies and network with each other. It is necessary to learn of best practices of the best universities. We also have to create innovation services to get greater use of the inventions and concepts born within the Universities.

There is a whole new world in front of us. It means a fundamental renewal of design education.

Prof. Dr. Yrjö Sotamaa, IDSA, SIO, ORNAMO

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Foreword

Ulysses Is Back in Business

At the early 1500s lived in Lisbon five elephants. Today the same number of these nice pachyderms lives in Lisbon Zoo. Young prince John played in the streets with his pet rhinoceros. The beast was included in an Embassy to Pope Leo X, died on the way and was stuffed. A German draughtsman made an engraving out of it. Dürer's rhino was captured in India, played with a royal child in the streets of a city funded by Ulysses and gained immortality by the pen of immortal artist.

The phenomenon that we call globalization started unequivocally in Lisbon, burgh in the mouth of Europe, beautiful maiden kidnapped by Zeus disguised as a white ox.

The original myth about Europe tells the story about the movement from Africa to Europe (from Egypt to Greece) like many others from Asia to Europe. Deddalus brought to Crete the secret of Labyrinth construction from Egypt. Venus was born in an Asian sea and landed on a European shore. From another wind (West) Myth brought to Europe technology and politics. Atlantis, somewhere beyond the Columns of Hercules, was the birth of Republican organization. All these founding myths recognized Europe as the wilderness ready to be filled by human values.

From the 1400s to the 1600s, Portuguese and Spanish boats had touched almost any shore of the world.

"If I had Lisbon I could dominate the whole world" said Charles V, King of Spain and Emperor of the Roman-Germanic Empire. Thank God that his son, who had that power, wasted it.

Underlying these Imperialist dreams a multi century drive for cultural exchange was enhanced. Beyond the pompous heroic facts of political History, a History of common women and men changing products and ways of living was also starting. For good or bad, there are no more "pure cultures". There are decisions made to retain and preserve cultural specificities, but Humans have developed a transnational awareness that is irreversible.

Organizing a Cumulus conference in Lisbon had to have global issues in mind. Not from the point of view of uniformity but from the multiple points of view of diversity. Seeing global not as a menacing mess but as a rich primeval soup were every tradition has the same possibility of success if studied and reedited under an unified strategy such as Design Research.

Pride&Predesign was clearly telling people that, from any tradition, any social cultural construction of meaning might emerge a design solution. Some specificities of this conference resulted from that assumption.

An international scientific board was constituted with people from and outside Cumulus, mostly from outside IADE-Design school. The selection of papers, although double blinded, was made visible at the "abstract" stage on the conference web page. After the "abstract" selection, a full paper submission phase started. At the end, four people reviewed each paper, at least. This process required an average of 15 emails per paper, placing a lot of effort both on Cumulus Secretariat and at the host Secretariat.

The P&P proceedings book was printed prior to the conference with all the 76 accepted papers. The following working papers correspond to an extra filter.

Yrjö Sotamaa declared that Lisbon 2005 will be the remembered as the mile stone of Cumulus globalization. Hopefully we've done it the proper way.

Eduardo Côrte-Real

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The Imaginary Body of the Kayapó Indians

Abstract

The Kayapó-XIKRIN Indian's corporal painting, exclusive task of the women and the body ornamentation used in the ritual of the passage to the adult life by the masculine sex, are the objects of this study. The corporal adornment of these Indians can be considered as a symbolic language. It acts as a second skin, the social one. In that society, the body connects the person to the world and it is constantly imagined.

Keywords: body adornment, ritualistic object, corporal painting, imaginary, mythology.

Introduction

The cultural meanings expressed by the indigenous iconography in a general way are not restricted to relative information from the society, its morphologies and the identification of status, but they also enclose concerns of other dispositions, as the proper definition of the tribe, its place in the Cosmo and the correct or desired ways of its articulations.

In the indigenous universe, the myth exists as a referential concept, it guides and justifies the present constantly, and it is the last explanation of the rituals.

Studies made in the seventies, as those by Seeger, Da Matta and Viveiros de Castro ¹, figured out, that in the indigenous societies of the tropical Amazon the corporality occupies a priority place and a central organizer position. It is the idea that the body is a matrix of symbols and an object of thought. In face of this, mythologies spin around the manufacture, the decoration, the transformation and the destruction of the bodies, as the ceremonial life and the social organization. The body is an element from which it would be possible to catch the main values of these societies, where the daily experience and the traditions appear in the graphical forms and, therefore, change themselves into a shared visual language.

1 Seeger, Da Matta, Viveiros de Castro 1979.

The body is the screen, where the marks of the statute (sex, age, social position, ceremonial aspects) are deposited, which distinguishes the individuals and also identifies them.

Marcel Mauss² once suggested, that the body is the men's first technical and natural object, and in that way, the body ornamentation can reveal important aspects related to the concept of the person and self, in other words, a concrete expression of fundamental cultural values.

As the majority of these societies haven't any know-ledge of writing, these figurative representations and geometric drawings often come from abstract concepts, manifesting a way to express the "unspeakable" by turning it "visible". The world is perceived in its unit while hidden by geometrical abstract patterns or by figurative representations that equally exist at many domains from which they are composed.

The graphical representations of the indigenous societies function as a visual communication system that allows the exercise of the social memory, by the repetition of reasons and styles.

The Kayapó-XIKRIN indians

Among the different relatively isolated Indians, who inhabit the region of the Legal Amazon nowadays, the *Kayapó* Indians detach themselves for their meaningful aesthetic expression and, despite the contact with the exterior world, they preserve their culture and identity.

Recent estimations (2003) demonstrate that the population number of the *Kayapó* Indians is about 7,096 individuals, divided in 3 main groups: *Goroti Kumrenhtx, Irã āmranhre* and *Xikrin*.

² Mauss 1974.

The XIKRIN tribe is considered as member of the northern Gê-speaking linguistic group, the Kayapó. The area occupied by these Indians, is located in the state of Pará, mainly covered by the tropical rain forest.

The XIKRIN possess a great quantity of rituals. The most important ones are those linked to the initiation and to the act of giving names. This model is constituted of parts forming collections and sequences, that, by its turn, are personally related to the seasonal activities of hunting, gathering, fishing and agriculture.

Their ornamentation reflects in a formal and very synthetic way the understanding of their cosmology, social structure, relationship with nature and the construction of identity.

The body paintings, the penis sheaths, the ear plugs, and the spectacular lip plugs raise the question of the symbolic significance of corporal adornment in a unique compelling way.

Among the *Kayapó-XIKRIN*, all women paint, while the men are responsible for the manufacture of feather objects. Therefore, to paint and to make feather's ornamentation objects are, to this culture, socially current and definite requirements.

Here, during this exposition, we will see how the social transition is a corporal change, which is expressed clearly through three stages: the manu-facture of the body; the exhibition of the body and the metamorphosis of the body.

The category me-be-ngo-dju

The life of a boy and a girl develops according to very distinct models among the *Kayapó-XIKRIN*. This fact occurs due in large part to the married woman's home institution and the fact that the boys leave the native house before reaching puberty to live in the house of the men. It is the passage from the house of the mother, from where it is necessary to break up, to the house of the men where it is necessary to integrate themselves to participate at activities in the same level as the community.

In the *XIKRIN* culture the passage to the adult life by the masculine sex keeps going for five years, although it isn't possible to define with precision the duration of the initiation rituals. To become a man is necessary to submit oneself to the participation in initiation rituals.

About the age of eight and ten years, they move away, spatially, from their family, they already reveal the first trends in this direction, sleeping in one corner of the house or outside it and generally, in the village between the maternal house and the *ngobe*, men's house.

The *mebengodju*, as they are called, the boys which are in the initiation process, are not yet considered "true men", it is as if their bodies were passing through a manufacture process. The "process of manufacture of the body" is related to a period of recluse, and during this stage, the body needs to be submitted to intentional and periodic processes of cultural manufacture. The reclusive Indians are compared to the newborn ones. The being in manufacture is naked, it does not use adornments nor painting. It is the passage from nature to culture. It is about changing the body to form the ideal personality, the construction of the person. The complex of the recluse is the construction of the person.

Although the first phase of this passage rite has as its intention the recluse, in practical purposes as Lux Vidal explains in *Morte e Vida de uma Sociedade Brasileira* (Death and Life of a Brazilian Society) ³, the life of the young ones can't be considered as a reclusive life. The reason for it, is that the house of the men is a very busy house and most of the men spend there the greatest part of their days, as well as it is not demanded from the young to remain there continuously.

During the rite of entrance in the house of the men, the boys are painted with the pattern *ami-kra*, son of the alligator, and their foreheads and faces are painted with vegetal coal to guarantee the defense in the case of they come to have sexual relations. The alligator in *kayapó* mythology is the owner of the water, as well as the Jaguar is the owner of the fire.

³ Vidal 1977.

In this stage where they are called *megomanoro*, they belong to a category that already participates in the men's house life, although they still not to be considered "true men". The hunting rites are associate to the initiation because to hunt means to be a good husband, that comes to be to take food to the woman and to her "parents".

The penis sheaths are delivered to the *megomanõrõ* when they are already considered men in the physiological plan, although this category is still not considered apt to the marriage, but these ones already can use weapons and hunt. This is the moment of body's exhibition, it is when the social and public life begins.

This masculine ornament is one mark of sexual maturity of male powers, as well as sexual modesty because a man has to have sexual responsibility. It is related with the regulation of the sexual intercourses between the genders. The penis sheath is the symbolic expression of the boy's integration into the social order.

Inside *kayapó* mythology, the reference to this adornment is found in the myth of origin of the fire ⁴, because the fire represents the passage from nature to culture. The Indians attribute its invention to the hero of the myth that is called *Botoque*, therefore before him, the men did not pierce the inferior lip, nor they brought the sheath, nor they knew the ornaments that currently use today, and nor painted themselves with *urucum* (fruit of the annatto tree).

It is necessary that the young men, in one determinate moment of this rite, scarify their legs and their feet with teeth of *Aruanã* fish therefore they can pursue better the peccary and the tapir. Some scarifications are however of punitive character.

The *Anta* or the Tapir occupies inside *kayapó* mythology the category of the seducer, that it is associated with poison. The tapir is a being disapproved of social status which acts in consequence of its natural determination, physical beauty and sexual power that subvert the order of the marriage. It represents the violent intrusion of nature in the middle of culture.



В

Figure 1. A–B. *Kayapó-XIKRIN* with genipap painting. Photo: Claude Duménil, published in 1992.

⁴ Banner 1957, pp. 42-4; Métraux 1960, pp. 8-10.

The main initiation rituals are six. The first one is the naming ceremonie; at the second they receive a helmet from wax decorated with a feather ornament; the third occurs in the forest and it is the tapir hunting, this ritual functions as a certain imposition of an order that the men should not have sexual intercourse with animals. It is a form to strengthen the distinction between humanity and animality, since in many kayapó myths there are relates of women who had been seduced by tapirs; the fourth is associated with ngroa, that it is a buriti palm log carried by the men and conducted to the center of the village; the fifth phase consists of a great timbó fishing; the sixth phase is a short ritual where the men have all their faces painted in black color with coal dust. At the end of this ritual, the chief's nomination proceeds.

The feather objects find in myths related with zoological order, the references of their mythical origin, which are the myths of the rainbow origin, of the poison from fishing and illness and, even at, the bird's color origin myth. In kayapó mythology the origin of epidemics, of the fishing and hunting poison as of the color of birds are relate to this meteorological phenomenon. These categories lead to a disorder, or to a biological or zoological discontinuity. The illness and the poison are faced as chromatic categories and consequently they possess a property in common with the rainbow, which turns this last one capable to signify them.

The feathers could be described as the structural material *par excellence*, because the choice of a feather for decorating is an essencial constituent of their cognitive system. It explains clearly the importance of birds and feathers in the Indian culture.

Macaws occupy an important place in the Indian thought. Their plumage together with the ones of other birds as toucan, heron, parakeet and the hawk serve to make headdresses, ear decorations and others feather objects as to decorate arcs.

In this manner, each type of feather is apprehended in its totality and therefore it is impossible to mistake them, since after tearing the rainbow body into pieces, each genre was forever defined in function of the clipping in which it has participated.

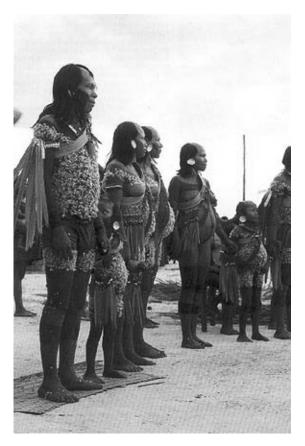
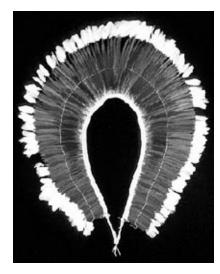


Figure 2. Final phase of the Nomination Ritual. Photo: Gustaaf Versiniver. 1991.



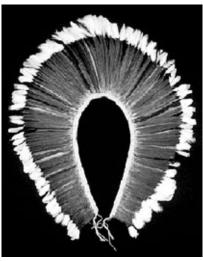


Figure 3. A–B.

A. Spectacular Krokroti, the largest of all Kayapo headdresses made from tail and flight feathers of the endangered Hyacinth Macaw (Anodorhynchus hyacinthinus).

B. Reverse view. Feathers in their natural state

are not necessarily the same color on both sides.

In the majority of the Latin America indigenous societies certain displeasure to polychrome is verified, and most of their adornments are characterized by sober colors and by their regularity.

Feather objects are always present in rituals of body metamorphosis. The metamorphosis process is associated to the unnatural, the cosmological order, the disorder, the regression and the trespass, that means a reproduction of the culture as an extra human transcendence. It does not produce one more body but transforms men to animals or spirits.

There is a close relationship between shamans and birds. The shaman is the total being in the kayapó society, he has a cosmic view of the universe and he is the one who gets feathers and is able to fly like a bird, because he is qualified to manipulate the different domains of nature.

One of the most important masculine corporal adornment inside the *kayapó* culture is the *Botoque*. And the mythical origin of this ornament is also found in the myths of the origin of fire, where the hero of the myth named *Botoque* is the one who brings the fire to his village.

Botoques are ceramic, wood or shell discs, which most of the $G\hat{e}$ use fitted to their ear lobes or to their inferior lip. And they have the function to emphasize the meanings which are related to these organs.

Its symbolism is implicit in the contrast between the lip plug and the earplug, once hearing and speaking have epecific social associations.

In the nonwriting societies, the category of the noise, is invested with an exaggerated high signification, it has a certain taciturnity behavior. This opposition sense between the silence and the noise is a mediator of the social and cosmic orders.

Noise has an opposite, the silence, which appeals to sanction certain types of social relations.

The origin of the laugh myth ⁵, is also associated to this ornament, because inside its narrative, the laugh is the death cause of one of the characters.

⁵ Banner 1957, pp. 60-1.



Figure 4. A-B.

The masculine sex disdains the laugh and the tickles, that they consider a typical feminine behavior.

Botoques are used to represent masculinity, authority and maturity of a kayapó adult man. They are consciously associated with oral assertiveness and it is the symbol of a male mature aggressiveness.

Corporal painting

The origin of the corporal painting is associated with the rain and storm myth origin ⁶. This myth tells the story of a hero who after hunting a tapir, is the victim of an injustice committed by others men who distribute among themselves the meat of the hunting, giving only two legs to him. When he comes back to the village, he asks the woman to paint his body in red and black color with *urucum* and genipap. By this way, is introduced among the Indians, the practical of tonsure and corporal painting, as well as the use of genipap and the habit of anointing with blood the *bordunas* (typical indigene weapon) at the moment they leave for war.

The corporal painting, as much for ritualistic motive as for the daily use, possesses characteristics of an extremely elaborated and structuralized system of communication, capable to symbolize events, processes, categories and status, and possesses a narrow relation with other verbal and nonverbal communication methods.

The painting essentially possesses social and magicalreligious function, as well as, it certainly is "the correct" way to present oneself.

The painting is an exclusive task of the women, as much as any other basic activity, such as, to go to the field, to cook or to take care of the children. All of them paint and the quality of a painter is an inherent attribute to the feminine nature. The corporal painting is a continuous activity, and in consequence of that, the women carry in their bodies beyond the painting, the mark of their painter condition.

The Kayapó mothers spend hours painting their daughters and sons and the painting is a part of the child socialization. The painting of the children

⁶ Banner 1957; Métraux 1960, pp. 16-17.

is an individual activity by the mother's part, who possesses total freedom in the choice of the drawing. The children are passive agents and are submitted to a constant and regular caress by the maternal brush.

The adult's painting differs from the children in the sense that the number of prints and decorative reasons is smaller in the case of the adults, because this one obeys to more rigid standards. As in the *Kayapó* culture the men are considered the only responsible for the child formation in the maternal uterus, the painting comes to fortify the mother and child relationship.

That are always the women who paint the men, it doesn't matter if they are initiated young men (their sons) or their husbands, they are also able to paint a brother or their father since he is a widower.

The women mutually paint themselves in collective painting sessions, more or less every eight days.

The formal standard of the prints is normally a drawing base, that is composed of a set of parallel traces followed or not, of a decorative reason. These reasons are always geometric drawings of straight broken lines, forming squares or triangles.

The social message of bodily adornment is coded on a basic level by the colors and substances (genipap, *urucum*, coal and resin) used in body paintings, as by the symbolic association to the part of the body that each color and substance are applied.

Normally, the colors of the *kayapó* body paintings are red (made from the seeds of the *Bixa orellana*), black (made from the juice of the genipap fruit), and rarely, white (made from white clay).

The painting of genipap is essentially informative, and symbolically states the "body socialization", while the use of the coal dye and egg rind blue dust of the bird *Tinamus*, used by men, is associated with the metamorphosis process and has expressive connotations, such as in the case of the jaguar man painting, during the *nhiok* ritual of feminine naming ceremonie.



Figure 5. XIKRIN woman painting herself with genipap extract. As her son has just finished to complete one year old, she will come back to be part of the village activities. Photo: Gustaaf Versinjver.

The *Kayapó*, duly painted with genipap, pass to the afternoon baths, where they use red *urucum* ink in the surface of the body. Over the face they apply with their finger a thicker layer of *urucum*, making some more specific drawings, in accordance with the sex and the age. Most of the time, the hair is scraped in a proper style of this tribe. On the frontal part of the head, where it was scraped, is applied a drawing of black lines of coal mixed with strong smell resin to move away the bad spirits.

Conclusion

This article shows that in the *kayapó* universe, the corporal ornamentation works as a symbolical expression of their social structure.

Besides the interesting and beautiful morphologic repertoire that this study contributes to the design area, it certainly shows ways to start a discussion about the boundaries and appendices of the universal symbolic significance that the body adornment are carrying out in a general way.

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Figure 6.

Recycled Textile Material as a Reflection of Women's Work

Abstract

The aim of this paper is to sketch out the principal ideas and contents of my doctoral thesis titled "Recycled Material in Textile Art". The paper examines the nature of recycled textile material in the context of textile (fibre) art. The main questions are: What are the ways in which the recycled material in an art piece reflect women's work? How art and science can be combined in artistic research? The background of my research is based on women's studies, hermeneutic interpretation and phenomenological attitude towards the substance.

Regarding the conference theme, the approach of the paper can be seen as an attempt to rewrite the idea of material culture and to think of the identity of research in the artistic research project. The paper also investigates the relationship between re-cycled textile materials and re-designs.

Keywords: textile art, recycling, practise-based research, women's studies, ecology.

"Recycled Material in Textile Art" is a practice-based research in which the theoretical and practical part should be in interaction with each other. The research does not consist of a theoretical part only, but also of a productive part, i.e. artistic work and exhibitions. The practical part consists of art exhibitions that form a unity with theories and interpretations of the pieces of art. Firstly, this paper focuses on the methodological proceedings of the research. Secondly, the focus is in the recycled textile material, and such aspects as gender issues and women's work are investigated. Thirdly I will investigate re-writing and re-cycled textile material as way of "material writing". Then I will describe how recycled textile material can be seen as a reflection of women's work. Finally, I will discuss the relationship of art and design, the relationship between re-cycled textile materials, and re-design. As a more specific example of my artistic research, I will show two examples of the artistic work of mine called The Study in White and A Practise for a Square, in which the themes of the paper are in focus.

1 Methodological proceedings

The research is a qualitative approach in which the attitude towards the substance is women's studies. The theoretical framework is connected to the feministic thinking in the context of a female work, also heard as the "narrators voice" available in text. Women's studies can occur with phenomenology. "The expression 'phenomenology' signifies primarily a methodological conception. This expression does not characterize the what of the objects of philosophical research as subject-matter, but rather the how of that research" 1. Phenomenology means literally a science of phenomena, the science which studies appearances, and specially the structure of appearing - the how of appearing 2. In this appearing our own experience is in the focus. In phenomenology the world and its phenomena's are investigated so as they occur to us. 3 The phenomena I am investigating are re-cycling, ecology and women's work. Phenomenology also investigates experiences and perceptions, as well as things and material. Phenomenological perceptions investigate things like objects, animals, humans and for instance pieces of art. Concerning the relationship between art and writing the emphasis of artists own experience is in focus and heard in text.

The hermeneutic experience as an interpretation is methodologically involved in the research. Hans-Georg Gadamer enlightens the nature of the interpretation and the interpreter in the theory of hermeneutics. He emphasis that all correct interpretation must be on guard against arbitrary fancies and the limitations imposed by imperceptible habits of thought, and it must direct its gaze "on the things themselves" ⁴. In this paper the *recycled textile material* is in focus when

¹ Heidegger 2000, p. 50.

² Moran and Mooney (eds.) 2002, pp. 4-5.

³ Ibid., p. 7.

⁴ Gadamer 1989, pp. 266-67.

perceiving the pieces of art made from recycled every day life textiles, like table clothes, linen, pillows and garments. The interpretation examines the experience of artist and on the other hand the material of the piece of the art when approaching the meanings of artwork.

One of the main questions is: How to combine the theoretical and the practical part of the research with each other. My approach is to do this with the interpretation of the contents of the art pieces of mine, and trying to the form a unity between the theoretical aspects as well as the written interpretations of the art pieces. On the other hand, the interpretations of the art works are verbalised so that also the recycled textile material itself forms a basis for all writing and interpretation. This means that we focus on the inner meanings of the recycled textile material and verbalise the aspects and the meanings that the material carries in it-self. The aim of the writing is to write from the material point of view so that "letting the material speak". Through my work I try to make the theoretical meanings, the inner meanings of the fabric and the artistic intentions, to interact with each other to form a unity. Later in this paper I shall give an example of this combination of the theory and praxis when dealing with the two works of mine.

