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WHAT IS DESIGN? WHAT IS ART? AN OLD DILEMMA READ THROUGH A NELSON GOODMAN TEXT

O QUE É DESIGN? O QUE É ARTE? UM ANTIGO DILEMA LIDO POR UM TEXTO DE NELSON GOODMAN

RESUMO

A partir do texto de Nelson Goodman "When is Art?" o artigo explora as possibilidades de aplicar a mesma questão ao Design, perguntando quando é Design de molde a responder à questão sobre o que é Design. A partir das três condições para a existência da Arte: representação, expressão e exemplificação, propõe-se que o "quando do Design" existe quando se verificam três condições anteriores às anteriores: apresentação, impressão e

autenticação. De molde a definir essas condições é introduzida a noção de pré-objecto. Argumenta-se que um objecto de Design é um pré-objecto em consequência do "quando" do Design e que um objecto de Design exterior a um pré-objecto só o pode ser se estiver simbolicamente ligado a um pré-objecto. O artigo propõe que os Estudos de design, nomeadamente a Designologia, se devem focalizar nessa relação reflexiva.

PALAVRAS CHAVE

Design. Estudos de Design. Designologia.

ABSTRACT

From Nelson Goodman's text "When is Art?" the article explores the possibilities of applying the same question to Design thus asking when is Design in order to answer the question about what Design is. From Goodman's three conditions for the existence of Art: representation, expression, and exemplification, it is proposed that the Design's when may be characterized by conditions previous of these: presentation, impression, and authentication. In order to define these conditions it is introduced the notion of pre-object. It is argued that a Design object is a pre-object when Design is before an object, and a Design object only exists after a pre-object when is connected symbolically with the pre-object. The Paper proposes that Design Studies, namely a Designology, should focus on that reflexive relation.

KEYWORDS

Design. Design Studies. Designology.

1. INTRODUCTION

When we start inquiring about Design as concept we are, in the first place, asking questions about concepts. The question here about Design is not the customary "what is Design?" But "what is Design as a concept?"

In that sense, we must know that we are asking questions about a mental construction externalized by a word: Design. We are, therefore, prisoners of two notions: First, the word Design exists. Second, as a word, other than a meaning, like the words fish or hammer has, Design may be presented or proposed as a Concept. So rather than a simple word, with a clear meaning Design is before us as a concept, i.e.

As a concept Design may designate:

A domain

A process

An object

Other words that may refer to concepts of the same order may be Art (?) Science (?) Technology(?). In that sense when we are asking what is Design we must be certain that we are asking what a concept is.

In 1977 Nelson Goodman [1] claimed that asking the question "What is Art" might be frustrating.

In fact, a twentieth century full of art wise surprises had placed a large number of difficult questions to art theory. Although Art itself begun to be ontologically 'difficult', some of these questions were posited by a growing dominion of objects made to be used intersecting the dominion of art objects. To these objects we have been calling Design…

Reading the text "When is Art" (Goodman, 1985) one finds some appeasing answers regarding Art and a correspondent number of interesting questions regarding Design. Linked to the evolution of the artificial world, what Design is has been changing for at least a century.

Like Art, Design is resilient to definitions because they multiply enormously and also because as a concept it is infected by three different original meanings of the word described before (Côrte-Real, 2010).

In 1989 already Victor Margolin tried to map the regions of the field in "Design Discourse"(Margolin, 1989a) based on the literature in print only after WWII: United States, United Kingdom, Germany, Swiss, Italy and what he designated by 'international scene' and 'academic scene' (Margolin, 1989b). Design discourse should be eloquent about what design is, mostly accordingly to a theoretical perspective. The same Margolin with Dennis Doordan and Richard Buchanan (2007) gave us a perspective of twenty-two years of Design Issues, the Journal. From the other side of the Atlantic, Design

Studies, The Design Journal linked to the Design Research Society and the European Academy of Design, and many others, have been also promoting the everlasting discussion on what Design is.

Clive Dilnot(1989), in his celebrated "The State of Design History" placed the temporal limits of Design History from the Arts and Crafts Movement until our days with particular emphasis in Modernism thus creating a genealogy that tends to define Design as excluding previous manifestations of projectual culture. In the end of the Twentieth Century, Tony Fry (1999) suggested a new Design Philosophy, promoting an historical revision and proposing a new placement for a Design definition regarding the exhaustion of natural resources and the end of the models based on progress.

