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Artistic Versus Generic Design Creativity

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Abstract. The field of design is expanding as new areas of application and new approaches are being developed. Different concepts of design obviously leads to deviant notions of creativity. If creativity is a major component in design education and design research, such different notions needs to be articulated. This paper investigates two major concepts of design creativity: one links to classic, the other to emerging fields. Writing on design seem to suggest that creativity is the same regardless of field. Writing on creativity, on the other hand, suggests field-specific creativity. This paper articulates the notion of creativity in different design fields.

Keywords: design ontology, design cognition, design thinking, artistic design, design theory

1 The Expanding Concept of Design

1.1 New fields and new aims

The concept of design is expanding (Buchanan (1995), Krippendorff (2006)). In former days, activities of design were associated mainly with artistic training, and the products of design mainly with forms and shapes drafted and moulded in the studio. While this may still be the case for large areas of the academic and professional field of design, the concept of design-activity now also include e.g. the conception of strategies and services, work modes like co-creation and design-thinking and even scientific design-inquiries and transformation design.

As the concept of design expands and schools of business, technology and the humanities hook on to the field, design is becoming a cross-disciplinary field of innovation and creation, of new concepts and ideas, and of pretty much anything capable of improving life for mankind (index (2010)).

Design is conceived as a field about to leave its affiliation with art and physical matter, instead to become a field creating ideas, strategies and innovation (Krippendorff (2006), Buchanan (1995), Cross (2006)). Design-creativity, it is said, should furthermore partake at the heart of decision-making and strategic thinking in society at large. What design can do for objects, it can do for any system (Buchanan (1995), Brown (2009)).

But is design-creativity generic? Can design be regarded creativity *as such* or is creativity in design to be regarded as field-specific?

This paper argues that the notion of design-creativity is diluted by expansion of the concept of design.

1.2 Notions of Creativity

In most design literature (like all mentioned above), design creativity is conceived generic. Design is the creative *method* per se – and all known qualities of design will manifest when this method is applied.

On the contrary, in literature on creativity (such as Csikszentmihalyi (1996)), creativity of an individual or a group of individuals is not likely to find expression in materials or media detached from and alien to those of daily working life. On the contrary, one has to be trained in and master a domain to make creative contributions to that domain.

Specifics pertaining to a field, such as materials and media, aims etc. thus seem important as means of discerning different concepts of creativity within different design fields and approaches to design.

When new fields emerge, new methods are applied, and new goals are set in design, our notion of design must be said to be changing. And with new notions of both the object, the objectives and the tools of design, it is likely that our concept of design-creativity is changing too.

We will therefore investigate objects, objectives and tools of design in first the classic and thereafter the emerging fields of design.

2 Design as 'form-giving'

2.1 Definition

Design, as it is known e.g. in schools of arts and crafts, focus on material, tangible form. This design approach is usually framed in artistic terms and design is seen as an artistic activity (RCA (2010)).

To frame these fields, the following definition is suggested.

Definition 1: Design is to synthesize complex prerequisites into artistic form.

This characterizes studio work where the objective is to find appropriate, novel and exciting form to fit the prerequisites – the programme – belonging to an assignment.

2.2 Artistic, tangible form

The dictionary states two basic denotations of form. One is very concrete: Form as the physical or visual shape of something. The other is a set of denotations covering a number of different uses of the word 'form' as 'in form of…'.

While the first meaning covers that of a body, a shape or a mould for a body – a concrete, tangible thing – the latter covers e.g. the particular way something exists, the type or variety of something, or the customary way of doing something.

Form-giving is not concerned with or focused on form in the sense of e.g. 'a customary way of doing something'. A customary way of doing something can apply as a rule in prerequisites for a design task – e.g. as patterns of use of an industrial object – but not as a design objective in itself.

Consider a dress, for instance. Itself a tangible form, it serves its main purpose of covering and partly uncovering the body it dresses. But at the same time it points to its type and variety – e.g. evening dress or business dress – and comment on or position itself within social and cultural norms of the customary – e.g. being either formal or informal. In fact, any concrete dress must in its design consider all such secondary meanings. The alternative is only to leave such secondary meanings coincidental.

It is a feature of concrete form – form in the first denotation of the word – that it can contain and point to form in the second sense of the word as well. The opposite is not possible.

2.3 Artistic aims

The artistic approach to design has artistic aims (per definition). But what are artistic aims?

As noted above, the possibility of secondary meanings is a feature of tangible form. It is these secondary meanings – connotations – inherent in any culturally significant artifact that opens the possibility of artistic form (Brix (2008)). In general terms, a high density in semantic content is a feature of art (Goodman (1976)).

The sensory is crucial to the artistic/aesthetic discourse. But the artistic does not exclusively pertain to the sensory properties of things. The aesthetic object is interpreted as well as sensed. Otherwise a poem could not be experienced for what it is. It would be less of a poem if you were to only stare at it, instead of reading it (Goodman (1976)).

It follows from the notes above that 'the artistic' cannot be understood simply as 'the beautiful'. Rather, the artistic is a rich density of meaning conveyed by tangible, concrete means.

This means that the form and the content must hold each other; that idea/conception is not separate from form. That the 'what' is not separate from the 'how'.

2.4 Design methodology in form giving

As classic design is about tangible form, basic training and the tools of the field comprise free hand drawing and sketching, building of formal models and so on. These tangible means are inseparable from artistic design creativity (Pallasmaa (2009), Gully (2009)). This is what the Petra and Quist example in Donald Schön's famous book 'The Reflective Practitioner' (Schön (1983)) shows. As Schön says about the situation, much more than words are going on. The words uttered by Quist, the master/teacher, can't be understood if detached from the act of gesture with the pencil without meaning being lost. Tangible form can only be communicated and discussed through drawings and models (including computer models).