2 Recycled textile material in perception

The question of how recycled textile material reflects women's work is in the focus of this paper. At first we can examine the relationship between textile material and the female body. The feminist film theory regards the image of a woman as a "construction". The construction is partly made on garments that women wear. In popularity, women's garments are connected to womanhood; women should be a solid unity, in which the outer look should reflect the inner personality. ⁵

Jane Gaines argues in her essay that clothes are a matter of the expression of the self. The notion of clothes as a self-expression is a product of a combination of the late nineteenth-century sense of the public self-in-urban-space developed in the Western industrial culture and the Platonic understanding of the matter/spirit dichotomy ⁶. When regarding the personality as a constructed or cultivated self, individuals were given a sense of confidence to face the world of strangers, in other words they could assume anonymity in their dress. Thus, on one hand the cloth was regarded as a picture of a person, on the other hand the cloth was a way to hide the inner personality. Clothes seem to have a close connection to female body. Gaines claims that the costume seemed to grow out the mysteries of the body. ⁷

A stronger stressing on this matter we hear from Roland Barthes. He states that there is a strong influence and relationship between a garment and the body of a woman. He describes it in terms of absence: "The empty garment — is dead, not the neutral absence of the body, but the mutilated, decapitated:" 8 According to Barthes, the textile material, in garment for example, is not without meanings, not even neutral with is emphasis.

Textile material has its connections to women's lives through the handicraft work and production (weaving) of the material, fabrics and garments. In textile material one can see women's work as a skill to do this work. Especially in earlier times women's handicraft work flourished. Nowadays the skill of handicraft is a professional skill of a few persons. Recycled material with decorations, sewn and hand woven fabrics reflects the women's hands works and their skill to do it. From this point of view textile material that is seen in an art piece emphasizes the vanishing skill of craft and textile art 9.

The demand of purity of textile material

Textile material and fabrics demand cleanness and purity. Textile material should be pure, clean, with no wrinkles, and patched in the case of damaged. It should be new (young), not old and worn out. In our housekeeping tradition, everyday fabrics had to

⁵ Gaines 1990a, p. 1.

⁶ Gaines 1990b, p. 185.

⁷ Ibid., pp. 186–87.

⁸ Barthes 1985, p. 107.

⁹ Constantine and Reuter 1997, p. 38.

be clean, ironed and undamaged. If the fabric was damaged, it had to be mended neatly. This was the unwritten practice in middle class families since the 1950's in Western Europe. The garments and linen had to be pure to be acceptable. The dirt was regarded as breaking the order; concerning women the dirt and purity reflected moral codes ¹⁰.

In the context of gendered material, some interesting questions and perceptions have risen. There are lots of mended and patched fabrics in recycled textile material. These details of patched fabrics interest me both in their aesthetical and conceptual meanings. The textile material that has holes in it, or is worn out, represents the time; how the time is passing. A worn out fabric is, in my opinion, a document of time. On the other hand, when regarding textile material as a representation of female body, it also reflects how time is connected with the body; the body should be young instead of being old and "worn out".

3 Re-writing the re-cycled textile material; the material writing

Concerning recycled material and the history they carry in themselves, there is an inner writing, or inner words in them. The material "speaks" from the material point of view as well as from the point of view of material usage. There is also a third level of meanings, especially in the recycled material. The material carries traces of its previous life and shows stories from the previous usage of the material and clothes. The focus is on how the material reflects these traces and stories. Concerning hermeneutic experience and interpretation Hans-Georg Gadamer writes: "A person trying to understand a text is prepared for it to tell him something" ¹². In my research the "text" is actually the art objects that are meant to speak.

The artistic use of the recycled material involves the element of the material carrying the stories of its previous usage and life. When artwork is seen on the gallery wall, I believe the meanings of the stories "written" in them will become emphasized. Gallery space and gallery context makes the sense of the meanings in the material even stronger. The gallery "air" emphasizes this aspect of recycled material. In Gadamer's words we can see, or "hear", the material speaking the interpretations to us. We should try to be sensitive to all the marks and aspects we can perceive in the material, and then let our understanding, feeling and the experience form an interpretation from it.

4 Recycled textile material as a reflection of women's work

Recycled material has many meanings that the material carries in it and shows out. Especially, recycled everyday material, such as fabrics, tablecloths, clothes, carry a history in themselves. They are filled with stories and meanings; the material, the practical and the imaginative meanings in themselves. I am not merely interested in single stories that the recycled material carries, but especially in the how the material is like a symbol or a metaphor of the life that there has been before the piece became wasted. When using the old blouses and tablecloths in my artistic work, the previous use of the material will become emphasized when the pieces are seen on the gallery wall. In this investigation I am not interested in who has actually worn the blouse before the piece became a part of my artistic work. Instead, I am more interested in the idea that anybody could have worn the blouse before. The recycled material is a reflection of the previous life of the piece and the reflection of the previous usage of it.

The housekeeping and the care of every day textiles is nowadays still mainly women's work. It is women's work to wash the clothes, to mend and iron them. Also women are considered to be more interested in garments than men in general, as if the work with the soft materials would be more suitable for women than to men. Men's interest to technique and mechanics, and harder materials like steel and wood is obvious. In the area of design the same phenomenon is seen there too: most of the fashion and textile designers and students are women while industrial designers are men. Textile material seems to be gendered on the whole, as if the material would be tied up with the womanhood.

¹⁰ Douglas 1989, pp. 129-39.

¹¹ Gadamer 1989, p. 269.

Recycled textile material can be seen as a reflection of women's life and women's work. It is bound up in women's lives with unseen bandages/dressings through centuries in our western culture. Thus textile material can be seen as a trace of women's life and women's work.

5 Re-cycled textile material and re-design

Concerning the theme of the conference the paper examines the relationship between art and design. Should the design and art be seen as totally different entities or companions that give innovative input to each other? In my opinion, art could be seen as a contribution to design, a testing laboratory or testing field of the innovations in design. In art, the ethical and moral codes are often dealt with. In art many of the future ideas can have their fist marks to be seen. The small marks are made visible in art pieces and usually only the artists can see them before the others because of their sensitivity. In this sense, art can not be regarded as a non-productive and compulsory discipline, but as a sisterly or brotherly regarded necessary friend. This is the imagery of reunderstanding the relationship between art and design in the time that we live, in which the hard values control the money-based efficient and productive demands. Is the art made from re-cycled textile material an example for the other design fields to remember the ecological values of re-productions and

re-uses in the design productions that are made? Are the recycled textile art more than single examples of showing how to re-use the material? Is the re-cycled textile art an example to design and to re-design the traditional attitude towards the design?

6 As an example of the artistic work of mine I shall show two pieces of art: The Study in White and A Practise for a Square, in which the themes of the paper are in focus

The Study in White

This piece of art could be characterized as a laboratory of the basic themes of my artwork. In this work I investigated how dirt and damaged textile material influence an art piece and its visual meanings. Dirt, coffee stains and the traces of red wine interested me as if they were colours. I regarded them as a different type of colour and an aesthetical element of the art piece. The audience's response to this work was strong and very fruitful to me later. I understood that dirt and worn out textile material was too much for some people to see and bear. I found out that there was something that I should investigate more to see what caused this reaction. Later I understood that the intimate connection of textile material and female body may have caused some people's irritated action. I had passed the forbidden border; I had broken the order in my art piece.



Figure 1. A Study in White, detail. Recycled textiles, 370 x 220 cm.

A Practise for a Square

The theory of feminism has one topical question that every (woman) researcher needs to deal with. Feminists claim that the voice of science is a masculine one, and that the history is written from the point of view of men only ¹². In the piece of mine called *A Practise for a Square* I am investigating the epistemological problem of knowing and the identity of the artist-researcher. The science community demands that the science should be pure and clean and in order to be of high standard, it should be male. This is still an unwritten convention in many respects, unfortunately. In this art piece I study the question of the knowing and gender with irony and play.

The basic form in the work should be a square, but it is not quite a square, as if it would have been too difficult to form a proper square. The materials used in the piece are every day textiles from the house holds; a floor wiping towel, a towel, and a piece of a tablecloth, and the recycled textile material is torn out and damaged. Thus the square is filled with contents that reflect every day life and work (of women), and one the textiles is totally worn out! It has been used to clean the floors many, too many times. This work deals with the question of knowledge with irony and humour. The content of the material deals with the everyday life of women. There is an obvious difficulty

to "fit" the demands and standards to form a pure, clean and precise square.

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Figure 2. A Practise for a Square.

¹² Harding 1987, p. 3.

From Calligraphy to Typography: a Dilemma

Abstract

Writing was born to record information to make it eternally accessible for civilizations to read. Whether in calligraphy or typography, letters were drawn or designed to represent the meaning in their visual appearance as in the content of the text. Linking science, art and design -- in other words technology, calligraphic sensitivity and typography rules -- is crucial to generate new Arabic typefaces. The outcome should be typefaces that are appealing to the twenty first century reader without losing the script's cultural heritage. Copying the past or reviving the calligraphic style is not enough. The young generation of designers is striving for a modern look of an alphabet that fits better their contemporary designs. Like all other items typography shall constantly be modified over time as in clothes, car design, furniture etc. Nevertheless, retaining the basic shape of the letters is crucial for legibility purposes. The Arabic script should be developed in a way that is suitable for modern design applications and communication technology.

Keywords: arabic fonts, calligraphy, typography.

"Any contemporary Arabic typography development should stem from an integrated understanding of Arabic calligraphy and Swiss typography", said Yasser Abbar who teaches design at the university of Amman in Jordan.

Writing was born to record information to make it eternally accessible for civilizations to read (figure 1). However in calligraphy the focus was more on the aesthetic aspect of letterforms.

Calligraphy is the artistic interpretation of language whereas typography has more of a functional aspect. In her book *Arabic Typography*, Huda Smitshuitzen

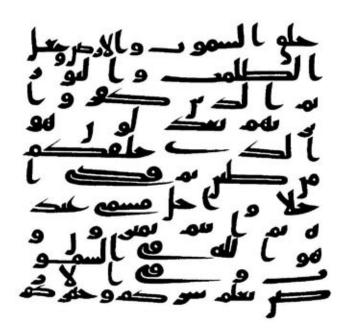


Figure 1. This is an example of the early kufi, 7th century. No diacritics were used at this time.

Abifares differentiated between the two terms by considering all manual production, handwritten letters as calligraphy and all machine made production as typography. Typography's main function is communication while calligraphy 's function emphasizes more the decorative and ornamental aspect.

According to Maamoun Sakkal, a prominent calligrapher living in Seattle: "The profession of a typographer requires different skills from its practitioner than the calligrapher. While calligraphers are required to refine their handlettering skills to create highly appreciated calligraphic compositions, typographers are required to learn the latest softwares to be able to execute their typefaces and have them accessible for the end user."

Linking science, art and design – in other words technology, calligraphic sensitivity and typography rules – is crucial to generate new Arabic typefaces. The outcome should be typefaces that are appealing to the twenty first century reader without losing the script's cultural heritage.

Arabic calligraphy

Calligraphy involves wisdom, knowledge, art and spirituality (figure 2). Arabic calligraphy has a glorious history. It was considered as the sacred script, the one that was used to write the words of God. Calligraphy flourished when Arab civilization was at the peak of its cultural activities and prosperity. The first development took place during the first Arab empire in the 7th century, the Old Naskh style, later developed as the cursive style in Arabic typography (figure 3). It is generally considered as the simplest of all Arabic calligraphic styles. The Old Kufi style appears more geometric and angular. It later developed into a broad style with many derivative variations. Calligraphy reached its climax under the Ottoman sultans empire in the 18th century. Calligraphers at that time focused their creative talents in elaborating their calligraphic skills to embellish the sacred words of God. The Arabic script was flexible and easily manipulated. The flowing calligraphic lines created endless shapes of figurative representations of animals and floral elements (figure 4). However nowadays typefaces are produced to be used in selling services

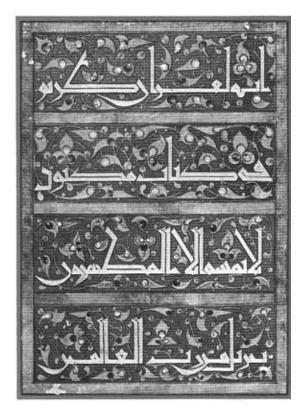


Figure 2.

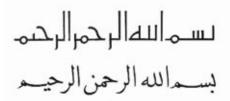


Figure 3.



Figure 4.

and products. A typeface used for wedding cards can not be used for washing machine products!

The nature of the arabic script

Ibn Muqlah (d. 940) developed the first script to obey to the strict proportional rules in calligraphy. His system utilized the dot as a measuring unit for line proportions, and a circle with a diameter that equals the Aleph's height as a measuring unit for letter proportions. Aleph being the first letter of the alphabet (figure 5).

The Arabic alphabet is read from right to left, yet the numerals are read from left to right, making Arabic a bi-directional script. The alphabet consists of three overlaying systems for sound representation:

- 1. The basic letterforms
- 2. The diacritic dots
- 3. The vocalization marks

It includes 28 letters and uses only 18 letter shapes to represent these letters; three of those letters represent the long vowels. Dots are used to distinguish between the letters that share the same glyph shape. Most of the letters have at least three different letter shapes depending on their position in the word. The complexity of the Arabic script makes it more difficult for designers to generate new Arabic typefaces.

Arabic typography

With the event of the movable type invention in 1450 the flowing calligraphic lines were disrupted. The words were cut to create separate letters related by ligatures. The idea of devising a flexible system for making individual letters was the crucial new element in this invention. Based on their original glyphs, floating letters were transformed into unified glyphs; the process was complex because of the diversified and numerous shapes per letters of the Arabic script. The smooth, elegant and fluid line between the letters was replaced by the digital spacing or kerning of the letters. Digital letters in Arabic are spaced out by stretching the ligature in a straight heavy horizontal line. The result is not as aesthetically pleasing as in an optically harmonious calligraphic layout.

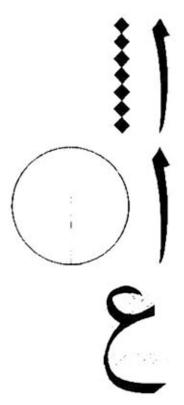


Figure 5.

Preserving the cultural heritage

What is it that connects Lebanese people to their typography? How should the Lebanese/Arabic typography look like? Should typography reflect a certain identity/culture?

Much as we admire Arabic calligraphy and the richness of its heritage, we must ask ourselves a few questions: Do we read a newspaper the same way we read a calligraphic inscription on a coin? Do we type out receipts and invoices the same way a calligrapher writes an invitation card? Do we still live as our Arab ancestors used to live 500 years ago? If times change and people change, then why should our fonts remain the same? Why should Arabic fonts copy a calligraphic past that can barely keep up with the new modern pace? Said Nadine Chahine, a typographer working on developing a modern set of Arabic Alphabet at Linotype type foundry in Germany.

When the majority of the Lebanese population is bilingual not to say tri-lingual, the question arises here to what extent are they attached to speaking/writing formal Arabic? At least one or two English or French words are present in an Arabic spoken sentence. Why are most of the signage on the streets of Beirut written using Latin typefaces? Is being Arab now outdated and unfashionable? Why are advertising companies and several brands refusing to place advertisements in Arabic? Could it be because of the unavailability of appealing Arabic typefaces? There is a need in the market for Arabic typefaces that are designed in line with the spirit of the time, for example trendy ones that attract the young audience. Graphic designers in Lebanon are struggling in using Arabic typefaces that should be equally imposing as the Latin typefaces used on the same signage. Would calligraphy or the ornamental style of handwriting serve the needs of a society that is communicating through sms messages and emails? Young generations invented their own language when using numbers to represent Arabic sounds that are not existent in the Latin alphabet for example the shape of the number 7 for the letter ha, and the shape of the letter 3 to represent the letter ain. Thus, the consumer reappropriated glyphs to be used in sms messages when writing phonetic Arabic using Latin alphabets. For Sakkal people become

accustomed with new forms with time, the accepted forms will remain and develop into shaping a new set of alphabet. But do we really want the Arabic script to develop in this direction?

Even though Lebanon is considered the most openminded Arabic country where experimenting is accepted a number of conservative communities reject s change to protect the spiritual script.

Marrying aesthetics and functionality in the search for new creative solutions without losing the cultural aspect of the original script is not an easy task for typographers. However, Reza Abedini, an influential figure in the field of Persian or Farsi (using the same letterforms as Arabic) (figure 6) typography in Iran believes that Arabic type has almost been ruined over the past few years, although it has a glorious history. He uses the old script in his contemporary designs in the best possible way to bring it back to its glorious days. By doing so he claims graphic design will find its own true identity.

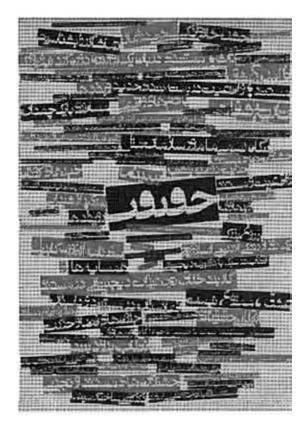


Figure 6.

Latinization

A major problem that designers face is when they use Latin typefaces next to Arabic ones. The Arabic letters appear incompatible in size and proportions. Arabic letters appear smaller and horizontally stretched. The result is an unbalanced composition. Arabic letters should be simplified to fit on the same baseline sharing the same x-height with Latin letters. A simplified Arabic script should be developed, one that works nicely when accompanied by a Latin alphabet logo for example. Another issue that should be considered when digitizing the Arabic script is that some of the letter in Arabic have tiny counters. Those need to be enlarged to prevent them from disappearing when the typeface is used in a smaller size. When western brands are imported to Lebanon, the name of the product is written with Naskhi Arabic font by default to all brands alike whereas their original brands (type logo) use a variety of attractive typefaces reflecting the identity of the brand. The brand should be equally represented in Arabic. In this case the Arabic script should reflect the original Latin script used for the label. While doing this exercise that I called latinization of the Arabic script a number of questions arise such as: Is there such a thing as Arabic serif and sans serif? Arabic upper and lower case? How many x/meem-heights are there in Arabic?

Latinization could be negative when it implies departing from the traditional forms in order to imitate the Latin script in typeface design. And it is positive when learning from the west how to set high standards for design, execution, and dedication, as well as to view our own heritage with a fresh eye that can extract new values in order to develop in new directions. In creating compatibility between Latin and the Arabic script the goal should be to avoid imitating the aesthetic of Latin typography. A balance should be established between the authentic personality of Arabic script and the need to modify it to make it more compatible with Latin.

Reform

In his article "A Brief Survey of Proposals to Simplify Arabic Script" Maamoun Sakkal presented the many attempts to modify the Arabic script in the 20th century. Among the proposals were suggestions to make Arabic more contemporary and modern. Another proposal was presented to make the Arabic script easier by reducing the number of letterform variations based on the letter position in the word. Many of the proposals were rejected. According to M. Sakkal the failure of most of the attempts to change the alphabet over a long period of time is a testament to the vitality and logic of the Arabic script system.

Many reforms for Arabic type occurred earlier in the beginning of the 19th century in Egypt and other Arab countries introducing proposals to use Latin characters to represent Arabic letters by Yahya Boutemene. Another proposal was presented by Nasri Khattar to use one shape variation per letter for all Arabic letterforms that initially use a number of type variation per letter. Later Letraset produced the first dry transfer display Arabic fonts.

Contemporary typographers felt the need to realign the Arabic letters with contemporary use. The formal style used in writing Arabic is far away more complex than the spoken language. Advocating a simpler grammar and a more progressive approach in education as well as easier typography, should be implemented to facilitate the use of the Arabic alphabet in the user's daily life. We cannot deny that written Arabic unifies a diverse set of cultures, and should not disregard the fact that it is expressive, and fluid in the use of words. However, with the development of technology, a fast and effective communication is needed.

Recently the spoken and the written Arabic are evolving. End users, designers and typographers, have realized that calligraphy isn't a practical communication tool for today's world. They are anxious to catch up with technology industrial and cultural development. Designers should start by using fewer ornaments and embracing the purity of the Arabic letterforms while respecting their proportions, harmony and balance.

The multilingual aspects of typography is being given more prominence at conferences and publications around the world such as the Atypi 2002, and 2003 when a symposium was organized to discuss the evolution of the Arabic script. John Berry edited Language Culture and Type including John Hudson's introduction of UNICODE, solving many technical problems in the use of digital Arabic typefaces. Thomas Milo's presentation on Arabic script and typography was published in the book as well.

Yet there is so much potential. Beirut in particular is the gateway between East and West. Before the war, it was the center of publishing for the region. The reconstruction since the war is in need of good design. (Figure 7)

I was lately on the organizing committee for the TYPO.GRAPHIC.BEIRUT 05, a three-day conference that took place at LAU on April 14th, 2005 (figure 8). The conference was attended by more than a thousand designers, typographers, calligraphers, students, faculty, and practitioners.

The aim of the conference was

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- to promote awareness of the importance of generating contemporary Arabic typefaces to pave the way to many technical and aesthetic debates as a response to the market demands;





Figure 7.

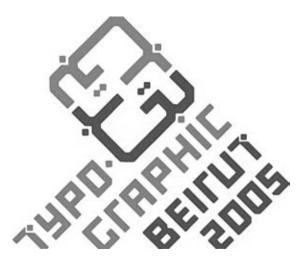


Figure 8.

- to provide an opportunity to discuss design and typography approaches;
- to establish Beirut as one of the Arab world's leading center in design.

During the conference a number of international type foundries expressed interest in launching Arabic type competitions and publishing Arabic typefaces as Linotype (Germany) and Layout (Lebanon). Al Mohtaraf, a design firm established in Beirut is currently generating contemporary well designed typefaces that were showcased at the conference exhibit.

A forum is made available on line throughout the Arabictypography.com website to discuss issues about Arabic typeface design.

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On the Metaphor of Nudity in Modern Design Thinking

Abstract

The paper meditates on the scope of the nudity and dress metaphors in modernist design thinking and design practice. The idea of nudity in design is seen here as a synonym for the modernist fascination with the idea of "natural" design, i.e. a design that would be a natural, undesigned outcome of the new, modern epoch and of its functional and other material determinants. The paper argues that what modernists produced in reality were cultural simulacra of the idea of natural nudity, and concludes that of the two only the dress metaphor is really viable, as designers invariably deal in culture of artifice and make-believe.

Keywords: nudity, natural, modernism, design culture, makebelieve.

1

One of the key characteristics of our modern design thinking, as well as our design education, has been an emphatic rejection of design conceived of as providing dress for products. The metaphor of nudity has appeared as an alternative to the earlier dress metaphor, which reigned supreme in the pre-modern, 19th century historicist attitudes to design. In this paper I would like to argue that of the two, the dress metaphor still remains the only viable one.