Recently, in the 2005 EAD/Bremen conference Rosan Chow summoned a list of Design definitions [2] that, although not annihilating reciprocally, produces a sensation of dispersion and little coherence. Recently, also Dilnot (2005) enlarges the ambit of Design, in his "Design? Ethics", almost to the wholeness of the artificial world re-calling the fractures of the Holocaust and anticipating new disasters. These examples could be multiplied by 100 and authors such as Ken Friedman, Klaus Krippendorf, Terence Love, Christena Nippert-Eng, Per Galle, Michael Biggs, Lucy Niemayer, Wolfgang Jonas, Alan Findeli, Andrea Branzi, Sharon Poggenpohl, Pekka Korvemaa, Anna Calvera, Tomás Maldonado, Gui Bonsiepe, Victor Papanek and so many others should be mentioned as the multiple views upon this phenomena. Recently the electronic discussion list PhD Design List from JISC mail, UK enhanced the multiplication of views about Design.

If Design is not definable we will be limited to arbitrary opinions about designs. Some will have poetic sense, some may be philosophically rooted, some can be historically documented and, naturally, some will have scientific basis. Some are extremely broad, like the infamous Herbert Simon's definition "Everyone designs who devises courses of action aimed at changing existing situations into preferred ones" (Simon, 1996, p. 111). Design would be anything that looks like or appears to function as Design on a recognizable and timely way. Design would be anything or action that anyone is prepared to label as Design. The fact is that, since we are talking of the artificial world, Design looks like being everywhere, even in Art. Design would be, therefore, equal to artificial world and, consequently, useless as a word.

Well then, can we detach Design from the wholeness of Culture?

Has the question "what is Design" been sufficient for the purpose of detaching Design from the wholeness of Culture? And since Art is also part of Culture can we answer the first question by placing "when is Design" as "what is Design?

2. (FIRST) WHEN IS GOODMAN'S ART?

Goodman proposes for Art a clarification inside a theory of symbols, especially regarding the status of the "object trouvé" and the so-called "conceptual art". These were objects of unease inside Art. Goodman (1985, pp. 57-70), refused the easy path that would simply state the artless situation of those objects. He also refused institutionalism that sees art as anything that art institutions accept as art. In fact, he states the artless situation of all objects per se. Objects are regarded as art not because they are intrinsically art or they were institutionalised as art but because they function as art inside a theory of symbols, being any theory of symbols socially constructed. (Goodman1976, p. 11)

Goodman argued that art without at least one of the following conditions cannot exist: Representation, Expression or Exemplification. These conditions placed art within the range of a theory of symbols. Goodman developed further more this framework identifying symptoms of Art (Goodman1976, pp.252-255) but, for the time being, this text will focus on those three conditions. Also, his approach on Art could be considered irrelevant on Design, but, almost concluding, Goodman sates: "the further question of defining stable property in terms of ephemeral function – the what in terms of the when – is not confined to the arts but is quite general, and is the same for defining chairs as for defining objects of art" (Goodman, 1985, p. 70).

We can, therefore, presume that under such framework of when functioning as what it's possible to define chairs. So, we may pursue on this path since a lot of chairs are designed and labelled as Design objects.

Going back inside Goodman's text we read that "a chair remains a chair even if never sat on, and a packaging case remains a packaging case even if never used except for sitting on" (Goodman, 1985, p. 69).

So, if we can say when a chair is, can we say when a Design Chair is,

being a Design Chair more (or less) than just a chair?

Some Design Chairs had never been sat on. Some of those unseated Chairs are especially Design Chairs like chairs in Design Museums or Chairs designed by celebrated designers that were never produced. I propose that these chairs are particularly Design Chairs since they are labelled as such and stable within that label, free from the interference of such "noise" as common use. So, for that mater, we should disregard our objections about use regarding the when is design of an object when being used. The possibility of an extreme expression of when is design as what is design on not used objects opens a field of argumentation that take no notice of Design objects' use while being used. I would say that in those extreme situations, the abstract features are particularly important to define Design through when instead of what because they remain as Design even when unused, not used or never used.

Design objects exhibitions on Art museums are even more interesting and intriguing since they clearly assume secession between Design and Art but still share the same roof.