Artistic design work focuses on finding possibilities in the concrete, material form and thereby holding and opening (adding value to) the programme. Radical innovations can take place from this position, as Roberto Verganti points out in his book 'design-driven innovation' (Verganti (2003)).

3 Generalized Design (design as problem solving)

3.1 Definition

When design is regarded in more general terms, artistic means and aims are not crucial for design-activity. A famous and often cited way of framing this is the definition suggested by Herbert Simon:

Definition 2: Everyone designs who devises courses of action aimed at changing existing situations into preferred ones (Simon).

Many find this to be a conceptually valid – albeit impractically broad – definition. It is one of the grounds of the expanded notion of design (Buchanan (1995), Krippendorff (2006)).

In this definition, immaterial process takes precedence over form and matter. 'Courses of action' as well as 'changing (situations)' refers to process rather than artifacts.

3.2 Immaterial form

The new, emerging fields work with concepts rather than material facts and artefacts. Fields such as transformation design, strategic design, service design and experience design are not associated with form in the concrete sense. The objective is not 'shape' or 'body' like in the first dictionary definition. Rather it is 'in form of…' as the second denotation – in form of a plan, a strategy or an action to be taken.

A service design idea for instance – consider e.g. the idea that your library will send you an SMS when your books are due – does not exist in the physical realm. The 'form' of this idea is radically different to the form of, say, a cup.

3.3 Aim

These fields do not pursue the aim of appropriate and sensual physical form – since no physical form exists. Instead they focus on problem solving as can be seen in Simon's definition. Focus on change into the more preferable.

The point here is that 'preferable' is far more general than 'artistic'.

3.4 Methodology

Focus in design framed in this general way – in the fields focusing on problem solving – is not on design in terms of the noun – design as leading to a tangible artifact – but on design as a verb: the process of designing.

While design books used to contain pictures of shapes and artefacts, reports of work of this kind show us pictures of yellow post-it's on the walls and people in discussion, diagrams of design-games and spreadsheets of the video-logs. Brainstorm techniques are described. Inquiry techniques are described. And strategies for solutions and properties for artefacts are described. But development of tangible form is rare and references to aesthetics even more rare.

Conceptual innovation is work carried out mostly in symbols. Output is symbols – diagrams, plans, rules or strategies – not drawings depicting and documenting a shape to be molded.

Since the output is symbols, ideation takes place in a manipulation of symbols. Words play an important role (Krippendorf (2006)), unlike what is the fact in the conversation of Petra and Quist (Schön (1983).

Altogether the methodology is different from that of the artistic. Not in structure, since iteration is very general, but indeed in material.

4 Differences and Similarities

On the basis of the previous characteristics we can point to differences and similarities in these two design approaches.

4.1 Different approaches to form

The classic field is build on form in the sense of body or shape. The new fields – transformation, service and so on, build on 'in-form-of'; in form of plans, scripts, and the like.

This difference runs ontologically deep. Objects pertaining to the classic fields have roots far back in time. The shape and material properties of such objects account for usefulness, affordance and category at the same time. The cup-ness of a cup – its ability to serve as a cup and be a cup – is based entirely on its form and material. The same is true for a chair, a house, a knife or an axe.

The forms of the new fields, in contrast, are 'as-if' forms; forms in the second definition of the dictionary. Service design has no tangible object. So *form* - what meets the human senses - is anything from words on a screen to the smile of person in uniform. The usefulness of a service is not as intimately connected to its form as it is the case the classic fields.

In the classic fields, the solution to a task and the outcome of the professional process is form. In the new fields, the solution to a task and the outcome of

design-activity is planning: reports, diagrams, plans etc. – later eventually to become forms.

4.2 Difference in aims

New fields focus on problem solving, cognition and analytical thinking. They may be 'abductive' (Pierce (1931)) in method, but this only makes them constructive, not artistic.

In the classic fields, the sensual and the cognitive work together. The cognitive cannot be separated from the sensual. The process requires mastery over tangible form – drawing and the construction and interpretation of models. Lay people can supply viewpoints, apply critique and inform the process in numerous ways, but unless they speak the language of drawing and form giving, they are excluded from the core of the process.
The new fields focus on idea and concept, and work with symbols and their manipulation in iterations. These symbols are transferred in shared language – like language, diagrams etc. – and allow many fields to participate. But the output stays not form in tangible sense.

4.3 Approaches to methodology

New fields and the old fields share the iterative process. But the iterative process is also general.

The iterative scheme is far from specific to design. It is the foundation for methods of any kind of human invention, like writing, developing products, negotiations of politics etc.

5 Different notions of Creativity

The two approaches have different notions of creativity.

The classic design creativity is rooted in 'thinking with the hands' (Pallasmaa (2009)). It is rooted in physical matter, craft and objects. The outcome is more or less given – a chair or a house.

The new fields are rooted in language, cognition, concepts and symbols; areas shared by many people and thus more general. Wicked problems find solutions in processes with many different participants.

Obviously, these different fields and notions of creativity can create more together than by themselves. But it would be wrong to train the *material* to become *immaterial* or vice versa. Both these perspectives are important.

This means that the development of many of these new fields should <u>not</u> be undertaken by design schools but be addressed by other universities adopting the general idea of design, creativity and iteration.

We want the new fields to expand the qualities inherent in the classic fields. However, basic notions of what creativity means in these two approaches makes an argument for increased specificity of the classic fields, rather than for a generic, iterative concept, shared by every profession and subfield.

As such, the notion of expansion of design proves misinterpreted. If we regard the new as developed from the old, we fail to recognize that we took only half of the existing fields with us. And left behind maybe the most important part.

That of the tangible.

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