The idea of buildings and products in the nude seems to be closely related to the modernist claim, with us since the late 19th century, that the modern time demands an art, architecture and design of its own, that is unique for this new epoch and entirely different from all previous stylistic periods. Hypnotized as modernists were by the new discipline of art history, they took the new idea of stylistic epochs entirely literally ¹. They saw art historical epochs, or periods, not as operative concepts devised by historians to structure their material, but as concrete entities really existing out there. If the art of earlier epochs was,

as art historians suggested, a unique and authentic expression of those epochs, where was then the unique and authentic expression of our modern epoch, the people, later designated as modernists, kept asking. Soon they started to considerer the modern epoch itself, rather than their individual contemporaries and their institutions, as their true and most important client. In their view the modern period harboured its own as yet unfulfilled wishes and preferences which it was the highest moral task of architects and designers to meet ².

The idea that the modern epoch longs after and somehow contains its own as yet unborn artistic expression had its parallel in another popular, somewhat later and seemingly more concrete modernist idea, namely that functions, or problems, contain and suggest their own true forms. That was the gist of the notorious slogan *form follows function* ³.

Both of these ideas have been repeatedly criticized and rejected ⁴. Nevertheless, both ideas still seem to live on and thrive in the media discussions of architecture and design and to various degrees they still haunt the corridors, classrooms and discussions in our design schools.

Now how is the metaphor of naked design connected to these two ideas? It seems to be related in the sense that the terms *naked* or *nude* are really synonyms for terms such as *natural* or *necessary* or *essential* or *organic* — and the new form and the new stylistic epoch were to be all this.

It is nevertheless true that not all modernists spoke of architecture or design in the nude. Some modernists

¹ Pevsner 1937, p. 184.

² Michl 1996.

³ Sullivan 1947b.

⁴ On "periodism", see Gombrich 1999; Boas 1950, 1953, 1968[1937], 1969; on "form follows function", see Michl 1995.

in fact used the notion of dress as well. But as they were in search of a natural and authentically modern dress, I suggest that the idea behind it was very much the same idea as that of nakedness: as already mentioned, there was allegedly a natural, definite visual language proper to the period and hidden inside it (or more particularly in the functions to be solved) and this language was the designer's task, in the manner of a midwife, to bring forth. The natural dress of modernists was not really a dress in an ordinary sense of the word, an attire we choose for a particular occasion and context. Rather, it was a dress in the sense of a unified and historically necessary style pertaining to the particular epoch. In this sense the idea of nakedness and the idea of dress as conceived by modernists can be seen as very similar concepts formulated in two different ways.

2

Let me now refer to a few quotations showing that both pre-modernists and modernists did embrace the metaphor of nudity.

For example, the American Neo-Classicist sculptor Horatio Greenough, a man deeply interested in problems of architecture and considered a precursor of the functionalist program, criticized already in 1840s what he called "embellishments", i.e., of ornament and decoration in architecture, for being "false beauty" 5. His criticism was no doubt related to his neo-classicist taste and the general predilection of neo-classicist sculptors for nudity (he is incidentally best known for his colossal half-naked sculpture of George Washington). His essays reveal at the same time a metaphysical pedigree of this thinking. He wrote: "I base my opinion of embellishment upon the hypothesis that there is not one truth in religion, another in mathematics, and a third in physics and in art; but that there is one truth, even as one God."6 From this he concluded that "[t]he aim of the artist, therefore, should be first to seek the essential; when the essential hath been found, then, if ever, will be time to commence embellishment. I will venture to predict, that the essential, when found, will be complete. I will venture to predict that completeness will instantly throw off all that is not itself, and will thus command: 'Thou shalt have no other Gods beside me.' In a word, completeness is the absolute utterance of the Godhead [...] If I be told that such a system as mine would produce nakedness, I accept the omen. In nakedness I behold the majesty of the essential instead of the trappings of pretension."7 The new structures and the new style based on his theory would be according to Greenough much more beautiful than contemporary architecture, just as "... a naked Apollo is more beautiful than a tattooed and feathered and blanketed savage." 8

Louis Sullivan, the American architect, who coined the slogan *form follows function*, seemed to have shared most of Greenough's views. Although known for his fondness for elaborate architectural ornaments, Sullivan argued in 1892 that "...it would be greatly for our aesthetic good if we should refrain entirely from the use of ornament for a period of years, in order that our thought might concentrate acutely upon the production of buildings well formed and comely in the nude.... This step taken, we might safely inquire to what extent a decorative application of ornament would enhance the beauty of our structures – what new charm it would give them." 9

Walter Gropius claimed in 1919 in an early Bauhaus text that the aim of the school was "[t]he creation of clear organic building body, naked and radiant of its inner law, without lies" ¹⁰.

Also Mies van der Rohe's vision of architecture as "beinähe nichts", i.e. almost nothing, and his doctrine of "less is more", may be seen as metaphors of nudity.

The examples could be multiplied.

⁵ Greenough 1947, p. 73.

⁶ Ibid., p. 74.

⁷ Ibid., p. 81, 75.

⁸ Wright 1972, p. 401.

⁹ Sullivan 1947a, p. 187.

¹⁰ Quoted after Jormakka 1985, p. 12.

3

Now what reasons can be offered for the contention that from the point of design theory the modernist nudity metaphor is unfeasible? The main reason is that products and buildings cannot be shown to have any naturally and definitely naked and complete bodies which can be said to be naked in the same way the as a human body devoid of clothes is. This is a consequence of the fact that products and buildings are artefacts, i.e. human products, and that as artefacts they are the very opposite of products of nature, which is a category to which human bodies obviously belong. 11 A dressed human body is always naturally naked under the layers of artificial clothes. Human tools, however, show no such dichotomy between the natural and the artificial, as human products are artefacts through and through. There is in other words no naturally given, naked body in artefacts which is given - and recognizable - in the same way as human body is, and which would contrasts as unequivocally with the artificiality of clothes as is the case with the human body. Since human designers design per definition artificial products only, the only kind of nudity which designers are capable of creating - and the only kind of nudity which it makes sense to speak about in connection with artefacts - is an artificial kind of nudity. It is nudity as a simulacrum, created by artificial, i.e. cultural means. Therefore, as the notion of undressing an artefact makes no sense because there is no parallel here to undressing a dressed human body, designed buildings or products can be designed to be naked - and deemed naked - only in a stylistic sense, through visual manipulation, i.e. via styling. It is only when the artificial is given the role to play the natural, i.e. within the medium of a visual theatre, that the vision of naked architecture and design with its repudiation of design as clothing, makes any sense at all.

If we accept that buildings and products are artefacts, i.e. something human-made and therefore something completely different from natural products, what would a modernist designer make of the demand that architecture and design be natural? There seem to be three main attitudes possible. Either one sees this demand for what I believe it is - namely a selfcontradictory and impossible task, making sense only as a rhetoric device aimed at defaming the previous historicist aesthetic - and consequently rejects it. Or one sincerely endeavours to produce an architecture and design that is (somehow) natural, which is as self-defeating a task as that of trying to make "round circles of wooden iron" 12, or attempting to translate M.C. Escher's impossible constructions 13 into 3Dmodels.

But there is a third alternative attitude to the modernist demand for natural or nude architecture and design, characteristic for the contemporary game of minimalist architecture and design. I use the word game on purpose here, because this third attitude has been to turn the idea of nudity, the idea of the natural, objective, organic and necessary design - without being fully clear about it - into a game, a play, a theatrical performance about how buildings and projects might look if they were in the nude, if they were natural, if they were historically necessary, if only technical functions determined their forms, and if their aesthetic was objective, i.e. independent of anybody taste. This attitude, in which nakedness is conceived of, surreptitiously, as a visual theatre, can be described as modernism after post-modernism: or a post-modern modernism (or a modernist postmodernism) 13.

Woody Allen's theatre play "God" 14 from 1976 can be read as a comment on such a modernist idea of natural

The problem, however, is not in our categories, i.e. in our choice of seeing human products as artefacts, as opposed to natural products. We can choose to abolish the artefact/nature dichotomy as far as categories go, and choose to see also human products as products of nature, for example on the account that whatever is produced by human beings – apparently themselves a product of nature – is to be considered a natural product. But this would completely eradicate the very possibility of the modernist metaphor of nudity. For if all human products were to be seen as products of nature, it would not be any longer possible to point to naked human body and to claim that an ornamented product is less natural than one devoid of ornaments. Both would be as natural as peacocks and sharks are considered to be. But as humans are the only animals who have made production of artefacts their principal means of survival, nothing is won in choosing to see all organic being including humans, and all the world of human products, as belonging to one and the same category. Although there is a case for seeing the development of human artefacts as an evolution analogical to the biological evolution (Medawar 1957, 1982), the distinction between natural organisms and human artefacts still appears to be crucial for any meaningful discussion of the design world.

¹² Musil 1997, ch. 15.

¹³ Kolesár 2004, p. 138.

¹⁴ Allen 1976.

design. Allen's play repeatedly undermines the plot by having what looks like naked, non-theatrical reality break into it. For example two actors playing two Greek characters suddenly start speaking about their plight as New York actors hired for this play, etc. But what the reader for a couple of seconds perceives as breaking in of non-theatrical reality, turns soon out, repeatedly, to be only a new layer of fiction — a play within a play. In other words, the viewer understands Allen's injections of seemingly raw reality into the play as a highly sophisticated theatrical device in its own right, sophisticated in that it plays games with its own theatrical conventions.

In a similar vein, many products of the past eighty years or so, from the classical modernist modernism to the contemporary post-modernist modernism, have brought design to a new level of sophistication exactly by denying that it is about design. They raised the stylishness and fashionableness of their products to new heights by pretending that their design had nothing to do with either style or fashion - that it was only about visual truths, that their visual solutions were not results of sophisticated aesthetic choices but only upshots of non-visual, non-aesthetic, utilitarian and technical considerations. Just think of all the nonindustrial modernist buildings since the 1920s posing as matter-of-factly industrial architecture, or of the jeans, or sweaters or shirts of today, sporting holes and designed to look mangy, ragged and tattered. (Here the affluence which capitalism brought to the Western societies has turned traditional signs of poverty into aesthetic options.)

But the problem with this third attitude to the demand for nudity, or naturalness, is the ambivalence within the designer community about what one is really doing. While the classical modernists seemed to have firmly believed that they dealt with visual truths, that they truly partook in disclosing the truth of the epoch, the present *post-modern modernists* seem to be neither believers nor non-believers in such tenets: they appear simply not to care. While Woody Allen has been entirely clear about what he is doing – and that is, incidentally, the main reason why his plays are perceived as witty – the belief among designers that it is possible to achieve a theatre-free, fashion-free, make-believe-free design has not yet been fully

discarded even though it is no longer fully embraced either. Perhaps this very ambiguity of the present practice is considered an attraction of the present scene as it seems to give the practitioners the rare option of both having the cake and eating it - of embracing and rejecting modernism at the same time. But as soon as designers have come to the insight that they deal in visual conventions and not in timeless visual truths, that they deal in culture and not in things natural, we often find streaks of humour in their designs. That is not surprising. Humour in art of whatever kind seems to come only from the designer's awareness that he or she always operates within stylistic norms, including the norms for breaking stylistic norms. But is teaching such awareness in our design schools today a rule - or is it still more of an exception?

4

However, the metaphor of nudity fails to apply to artefacts not only because the idea of natural artefacts is an obvious contradiction in terms. The metaphor, though having as its reference naked human bodies, does not refer to any sort of naked human body, but seems strikingly partial to definite types of human bodies: to sporty, harmoniously shaped figures of young men and women. It is this kind of human bodies which make nudity aesthetically and sensually appealing. There seems to be no place in the nudity metaphor for all the untrained, obese, skinny, hairy, or old physiques that characterize the great majority of people. Such bodies make the visual value of nakedness, i.e. of exposing their uncovered torsi somewhat less attractive. Not that there is any problem with these types of bodies as such, and especially not on an intimate, one to one level, but they do make a problem for the metaphor of nudity. One can safely bet that Greenough, Sullivan, Gropius and Mies associated nudity in design with idealized athletic nude figures of young handsome men and pretty women rather than with, let's say an ugly, old and immensely fat person's nakedness.

But why would the metaphor of nudity in design betray preference for the young, handsome and pretty? One possible explanation for the choice of young and sporty human bodies points to biological considerations. We seek and find spouses in our youth and our physical attractiveness is at this time, for biological reasons, at its peak. However, I believe much more in the second possible explanation: that the modernist metaphor of nudity, being itself a part of design culture, refers not to flesh and blood humans, but rather to artistic images of the youthful nude human bodies our present Western culture inherited from the classical Greece, and the post-Middle Age Western painting and sculpture 15. Our notions of beauty of human body, male as well as female, seems in other words to be largely formed by our awareness of the aesthetic norms of Greek sculpture, mainly from the classical periods, further developed through Renaissance, Neo-Classical and later sculpture and painting, and enormously amplified and brought within everybody's reach by the modern pictorial media. It is the aesthetic norms of our Western art rather than, say a Buddhist or Indian art that has provided us with the types of naked male and female figures as well as the types of faces that have become internalized as basic aesthetic norms. Behind the seemingly natural attraction of human body in the nude looms the Western classical cultural heritage, in whose grip our visual world in innumerable ways still is.

It should be also added here that as to the origin of the "naked" elementarist and minimalist aesthetic of modernism, it is by no means to be seen as an aesthetic by-product of various utilitarian solutions, as it is sometimes still suggested. This aesthetic was not a result of the designer's encounters with new functions, materials and constructions, but again, just as the idea of naked design, of encounters with art images - this time, however, with contemporary ones. The present minimalism would be utterly unthinkable without post-cubist abstract painting and sculpture, usually mediated through the works of earlier, post-Word War I architects and designers. These applied the aesthetic, developed in the 1920s by abstract painters and sculptors outside design and architecture proper, to buildings and products. 16 This post-cubist abstract language was later further enriched by eclectic visual quotations from among other things Japanese design and architecture, and

from the neo-classicist-inspired Shaker furniture. But even the early modernist architectural references to what is usually termed industrial vernacular, before abstract art emerged as the main source of the modernist aesthetic language, were mediated mainly through the medium of photographic reproductions in design magazines, i.e. through cultural channels, rather than physical encounters ¹⁷.

5

Still, the metaphor of nudity did make a lot of sense, and did work well, but merely in one area: only in its role as a rhetoric device aimed at promoting the anti-historicist, pro-modernist position and bringing modernists ultimately to the position of power. After all, that was probably why the metaphor appeared in the first place. To be effective, it was enough that the metaphor, just as the form-follows-function slogan, or the claim that epochs contain their own artistic expressions, sounded superficially plausible. In heated discussions with opponents blacksmith's tools were needed more than watchmaker's instruments. The problems started when, after the Second World War, the victorious modernists tried to stand on their own theoretical feet. The sorry fact is that modernists never developed a modernist theory of design; their old promotional one-liners hardly deserve to be called that. The main reason why a modernist theory of design never materialized was that the promotional ideas, being no more than rhetoric devices, tended to show their shallowness at the first attempt to develop them. All interesting theories developed under the reign of modernism tended, unsurprisingly, to undermine the very tenets of modernism. So since it was only the old promotional ideas which were able to provide the designer with belief in his own artistic autonomy, such idea proved very difficult to part with, flimsy as they were. Only if forms did follow functions, if there indeed was a natural kind design, if a period really harboured its own as yet unknown artistic language, if materials did contain their true expressions, first then could the business of design be considered the designer's own business only. To put it differently, only the modernist promotional slogans provided the modernist designers with autonomy on

¹⁵ Clark 1970[1956].

¹⁶ Hitchcock 1932; 1948; Michl 1996.

¹⁷ Banham 1986

a par with fine arts, persuading them that in things aesthetic clients and users have no legitimate say whatsoever and allowing them to monopolize the profession for modernists only. No wonder that the modernist tenets have proved so tenacious, and so effective in hampering the development of a realistic design theory. This problem is admittedly far more serious in architectural than in design professions, probably because designers, in contrast to architects, get more often restricted in their flights of fancy due to their nearness to the markets, and consequently by their greater proximity to users.

Perhaps we should repeat time and again that the idea of naked design, in the sense of natural, historically necessary, objective design, is no more than an enticing will-'o-the-wisp. The world of design, being a world of human artefacts, is a world of design culture, not of nature. Design education has always been a sequence of immersions in a design culture. Under modernism the idea of design culture has been out of favour; naked, natural design was to put an end to make-believe, and to stop the business of pretending. But since designers are dealers in make-believe and cannot stop pretending without stopping being designers, modernism in reality launched a novel exercise in make-believe - a make-believe about the absence of make-belief, a practice of pretending not to pretend, a theatre denying it was a theatre. We ought to attempt again to say good bye to the fundamentalist visions of our modernist forefathers - still loosely perpetuated in the present *post-modern* modernism – and make peace with the idea that design is after all about imparting clothes, about pretending, about make-believe, about styling, about theatre - in other words about things cultural, not things natural. What makes visual design meaningful is not that it is "natural" but that it refers to a yesterday, because meanings are invariably born yesterday. Every design, pre-modern, modernist as well as contemporary, has therefore of necessity been, and of necessity will be, a historicist design. Designers cannot help it, but they can face it.

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Design in Cultural Exchange – Issues of Identity-Politics, Authentification and Ownership

Abstract

The article discusses the significance of authenticity and identity in relation to issues of public cultural assets and national design heritage. By introducing an anthropological research project in progress, it sketches out the role of identity politics in design, particularly in relation to issues of property-rights, branding, patent, and claims for originality and authorship. The discussion is contextualised by globalised production and so-called knowledge society, where governments of industrialised countries in Europe. Asia and elsewhere have officially turned to design as a significant field for national value creation, and design producing organisations are following suit. The article concludes that further research must be done in the consumption of authenticity, where designproduction today plays an important role in negotiating, defining, privileging and communicating certain positions of subjectivity and identity by acceptance or resistance to the production, flow and global appropriation of localised aesthetics, immaterial assets and production-modes.

Keywords: anthropology of design, authenticity, consumption, identity-politics, globalisation, creative- & knowledge industries.

Canadian designer-guru Bruce Mau recently declared Denmark a "producing museum". It was then announced that a series of Bruce Mau inspired exhibitions and books would contribute to the creation of a new Danish identity and brand with the aim of fostering a global boom in commercial Danish design 1. This is just the most conspicuous in a number of recent Danish design promotions, where identity-politics, national welfare strategy and authentification have been presented as matters of design. ²

Besides being a potential national economic growth engine, design is a player in contemporary local and national identity-politics and it plays a part in construing concepts and measures of subjectivity and authenticity.

This article is an opportunity to introduce a research field that is relatively new to me. In other words, this is not the presentation of a completed research project, but rather the outline of a project in progress. Furthermore, the text represents the attempt at crossbreeding different academic disciplines. As a social anthropologist who has worked in organisational studies, marketing and governance for several years, I have recently turned fully to the area of designtheory. However, my use of theory and methodology still is solidly based in social anthropology and cultural studies. From this perspective, I would like to present my position on two significant aspects of contemporary design, namely those of identity and authenticity. The article will introduce the significance of authenticity and identity as design issues, particularly in relation to branding and property-rights.

The search for authenticity by consumption

In the current Danish media-debate over the social role of design today, design is often described as national heritage. In one of the largest daily newspapers, original handicrafts were recently contrasted to industrial design, and an architect and design-researcher was quoted for concluding that:

"I think people are looking for something that they perceive as more authentic and more rooted than in

¹ Carl Bro 2005, http://www.carlbro.dk/dac_rethink2.php [Accessed January 2005].

² The homepage of the Ministry of Foreign Affairs of Denmark describes one such example: "As a result of outstanding cooperation between New York City's Museum of Modern Art (MoMA) and the Danish Foreign Service, the newly expanded and renovated MoMA will prominently feature modern Danish design selected by MoMA and sponsored by the Danish Design Project."

the 1990s, when people were enormously concerned with brand items. Something that can contribute to give them a special identity. This is true for all fields, such as clothing, interior design, kitchen goods, anything ³.

There is obviously nothing new in linking design with identity issues, as:

"[t]he consensus of otherwise irreconcilable perspectives appears to be that in late capitalism, consumption is the area where personal and group identities are fought over, contested, precariously put together and licked into shape [...t]he Western consumer readily transfigures into an identity-seeker".

This was equally true in the 1990s as it was at the time of Karl Marx, who wrote "That which is for me through the medium of money - that for which I can pay (i.e. which money can buy) - that am I, the possessor of money" 5. Identity is reflected or rather produced in consumption, we could thus conclude once again. We are what we eat, as many a symbolanalyst has noted. However, the quote about the new consumption of design that people "perceive as more authentic and more rooted" suggests more than this. It seems to indicate that brands ultimately really are empty signifiers with no stability - to reiterate Jean Baudrillard's position 6. In the quote it is suggested that consumers today search beyond mass produced brands and industrial design to find meaningful identity and authenticity. This implies the existence of an interrelationship between authenticity, originality, uniqueness and handicraft. All in all, the quote implies that the idea of the singular and unique is en vogue and linked with identity issues and a search for authenticity. The quote thus represents a whole discourse of authenticity in material culture and design. It simultaneously reproduces and comments

on the search for authenticity by consumption. I brought up the quote in this context to illustrate a current trend of authenticity-consumption under various forms, of which design and handicraft are significant examples. This consumption of authenticity is preconditioned on certain assumptions about materiality, authorship, time, ownership and identity - and their relation to one another. This phenomenon might seem old news. Authenticity resurfaces as an issue during certain epochs. In my analysis of contemporary management thinking, I have also touched upon this phenomenon, mainly as it is expressed in the search for totality or ideological holism 7. Various critical cultural studies have in different ways attempted to deconstruct, analyse or attack concepts of authenticity and essence. Theodor W. Adorno analysed what he called a "jargon of authenticity" in relation to German ideology 8. And post-modernists as well as critics of Western colonial thinking have in different ways attempted to describe and deconstruct the figure of authenticity, for example by deconstructing the subject, addressing the transcendental status of language and meaning or by questioning representation and replacing essence with simulacrae 9. My text is not an attempt at synthesising these efforts or to present an independent theory of authenticity. I just try to begin sketching out the role of authenticity as a contemporary design issue.

The changing meaning of authenticity

Some years ago things had to be *original*, then they had to be *classic* and now they have to be *authentic*. However, original and authentic are not quite similar qualities, even though one might think so when seeing that Levi's® 501® Lived In Limited Edition 2004 Red TabTM jeans are *original* ¹⁰ whilst Wrangler's are "born *authentic*" (figure 1), but look much the same anyway. *Authentic* is a word known since the 13th century. It is related to the word

³ Quote by architect M. Ahnfeldt-Mollerup in Andersen 2004, p. 24. The original Danish quote (my unauthorised translation into English): "Jeg tror, folk søger noget, som de oplever som mere autentisk og mere forankret end i forhold til 1990'erne, hvor man var enormt optaet af mærkevarer. Og noget som er med til at give dem en speciel identitet. På alle områder, indenfor beklædning, indretning, køkkenting, alt."