3. WHEN IS BEFORE

Since Design can be a verb the justification for when is design would be easy: we can ask the question when is design because design occurs while designing. We cannot deny that Design is when we design. This would answer our question about the utility of rephrasing the question what is to when is.

One thing we can state before embracing such problem: when is design finishes precisely before the object. But most of the people, hundreds of academics, every salesman, all cultural TV show anchors use the expression "Design Object" referring to objects, therefore doing it after the object. So when is design is problematic in terms of time sequences and we will get back to this further in this text. Nevertheless, we can agree on the fact that Goodman's when is art is placed clearly after the object and we also agreed that when is design, as previously described, place it before the object. So, maybe there are some characteristics of objects' "beforeness" with the same validating role as Goodman's conditions for Art.

I suggest that the three characteristics able to function as conditions for

"when is design" are: presentation, impression, and authentication. These are conditions previous to the conditions for art but they are not conditions for art. Roughly, each one of the conditions for art is connected with conditions identifiable before the object as we will see. But before we must remember what do the conditions for art mean knowing that the three are processes of allusion:

Representation is a very straightforward concept: something is as a replacement for another thing by the power of presenting it instead. No representation is possible without presentation. Something alludes to other thing by being instead of it.

Expression is a less straightforward concept. Our first assertion about expression is that symbolizes things hard to if not impossible to be symbolized by representation. Categories such as feelings may be expressed and are extremely difficult to represent. Crying dramatically the word "beauty" expresses rage although the word represents beauty. Later Goodman will call to expression "metaphorical exemplification". In this case we would be reduced to two conditions: representation and exemplification (that could be literal or metaphorical). Again, in this text, we will stay with the first triad.

Exemplification, according to Goodman occurs when an object is functioning as a sample for another object. On this process we must, at least, have two objects with a certain amount of the same properties. A sample must possess intrinsic characteristics of what exemplifies but do not possesses all the characteristics. Between Thing and its Sample (exemplifier) a hierarchy is identifiable as if the thing was more important than the sample.

So, let's move forward to the correspondent previous symbolization processes steps:

4. PRE-OBJECTS AND PRESENTATION

Presentation is to make something present. Making something present means that, when we are before it, it is not representing anything. Functioning as itself is the characteristic of presenting.

This apparently idle distinction between presentation and representation is crucial because presentation indicates the first stage of our contact with anything or anyone. When we are dealing with the production of "new" objects, presentation is inevitable. Making present is

the moment in which we expect that the presented thing is being itself. In fact, this is what you expect when a vacuum cleaner is presented to you: a vacuum cleaner itself. This characteristic seems to be very difficult in art. If we agree with Goodman, the object starts to represent, express or exemplify immediately before us, or, otherwise looses its art quality. If the object made, selected or found to be art when presented as such doesn't represent, express or exemplify goes into a horrifying limbo of not functioning symbolically or starts functioning as a utilitarian object. Imagine Warhol's Brillo boxes carrying Brillos or a Damien Hirst's sliced cow being used for lectures in a veterinarian school… The authority keeps the objects from falling into that obvious use. In Goodman's framework, in Art, the author and the owner/percipient share the responsibility for art quality, since representation, expression and exemplification need the percipient's symbolization process.

Presentation can be, consequently, a characteristic of almost when is art and, when previous to the objects, a characteristic of when is Design. We must, accordingly, admit the existence of pre-objects, mainly characterized by the presentation of objects as ideas of objects. Clive Ashwin (1989, p. 201) had noted this characteristic of Design drawings due to its iconic dimension. Centuries of object's production seem to corroborate the existence of such pre-objects used for presentation. Centuries of careful or sloppy planning of objects-to-come corroborate the existence of such pre-objects. Centuries of unbuilt buildings, of uncarved sculptures, of unpainted paintings, unproduced chairs manifested through drawings, for instance, seem to corroborate the existence of such pre-objects. The correspondent objects of some pre-objects start to represent, express or exemplify being art and others start to be utilitarian objects amongst which there are some we call Design objects. If there is such thing as pre-objects, they are never (as pre-objects) Art, although they are seldom shown in art museums.