⁴ Gabriel & Lang 1995, p. 81.

⁵ Quoted ibid.

⁶ Baudrillard 1996; Gabriel & Lang 1995, p. 62f.

⁷ Salamon 2000: 2002.

⁸ Adorno 1973.

⁹ E.g. Baudrillard 1983; Derrida 1996; Deleuze & Guattari 1996; Grossberg 1992

^{10 &}quot;The original re-born" and "we celebrate the first jeans on earth", http://www.levi501reborn.com/ [Accessed January 2003].



Figure 1. Billboard in underground, Sydney, Australia, November 2004. Photo by the author.

"authoritative," and stems via Latin from the Greek *authentikos* meaning "original, genuine, principal". Significantly enough, this term essentially had to do with legal rights, namely being authentes "one acting on one's own authority", from *autos* "self" and *hentes* "doer, being". ¹¹

We can well imagine who, in ancient Greece, would not have been authentes and acting on their own authority: slaves, women and other legal minors. Thus authenticity has a legal ring to it, but also implications of hierarchy. Since the 14th century, *authentic* has implied that the contents of the thing in question correspond to the facts and are not fictitious ¹². Here we touch the issue of identity: Are things really what they claim to be? Do they really belong to the declared class or stem from the named *author* (another word which also derives from *authentes*)? Since at least Adolph Loos and minimalist Modernism (but in fact also since puritan Protestant

aesthetics took hold) authenticity has been associated with lack of pretension and "surface", and thus also with truthfulness ¹³.

Puritanism, such as known in the design of the North American ascetic Shaker religion, claimed that minimalism was closer to truth 14. Modernism, such as in Scandinavian Design, essentially shares these ideals: You see what you get. Outside represents inside. Facade shows essence. Simplicity rang truer than opulence for quite a while - until post-modernism questioned the association. In this article I do not intend to pose any new theory on the interrelationship between function, authenticity and truth, besides the obvious scientific modernity that instrumentally engineers social and physical hygiene, as others have pointed out 15. I would like to indicate that the concern with authenticity is central to design. Authenticity is at play in branding, patent, claims for originality and authorship. It is thus fundamental to the assessment of value and ownership

¹¹ Online Etymology Dictionary, http://www.etymonline.com/a9etym.htm [Accessed May 2004].

¹² Ibid.

¹³ Loos 1994[1908]; Weber 1972[1920].

¹⁴ Salamon 1990.

¹⁵ E.g. Bauman 1993; Forty 1995; Foucault 1963; Schmidt & Kristensen 1986.

rights. Authenticity has to do with assessing what a thing or message really *is*, and thus is a matter of identity and ontology. Identity and authenticity might sound rather intangible and abstract, but it is my argument that they are essential and rather concrete issues in the global market of design today. We therefore need to study them in this capacity.

In my current research, I work on documenting and analysing examples of what I see as *the production and marketing of authenticity*, and in this article I attempt to lay out some of the premises for this work.

Authenticity in creative industries of the "new economy"

What I want to propose is that the "production of authenticity" has surfaced again as a specific aspect of contemporary design, and that this has happened as cultural industry became a potential cash-cow for post-industrial economies. Although I do acknowledge the existence of a general demand for univocal truths and homogenous, rooted identities (as seen in the rise of religious and political fundamentalisms these years) I do not believe that the consumption of authenticity happens mainly because of a cultural or personal "lack", as is often indicated, for example in the quote I just gave on people looking "for something that they perceive as more authentic and more rooted". As mentioned, I see authenticity in a cultural constructivist perspective, and accordingly do not see authenticity as a natural or universal human need per se. Thus, I regard authenticity as a particular way of addressing subjectivation, identity-relationships, ownership and value. I thus will hypothesise that the contemporary structures of production and value also precondition a rise in the demand for authenticity, such as authentificated design. Governments of industrialised countries in Europe, Asia and elsewhere have officially turned to design as a significant field for national value creation. They seem to acknowledge a conceptualisation of their policies in terms of so-called information society and

the new economy 16. In discussions about globalisation and knowledge-society, it is often claimed that highly industrialised or post-industrialised nations with important income-levels and well-educated populations must shift their focus to know-how: technical and symbolic production ¹⁷. Consumption and production have turned self-consciously valuesdriven and culturally sensitive, to include the construction of affectivities, subjectivities, symbols and other immaterial assets 18. Furthermore, cultural sociologists have since long discussed the capitalization of art and cultured emotionalism 19. Cultural production as well as technical innovation are fields where the highly skilled and highly paid populations of welfare nations such as the Scandinavian might still compete, due to their know-how. Neo-liberal market-deregulations simultaneously have contributed to a celebration of the entrepreneur - such as the designer-author - as a primary source of national wealth 20. These tendencies strengthen the significance of identity and authenticity in branded or authored production, as I see it. Ownership and management of the idea, identity and "essence" of a particular product becomes essential to the creation of profit. Consequently development of innovative and strongly branded design is now a clarion call in many countries (especially in the EU) that used to compete on industrial quality production by a skilled workforce.

Due to high production-costs and the offer of cheaper quality production in many low-income countries, they no longer can keep up industrial competition globally. In stead they focus on research and hitech development in pharmaceuticals, food, IT, mechanical engineering – and culture, of course. It has occurred to many a politician and economic strategist that creative industries carry important, although uncertain income potentials. This brings us back to cultural identity and my reference to Bruce Mau and branding Denmark: How is ephemeral culture branded? The people who nationalised Europe already had strategies for this some 200 years

¹⁶ Löfgren & Willim (eds.) 2005.

¹⁷ Drucker 1999; Kelly 1998; Lundvall and Johnson 1994.

¹⁸ Hardt 2003: Marcus (ed.) 1998.

¹⁹ Adorno 1972, p. 31; Grossberg 1997, p. 141.

²⁰ Bewes & Gilbert (eds.) 2000; Heelas & Morris (eds.) 1992.

ago – claiming essence of tradition and branding it, for example in national terms ²¹. Historicity produced the necessity of origins 22. Design heritage has since long been nationalised, and in certain instances is already regarded as "public cultural property" in spite of acknowledged individual authorship and trademarks. This is typically the case for much of Scandinavian modernist design, which is generally regarded as a national asset, often involving politically significant constructions of national identity 23. Visual and authored design is very suited for national branding or authentification. Because - contrary to other knowledge industries - the ephemeral and mutant medium of culture cannot so easily be transferred, adopted or copied by other countries or regions. Bollywood will never be Hollywood (or vice versa). They each have and further develop their own cultural fingerprints, implying a certain kind of authenticity, and possibly originality. Copenhagen dreams of becoming a recognised city of fashion, like Milan, Tokyo and New York. Not to speak of Paris, the original city of original fashion.

The consumption of authenticity

As mentioned, ownership of authentic design can be a way of producing identity by consuming. The consumption of authenticity is generally characterised by being expensive consumption. It often is a way of displaying great wealth *and* "good" taste in the sense of puritan, middleclass, modernist ideology. The interrelation between acknowledged authenticity, strong social capital and high economic value seems to be of a dialectic and rather intricate nature – as several anthropological studies have shown ²⁴. Accordingly, design defined as authentic and original tends to be perceived as more prestigious under the Western, bourgeois regime of taste and value. "Authenticity" – as in authentified design – is also sold more

expensively than items perceived as reproductions, copies, fake, emulation or trickle-down style 25. In these respects authentic design overlaps with traditional luxury goods 26. Luxury is obviously defined as such mainly in terms of its price value and scarcity, again in a dialectic relationship 27. Luxury has furthermore turned into a brand-quality or empty and free signifier that companies try to dislocate from the actual luxury goods. Companies try to gain larger market shares by marketing socalled New Luxury to larger shares of the market 28. They target less wealthy consumers with slightly less expensive up-market goods, now branded as luxury, and thus produce a "luxury effect" for the masses. In other words, luxury as a concept turns from being a quality to being a brand or market segment, where you can get more luxury for less money - an idea quite contrary to the original idea of luxury. This seems to be part of a larger phenomenon by which brands try to attain a transferable air of luxury via marketing and other symbolic strategies. 29 Still, the privilege of defining what is luxury and what is low taste belongs to those who are economically affluent, socially influential and have access to set the trends. As Pierre Bourdieu showed, social politics also take place via battles over the definition of taste 30. This is obviously particularly the case in societies with consumption-driven, industrialised economies. At least in the West, definitions of authenticity are essential to branding and thus part of this battle. As we have seen, the search for authenticity and identity finds expression in strategies of consumption.

Similarly to the phenomenon of New Luxury, where mass-produced, industrial products goods are claimed to be luxurious just by referral to their brand (for example D&G, Prada, Vuitton) – even when they are neither scarce, nor very difficult to access, nor particularly expensive or of an exceptional quality –

²¹ Hobsbawm & Ranger (eds.) 1983.

²² Foucault 1994, p. 329.

²³ Holm 2003.

²⁴ Bourdieu 1979; Douglas 1996.

²⁵ McCracken 1988.

²⁶ Lewis & Bridger 2000.

²⁷ Bourdieu 1979, p. 58.

²⁸ Silverstein & Fiske 2003.

²⁹ My colleague Erik Hansen-Hansen of Denmark's School of Design discusses a number of aspects of contemporary fashion and luxury branding in a fortcoming PhD thesis. I want to thank him for drawing my attention to the role of branded luxury fashion turning into mass-consumption (with the example of Japan).

³⁰ Bourdieu 1979.

authenticity today also seems attain the characteristics of a brand or a quality of transferable aura. Again, I do not claim to have seen anything new in this. Social philosophers such as Georg Simmel, Torstein Veblen, Theodor W. Adorno, Walther Benjamin, Jean Baudrillard and others, have discussed aspects of this phenomenon from more or less social constructivist positions over the past century 31. In seminal studies they have regarded luxury, aura, value, simulacra and cultural mass-industry as socially relative phenomena. I share this perspective, and thus try to situate the production of authenticity in its social and cultural context. As shown already, authenticity is not a natural quality that can be objectively measured. Rather, it is a subjective and culturally relative quality under constant change.

Firstness as entitlement – the meaning of originality

I would like to quickly expand on the term "original" that I mentioned in relation to the branding of blue jeans. This term seems intricately linked with the consumption of authenticity: Originality is another quality much asked for in a knowledge-economy. Where authenticity is presumed to guarantee the right essence and the right ontological identity, originality presumably guarantees the right provenience, origin plus a uniqueness in terms of firstness.

The term "original" is an adjective, derived from Latin. It stems from the term *oriri* "to rise", and is thus related "beginning, source, birth". The first known reference of relevance in our current context is Biblical, from the Latin translation as in "original sin". The broader meaning of "original text" is attested from the late 14th century, and since at least 1918 it is also used in relation to photographs, film and other non-textual products ³².

The word original conflates *sameness* with *firstness*. This implies a time-aspect that isn't salient in the term authenticity. Authenticity implies an authoritative self-referentiality, and guarantees that it is true to its own identity. Originality implies that it is *the*

same as itself, in the identity relationship of A=A. Thus, with reference to the concept of original sin, an original is a unique and singular appearance, the first and only. However, the concept is complicated, as this first and original one and only sin can still be copied later. Or rather, it can almost be copied. In the Biblically (and before that Greek) inspired meaning of the concept, the point is that no absolute cloning will be possible, mainly due to the passing of time. Thus, even if an exactly similar sin – or thing – comes later, it will never be the first and original thing - or sin. Originality implies that it has no predecessor similar to it 33. If something similar comes after it, the first will still remain the original, and the latter will be defined as a copy. If the exact same thing were to appear at the exact same time, they would be regarded as One. It would be logically impossible to identify the two as separate, and they would both belong to the same monistic originality. However, if time would have passed between the two, they would be separately recognised and the first would remain the original, whilst the later would be but a copy. The two might be identical and thus the same, but the time span between them implies that they cannot be equally original. Thus, all Original Levi's jeans carry the claim that they belong to the same unity of originality, guaranteed by the authenticity of the brand. In this case the originality does not rest with the actual first and only, original pair of blue jeans produced by Mr. Levi-Strauss some 130 years ago. All the millions of trousers produced under his brand and trademark are claimed to be essentially originals, too. This can only be true if the originality refers to the brand and trademark or all Levi's jeans are regarded as essentially and generically "the same" by their ideal representation of the same Platonic ideal type of blue jeans. In this sense the Original Levi's also claim authenticity.

This discussion of originality might sound either too sophistic or just commonsensical (or both) to those of us brought up in culturally Christian societies. However, it is not a general truth known or accepted in all societies or at all times. An important implication of the term *original* is thus a linear view

³¹ Cf. Miller 1987

³² Online Etymology Dictionary, http://www.etymonline.com/o2etym.htm [Accessed May 2004]; Nielsen 1990.

³³ Nielsen 1990

of history, creativity, ownership and production. It is implied that what comes first is truer (in relation to itself) than what comes later. The one who first claims ownership is thus also perceived as the original owner, unless documentation can prove that other owners have been even more "ab-original"; that is coming from the beginning. Identity (and, alas, race) thus are intimately linked with time and property rights in this concept.

In our understanding of original brands and design, time is thus a central factor: Which issue came first? Who was the first to apply a particular method? On top of this, the original has in some way to be "identical to itself", and recognised as such. As argued, the originality of Levi's original jeans lies in its inclusion into the generally recognised class of Levi's products, so that the individual pair of jeans belongs to this brand and shares identity with the other millions of pairs. So, as said, originality is closely associated with issues of identity besides being related to linear time and documented claims of firstness. This is most easily recognised when considered in terms of negations: When something is defined as unoriginal, it pretends to be something that it is not. It claims to possess an identity to which it really does not correspond. This is typically known from such a phenomenon as counterfeit or faked masterpieces, as when prints are produced from the original printing plates of an artist and signed with a faked signature by someone else. These prints carry an implied claim of identification with a particular authorship (the owner of the original signature), but were neither signed nor printed by him. They thus remain unoriginal (and inauthentic), even if they are visually identical with the authentic original. Their lack of originality lies in their pretension to carry an identity, which they do not genuinely possess. Genuine is another term that implies that the reputed author or brand is the real one. And again we have a term that etymologically plays on origins or roots of identity, probably with a reference to physical birth. The word "genuine" is derived from Latin genuinus, which means native or natural and also implies acknowledged origins, and this probably again stems from the Greek word for birth, offspring and stock 34.

The interrelation of ownership, identity and value

The point I want to make with all these etymological details, is that the real original is identic to itself only, and can claim to belong to the identity of its author. This again is linked to a complexity involving the concepts of firstness, natural birth, procreation, acknowledged property in terms of recognised parenthood and other anthropologically exciting characteristic obsessions of European culture. The right to consume rests on property, and property is intimately linked with claims of firstness, originality and identity. Thus to conclude the etymological tour, I would like to quickly look at the term of *identity* as well. The term identical is first known from logic. It stems from Latin idem meaning "the same" (from id "it, that one" plus demonstrative suffix -dem). *Identitatem* thus means "sameness," abstracted from identidem "over and over" (idem et idem). 35

Again, there is an equation of a linear sequence in time, as in repetition, and an intimate link with the definition of ownership and truth. What is the same now as it was before, is identical. What is first in a repetition is original. In other words, it has to be *first* and *recognisable as itself*. Then it is authentic – and valuable to its owner.

Why is all of this so interesting in our context of contemporary design in cultural exchange under global production? Hoping that the crux of my argument already seems clear, I would just like to solidify my argument by adding a few further points.

As is well known, Europe has now for over 200 years thrived on a Romanticism of Origins, by which what is first is also perceived as truer and more beautiful (but also simpler and cruder):

"The rustic ideal goes to the heart of myth, aping the primitive shelter with its use of massive materials and its easily understandable assembly techniques. Thus a piece of rustic furniture is 'cut from a single block', as naked in its presumed innocence as Adam

³⁴ Online Etymology Dictionary, http://etymonline.com/index [Accessed January 2005].

³⁵ Online Etymology Dictionary, http://www.etymonline.com/o2etym.htm [Accessed May 2004].

in Paradise. It appropriates to itself the principle of truth. It stems from Rousseau's ideal of the noble savage, of the being who is not yet contaminated by civilisation and knows no sin. At the same time, from the point of view of imagination, rustic furniture draws its strength from the earth, which the roughness of its materials evokes; its irregular forms epitomize the power of nature, carrying us back, at a stroke, to archaic times." ³⁶

The artistic, Romantic genius is closely associated with this ideological figure 37. Similarly plain roughness and primitivity (again a word related to sequential firstness - and to evolutionary thinking) are associated with artistic creativity, ab-originality and authenticity. Along these ideological lines, simple and crude forms are often idealised as "more authentic" and "less pretentious", as we know it from modernist primitivism, which in spite of its formal, universalist humanism, is deeply rooted in European evolutionist and colonialist thinking: "Modernist primitivism, with its claims to deeper humanist sympathies and a wider aesthetic sense, goes hand-in-hand with a developed market in tribal art and with definitions of artistic and cultural authenticity that are now widely contested" 38.

And now, to go back to my question: Why is this interesting in our context of contemporary design, cultural exchange and the consumption of authenticity? It is my argument that the locally branded design that is being defined as part of national heritage or identity (in spite of the actual global production lines), and is regarded as a potential source of wealth to the affluent post-industrial knowledge-economies, owes its potential value to its (claimed) authenticity. This is partly the case due to the Romanticist way in which "creativity" and entrepreneurial authorship are regarded in contemporary, neo-liberalised, Western culture. It is of course also due to the legal and formal results of this and other fundamental cultural characteristics that I have tried to sketch out here (of which the most important is the chronologically, i.e. firstness-defined understanding of ownership-rights). It is partly also due to the way in which culture (and

cultural artefacts) are always exchanged in this tradition: namely from essentialized platforms of authorised identity-positions, that are hierarchically ordered and battle for authentification and ownership rights. In other words, it takes a claim of ownership to possess certain cultural forms, so that they might be "ours" in exchange with others. We are so used to this way of thinking that it has turned self-evident to us, and only becomes visible when presented in a more exotic or extreme version, as is the case for the identity-politics and authentification-battles that take place over the definition of native or aboriginal art and design in such places as Australia and North America:

"...the Indian Arts and Crafts Act of 1990, which strengthened similar legislation passed in the 1930s. The broad intent of the law is simple: to guarantee the authenticity of Native American art by prohibiting the sale of products falsely claimed to be made by American Indians or Alaska Natives. The law was designed to protect native artists who find their livelihood threatened to counterfeit goods, some produced on near-industrial scale in Mexico, Pakistan, India, Thailand, and the Philippines. One might think that certifying works as authentically Native American would be a straightforward business, but it is not. The law defines as Indians and Alaska Natives only those officially registered as members of a recognized tribe or community. One result is that people who are clearly Indians, but who lack the requisite tribal membership, are prevented from identifying their work as Native American. The law may benefit Indian arts and crafts in the aggregate, but it does so at the expense of many deserving artists who are legislatively exiled from their heritage. The Cherokee artist Kay WalkingStick has likened the law to the registration of Indians begun during the reservation period. She accepts that producers of fraudulent work should be subject to punishment. 'Yet through this law', she insists, 'some of our most important artists may be stopped from exhibiting their work and affirming their identity'. Similar problems arise from an Alaskan certification plan called the Silver Hand program. The Silver hand is a tag that identifies a work of art as an 'Authentic

³⁶ Louguet 1994, p. 51.

³⁷ Siebers 1984.

³⁸ Clifford 1988, p. 198

Native Handicraft from Alaska'. Artists are issued the tags after submitting an application that includes verification of Alaska Native identity (blood quantum of one-fourth or greater) and a pledge that products to which the tags are affixed are made entirely by the applicant, in Alaska, and using materials defined as 'natural'." ³⁹

The extensive quote brings forth significant legislative, economic and racial, essentialist implications of authentificating the production of crafts and design. Authenticity here essentially boils down to having the legally accepted racial background, whilst also living localised, doing the work according to clearly set out methods that are bureaucratically defined as "authentic" and using materials formally acknowledged as "natural". Michael F. Brown in this discussion of Native Heritage also goes on to mention that certain native artists decline using these forms of certification because they feel it "confines their art to traditional genres" and prevents them from working "in innovative materials that fail to qualify as natural" 40. As can be seen from this example, concepts of authenticity in design and crafts are semantically construed according to the social system in which they are developed, and partly function as gatekeepers of traditions and positions of property rights. Under modern legal conditions, they thus heavily rely on property law. In the post-colonial and neo-imperial world system, they furthermore tend to be socially rooted in racial and nationalist formations of identity. Thus it is my argument that the proliferating construction and use of authenticity in design and elsewhere should be regarded as a symptom of fundamental socio-cultural trends under the contemporary global capitalist system. Design is one of the most significant instances of such economically important cultural exchange. These years we see design becoming heavily branded, and additionally used in national identity-politics and discussions over the future of the welfare state, 41 the nature of intellectual property rights, the future of neo-liberal deregulation - and in the just quoted case, even in battles over race and identity. Branding, authenticity and identity are closely linked, and it has become more possible than ever to trademark and "consume" of the identity of other people(s) – even to consume of their authenticity 42. Certain cultural groups try to resist this, and are thus typically regarded as isolationist by the rest of the global system, when they for example refuse to share their cultural capital in terms of material culture or sheltered forms of knowledge on the world market. Some of them stand forth more aggressively as religious or political fundamentalists explicitly playing on definitions of authenticity in their public battle against liberal society and cultural exchange. Other cultural groups resist global capitalism by offering free cultural exchange, but refusing its definition as legal property and commodity. By delivering their cultural capital for free, they try to rearticulate the meaning of exchange and deconstruct and redefine concepts of authenticity. For example, this is done in "public domains" offering free information flow in electronic media (eg. open source software), in noncommercial exchange of music recordings, and in various forms of bricolage, sampling and other forms of cultural quotation in music, art and design.

Cultural knowledge as private property – an issue of design

In spite of these various forms of resistance against commodified cultural exchange, I find reason to believe that we see an overall tendency for culture to become increasingly commodified and subject to claims of legal ownership and issues of authenticity. A range of public assets are thus transformed into designer-culture for market exchange, consumption and private ownership. Examples of cultural knowledge – language, aesthetics, traditional forms of expertise and even bodywork – transformed into potential private property are legion: native plants and native medical knowledge for the medical industry,

³⁹ Brown 2003, p. 215.

⁴⁰ Op.cit., p. 216.

⁴¹ In 1994 I as a freelance consultant was hired, along with other social scientist colleagues, by a governmentally supported think tank, to document the viability of a project by which the Danish welfare state could fund significant parts of its activities by exporting Danish social design (eg. systems of care for the elderly). Our results were not sufficiently encouraging and thus never formally published!

⁴² Cf. Brown 2003; Salamon 2002.

local human population genomes for medical, military & food industry, 43 public language into TM 44, and the patenting of particular materials or shapes for designed pro-staethics. 45 In these instances, formal design is a tool in the process of (re)defining legal property and (cultural) privilege. It is a tool for privatising public assets and transforming them into profit. Authentification is a central issue in this process. As a passport documenting the identity of a citizen from a privileged nation, design branded as authentic and original also serves matters of exclusive identity and privilege, and opens possibilities for exchange of these. When design becomes legally defined as national or in some other way identitybranded, authentic heritage, it supports and helps reproducing the assumption that singular, stable cultural positions can clearly be detected, separated and protected from each other. When design furthermore becomes marketed and sold in these terms, it becomes part of the exercise of biopower: Governance conducted via a range of technologies controlling and monitoring life and life-forms, and thus defining subjectivation and producing a "population" - and in this case a "mass" of consumers in certain positions of privilege and identity 46. Without cultural property rights, authentification and commercial exchange of culture, design would not be what it is today. 47

In this light, it is interesting to consider that the high point of modernist, authenticity seeking, ideological or philantropist design has coincided with the epoch during which nationalist and localist ideologies were and are at their most pertinent. In spite of the global and objectivist-neutral ambitions of modernism and its implied negation of local and nationalist ambitions,

governments of industrialised countries in Europe, Asia and elsewhere have officially turned to modern design as a significant field for national value creation and identity. With the globalisation of industrial production, design can in principle be produced and conceptualised anywhere. However, authentification rather seems to grow in importance, along with the increasing stress on (authored and anchored) knowledge-production, the greedy private ownership claims to all kinds of goods (even public property) and the immense focus on branded identities. As I mentioned in the introduction to this text, Danish private and public companies and organisations have hired a designer-guru to create a new Danish identity and brand with the aim of fostering a global boom in commercial Danish design, at the same time as Danish consumers seem to dream about authentic handicraft that will provide them with rooted identities. Design thus seems to have a great, if not growing significance for identity-politics, for issues of intellectual property, for the production of subjectivation through consumption, for cultural ownership rights and for other highly pertinent social and political themes today. It is my argument and thesis that all of these issues can be fruitfully, analytically related to the problem of authentification and the consumption of authenticity. But I still have to document and describe this phenomenon further in a number of case-studies.

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[&]quot;Cell lines and genetically modified single-cell organisms are considered patentable material. One of the earliest cases involving the patentability of single-cell organisms was Diamond v. Chakrabarty in 1980, in which the Supreme Court ruled that genetically modified bacteria were patentable. Patents for stem cells from monkeys and other organisms already have been issued. Therefore, based on past court rulings, human embryonic stem cells are technically patentable. A lot of social and legal controversy has developed in response to the potential patentability of human stem cells. A major concern is that patents for human stem cells and human cloning techniques violate the principle against the ownership of human beings In the U.S. patent system, patents are granted based on existing technical patent criteria. Ethical concerns have not influenced this process in the past, but, the stem cell debate may change this,"

(U.S. Human Genome Project: <http://www.ornl.gov/sci/techresources/Human Genome/elsi/batents.shtml> [Accessed 14 July 2005].

^{44 &}quot;Forget Something?® personal care amenities program", Holiday Inn, http://www.ichotelsgroup.com/h/d/ex/1/en/c/2/content/dec/ex/1/en/ha.html [Accessed 14 July 2005].

[&]quot;By prosthetic device we means an article having a shape suitable for use in the human or animal body and in particular for use in place of a part of the human or animal body. It may have a shape suitable for use as, for example, a cosmetic implant, e.g. in the nose; a duct, e.g. a bile or urinary duct; an arterial graft; an anchor point, e.g. for a heart valve; or a net, e.g. a net for a hernia repair," Prosthetics, United States Patent 4042978, http://www.freepatentsonline.com/4042978.html [Accessed 14 July 2005].

⁴⁶ Cf. Foucault 1978.

⁴⁷ I will not define what I mean by design here. It is implicit in my argument that design is socially construed as such, and by discussing certain mechanisms of authentification, I supply a part of the complex definition.

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The Solution that Works

Abstract

In *The Reflective Practitioner,* Schön (1991) describes an iterative process of question-forming and solution-finding. One of the judgements that the practitioner makes is whether a solution "works". This concept is not fully unpacked by Schön, but a sceptical reading might lead to the conclusion that the concept relies on a researcher-dependent value and function analysis which would reinforce the worst charges of subjectivism. This would be a weak reading of the concept.

This paper proposes a strong reading of this common art and design concept: "the solution that works" It results from the observation that there is a necessary and reciprocal relationship between the research question, the method, the solution, the audience, and the context in which they are located. This relationship is also highlighted in so-called Mode 2 knowledge (cf. Gibbons 1994), but is here considered particularly in relation to art and design. The paper proposes that the practical procedure of solution and audience finding must occur in reverse order. The issue of what constitutes a solution to a problem depends on the approach to the nature of that question by the audience. Indeed, not all questions would be regarded as meaningful or legitimate by them, and so the identification of this actual or hypothesised audience is a primary consideration in the design of a research project. From this, the paper argues, the meaningful question and the range of possible meaningful responses can be determined. Finally, the method that connects the question to the range of responses or solutions can be determined. Only once this network of relationships has been established can the project be designed and the iterative "reflective practice" described by Schön be operated so that a contribution to the peer group is made by a consequential outcome.

Keywords: methodology, practice, audience, art and design, meaning.

The solution that works¹

The art and design community is familiar with "the solution that works". Perhaps every community has a similar concept of efficacy; but to what does it refer? The solution that works is not necessarily the solution that has a particular function, i.e. "working" as in "mechanical performance". When Donald Schön mentions the term in *The Reflective Practitioner* ² he is referring to some other kind of functionality in

relation to a problem in professional practice. It is a design solution; in his case, an architectural solution that satisfies certain issues that the design teacher finds implied by the design problem. For this kind of solution to work it requires the audience to share a cultural concept of what is the problem. In Schön's case the audience is the student being taught. The student will either learn the meaning of "the solution that works" from this example, or if she already has such a concept then agreement in judgements will reinforce their shared professional culture. This is the context of the "practitioner of knowledge production" described by Gibbons as operating in "Mode 2"3. In general, the concept requires agreement by a community that the solution is efficacious, and conversely, we might define a community as being those persons who agree that this sort of solution is efficacious. Such communities form intellectual cultures.

Let me develop the second point first. Concepts such as "the solution that works" are important in their relationship to defining disciplines. Disciplines are not just populated by persons who share an enthusiasm for activities such as design, physics, history, etc., although of course personal motivation is important in any kind of human endeavour. As Emerson said, "nothing great was ever achieved without enthusiasm" 4. However there is more to a discipline boundary than the falling away of enthusiasm by its community in what lies beyond. Disciplines are characterised even to those who do not share an interest in them, by the questions they ask, by the methods they employ, and by the solutions they provide.

Through their training, especially if it remains monodisciplinary, individuals come to share a specific world

¹ This paper extends the discussion of context-dependency previously described in Biggs, M. "Learning from Experience: approaches to the experiential component of practice-based research," in: Carlsson (ed.) 2004.

² Schön 1991, p.89.

³ Gibbons et al. (eds.) 1994, p. 138.

⁴ Emerson [n.d.].

view and learn to value what are considered significant problems, how they are to be framed and solved. ⁵

One can illustrate this by comparing the astronomer and the philosopher. For the astronomer, the beginning of the universe is a complex physical problem which is investigated by observing phenomena at the far reaches of the universe because they infer from simple physical laws that the particles travelling away from us at the edge of the universe had their origins at the centre of the universe at the beginning of time. However, for the philosopher, the beginning of time or the universe is a conceptual rather than a physical problem. The beginning of time is a contradiction. If we notice "time" through processes of "becoming", then "the beginning" of time seems contradictory and conceptually problematic. The philosopher therefore does not use empirical but conceptual methods to apply to this problem. Indeed, we might argue, as this paper does, that in extremis we differentiate philosophers from astronomers by observing which tools they reach for when confronted by such questions. To this extent there are not just two cultures, as C.P. Snow 6 said, but many.

Disciplines do not exist naturally. They are made and used by communities. The idea that there are natural classifications into which the world falls is something that we have inherited from Aristotle 7, that has been systematised by Linnaeus 8, and has been criticised by Foucault 9. Increasingly we speak of topics being trans-disciplinary, inter-disciplinary, or cross-disciplinary: each term eroding the classificatory boundary that enables us to easily differentiate one discipline from another.

Why one might worry about the location of discipline boundaries is related to what is included and what is excluded in the discipline, what journals one should read, what problems one should be addressing. If nobody in my discipline is interested in the origin of the universe then even the best paper on the topic will not be published in the best journal in my discipline.

Conformity is encouraged by disciplinary collegiality, by expectations and rewards from the disciplinary peers.¹⁰

More seriously, if I reach for my telescope in order to investigate a subject that my peers think is philosophical rather than empirical then I will be regarded not merely as an eccentric but as somebody who is ignorant and does not understand what the question means. Thus discipline boundaries are defined by identifying communities of practice that share certain interests and concerns, and expressing it in this way brings to the fore the relationship of the community to its research and knowledge base. ¹¹ It identifies that certain questions are meaningful, ¹² that certain methods are preferred, certain solutions are regarded as satisfying, and others are not.

Unfortunately, expressing it in this way also apparently institutionalises a conservatism in research, in which one is only encouraged to pursue questions or create solutions that are demanded by our peers and which satisfy that demand. What about the unorthodox research question, the novel research method, the radical conclusion that upsets our comfortable ways of thinking? "Satisfaction", in the way that I am using the term, is not in any way related to comfort or pleasure. "Satisfaction" is about fitness for purpose. "Satisfaction" is about putting certain problems to bed, even if as a result we lie awake with anxiety about all the other things that must be changed as a consequence.

On that basis, this paper argues that disciplines are cultures that can be identified by their actions and beliefs. They are not exclusive either in terms of domain or participation: there are many disciplines and they have fuzzy boundaries. There are also persons who work in multiple domains, e.g. there

⁵ Gibbons et al. (eds.) 1994, p. 149.

⁶ Snow 1993.

⁷ Aristotle 1984.

⁸ Linnaeus [Carl von Linné] [1735].

⁹ Foucault 1980, p. 117.

¹⁰ Gibbons et al. (eds.) 1994, p. 149.

are philosopher-astronomers. But the discipline-based process of peer review, which is used to determine what is published in academic journals in discipline domains, will tend to reinforce the homogeneity of disciplines in terms of those questions that are recognised as meaningful and therefore worth asking, the methods that are regarded as applicable in the field, and thereby the solutions that are culturally acceptable. This paper further argues that defining the audience is what clarifies each of the other elements: who is in the audience and who is not in the audience will determine which questions concern them, which methods they find acceptable, which outcomes constitute solutions to the problems that trouble them.

Let me return to the first point: the problem and the efficacious solution. Hitherto I have used the simple antonyms of "problem and solution", "question and answer", because they are like convenience foods: quick although not very nutritious. Unfortunately, arts and humanities research rarely asks specific questions and even more rarely gets specific answers. This was the subject of a seminar at my university at which we decided such terms needed translating 13, or as Schön would say "reframing" 14, before they could be easily recognised by researchers. One proposal was that in our discipline we investigate "issues" that we "address". Why does it feel more comfortable to talk about addressing issues rather than questions and answers? One possibility is that question and answer sound somewhat final: they relate to the world of facts, of cause and effect, of mechanical relationships. What makes the piston move in the steam engine? Answer: steam is introduced into the cylinder. Once one has the answer one need not ask the question again, or at least not for a very long time. It is only when scientific paradigms change that these sorts of answers are considered inadequate and are revised. And perhaps even then we can see a characteristic difference, because it is the answer that is revised rather than the question. We might ask the same question in a slightly different way but the question

is basically persistent. In arts and humanities, both questions and answers, both issues and how they are addressed, are more volatile. They are what I would describe as "culturally determined": as the culture changes certain issues become pressing and certain other issues fall away from our field of view or interest.

Understanding the reciprocal relationship between these two points: between the audience on the one hand and meaningful questions and answers on the other, will also help us with the problem of methodology. Methodology is about the appropriateness of the approach to tackling the problem. If you do what you propose, will it generate a response that has the potential to answer or address the question in ways that will be meaningful and respected by your peers? Thus the problem can be "reframed" as one concerning how best to generate a solution that works for the intended audience. There is an important difference between "the solution that works" and "the solution that is correct [true]".

Such relativity generates scepticism from other disciplines who use accusational words such as "subjective" in relation to arts and humanities research, but I refer the reader to what we have already discussed in terms of discipline boundaries and audiences. Arts and humanities questions are ones that are regarded as meaningful by the participants in the discipline. The fact that these questions, or more particularly these answers, are not so recognised by, for example, some astronomers, demonstrates the difference between the audiences for astronomy and for art rather than the correctness [of the correspondence theory ¹⁶] of astronomy and the arbitrariness [of the pragmatic theory ¹⁶] of arts.

If one embraces this idea then there are consequences for the provision of methodology training. One of the consequences is that it is not possible to equip a researcher with a basic toolkit of research methods. The reason that this is not possible, or

¹¹ Wenger 1998, p. 113f.

¹² Gibbons et al. (eds.) 1994, p. 108.

¹³ See discussion paper at: ">http://www.herts.ac.uk/artdes1/research/cr2p/2001a.doc<">http://www.herts.ac.uk/artdes1/research/cr2p/2001a.doc

¹⁴ Schön 1991, p. 63ff.

¹⁵ E.g. definition of "truth" as "agreement with reality", Shorter Oxford English Dictionary.

¹⁶ E.g. "Ideas become true just so far as they help us to get into satisfactory relations with other parts of our experience", James 1907.

at least difficult, time consuming, and therefore inefficient; is because of the plurality of answers for various audiences, and the observation that there are no preferred methods, only methods that are pragmatically prioritised in relation to context and audience. Therefore the task of methodology courses should be to provide the researcher with tools for the analysis of the relationship of context, question, answer and audience, so that a method may be tested for its appropriateness. It is the task of methodology: the study of methods, to provide a decision-making strategy for the researcher to answer the question: not "which method shall I use?" but "how shall we determine which method is appropriate?" If the focus of the purpose of methodology courses is thus changed, so too is the content changed: from discussing particular methods, to discussing the problem of appropriateness. 17

The claim in this paper is that the context dependency of research questions, methods, answers, audience and context, is an important way of bringing together a number of important concepts that I have discussed elsewhere. Amongst these are the roles of "the work" ¹⁸, language ¹⁹, and the various concepts of knowledge as part of professional expertise in art and design ²⁰. The professional context is described by Schön. The broader context of knowledge production is described by Gibbons. The impact of my claim is to affect the way that we approach the concept of

research methodology. Finally, the claim can be used to reinforce the difference between the individual practitioner developing professional competencies, and the concept of research which is characterised by the generation of knowledge or interpretations that have impact on our peers. Impact does not imply that everybody's lives will be transformed by the research, but that one can at least identify the potential for impact because the research meets a number of conditions. These include that there is a clear outcome that is disseminated. The vehicle of dissemination implies the audience. If the audience receive and understand the research outcome then the audience should behave differently, e.g. in the professional context.

A transitional stage between the professional judgement and the research judgement is the stage mentioned by Schön as the judgement of "the solution that works". This might be translated into research language as "the solution that is instrumentally affective on the question in the context for the audience". The concept of "the solution that works" has the potential to express instrumentality if the concept is unpacked, but Schön does not do this. Unpacking this concept requires the provision of an account of the relationship between the research question, the research method, the research answer, the audience and the context. This can be represented diagrammatically: see figure 1.

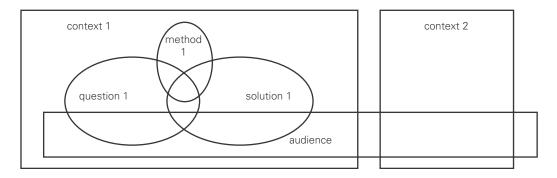


Figure 1.

¹⁷ Cf. Biggs, in: Karlsson 2004.

^{18 &}quot;The role of 'the work' in research", University of Bristol 2003.

^{19 &}quot;The Rhetoric of Research" in: Durling D. & Shackleton J. (eds.) 2002, pp. 111-18.

^{20 &}quot;Introduction: the concept of knowledge in art and design", Working Papers in Art and Design, 2, 2002 [electronic publication], University of Hertfordshire, Hatfield, available at: http://www.herts.ac.uk/artdes1/research/papers/wpades/vol2/intro02.html>.

Such an account is also traditionally to be found in a PhD thesis because it is a criterion of achieving the award:

The degree of PhD shall be awarded to a candidate who, having investigated and evaluated critically an approved topic and its associated literature resulting in an independent and original contribution to learning, for example by the discovery of new knowledge or by new interpretations of existing knowledge, has demonstrated an understanding of research methods appropriate to the chosen field, has presented a thesis in accordance with the regulations and has defended it in an oral examination to the satisfaction of the examiners. ²¹

and in a research project meeting the requirements of a funding council, e.g. AHRB, UK:

The Board's definition of research is primarily concerned with the definition of research processes, rather than outcomes.

– It must define a series of research questions that will be addressed or problems that will be explored in the course of the research. It must also define its objectives in terms of answering those questions or reporting on the results of the research project.

– It must specify a research context for the questions to be addressed or problems to be explored. You must specify why it is important that these particular questions should be answered or problems explored; what other research is being or has been conducted in this area; and what particular contribution this particular project will make to the advancement of knowledge, understanding and insights in this area.

– It must specify the research methods for addressing and answering the research questions. You must state how, in the course of the research project, you are going to set about answering the questions that have been set, or exploring the matters to be explored. You should also explain the rationale for your chosen research methods and why you think they

provide the most appropriate means by which to answer the research questions. 22

This could all sound like game-playing, and if one has suffered from bad experiences with PhD examiners or funding councils then it might feel like game-playing as well. Is it an arbitrary game in which those with power make demands on those without it? No, the game is played in order to assess quality in the circumstance in which one is generating new knowledge. By definition, others should not be in a position to judge the significance of the knowledge, interpretations or practices precisely because they are new; or the veracity of the knowledge independently of its argument because of its novelty. What one can examine are the surrounding related conditions and one can agree it is legitimate to claim certain things. In this respect it is necessarily these conditions and relationships that are being judged by research councils prior to the research being undertaken, or by examiners prior to the research being published. It is only after the research is completed and disseminated, and subsequently referred to by others (e.g. citation indexing) that one can determine whether the research has actually impacted significantly on professional practices and been received as research. There are therefore two kinds of research judgement: at the time of its origin, the quality control mechanism referred to by Gibbons; and subsequently the impact measured by (for example) citation.

The issue of what constitutes "the solution that works" depends on the perception of the nature of the question by the audience. Not all questions would be regarded as meaningful or legitimate by them, and so the identification of this actual or hypothesised audience is the primary consideration in the design of a research project. From this, the paper argues, the meaningful question and the range of possible meaningful solutions can be determined. Finally the method that connects the question to the range of responses or solutions can be determined.

²¹ Criteria for awarding a PhD from University of Hertfordshire [My emphasis], http://www.herts.ac.uk [Accessed January 2005].

²² Definition of research by the Arts and Humanities Research Board, UK [My emphasis], http://www.ahrb.ac.uk [Accessed January 2005].

Only once this network of relationships has been established can the project be designed and the iterative "reflective practice" described by Schön be operated so that a contribution to the peer group is made by a consequential outcome.

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Project of a System for Small Historical Walled Urban Centers (SHUC)

Abstract

In this paper we are going to present a project of valorisation of European small historical walled urban centres (SHUC) with a design approach.

In the first part we explain our concept of cultural design in the contemporary culture fruition system. Then we describe the SHUC as paradigmatic phenomenon of trans national European cultural patrimony. Finally we present our methodology of work (the approach design oriented of modelling and experimenting a platform system of virtuous actions of valorisation in a selected group of walled towns to extend to all the network), the whole process of research and some examples of specific projects and actions.

Keywords: trans national identity, cultural design, design for territory, walled urban centres network, valorisation format.

Introduction / concept of the research

In contemporary society, fruition of cultural goods and resources is a strategic activity, even to increase the value of cultural heritage itself. As well as consumption theory rediscovered the importance of user act in the process of determination of values, so, for cultural goods and resources, social fruition is a new way to generate value, thanks to the reason that cultural goods value is connected not only to a physic product, but with its collective sign and meaning too 1, and collective fruition socializes this meaning. Design approach to cultural heritage value enhancing improves cultural goods fruition increasing also their exchange value in contemporary market relations system but is this system to set out and lead the tools, infrastructures and services necessary for fruition. "Market and consumption processes laicize and democratize the cultural heritage, without compromising its nature and knowledge because they allow a large number of different and not simplified approaching. Consumption doesn't waste art works because what consumes is not the cultural good but the pleasure of it" (Purini, 2003).

Even if design is used to work about commodities or services, we can apply its theories and praxis as concepts of brand, target, value of knowledge and experience and other processes of symbolization, to cultural goods.

In fact, collective culture fruition has been changing by time, passing from the cultural industry (led by the industrial production and mass consumption system), to the cultural experiences of the knowledge society, based on the value of identity and connexion. In the recent past, industry has led the democratisation of culture to aesthetic consumption of cultural wares as products or services; nowadays, merchandising makes brands of culture icons, to link the process of building the individual identity with culture.

Following these trends, in the future, access to cultural resources will remain a priority required to preserve their use and existence, and the new approach to fruition in a more and more hedonistic and exhibition society, will develop individual adaptable strategies in the direction to allow culture spectacularization and participation. The user will require systems and tools which support the accessibility over time of cultural resources, but asking for new interactive and creative experiences of fruition.

We call all the theories and praxis design oriented applied to cultural heritage, to improve its fruition and value in the relation system, cultural design. Design acts in three directions: as horizontal dimension design is the strategic leader of processes of valorisation, as vertical dimension it owns specific competences in valorisation (i.e. exhibition design), and as cross dimension it is the communication of these processes.

¹ This happens to all contemporary goods: they are "system-product," where the physical value is indissoluble from the communication value, the service value and the purchase and use experience.