So, let's inquire about the nature of pre-objects. The ontological value of such object would be determined by the purpose of anticipate the object to come. In that sense Design relied on drawings to depict objects to come for almost 5000 years. Being a pre-object is to be in function for another object. This means that a pre-object is instead of an object not representing it since the object does not yet exists but is committed to its existence. We all

learned that drawings, especially those normalized by Euclidean Geometry under Monge and Cartesian frameworks are known to represent. But, in fact, when we are projecting an object-to-come, we are not representing anything since there is no real object. Therefore the drawing is instead of nothing. Some would argue that the drawing is representing an idea, but, if the drawing is representing the idea, what is presenting the idea? In fact, the drawing is making the idea present. If not a drawing, a similar device for presenting an idea would be used. If we were speaking of structural ideas, for instance, a mathematical formulation could be used to present it. Usually, verbal descriptions are used to present ideas, also.

Some codes of presentation are equal to the codes of representation, mainly on formal features of objects, but this doesn't makes presentation equal to representation.

At this point it must be stressed that what is commonly said to be representing ideas is in fact presenting ideas. We must stress also that the process of depiction makes the large majority of design ideas presentations. We are, here, speaking mostly of pictorial presentation. This pictorial presentation allows us to say that when the object is produced it is not totally presented when it first appears before us because the pre-object presented its idea before us. Although evident in many forms, pre-objects are mainly presentations obtained by depiction ready to be represented by objects. This is a crucial statement: objects may represent pre-objects.

In the same order of ideas, paintings such as Piero della Francesca circle's Ideal Cities are representing nothing although "representational in character" as Goodman would point out. This nature is nothing more than their presentational nature. If such cities would be built, today, no one would argue that those buildings would be representing an idea presented five centuries ago. So things, objects, may represent pre-objects.

5. IMPRESSION

Symbolization through expression connects objects or features of objects to categories such as feelings. Although we could say that anything could express anything, say: "an espresso machine expresses sadness", in the sake of clarity we could say that, according to its features, an espresso machine would express qualities like smoothness or intensity. We will inquire

if the espresso machine is expressing something while being Design, or, if the when is design of an espresso machine makes its expressive qualities irrelevant/relevant.

When we discussed presentation and representation we have focused on the idea of pre-objects, being Design's when before the object. Therefore we should ask ourselves if a pre-object is capable of expressing. As we have defined it, pre-objects are committed to final objects. Don't forget that, as pre-objects, they are presenting an idea. Such idea may contain the intention of express smoothness through the object. We all know that presentations may express or not express the same thing that the object will. As a pre-object roughly resembling the object, a sketch may express rage but corresponding to a final smoothness-expressing object. The more the pre-object resembles the object; the more the pre-object's expressing features resembles the features that will be present at the object. Those specific features don't belong to the pre-object but to the object. We are, therefore under the impression that they are expressing in the same way they will express in the object. Only the object's expression is true if it happens and when it happens. We can only say for sure that that we experience the expression of something in the pre-object to be experienced in the object's expression, when the object is before us. On the other hand the expression of something in the pre-object may not result in the object. In both cases we have the impression that the object would express something.

Effects of light and temperature in architectural drawing made visible by "etching" shading with gradients produce the impression of dramatic expressive spaces. The use of perspective with correct dynamic distortions creates the impression that a building will express velocity. Nowadays, digital rendering will give the impression of whatever an object will express. The impression of danger may come out from a storyboard corresponding to the expression of danger in a movie. Impression works like a bridge to expression. Although this is a fact, the bridge is frail. Both concepts are vague and difficult to limit. Easy is to say that final objects also determine impressions. They might be impressive… Recovering Goodman's terminology we could speak of Illusive Exemplification regarding Impression. But what we may state here is that every expressive feature in a pre-object is in fact the result of an impression because of the devotion of the pre-object to the final object. Either the pre-object expresses something by its object nature ceasing to be

a pre-object, or it will give the impression of a future expression in the final object and thus being a pre-object.

6. AUTHENTICATION

Exemplification, as we have seen, is different from representation because, like in samples the exemplifier and the exemplified must possess some intrinsic qualities and this means also that the exemplifier does not possess all the qualities of the exemplified. A swatch of fabric exemplifies texture, colour, pattern, etc but not size or shape, as Goodman (1985, p. 70) describes. Not that a sample do not possess its own completeness but not when functioning as sample for something. Being sample and being thing exemplified promotes a hierarchy. The sample is subordinated to what it exemplifies. In that sense, a sample is a smaller part of a larger piece of fabric. We can think of samples of almost anything but exemplifying triggers secession between the object as "original" and the other object as its sample.