SHUC context and phenomenon description

Cultural identity is the important part of cultural heritage related to the original expression of a habit system and significance production. Its memory is, in today's world, continually facing uniformity of globalisation. The Walled European Towns represent a meaningful and valuable form of trans national cultural identity still existent in the whole European territory. There are more than 250 walled towns in Europe, whose features make them archetypes of a specific culture. Their value is strictly linked with the peculiarity of the place, the specific local customs of people, and the history and traditions that lie in the physical resources still present in the territory refer to European collective memory too. The diffusion and dispersion of walled towns in the European land allows to think that these unique local contexts can dialog with a more global dimension that respects their identity. These towns represent a unique opportunity to develop and enhance cultural values in Europe, through the cultural design approach. The historical walled centre is the right dimension of complexity of territory that cultural design can manage, otherwise it would be an indistinct space. (Figure 1)

In fact, main emblematic historical walled town features are:

- 1. Walls preserved by centuries the identity of these urban centres now often inhabited, and historical walled town has became a unicum, that can be considered a cluster ³ of cultural resources: in its limited space an articulate but integrated whole of material and immaterial goods (as art works, architectures, handcraft...) allow different levels of valorisation.
- 2. The small towns are identified over the past 500 years as centres of civilization and of exchange for the surrounding territories, so they are attractors of territorial resources too, being their valorisation an improvement for all the surrounding territory and local communities, advantageous for tourism and economical perspectives. (Figure 2)

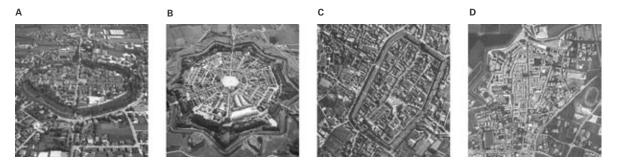


Figure 1. A–D. Some Italian historical walled towns by bird view. ²

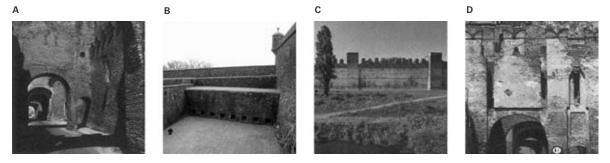


Figure 2. A-D. Walled towns. Architecture and cityscape.

² Città da scoprire, Guida ai centri minori: Italia Settentrionale, vol. 1, Touring Club Italiano, 1983.

³ Strategic design use this term to express the idea of "system-product".

To preserve the existence of this cultural patrimony we need a strategic and synergic system of rediscovering, divulgation and valorisation, through a network of knowledge and management, including social comprehension, preservation and responsible direct fruition, useful to their own maintenance too.

Theme of the research and scientific objectives

Our project focuses on these small and medium local communities in Italy and Europe to verify the possibilities of identifying and letting know better the qualities of their territory and of their cultural heritage.

European walled towns patrimony knowledge and value enhancing, will promote the construction of a net that links places with similar characteristics as exchange platform of valorisation processes examples and practices, supporting and attracting the necessary resources to develop the specific and distinctive peculiarity of territory.

Starting from case studies as project workshops in some Italian local communities, and going through the recognition and catalogue (in collaboration with the Central Catalogue and Documentation Institute for the Italian ministry of cultural heritage and cultural activities — Istituto Centrale del Catologo e Documentazione della Soprintendenza ai beni culturali del ministero dei beni e delle attività culturali italiano) of the small historical walled urban centres, we built a paradigmatic basis of study common to all the European patrimony, that could become an emblematic example to apply to other contexts. SHUC will be a paradigmatic example of cultural European heritage.

Our objective is to choose in Europe around 250 of those centres and to work in synergy between them, to develop systems and tools to exploit the potential of cultural resources, supporting their accessibility and innovative use.

Most part of the work consists on the conceptualisation and representation of these resources in a model and on developing new and creative forms of experiences of valorisation and fruition. To consider together both valorisation and fruition it means that the value of European walled towns is based not only on foreign community interest to rediscover them but also on a revival purpose followed by local people.

The innovative aspects of the project relies on the fact that heterogeneous resources are translated in innovative scenarios in a very enriched conceptual representation and modelling and in these scenarios are carried out real actions of valorisation using the design approach.

One of these events will be a biennial FORUM where SHUC exchanges their experiences and activities. FORUM will take place alternatively in different historical centres of the network.

Main theories related to the contest and the theme

Some theoretical background instances refer to the contest and the theme of the project. SHUC project works with the concepts of "diffusion" and culture, mixing the resources of places and sites with the subjectiviness of experience and the symbolic fluxes of significance and narrations: this means that the closed finite circular (walled) space of town becomes an open reflecting infinite place, built up on subjectivity, where culture belongs to the visitor and the inhabitant too (Rullani, 2004).

This brings us to two of the results of a people oriented design approach: first, design has to refer to a target of local interests.

Then, the territory can be considered as a cognitive system, where it is possible to build and exchange identity and memory.

Some SHUC valorisation strategies that pursue the socialisation of walled towns value lead to project a territorial collective offer where the person is in the centre.

Furthermore, in SHUC valorisation, design borrows the strategic attitude from territory management politics too, i.e. marketing of territory that raises up the territorial resources value, understanding both the cultural, historical, aesthetic instances and the economic one.

Methodological approach

Beside to this theoretical background as project justifications and motivations, SHUC project has developed a methodological design oriented approach to valorisation.

Design has the creative skill to represent complex system in conceptual models as the main tool to describe and analyse the phenomena where it is going to work. In SHUC project, a multidimensional phenomenon as a walled centre has been extremely synthesized in an enriched conceptual and "visual" model useful to make easier the processes of information definition and project actions identification for the achievement of the goal. Then we practiced a kind of action-research: operating reality alteration simulations on the model we built a grid of virtuous actions to replace by steps in the real context. Finally the model is an effective knowledge sharing system between the work team and a universal language of communication of the project.

This model, shown in figure 3, is the result of a desk research and analysis of the most recurring aspects



Figure 3. Phenomenon representation.

we met in the census of European SHUC, especially relating to the centres birth and development timeline. It is a conceptual but visual map of the physical dimension of a standard walled town, including local specific features as cultural resources, material culture, landscape. But it is also a flexible matrix of possible interventions and results on specific factors and different levels.

The model foresees also the chance to insert specific town targeted projects. In fact we expect that every small town will capitalize and strengthen knowledge, enabling capacities and projects to export to other centres.

In the time line (the vertical axis) we consider the pre-existence of the places, the foundation of the defensive model and its decline in the modern time. It is a qualitative axis of categorisation of the resources present in the town. The horizontal axis is the space dimension of the walled town: the ancient walled city, the modern construction outside the walls,

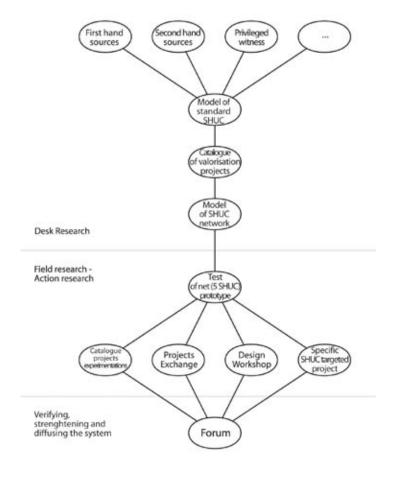


Figure 4. SHUC study process.

the manufacturing contemporary activities and the surrounding environment, as far as the influence area of another city. This is a quantitative axis to localize the resources in the territory.

Activities

The study process of SHUC tried to collect best practices and analyse existing methodologies reinterpreting and adapting them to the SHUC, combining the elements gathered and testing them through verification projects.

It consists briefly in the following activities:

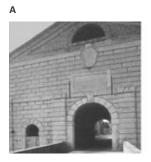
- census of Italian existent SHUC
- census of European existent SHUC
- identification of SHUC that can be considered positive examples of valorisation
 - identification of SHUC in decline
 - study of best practices in virtuous examples
 - building up the model
- inventory of the positive actions of valorisation existent in European SHUC
- design of possible interventions for SHUC in decline
 - creating the network prototype
- -testing and strengthening the model in the network prototype
- activation and experimentation of projects (see examples)

- building up the format system
- activation of the exchange platform for valorisation actions and projects
 - finding synergic actions between similar SHUC
 - communicating the results (forum)
 - diffusing the format system

As it is possible to see in figure 4, after a previous desk research used to build the standard walled town model and the construction of catalogue of valorisation activity and projects, we are going to start the process called action-research to verify the efficacy of our model. In fact, we are in the step of testing some projects in five experimental centres. These centres will be our test laboratory for theoretical analysis and project applications. One of these is Sabbioneta, a small Italian walled town close to Mantova, founded by Gonzaga, where are present many of the elements of a standard SHUC. In 1600 it was built and erected as an "Ideal city", sign of power and excellence. Today, in Sabbioneta there is one of the most beautiful and well-preserved theatre of north Italy.

Moreover, one of the forecasted action of the research is to use this model to export the projects between the network and to promote the auto generating of new actions directly from the cities themselves, through local settled design workshops.

We expect to create, after verification, a system of valorisation made as an exportable format. As is







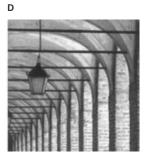


Figure 5. A-D. Views of Sabbioneta.4

⁴ From the left: A. One of the door of the city, B. Walls, C. Interior of the city theatre "Teatro all'Antica" (1588–1590), D. The gallery called "Corridor Grande". Source: the authors.

possible to see in the figure 6, for Sabbioneta we adapted the model and filled the matrix with different actions, for example the project called "memory bank" (see next paragraph "Examples").

Examples

In this last part we would like to show and better explain two of the projects in catalogue that we already tested in some small walled towns.

The project called "Memory bank" is part of an experience made in Sabbioneta. In that occasion we proposed to the city institutions to collect the

memory of the town and make it available for the next generations, by gathering the stories and the experiences of some inhabitants about meaningful places and events. We used interviews and video report. The idea of the bank is the innovative system of fruition of this memory both for visitors and locals: it is an exchange of memory. The inhabitant of the town enjoys the belongings to the history and the tradition of the place; the visitor, at the end of the tour, after the view of other videos, is invited to leave his own memory of the visit experience: so he withdraws and deposits memory in the same time, enjoying the participation to the forthcoming history and culture of the city.

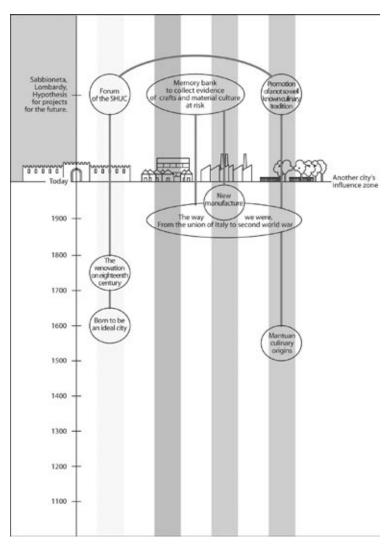


Figure 6. Sabbioneta actions.

The design workshop instead, took place in Morcone, a small town in Italy, near Naples, and was focused on local material culture valorisation. Morcone is well known as a pottery handcraft district. Design acts as a dynamic factor to promote and communicate the strategic and cultural value of local activities and walled town competences, and this, by generating new ceramics objects projected directly by the participants to the workshop (foreign and local people).

Conclusion

These are only few examples of how design approach can face the complex cultural value of small historical walled towns. We think that thanks to a strategic activity of verifying, strengthening and diffusing this system of valorisation as a flexible format, we ensure this patrimony and make it understandable and enjoyable for the next generations.

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The Restitution – the Proposal and the Application of the New Methodology of Architectural Interventions

Abstract

The term "restitution" is proposed to define new kind of methodological approach, which can be seen as the process of reviving or re-creating of the monument within the cultural space. This involves material and/or immaterial, physical and/or spiritual aspects of patrimonial existence and relationships between architectural objects and society. This reflects the influence of architectural heritage on social identity as well as provides necessary background for the development of the new tendencies in preservation.

The work presents an excerpt from ideological assumptions driving the method. The structural scheme and the procedures are evaluated and discussed in context of two selected examples of restitution – one related to the Royal Castle in Poznan and the other to the oldest Cistercian cloister in Lekno. The first of mentioned objects is one of the most valuable relics of the Old Town area in Poznan, currently abandoned and unexposed to the public. The second is ruined cloister barely definable in space, yet important as a source of Cistercian convent development rooted in Altenberg line.

The intention of the paper is to show the architectural intervention and methodology to conduct it in selected, specific cases. In both cases the mean sources of information cannot provide enough historical background on the field of architecture – the work describes then if new proposal for the methodology can improve designing the interventions and if so, how can this be done.

Keywords: restitution, architectural design, interventions in historical locations, design methods, heritage protection.

1 An idea behind the restitution – the source of the methodology

The passing of time as an inevitable event leaves us powerless in our efforts to keep knowledge, memory, understanding. Due to the processes of degradation or human destruction many bits of the past are lost never to be recovered. The architectural heritage, so precious, so valuable, so important for the preservation of what we come up to, is often destroyed, wiped out or impoverished. If architectural objects, which are tied to locations, become ruined, it often happens men transform the remnants or

convert the places, blurring the true shape and vision of former important sites.

The directives of conservation claim precisely what shall be done with principle monuments, especially when history can tell us much on how did they looked, how these buildings were used, what architectural forms they had. Unfortunately documents revealing the spatial structure of many objects do not exist today. While still we are exploiting our environment, it becomes obvious that architectural interventions occur. To follow the epigraph quoted above, concerning the memorization of the history for our future, our identity and coming generations, these interventions have to respect the material and ideological content of cultural and civilization objects that was erected or created years, if not centuries ago 1.

2 The restitution

The restitution is the term used as a proposal for design methodology, used for architectural interventions in locations significant to the national heritage. If a monument was stripped of its past importance, a loss in culture, human environment appears. The restitution of monuments proposes to initiate restoration of cultural, civilization and social values, where the material aspect of the building is of lesser importance.

The process of recreation can be done not through reproducing material substance of the building only, but mostly through immaterial media carrying the values, present in common social identity. Although destroyed material components of the object cannot be recovered, it often appears to be necessary to

¹ Kadluczka 1999.

rebuild and revive them in order to acquire an active location in an urbanscape or in a landscape ². What matters is an existence in social consciousness, national memories, in understanding of national culture and uniqueness. This fulfills the idea of restitution.

One issue is the implementation of wide, interdisciplinary analyses in the course of design process and in search of the restitution shape. According to the commonly accepted methodology one cannot discuss the reconstruction of non-existing object, while lacking the essential historical information. Referring to Venice Chart as well as to the Cracow Chart, subtle and creative approach is preferred thence. Therefore the different fields have to be recognized, e.g. geomorphologic structure, its evolution and influence on object and object's urban response, contemporary urban structure with its requirements on activating the city dominants, social expectations and preferences for the program. Thus new methodology arises to provide the apparatus to bring together and interpret facts and information.

The methodological background was constructed on basis of unique implementation of P.R.S. U+A Method ³. This decision allowed to conduct the research program through collecting rich data in different references, namely sources of precise or indirect information on the subject of the research. Important individual analyses were required to validate the spatial environment of the selected objects as well as evaluate the structural proposals of restitution, both material (forms, spaces) and immaterial (function, semantics, etc.).

The selected model allows bringing together the research program with its rich contents and the professional application of architectural design, thus not only confronting the theoretical with practical, but mostly unveiling the complete structure of creating and verifying the validity of scientific program.

3 The methodological structure

The proposed methodological structure is based on principle to guide the design efforts in tasks, when no precise premises to execute the reconstruction are available. If the object is known, there may appear to be no place for optimization of the interpretation. Quite the contrary in cases when no or little historical information is evident. When information is poor and widely dispersed in different domains, every piece is to be collected and combined in a puzzle – fitting into presented process. The research starts with social inquiries to estimate people's response to the process itself. The respondents indicate the rate of acceptance and rejection, social justification of the design and the research. The demands of Cracow Chart are not neglected, but used according to the intention of its signers.

In the same time the bits of the past are associated with the architectural form in various epochs. Thus the chronicles, the reports, the iconography compile the common vision of architectural typology. In that specific situation the creative translation of collected data to proper pattern is needed. The mentioned bits can be gathered, if all or most of the referential steps lead to the reviving and the understanding of the evolution of the object. This evolution is determined rather by dynamic factors, than by physical changes. The psycho-archaeological component of the architectural research here becomes crucial, bringing in the light the motivation, the ideological program of previous users of the object and the real importance hidden in elusive cultural codes of the location and the building.

The process of finding the architectural definition for the restitution is made according to PRS method principles, here used in its variant named PRS A+U for the combination of architectural and urbanist implementations. The three main issues are: the plan/project (P), the references (R) and social participation (S). In each case one has to fix his eye on the historical and cultural references, which proved to be incomplete, in relationship with past and present social aspects of the existence and exploitation of the site. The application model of PRS structure shows the update, which is the consequence of realizing the design process – this is the structure of already verified process that led to certain conclusions. It appears that there is strong feedback between history,

² Cf. Jokilehto 1999.

³ Barelkowski and Barelkowska 2000–2003.

its social perception and architectural or urban responses. To establish relevant and reliable ground for design activities it happened to be indispensable to use psycho-archaeological aspects of PRS A+U method, through studies on historical persons, former societies, multi-source relics ⁴.

Thus, the leading thread of the selected methodology was the referential one. It required closer definition of fields, that were to become the scope of detailed examination – in each case study. To establish the panorama of medieval times, of the people living in those distant times, it became apparent that all available data has to be analyzed, including common historical references (written sources, iconography, cartography, archaeological sources), architectural and urban or rural typologies, physiographic conditions, political and social insights. All those

matters shall be seen in context of psychological background of human activities (users of the object), social background (symbolism, political and social system), cultural and civilization background (culture, mentality, worldview).

This way a ruined architectural object with great cultural and patrimonial significance, yet stripped of proper historical, architectural, formal premises to conduct the typical restoration, is or may be meant to become the subject of the process of restitution. The common methodology approach case could be inadequate or irrelevant to respond to both cultural and historical contents of physical structure and contemporary role of the relics. The aim – the illumination of the structure of psycho-archaeological and architectural methods in their relations with more general PRS U+A methodology.

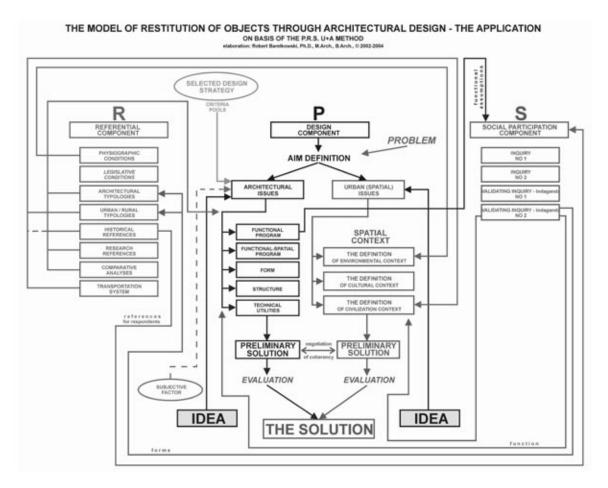


Figure 1. The methodology of restitution – applicative structure.

⁴ Barelkowski 2003.

4 The application

As every model of the design process is about making decisions, it requires explanation, how these professional decisions may become affected by the interdisciplinary synthesis of various information. The program contains the phase of developmental design (DD), which follows the preliminary concepts and final, selected option. The DD is ade according to the requirements of full professional design, organizing the formal appeal of the restitution 5. Simultaneously, the evaluation mechanisms are intended to provide critical basis to optimize the theoretical structure of the model, resulting in updating initial scheme. In the meantime the references are collected and analyzed through to generate the applicable data to be used in the design solution or data suitable for decision making / supplementary.

The design in context of research program is taken rather as further indication and a source to qualify the correctness of stipulated model. The conservatory regulations were combined with contemporary design techniques and full preservation and protection of original remnants. The spatial requirements are met by shaping the cubage of the object, while the semantics reflected our knowledge, even if still full of blank pages or uncertainty.

5 The case studies – the evaluation of the methodology

In the course of the research several objects were picked and taken as a subject of design transformation to verify the methodological structure. The procedures are evaluated and discussed in context of two selected examples of restitution – one related

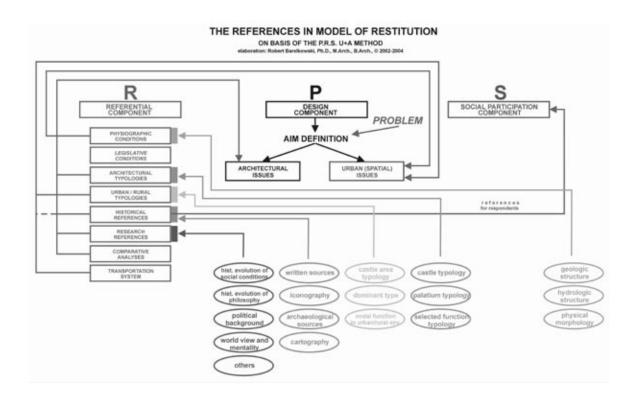


Figure 2. The scheme of using the references.

⁵ Barelkowski 2000

to the Royal Castle in Poznan and the other to the oldest Cistercian cloister in Lekno. The first of mentioned objects is one of the most valuable relics of the Old Town area in Poznan, currently abandoned and unexposed to the public. The second is ruined cloister barely definable in space, yet important as a source of Cistercian convent development rooted in Altenberg line. It also forms an exceptional landscape formation in rural environment.

5.1 The Royal Castle in Poznan

Contemporary problematics of the castle hill (Wzgorze Przemysla or Wzgorze Zamkowe) and the castle complex itself is an example of the erosion of social remembrance, the loss of national and regional identity. It is about forgetting the past by large groups of society and how this process can be overcome through architectural activity, as one of the most important factors. Here comes the role for the methodology of the restitution ⁶.

The issue of the presence of the castle on a hill, the Piast castle, is fortunately still alive among some of the inhabitants of Poznan, so the past has its chances not to be forgotten. The inquiries and information initiated by scientific bodies are becoming efficient in raising interest around the castle, the founder, kingly heritage and the tradition. The will to bring back the hill to urban life as an important location is growing and becomes stronger through the constant support. It is also profiting from social participation and involvement.

Several social preparations of restitution activities have been done recently, including the activities and research effort by various researchers, they were collected, processed, analyzed and concluded on an interdisciplinary basis by the author, who included social examinations in his efforts. They indicate something more than just mere wish to have another tourist attraction established or renewed in Poznan.



Figure 3. The Royal Castle in Poznan site.

⁶ Barelkowski 2003.

The Royal Castle in Poznan is located in the Old Town area, on its west edge, on one of higher hills. This privileged location made the top of the hill a dominant. The location was used to create even more powerful dominant – prince's, later king's seat. Throughout centuries the specific relationship type between the inhabitants of Poznan and the Royal Castle was created. There were administrative dependencies, legislative relations, economic coexistence and cooperation, common participation in social life.

Two key issues are met in the process of restitution in the stipulated model that is to discuss the case of the Poznan castle in two different ways. One issue points out the uniquity of the object, analyses its origin, its history, its influence on society, its role of the source of contemporary spatial configuration of the Przemysl Hill. The scope of the second issue is on typology and common features that this monument has with others, whether this affects Polish castle or Czech palace or even Greek temple. While pointing towards the future of both the castle (the exemplary object) and its urban background (its environment), it may appear that these future and present determinants affect the program of transformation of the relic. The very same relic, which is meant to be protected as a part of undenied heritage. Contemporary role of the castle however has to reflect somehow its importance and 750 years of its history in context of the history and the image of Poznan. It has to tell the story about all people involved in its foundation and evolution, not only to become the shell enclosing historically looking space or expose some original parts of architecture.

All these traces lead to the ascertainment that one has to use the new type of architectural intervention, named the restitution, which is derived from the very essence of this model – the social, psychological and cultural sources of architectural activity, sources that play the key role in this process.

As a result of the above, the attempt is made to define the cultural impact of the castle in its relationship to contemporary utilitarian requirements and semantics, which refer to the model of royal castle. It is to show the connection of human activities and architecture. In that connection the motivations can become an

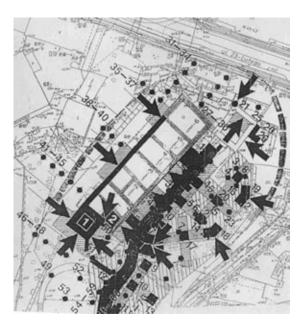


Figure 4. The remnants of the old structures in the castle in Poznan.



Figure 5. The design conclusion for Royal Castle.

everlasting inspiration for generations and create the image that is necessary as a cultural and social content, having large impact on the identity of local community. The subject is not only restricted – in author's opinion – to the exceptional locations appointed with royal emblem. It is an important scientific problem of architecture nobilitation through rational socio-politic activities (which author, following the historians, dares to reconstruct hypothetically) and in turn the influence, architecture has on refining culture, customs, psychic and moral condition of the society. The above sentences may be taken for a thesis, which – even if controversial – has its justification at least in historical and architectural notions.

When an architectural object of great historical value becomes a ruined relic, with little information from the past, how it looked, by whom it was built, how it was transformed, it becomes that the methodology of conservation of architecture is inappropriate in its raw, unchanged, non-adapted shape as related to the fundamental systematic review described by Giovannoni⁷, Frodl ⁸, Zachwatowicz ⁹, Barbacci ¹⁰, Gazzola ¹¹ and lately by Malachowicz ¹², Kadluczka ¹³ or reminded in reviews like in Kruft ¹⁴. If the importance of the site generates the urge to re-create the object, because one has to give priority to preservation of national identity over the conservation of the remnants and orthodox protection of authenticity, than one cannot apply standard methodology. What has been proposed is to use word "restitution" in order to imply the process of recuperation, rather in social and cultural terms than purely material – by newly built (reconstructed) structure. The idea of restitution is to bring the place back to life in common memory, in nation's consciousness.

5.2 The Cistercian Convent in Lekno

For preliminary verification of the method Lekno archaeological site has been selected. The richness of research information from various fields is



Figure 6. Lekno site spatial context.

- 7 Giovannoni 1946.
- 8 Frodl 1963.
- 9 Zachwatowicz 1965.
- 10 Barbacci 1966.
- 11 Gazzola 1969.
- 12 Malachowicz 1994.
- 13 Kadluczka 2000.
- 14 Kruft 1994.

highly beneficial, because it gives the researchers in archaeology and architecture the possibility to profit from already gathered information ¹⁵.

The preliminary mutual research focused on two most important remnants of Romanesque and Gothic edifices. Simultaneously, due to the significant land-scape-exposed location, the aspect of appearance in distant perspective was investigated very strongly. There Pre-romanesque rotunda stood from the turn of 10^{th} to 11^{th} century as well. One of the main tasks has been defined as examination of the optimal restitution of this architectural complex, where the first Cistercian church was probably founded around 1153 (?), to be enlarged and extended in next 200 years.

The Lekno complex roots in Altenberg line, having Morimond as the template ¹⁶. This relativity led to detailed analyses of similar foundations in Poland like Ludzmierz-Szczyrzyc, Byszewo-Koronowo and Oliwa ¹⁷. The comparative pattern has been set

especially according to Byszewo church (the existing one). This element of the research stood for typology definition.

The fact that Lekno was the first example of consolidating multidisciplinary team of researchers allowed for profiting mostly from the various sources of information. The referential analyses looked into different domains, among them architecture and archaeology ¹⁸. While the archeological examinations provided the essential information on the configuration of the cloister, revealing many new data on history, events that took place in medieval times, the lifestyle of the past, the architectural inquiries generated the outlines of once erected but now destroyed buildings. The data on structure, foundations, architectural forms and detailing was gained as well.

Historical studies unveiled the truth on the life of the convent. Different aspects of everyday life of

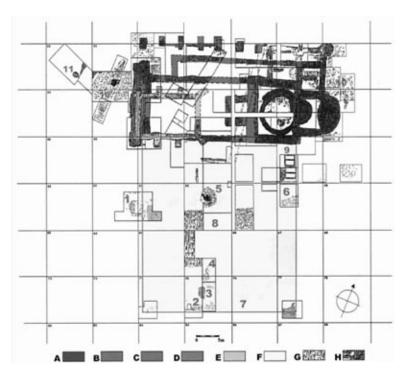


Figure 7. Lekno Convent remnants.

¹⁵ Renfrew and Bahn 2002.

¹⁶ Wyrwa 2003.

¹⁷ Wyrwa, Strzelczyk and Kaczmarek 1999.

¹⁸ Barelkowski 2004.

monks was present in both documents, sources, also in the evidence in the ground. The fact files from the activities of the cloister were gathered including the economical conditions of the order, food and accommodation. These were the important clues to recreate the silhouette of the convent, its appearance in the landscape with the buildings surrounded by cultivated area with specific crops, vegetables and herbs. The Cistercians were using the resources of the lake to their own benefit, fishing or collecting fees for loan for use.

Although significant data can be seen buried in the ground and from the relics we can read the architectural shape of the convent, its real material form is unknown and may only be related by comparison to other similar establishments. More difficult seems to be a landscape location, which limits the ability to extract the civilization context to the accepted level of credibility. So again - as in the case of the castle in Poznan - no direct solution of reconstruction can be used. The restitution of the important node of Cistercian Route, the oldest in Poland, appears to be both the chance to revive the location and activate the neighborhood, the area of Lekno. In order to achieve the design standing for a landmark, resembling the Cistercian roots of the location and in the same time providing shelter for archaeological remnants a glazed shed over the main substructures has been proposed. Totally transparent in steel and structural glass, yet reminder of an old cloister one-nave church with slender buttresses has to give the impression of the past and present coming together.



Figure 8. The design proposal based on restitution methodology.

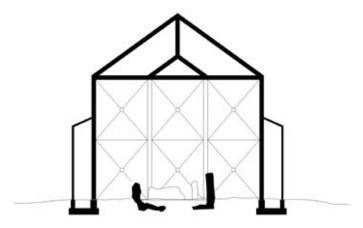


Figure 9. Lekno shelter design – section diagram.

6 The methodology in context of the cultural heritage and contemporaneity

To acquire an alternative type of basis for the intervention one must track different traces, in historical sources, documents, reports, in archaeological data, in geomorphologic data and others. By finding the clue, usually never used by the architect in design process, one is able to optimize his approach to the conversion or protection of the monument. This may be called the process of learning the object by an architect. The discussed method involves multiple historical threads seen in an evolutionary manner, what allows understanding of various factors, their input and influence on historic events. If any case study the research is focused on takes into consideration, among others, the founder, the builders, the workshop and workmanship, the society, actual philosophical and ideological trends, then one may call such type of architectural designing a mutually human-centered and environmentally oriented design process.

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Architecture Rythms: as a Perception Phenomenon Ruled by Coincidence of Specific Physical Conditions

Abstract

This article shows rhythms in Portuguese religious buildings from 1050 to 1950, based on the relativistic amount of information, for what it was develop a methodology that would discard technology out of the analysis. Using as quantitative parameter the many different kinds of ornaments used in the religious architecture in this time span. This very large time span clearly encompasses a great variation of the technologies involved in building construction. The measurement of the amount of relativistic information shows the emergence of a new behaviour at what is traditionally considered as the transition period between styles.

The results show a shift, a discontinuity, whenever a new design (architectural style) appeared. Using spectral analysis (Fourier Transform) it was found that amid the apparently random oscillations of the informational content, at least two characteristic periods of 25–30 and 50–60 years were present.

To conclude it appears impossible for us to discuss that the idea of architectural styles can be questioned due to this methodology analysis. We can affirm that the style is a perception phenomenon ruled by coincidence of specific physical conditions, dependent on the relevant factor as well as with creative innovation, a generator of change both in quantity and quality, with basis on the relative frequencies of the performance of the different cases analyzed.

It was also possible to prove that the difference in values of the amount of relativist information measured in Portuguese religious architecture (1050–1950) coincides with the changes in styles. Hence the ability to say that the occurrence of changes in the structures is synonymous of emerging behaviours which determine different rhythms, which in turn determined the evolution of the religious architecture in Portugal throughout the analyzed period. In this manner having carried out a sequence analysis of the various periods (Romanesque, Gothic, Final Gothic/Manuelino, Renaissance/Mannerism and Baroque), from which we can appear to conclude that the different architectural styles arise discontinuously in the measurement of the amount of relativist information.

Keywords: architecture, system, styles, amount of relativist information, rythms.

Introduction

It is known that the variation in the quantity of amount information encompasses modifications in the structure of systems ¹. A problem that could be dealt using this principle would be the emergence of new architectural styles, whenever the quantity of relativist information suffers appreciable alterations. As a result, the authors in this article mention the possibility of measuring the quantity of relativist information in architecture, namely the Portuguese religious architecture.

Architecture as seen in other fields can be understood as a process which achieves the alteration of interactions between the elements of a system in such a manner that in the system emerges a new behaviour in the new structure ². Understanding the system as an entity that resides in its elements and in its interactions, we know that it can assume several structures through the alteration of the interactions or introduction of new interactions. As a result, the authors propose a new interpretation concept for the change of architectural styles, which they presume to assert, having identified architecture rhythms.

To verify the validity of this definition, a time interval was chosen to allow a judgment, which would be independent of the evolution of the technology. In other words that would have a time span, which would allow the evaluation of the emergence of behaviour and the existence of characteristic frequencies. What arose by consequence, Portuguese religious architecture built during 1050 and 1950, and the one that was studied.

Theory of relativist information

The theory of information values the communicative process as an interactive change of codes in the

¹ Carvalho and Dockery 1996.

² Carvalho and Dockery 1996; Carvalho 1994; Duarte 2001.

delivery of messages. It explores the possibility of measuring the amount of information of a message for a subsequent analysis of its meaning. It consists in a study of aspects related to information involved and its respective decision-making. The interpretation that our senses make of received messages is relativist information.

In this manner, we analysed the possibility of being able to quantify the information received. The authors proclaim that the measurement that we make of the amount of information that we receive by our senses is based on perception. The ornaments were the considered messages, capable of constituting themselves as relevant factors to alter structures and create emergent behaviours. In this way was developed the method for calculating the amount of information that the events provoke in us. It has already been tested in several fields ³.

To calculate the amount of relativist information, we start by adding all the signals deriving from the system. According to Shannon, this amount of absolute information (S) is given as:

$$S = \sum_{i} -p_{i} \log p_{i} \quad (i = 1, ..., n)$$
 (1)

in which p_i is the probability of the occurrence of the i.

In eq. (1) all the contributions of all messages are accounted for the amount of information. If, however each observer j gives different weight to the various messages i, these weights being adjusted in the interval [0,1] and designating it by G j i the weight given by each observer j to message i, the amount of information understood by each observer is given as H_j :

$$H_j = \sum_i -G_{i,j} p_i \log p_i \quad (i = 1, ..., n)$$
 (2)

which represents an amount of relativist information. If the observer j chooses messages k for which $G_{k,j} = 1$ then, the amount of relativist information H_j can be represented as H_k :

$$H_k = \sum_{L} -p_k \log p_k \tag{3}$$

which from now on will be represented as H, to simplify the notation. The amount of relativist information is the one that gives the amount of information of the system, when subject to the perception of the observer. In fact one could reach the same result if we bear in mind that an event with probability p occurring, induces an amount of information of:

$$\log \frac{1}{p} \tag{4}$$

If there is σ of those events, the amount of information created is:

$$\sigma \log \frac{1}{p} \tag{5}$$

So that the amount of information does not enter the field of large numbers, one can normalize the previous operation dividing it by the total number of events *N*:

$$\frac{\sigma}{N}\log\frac{1}{p}\tag{6}$$

But $\frac{\sigma}{N}$ is the probability of occurrence of the chosen event to calculate the amount of information. So *eq.* (6) can be written as:

$$H = -p \log p \tag{7}$$

This equation gives the amount of relativist information (H), because it depends on the choice the observer made between the messages, and it is a special case of eq. (3) deduced from the amount of information according to Shannon, also stated as absolute.

Measurement method of the amount of the relativist information

How we are explaining, the measurement concept assumes an observer. In that way the measurement of the amount of information of the system is a relativist measurement. In this sense the choice of which messages or which spectrum of messages to carry out the measurement can lead to the designation of those messages as constituting relevant factors for a specific structure within a system. We are choosing

Carvalho and Dockery 1996: Duarte 2001.

the ornaments used in the architecture as the relevant element.

The following question was then put to us: why not also choose as a relevant factor the materials used or the actual structure of the analysed buildings? Knowing that the relevant factor merely depends on who is carrying out the observation the value 0 was given to the structure and to the respective used materials.

Whilst the ornaments are communicant, they are used as a communication strategy, we have an immediate perception of what they intend transmitting. The ornaments were the considered messages, capable of constituting themselves as relevant factors to alter structures and create emergent behaviours. We begin by consulting reference manuals about architectural ornamentation ⁴, are the most used in religious cult buildings in Portugal.

Having defined the elements (or relevant messages), the measurement of relativist information was made. The equation (3), where *i* refers to each of the ornaments. We were left with elaborating a list of buildings liable to be studied, bearing in mind four main areas: Romanesque/Gothic (1050–1388); Final Gothic or Manuelino style (1390–1587); Renaissance/Mannerist (1532–1673) and Baroque (1582–1950). However, many of these buildings do not correspond to an exact course style; due to the appearance of architectural forms of various origins, having many authors grouped these buildings in different styles ⁵.

The same can lead to some controversy on what concerns the concepts of Renaissance, Mannerism and Baroque, especially when we try to establish the periods and characteristics which should be assigned to each one, if we bear in mind the range of aspects which could correspond to any of these designations in different countries.

We should bear in mind that to measure the amount of information of a system, as in the equation (3), we

only need to the probability of each of the messages that the same one transmits which in this case are the ornaments that each building possesses.

It is known that the nature of the support of the messages is of an extraordinary importance, given that the detection of the message and the measurement of its probability are the essential factors. We also know that the measurement of the amount of relativist information whatever system may it be, must always be calculated in a series of messages of the same nature, it must belong to the same list of the messages, in this case being the ornaments in architecture.

The process of choice of the buildings passed through the existence or not of facilities to its access in national territory, although it knows that the relation of the Portuguese migration to other areas for example Brazil, India, North Africa and the Far East. To summarize wherever the Portuguese passed and initially globalize, they gathered more elements. The measurement of the amount of existing relativist information of each building was carried out, the relevant factor being the ornaments.

Results

The algorithm of the eq. (3) was applied to 98 buildings, which served as a support to demonstrate this theory. The obtained results were expressed in "bit". This is the unit of amount of relativist information most used for computer systems. In all this process we must bear in mind the amount of existing relativist information on the ornaments of each building has always had subjective characteristics.

With the obtained results for each building, graphs were made to show the amount of relativist information of the ornaments by style, referring to the years of the supposed conclusion of the buildings. Then we determined the multiple varieties of time and space, which correspond to each.

⁴ Meyer 1999

⁵ Boletins da Direcção-Geral dos Edifícios e Monumentos Nacionais, 1935–1990, Edição em Suporte Digital CD-ROM, Edição DGEMN.

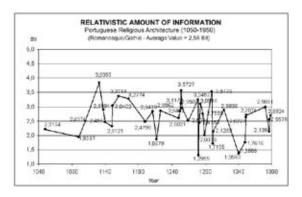


Figure 1. Amount of Relativist Information: Romanesque/Gothic.

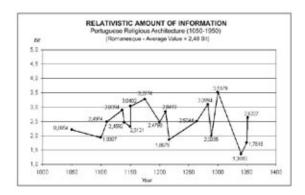


Figure 2. Amount of Relativist Information: Romanesque.

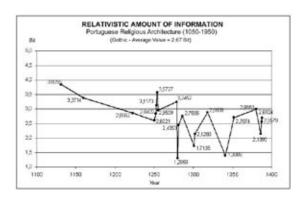


Figure 3. Amount of Relativist Information: Gothic.

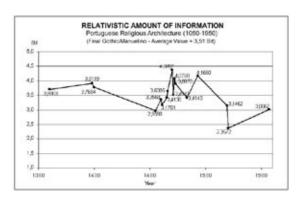


Figure 4. Amount of Relativist information: Gothic Final/Manuelino.

Thus, and starting from the first group of buildings identified as Romanesque/Gothic (1050–1388), the average value calculated was 2.58 bit (figure 1).

For the styles analysed we had Romanesque an average value of 2.49 bit (figure 2), and Gothic 2.66 bit (figure 3). Then follows Final Gothic/Manuelino, where the average value was 3.51 bit (figure 4).

The last two great areas, Renaissance/Mannerist and Baroque the average values were 2.87 bit (figure 5) and 3.77 bit respectively (figure 6). Apart from the buildings previously mentioned, also included in this observation is Our Lady of Fátima Church in Lisbon with 2.2925 bit. The latter a paradigmatic example and the first church of Portuguese modern architecture of Architect Pardal Monteiro and with contributions from Almada Negreiros (stained glass windows), Francisco Franco (entrance frieze) and others.

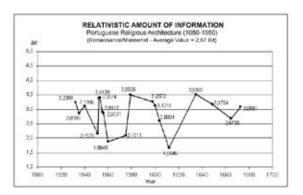


Figure 5. Amount of Relativist Information: Renaissance/Mannerist.

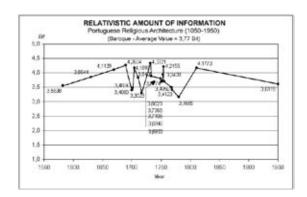


Figure 6. Amount of Relativist Information: Baroque.

Interpretation of the results

In Architecture, as in objects of current use, there is a time evolution of something that was made previously and that in it were replicas or varieties of other structures, all in an incessant movement since the beginning of the human era. Thus it becomes obvious that this connection, continuous in time, has to contain necessarily divisions. For the historian, this task is in a way made easier, because he will always have the privilege to decide how to define and separate continuity, because history depends on the options that the narrator takes. For those whose mission is to justify the things and who aim more than to narrate, the question asked is has as its objective to find specific cleavages in history, whereby with a division it is possible to separate different types of occurrences or messages, which may result from it.

In the 19th century, historians made an inventorying of the products made by Man, classifying them by school and style. It is with basis on this inventorying that we analyse the explicit results on the graph of figure 3, having as a base the observations carried out on Portuguese religious architecture during the last 900 years, via the measurement of the amount of relativist information.

In an initial analysis of the figure 7, we can verify that the different styles referred to arise through a sequence of vital phases, being perfectly identifiable discontinuity in the values of the amount of relativist information, which show to have changes in the respective structures.

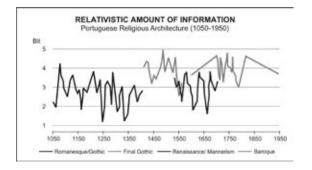


Figure 7.The amount of relativist information in Portuguese Architecture for the period 1050 to 1950.

We can verify the existence of an oscillation in values in the transition of style, as well as there is an oscillation in values in the corresponding period for each of the styles. Thus it made sense to investigate if there was or not any subjacent frequency in the periods where the styles are reported.

Carrying out sequence groupings, it was possible to overcome difficulties that narrative history of a specific period can cause when we intend to analyse that period to the image of the preponderant style. Thus we proceeded to observe architectural styles in their time span, of which correspond less to a planned and chronological evolution than to a spatial displacement, which repeat themselves and alternatively prosper synchronically with the movements of ideas connected to cultural traditions.

Given the aspect of fluctuating results an analysis of the frequencies with method of Fourier Transform was carried out.

Determining time patterns in the amount of relativist information in Portuguese religious architecture (1050–1950) using the Fourier Transform

In order to determine the existence of frequencies in the time series of the amount of relativist information, we use the analysis technique of time series in the dominion of sequence frequency, based on the Fourier Transform, which allows to show evidence connections between mathematics and other subjects as a form of representation of the successive signs that History portrays, and the understanding of sub-adjacent properties to these same signs. As a result we had to find an analysis tool, which decomposes the signs into their constituents, so that we can analyse the content and not only the evolution of its form in time.

In fact so that we can detect the existence of these time periods, the most used process is that of the Fourier analysis, also known as the spectral analysis or the frequency analysis. It is a mathematical technique, already mentioned, which allows to describe a time series via the decomposition of its

In the case of Gothic (260 years) there is an effective

periodicity around 50-55 years and another one

situated exactly at 26 years (figures 10 and 11). For a longer period, which results from the overlapping of

Romanesque and Gothic (340 years) we can see an

initial peak, which then diminishes in significance due to the overlapping of discontinuities close

to infinite. However we can see once again the

existence of a periodicity at 60 years, apart from

constituents, which is equivalent to comparing light being decomposed in its components by a prism, as a physical mechanism of decomposition.

These results are shown in figure 8, 10, 12, 14, 16 and 18. With the data collected and using the Fast Fourier Transform from the programme Scope DSP (obtainable at http://www.scope.com), we obtained the spectral analysis expressed in pattern graphs. After the obtaining the signs in the frequencies field, we inverted the process in order to obtain the signs in the time field, by using the amplitude module for each frequency, which indicates what is the probability of finding an analysed symbol (figures 9, 11, 13, 15, 17 and 19).

Analysing in detail each of the periods, we discovered that on the whole relevant time periods were found. Thus, in the Romanesque (300 years) we found relevant periodicities each 60 years, 45 years, and also between 20–30 years (figures 8 and 9).

the periodicities of less significance also in this case 25–30 years (figures 12 and 13).