Original is a trickery word since it means also a new "creation" or the one object from which we generate copies. Although a copy may be related to its original object it is not a sample for the object although it can be used as such.

The process of authentication is previous to the process of exemplification since the sample must possess some authentic qualities of the original. So, before a sample, we must have an authentic item and the sample must be authentic as so. By choosing a fabric through a sample and not through a catalogue we can argue if the fabric we are buying is the authentic one or not. Only a drop of my blood is a sample of my blood.

Well now, why is authentication a characteristic of when is Design? As I have said for presentation/representation and impression/expression, a presented idea is represented by objects and may produce the expression of qualities made by impressions in pre-objects. In the same way an idea is authentic in itself. Design is, also, when we present an idea to be multiplied by its representatives, the objects. In the same order, objects can be samples of an idea. The question is what characteristics are both intrinsic to pre-objects (ideas) and samples (objects)? Although

objects represent an idea mostly through its formal features, and express as result of impressions, as samples, objects exemplify through common intrinsic characteristics.

Use is the characteristic common to pre-objects and objects. As we have seen both presentation and impression conducts to representation and expression by a process of substitution in which intrinsic qualities are irrelevant. A graphic code for a material may impress roughness. In these cases we are not speaking about intrinsic qualities, we are speaking of qualities or characteristics that, by symbolization, are connected to other qualities or characteristics. The only intrinsic characteristic both present in pre-objects and objects is use or the potency for use, to be more precise. I can't clean my drawing room with a drawing but, clearly, cleaning is the intrinsic quality common to a vacuum cleaner and a drawing of a vacuum cleaner. In that sense, also, we may speak of authentication. The common intrinsic qualities are the authentic potency for use present in the pre-object as in the object.

Authentication previous to exemplification of use seems to be the most common characteristic of when is design. In this sense we can speak of perceiving design objects by using its use.

Therefore, it could be that Design is when we have an authentic idea of use to be exemplified by authentic use of objects.

For this mater, Design is when the question of copies is not relevant. In fact the question of copies does not describe Design since the objects are copying nothing. If we speak of copies of a poster, for instance, is because it is simpler to do so. Each poster is copying nothing, there is no original, and its matrix is not an original is just another step in the design process. Each object of a series is a sample of a design object. In this sense we can also explain why unseated chairs in Design Museums are particularly Design: because they are exemplifying use and not being used they are concentrated in the role of exemplifying that use.

Unseated chairs in Art Museums are also design objects when they are one of a series, when they are intrinsically, in their nature, multiples. In that sense, they would be intruders, but they still keep going inside.

On a lateral room inside the contemporary section of the Philadelphia Museum of Art, recently there was a small exhibition of design chairs [3]. Whilst in a neighbouring room some Brillo boxes exhibited their uniqueness,

a Campana Bros "Vermelha" chair imposed their nature of exquisite multiple. Neither of the two had ever been sat on…

7. WHEN IS AFTER AND WHEN IS A DESIGN CULTURE OTHER THAN SIMPLY CULTURE (CONCLUSION)?

Until this point I have been trying to limit when Design is to "before the object". We know that design objects proliferate and are used as design objects after being objects. We have seen already that we may perceive an object as design when it is not used. In fact, besides Museums, design stores rely on that perception. Advertising new objects relies on that perception.

After the object, design is when we can reflexively track down characteristics on the objects that can lead us to the three conditions: presentation, impression and authentication.

While as pre-objects design objects are always design objects, objects may easily cease to be design objects and become just objects. After the object, Design is when the object can symbolically be connected to a pre-object phase and the same object can be disconnected symbolically from that phase. Although using the Use as an example of an Idea of Use is unequivocally Design's when, we can imagine uses or conditions of using detaching the object from that symbolic functioning.

As for conditions of use, can we ask if an object 'works' better than others or if it is more ugly or heavy? Those questions would lead us to argue about when is good design and not simply about when is design.

But, then again, what about functioning well? We all know that designer's design does not always work well. Philipe Stark's lemon squeezer drips outside the target. Aldo Rossi's coffee machine has sudden bursts and tends to break the handle. But, yet they are designer's design. In some cases, not functioning well seems to be a distinctive feature of designer's Design! … Some characteristics of such objects seem to compensate the ill functioning anathema. They powerfully represent an idea and strongly express impressions. If the exemplification of use is diminished or enhanced by problems in use is a mater for another discussion. Function cannot be a criterion for defining Design with when instead of what. But can we finally underline Design inside the wholeness of Culture?

At this concluding point we must clearly state that a design object is a

pre-object.

Under such framework design is when such pre-object is being worked to be presented and that's what design is.

Nevertheless we can observe and perceive objects as design objects especially as part of our culture. Therefore, we would say that an object is design when the following conditions occur:

When the object is perceived as representing a presented idea.

When the object is perceived as expressing an impression.

When the object is perceived by exemplifying an idea of use as its authentic sample.

In Goodman's sense we would say that the object alludes to the pre-object through these conditions. Yet, are these conditions enough to detach Design from the rest of Culture? And are these conditions enough to study a Design Culture AND Culture? Would this be the way to promote a "Designology", science firstly proposed by Tufan Orel (1981, p.32)?

At least we found a way of detaching it from Art, greatly a part of Culture. If for an art object the relevance of its symbolization process lies on if it represents, expresses or exemplifies, for Design the relevance is on the reflexive process that take us "back" to the pre-object thus focusing on presentation, impression and mostly authentication. Also we detached Design from those objects impossible to be tracked back: meaningless utilitarian or accidental objects and probably other artefacts produced traditionally without an identifiable pre-object. But this will need further reflection and certainly discussion.

Design objects inside of a culture require a Design culture in the sense that the process of designing (not its detailed methods but its existence) must be culturally acquired. Objects are both evidence and indices of the human process of designing things.

By replacing what for when we found a way of Design working under a symbolic theory. Design finds a place on the general process of symbolization of human thought both before objects and after objects. When is particularly important for Design since its roots lie on a time's affiliation. I would say that what is design is always hollow if not placed as when is design. By "whenificating" the question we manage to centre our investigations about design on meaning design. Cultural studies would keep focus on the way objects create, maintain and develop cultures whilst

Design culture studies should focus on how a determined culture track 'back' the design process through the objects. There is no point in studying a dog chewing an OXO kitchen utensil because he thinks that's a toy but it makes sense to understand that people buy and use OXO because they "see" both the drawings as the "inclusive message" in the potency for use all together as part of a cultural communicational process. Design is when I squeeze garlic with an OXO garlic masher using it as a Design object part of a culture that integrates design as a cultural value.

This is not idling arguing. When we are studying Design and Culture we should have in mind when Design is.

NOTES

[1] "American Philosopher who has made major contributions to epistemology, metaphysics, and philosophy of science, as well as to aesthetics. In his youth he ran an art gallery, and throughout his life he has been an avid collector of art. He is Professor Emeritus of Philosophy at Harvard University." (Elgin, 1992,p. 175)

Goodman was born in 1906, died in 1999. He was the author, among multiple texts, of:

Problems and Projects (Indianapolis: Hackett, 1972).

Languages of Art (Indianapolis: 1968); 2nd edn (Indianapolis. Hackett, 1978).

Ways of Worldmaking (Indianapolis: Hackett, 1978).

Of Mind and Other Matters (Cambridge, Mass.: Harvard University Press, 1984). "

[2] "I have not reflected on design for a very long time, just a few years. I have learned two things that I believe important to keep in mind when thinking about design. Firstly, anyone can define design all he or she wants and desires, and there are many different expressions on design. Here are some examples (arranged by years):

• 'Everyone designs who devises courses of action aimed at changing existing situations into preferred ones' (Simon 1991: p.111).

• '… our new definition of designing as the initiation of change in man made things' (Jones 1992:p.6 italics in original).

• 'Design is the human power of conceiving, planning and making products that serve human beings in the accomplishment of any individual or collective purpose' (Buchanan 2001a).

• 'Design is the ability to imagine, that-which-does-not-yet-exist, to make it concrete or concretized form as a new, purposeful addition to the real world'

(Nelson 2002).

• 'Design is a noun referring to a specification for making a particular artefact or for undertaking a particular activity. 'Designing - non routine human internal activity leading to the production of a design' (Love 2002).

• 'Design is a network of chunks of ideas and activity patterns in the interface region between the contextual and the artefactual' (Jonas 2004:p.222)."

(Chow , 2005, p.1)

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[3] "Transformed: Uncommon Material in Contemporary Design" – Installation at the Philadelphia Museum of Art from April 23 to October 9 2005.

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