For the Final Gothic/Manuelino (300 years) we can also notice a very strong periodicity of 60 years, apart from another one of 25–30 years (figures 14 and 15). There is a pattern that appears to repeat, as we can observe that there are determinate time patterns, which repeat throughout the analysed styles.

As what concerns the following period which is reported in this analysis, The Renaissance/Mannerist

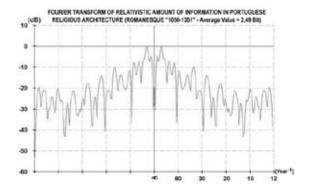


Figure 8. Fourier Transform of relativist amount of information: Romanesque.

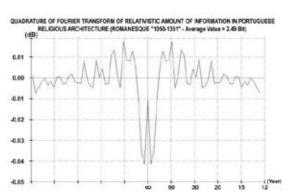


Figure 9. Quadrature of Fourier Transform of relativist amount of information: Romanesque.

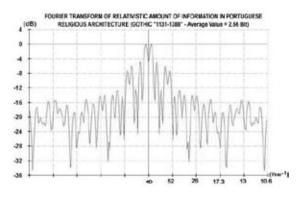


Figure 10. Fourier Transform of relativist amount of information: Gothic.

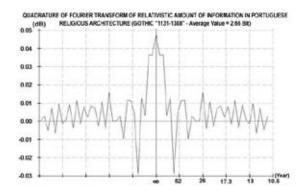


Figure 11. Quadrature of Fourier Transform of relativist amount of information: Gothic.

(140 years) and bearing in mind how specific this period is, we could identify relevant time periods around 60 and 30 years respectively (figures 16 and 17) and which are also visible in figure 7.

Finally for the Baroque period (370 years) we could only identify the periodicity around 37 years but not very intense. There does not appear to be the incidence of the periodicity of 60 years (figures 18 and 19). All the peaks are not very evident and are confused with the noise, as we can see on figure 6, the values of the amount of relativist information being reasonably homogeneous.

Thus from the analysis carried out we can point out two frequencies: a long one of around 55–60 years and a short one of around 25–30 years. The resulting observation analysis of the mathematical treatment of Fourier of the amount of relativist information measured indicates the existence of a series of properties of the structural periodical elements, which configure the styles.

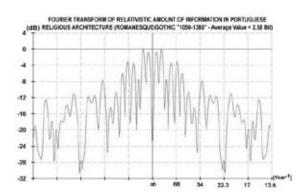


Figure 12. Fourier Transform of relativist amount of information: Romanesque/Gothic.

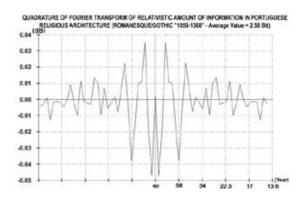


Figure 13. Quadrature of Fourier Transform of relativist amount of information: Romanesque/ Gothic.

In this manner, a stochastic analysis in the sense of avoiding the ambiguities that may subsist made us adopt the Quadrature of Fourier in module terms, which is an indication of the probability of occurrence of frequencies in the values measured of relativist information in the various time periods.

Conclusions

To conclude it appears impossible for us to discuss that the idea of architectural styles can be questioned due to this methodology analysis. We can affirm that the style is a perception phenomenon ruled by coincidence of specific physical conditions, dependent on the relevant factor as well as with creative innovation, a generator of change both in quantity and quality, with basis on the relative frequencies of the performance of the different cases analysed.

It was also possible to prove that the difference in values of the amount of relativist information

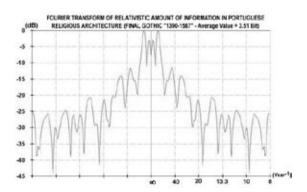


Figure 14. Fourier Transform of relativist amount of information: Final Gothic/Manuelino.

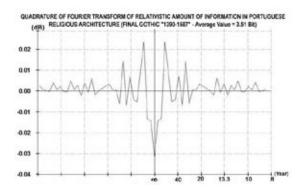


Figure 15 - Quadrature of Fourier Transform of relativist amount of information: Final Gothic/Manuelino.

measured in Portuguese religious architecture (1050–1950) coincides with the changes in styles. It becomes apparent the existence of periods of 25–30 years, which are related to aspects tied to the succession of generations, and also, repetitive time periods of 55–60 years. Hence the ability to say that the occurrence of changes in the structures is synonymous of emerging behaviours which determine different rhythms, which in turn determined the evolution of the religious architecture in Portugal throughout the analysed period.

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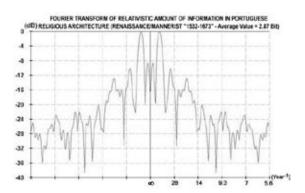


Figure 16. Fourier Transform of relativist amount of information: Renaissance/Mannerist.

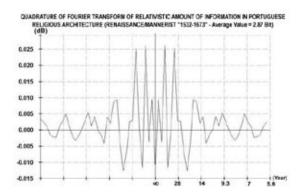


Figure 17. Quadrature of Fourier Transform of relativist amount of information: Renaissance/Mannerist.

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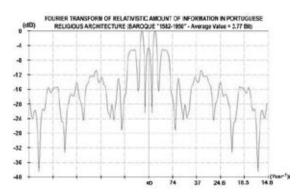


Figure 18. Fourier Transform of relativist amount of information: Baroque.

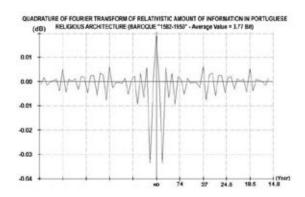


Figure 19. Quadrature of Fourier Transform of relativist amount of information: Baroque.

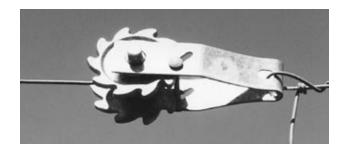


Figure 1. The "Hayes Permanent Wire Strainer".

Straining History: Tension at the Borders

Abstract

The permanent wire strainer is a small, simple, inexpensive, and indispensable device used throughout rural New Zealand to tension fencing wires and thereby sustain the integrity of defined borders. But even though New Zealand's economy has long been dependant on the rural sector for much of its annual earnings, the significance of this ubiquitous icon of rural life has largely remained unexamined.

This paper will present a regionally based focus on the origins of the most widely celebrated and successful of these innovative devices, the "Hayes Permanent Wire Strainer", and through it, will seek to reveal more universal implications, while its prosaic subject matter will be seen to simultaneously contest (strain) the borders of material culture.

Keywords: strain, Hayes PermanentWire Strainer, oral history, design process, context.

1 Introduction: wire strainers reconsidered

"An object like the pencil is generally considered unremarkable, and it is taken for granted. It is taken for granted because it is abundant, inexpensive, and as familiar as speech." ¹

So too, the wire strainer, disregarded through its sheer commonality and unadulterated rural pragmatism as a subject unworthy of attention by the design historian, yet as Tom Brooking has noted with respect to New Zealand's rural history:

"Although farming earned three-quarters or more of our export earnings and farmers dominated politics before the enormous changes of the last 15 years, surprisingly little has been written about our farming and rural history outside the area of our local history." ²

Effective wire straining was indispensable to the establishment and success of this industry and remains so today.

This importance is reflected in the number of patents for wire strainers which were applied for during the period 1880–1890 when New Zealand's economy was rapidly changing from a dependence on extractive based industries such as gold mining, timber, and flax milling, to a more agriculturally based economy. During this decade over 120 applications were filed for devices related to fencing, two thirds of these alone for wire strainers.³

This situation continued into the next decade and although many of these designs may have existed only as prototypes, or even only on paper (as no material evidence or oral account of their existence has been located), they nonetheless provide a highly informative insight into the design process through

¹ Petroski 1998, p. 6.

² Brooking 1999, p. 1.

³ Riley 1999, p. 11.

the sheer range of solutions envisaged to such a seemingly simple problem, straining wire.

This paper considers the late 19th century development of the permanent wire strainer in New Zealand through three distinct "strains".

It sifts and separates (strains) specific strands of innovation in the development of the permanent wire strainer in New Zealand, instancing a synchronic variety of examples dating to the period of Ernest Hayes' 1894 patent application for "an automatic wire-tensioner" (New Zealand Gazette).

Each example represents a particular "strain" of solution to the problem of tensioning fencing wire, while as group they form a representative cross section of the vast number of designs patented during this period, and serve to contextualise Hayes' invention.

Through the use of oral history as a supporting methodology, the paper will widen the focus of study on the Hayes Permanent Wire Strainer from a simple object based study, to include something of its *personal significance* to one of Hayes descendants, Clive Hayes ⁴. In doing so, the layers of meaning signified by this oral history strand will be seen to further strain the borders of material culture by democratising and expanding on its content through the voice of an otherwise unacknowledged participant.

Allied to this are excerpts from the patent applications of the examples discussed. These shed considerable light on the intentions of the designers and their perceptions of the problems they faced.

As a final strain of enquiry, the paper seeks to more closely interrogate these examples for their deeper implications, both with respect to their design process, but more importantly, with respect to their status as artefacts of culture, and in doing so, to link them to the wider milieu of material culture.

2 Methods of wire straining

Wire straining is carried out by two distinctly different methods; through the use of either a parallel wire strainer or a permanent wire strainer.

In either case, one of the most critical and difficult problems to overcome is to tension the wire without rupturing its galvanized coating, which leaves the wire prone to rust and eventual snapping, which, as Clive Hayes reveals,

"was one of the major problems in the early days." 5

The parallel wire strainer is a tool that provides for two wires to be held and drawn towards each other until sufficient tension is achieved, along with enough overlap between them, to enable them to be tied in a knot, after which the strainer is disengaged.

The permanent wire strainer remains on the wire after tensioning, and usually includes mechanical features allowing for subsequent further tensioning whenever required.

2.1 "Reel" type permanent wire strainers

The earliest and simplest examples of permanent wire strainers function simply as reels, and are intended to work as strainers by bearing against a fencing post to prevent tensioned wire from unraveling. Wire tensioned in this fashion tends to slacken off in a relatively short span of time and pressure from the reels against the post can cause it to become significantly damaged. These "reel type" permanent wire strainers are sometimes to be found "in line", i.e. installed along a line of wire spanning between posts, but function less effectively in the long term when used in this way.

⁴ Clive Hayes is a former employee of Hayes Engineering, the company which produced the "Hayes Permanent Wire Strainer," invented by his grandfather, Ernest Hayes, who also founded the company. The Hayes Engineering workshops are now owned and maintained in working condition by the Otago branch of the New Zealand Historic Places Trust as a showcase of late 19th century manufacturing technology, the only one of its kind in Australasia.

⁵ Hayes 2004.

In his immaculately documented "improved wire strainer" of August 1892, Bartholemew Ward attempted to address the problem of damage to straining posts caused by reel type permanent wire strainers.

"The objects of my invention are to provide a simple and inexpensive apparatus for straining wire in wire fences and the like which is effective in use and easily operated. A further object is to construct the apparatus of such a conformation that it shall have no sharp points or projections whereby the post against which the strainer works is injured or worn away [...] I am aware that wire strainers of somewhat similar construction have been in use but the object of my invention is more particularly to provide a strainer that will diminish the wear of and injury to straining posts."

ABPJ W3835 (5700) (Archives New Zealand/Te Rua Mahara o te K_wanatanga, Head Office Wellington) The far greater problem in designs of this variety, of the wires becoming slack in a relatively short space of time, did not seem of concern to Ward.

2.2 "In line" permanent wire strainers

James Crawley's "improvements in wire strainers", filed in March 1894, is more typical of the vast majority of permanent wire strainers. It is designed to be used "in line", rather than straining against a fence post, meaning that it is more versatile, more effective, and easier to install than the likes of Ward's.

In common with Wards however, (and unlike many patent drawings of the period), it too, has clearly been documented by a trained hand, confirming the designer's strength of belief in their idea, a belief apparently well founded, as a number these can still be located.

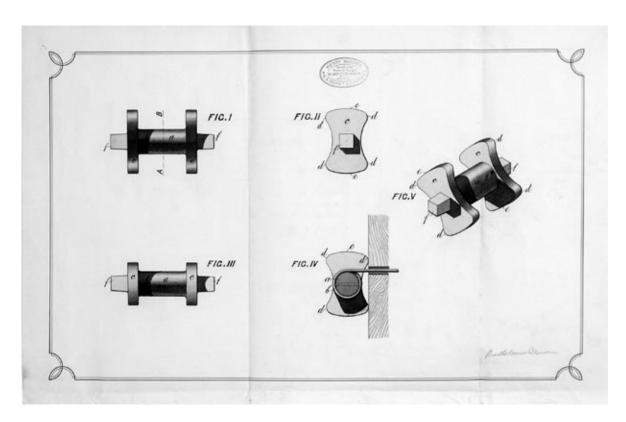


Figure 2. "An improved wire strainer", Bartholemew Ward, 3rd August 1892. ABPJ W3835 (5700) (Archives New Zealand/Te Rua Mahara o te K_wanatanga, Head Office Wellington).

Crawley describes the objectives of his invention thus,

"To provide a cheap and efficient strainer for wire and wire fences which can remain on the wires ready for use and whereby wire can be stretched and fastened when first erected and from time to time can be restretched and made taught when it has become slack or broken; moreover by my invention wires can also when required be joined together or spliced with facility."

ABPJ 7396 W3835 Patent 6703 (Archives New Zealand/Te Rua Mahara o te K_wanatanga, Head Office Wellington)

Of particular interest, and a distinguishing feature of Crawley's ratchet and barrel device is its modular versatility and he subsequently notes that

"both discs can be serrated 'if desired'."

ABPJ 7396 W3835 Patent 6703

(Archives New Zealand/Te Rua Mahara o te K_wanatanga, Head Office Wellington)

Much simpler and likely less expensive examples of permanent in line wire strainers, designed as one piece castings and dating to the same period can also be found. William Tiffen's "Lever Rest Wire Tightener" of June 1894 is a good example of this type. In describing the merits of his design in his provisional specification, Tiffen notes:

"It is easily carried, quickly put on the wire, and speedily used with effect, also that it will remain on the wire and that there are no loose parts which may be lost and it cannot fall off the wire again. The novelty of my invention lies in the slot being made at the handle or stem end, also that the slot is made, in such a manner, and of such a depth as to force the wire to be tightened on to the hooked part and between the flanges."

ABPJ 7396 W4420 (Archives New Zealand/Te Rua Mahara o te K_wanatanga, Head Office Wellington)

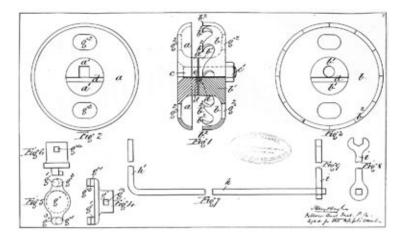
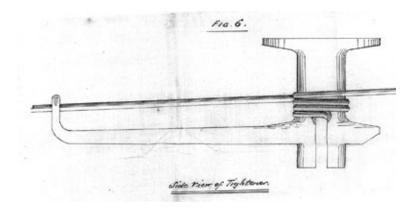


Figure 3. "Improvements in wire strainers", James Crawley, 6th March 1894. ABPJ 7396 W3835 Patent 6703 (Archives New Zealand/ Te Rua Mahara o te K_wanatanga, Head Office Wellington).

Figure 4. "Lever Rest Wire Tightener", William Tiffen, 15th June 1894.
ABPJ 7396 W4420
(Archives New Zealand/
Te Rua Mahara o te K_wanatanga, Head Office Wellington).



3 The "Hayes Permanent Wire Strainer"

The examples provided are highly instructive in contextualising the design of Ernest Hayes' permanent wire strainer (figure 1), the origins of which remain somewhat obscure. What can be clearly established however, is that its basic operating principal of adjustable twin ratchets on a cylindrical barrel, had already been widely used on wire strainers patented and/or advertised well before Hayes' "automatic wiretensioner" of 1894. (Figures 5 and 6)

The "Hayes Permanent Wire Strainer" can therefore be seen as a hybrid invention which integrates the best features of both the "Titan" parallel wire strainer and the "Atlas" permanent wire strainer. The primary mechanism of twin ratchets on a barrel is remarkably similar to the operating principle of the "Titan", while the secondary structure required to covert this into a permanent "in line" solution has clear links to the "Atlas", but its development came only after some less successful, but more independent, early attempts. (Figure 7)

3.1 The "Hayes Permanent Wire Strainer"an oral history perspective

Further documented information on the origins of Hayes' design has so far proved to be impossible to establish, but Clive Hayes reveals something of Ernest's design intentions and of his innate intuition for a business which was to grow into a major industry.

"It was while he was working round the farm that he saw the need for these things. And then that's when his ingenuity came into it and he would sit down and he would draw them onto paper and look at them and have them all laid out and then he'd start making them. He started to make these things for his own farm and his own use, but then he saw — I think he saw that it was possible to make them for sale and another thing that happened was, as I said before, grandma went out travelling on her bike, up through the Vincent County and up through Cromwell and Tarras and out into the McKenzie

country through Lindis. She was virtually the first travelling salesman." ⁶

From his memories of the manufacturing process we learn something of the materials, methods, and technology of the time, and are reminded of a former reliance to Great Britain.

"And those reels there, they were all made in England for a good number of years. They were - they were made there - they came out from England in barrels and they were packed in straw. And we used to undo them and everything, take them out of the barrels and then pick them up and shake them and clear the straw and put them into big, metal boxes, about three foot six long by about perhaps, 18 inches wide and about two feet deep. And then ... what used to happen, they had a 600 gallon tank there and it was set outside and it was two thirds full of coal tar and there was a -- it was built over a fireplace and we used to stoke this up before we were going to soak these in coal tar - we used to stoke this thing up the day before. So it used to take about - well it might take a day and a half and it might take 24 hours to get the coal tar really hot.

And another thing, with it being hot, we used to – we had a gantry that went along over the top of this tank and we used to bring these trays or boxes – metal boxes, they were all full of holes and everything – and drop them into the coal tar, and it would be really hot, and then we'd just pull them out and leave them drain, and they were almost cooled off pretty well straight away." ⁷

4 Wider strains

While the variety of solutions proposed to the simple problem of designing an inexpensive simple, effective and durable permanent wire strainer are interesting in themselves, they also provide an excellent paradigm of the design process through each designers unique perceptions and prioritisations of the problems encountered. To be understood in its fullest sense however, the study of any design artefact must extend still further.

⁶ Hayes 2004.

⁷ Ibid.

THE ATLAS "PERMANENT" WIRE STRAINER.

Agents Wanted.



Price, 8s. 6d. per dozen.

This is the Cheapest and Best Permanent Wire Strainer in the market, and is all that can be wished for.

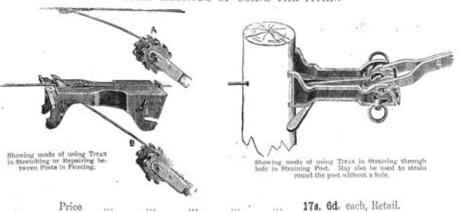
Figure 5. Advertising for "Atlas" wire strainers from Reid and Gray's catalogue, 1886, Hocken Library, University of Otago.

Reid's Patent Titan Wire Strainers.

As Grand a Fencing Tool as ever invented.

These Strainers will tighten Wire either at the straining post or midway between two straining posts. The following illustrations show

SOME METHODS OF USING THE TITAN.



Over 10,000 in use in the Colonies.

Figure 6. Advertising for "Titan" wire strainers from Reid and Gray's catalogue, 1886, Hocken Library, University of Otago.



Figure 7. Early Hayes wire strainer, date unknown.

"The history of industrial products design cannot therefore exhaust itself in the history of the object, but must necessarily extend to the culture of the context that inspired the object." 8

In the case of the permanent wire strainer, several such layers (or "strains") of context can be identified with respect to the design process while an interrogation of its cultural status expands it significance still further.

4.1 The designer as fabricator and end user

Many, if not most, of these devices were designed and fabricated as a direct response to a need by the farmers who used them, and seldom, if ever, make any concessions to styling. By current standards, the designer as both fabricator and end user, is now a rare and endangered species, especially where the product is to be manufactured in such large quantities.

The "Hayes Permanent Wire Strainer" invites comparison with user centred design at its best.

4.2 Design without designers

In addition, (with the exception of Ernest Hayes who received formal training as an engineer and a millwright), it is probable that many others (typically farmers) who turned their minds to designing these devices had no such advantage in assisting their task, although the quality of much of the patent documentation suggests the work of a trained hand in this final stage.

Rudofsky's *Architecture without architects* ⁹ is recalled and further studies into design without designers beckon.

4.3 Enduring design

Emerging supreme from a plethora of competing designs, the internationally successful "Hayes Permanent Wire Strainer" is of particular interest as it epitomises the best of rural pragmatism coupled with widespread and enduring success. It has changed

very little over the course of its history and it's basic design has become widely accepted as the de facto industry standard for permanent wire strainers, forever entrenching the "Hayes Permanent Wire Strainer" as a design icon of rural New Zealand.

Remarkably, most of the original buildings where "The Hayes Permanent Wire Strainer" was produced have also endured along with much of the machinery (still in operating condition), which produced it, adding another layer of unique and valuable interest to the historian.

4.4 The design of history

The experiences of those such as Clive Hayes whose lives are in some way associated with the artefacts of design history, provides compelling material for the frequently marginalised social history of design, a lens through which the reality of those artefacts may be more closely examined and contextualised. Through the use of oral history, design artefacts are infused with a vitality, significance and meaning that otherwise remains suppressed, and in this regard rural artefacts suffer a double prejudice, firstly through the low cultural status generally accorded to such artefacts, and secondly, through a tendency towards object based histories that disregard the social history of those few items fortunate enough to be considered as worthy exemplars of material culture.



Figure 8. "Jakes wire strainer", a contemporary American example.

⁸ De Fusco 2004.

⁹ Rudolfsky 1964.

4.5 Summary

While the examples discussed have been drawn from a regionally based study of the permanent wire strainer, the issues raised have been strained from considering these in their wider context, one which transcends the boundaries of time and place, and regardless of whatever differences may arise when international comparisons of the permanent wire strainer are made, the primary objective of this humble yet indispensable device remains common to all; the establishment and maintenance of tension at the borders.

5 Conclusion

Overarching all these considerations, and a situation neither new nor unique to New Zealand, is the question of why so little design history has been written and/or recorded around the products of an industry of such significance.

It is now over seventy years since the celebrated "Machine Art" exhibition at the Museum of Modern Art, New York, but the lucid insight of L P Jacks in the exhibition's catalogue remains as pungent as ever.

"Industrial civilisation must either find a means of ending the divorce between its industry and its 'culture' or perish." ¹⁰

I submit that "The Hayes Permanent Wire Strainer" belongs within the borders of such a culture.

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¹⁰ Johnson 1994, n.p.

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