

Matching Bricolage and Hermeneutics: A theoretical patchwork in progress

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Abstract

In order to establish whether a theory is applicable to practice-based research in design, it is vital to analyse both how it relates to the design practice and to a research context. Thus, the content of the design activity needs to be thoroughly described. This paper argues that methodological descriptions of the design process are not sufficient to fully grasp design practice and that it would be useful to find a complementary image of the activity.

This paper claims that considering design as a research activity is vital and that by designating design as a kind of *Bricolage*¹, it is possible to identify some inner processes of design that relates research to the design practice. Finally, bricolage in alliance with some basic aspects in hermeneutics is suggested for analysing the design activity and the design result. The purpose of introducing these concepts in design is to be able to maintain the combined role of being both researcher and practitioner.

Keywords

Bricolage, design theory, hermeneutics, practice-based research

Introduction

The physicist George Darwin used to say that every once in a while one should do a completely crazy experiment, like blowing the trumpet to the tulips every morning for a month. Probably nothing will happen, but if something did happen, that would be a stupendous discovery.²

Research with an inside perspective of a design practitioner is relatively recent. To any research discipline it is vital to establish which scientific approaches are to be related or considered for future research, and if possible to identify the need for completely new approaches.

Industrial design research in general and research with a design practitioner's perspective in particular, have two issues that are of major importance: 1) that industrial design which is situated in-between art, craft and technology has not been properly positioned in relation to the span between engineering science and the humanities, and 2) how one can incorporate design practice into research. This paper deals primarily with the second issue.

In order to understand how practice-based research can be of special value to design research one has to start with the design process, which as with research is a question of inquiry³. Design is sometimes pictured as a mechanistic problem solving process where the descriptions show models of an observable course of events. However—as both Bryan Lawson and Henrik Gedenryd have established—these models do not adequately describe the whole design activity^{4,5}. First, the inner creative process is often absent and second,

¹ *Bricolage* is a term used by Claude Lévi-Strauss for describing a pre-scientific research approach.

² Hacking, I., p.154

³ Gedenryd, H., p.15

⁴ Lawson, B., pp. 31-38

professional designers do not always work according to those models⁶. I see design practice as action, based on a way of thinking and an attitude towards a design task. Panagiotis Louridas advocates that this attitude can be described as that of a “bricoleur” in the way Lévi-Strauss coined the term⁷. Using the metaphor bricolage for design makes the identification of inner processes possible.

In this paper, I address themes that are common to both bricolage and hermeneutics, and to design practice: coherence/structure, uncertainty/open-endedness, the practice/activity and to the way subjectivity is viewed. Bricolage and hermeneutics aim for coherence by seeing reality in relation to context and seeing the subject, i.e. the researcher or practitioner, as a part of this context. In a similar way practice-based research not only involves investigating the object, but investigating the artistic subject as well.

This paper is organised as follows: First, I compare and discuss the similarities between design and *bricolage*, a term Claude Lévi-Strauss introduced as a description of a pre-scientific research approach. After establishing design as a kind of bricolage, I highlight four fundamental aspects of hermeneutics as a suitable theoretical approach for practice-based design research. Finally, I initiate a discussion on practice-based design research, i.e. on how to perceive the research question and the audience, what the object of study is and how to communicate the research results.

Design as bricolage

Everything that is absorbed and registered in your mind adds to the collection of ideas stored in the memory: a sort of library that you can consult whenever a problem arises. So, essentially the more you have seen, experienced and absorbed, the more points of reference you will have to help you decide which direction to take: your frame of reference expands.⁸

The quotation above illustrates the way design is related to a personal set of experiences and knowledge. This differs from the description of design as a mechanistic process of solving problems through methods. Bryan Lawson points out that many writers on design have treated the design process as a route: a logical sequence of activities that leads to an expected result⁹. However, this view does not accurately describe the design work. The need to perform loops between different stages in the process is one example that speaks against such a mechanistic description. Lawson states: “It seems more likely that design is a process in which problem and solution emerge together”¹⁰. Even the most general description of the process—from analysis to synthesis and thereafter to evaluation—can, according to Lawson, be criticised for it presupposing a route from the general to the specific, when the design process in reality is much messier¹¹.

Henrik Gedenryd stated in his doctoral thesis that not only did a methodological approach to design problems fail to be credible even to its spokespersons, but that there was also very little evidence that prescribed methods are used by designers in reality¹². Gedenryd stated that the investigative work just as well can start from a solution, and that the process is to understand how to get there. In this case the plan of the process is not obvious until the

⁵ Gedenryd, H., p 1

⁶ Gedenryd, H., p 66

⁷ Louridas, P., p. 517

⁸ Hertzberger, H., *Lessons for Students of Architecture* in Lawson, B., p.113

⁹ Lawson, B., p.31

¹⁰ Ibid., p. 47

¹¹ Ibid., p. 37

¹² Gedenryd, H., pp. 59-60

solution is reached.¹³ Gedenryd means that: "...design consists of several component functions that cannot be held apart, and that display no general ordering principle among them."¹⁴

As a designer one often tries to find a solution that is a holistic response to the design task¹⁵. This goal can be described as attaining coherence by means of inquiry. Is there a way to describe this process that more adequately illustrates the complexity of design practice?

"*Bricolage*" is a term that was used by the anthropologist and structuralist Claude Lévi-Strauss in his book *The Savage Mind*. Bricolage is an attitude towards a problem; a mental trial and error where every separate phenomenon is placed in relation to the present structure. A bricoleur is a person who adapts tools and materials to the current challenge¹⁶ and meticulously uses everything—even what has not been designated for the specific task, such as leftovers and results from former constructions and deconstructions—to proceed with the work. The process has no fixed beginning and no defined end, but is in constant change. In bricolage different inputs are used—not always as intended—but always with the purpose of gaining more knowledge.

... the bricoleur's means are concrete, since they have an objective existence; but they are also abstract, since they can play a variety of roles depending on the situation: they are signs. The bricoleur determines these roles by entering into a dialogue with his inventory¹⁷

A common prerequisite for design work is that design is aiming at the future. "Everyone designs who devises courses of action aimed at changing existing situations into preferred ones"¹⁸. This involves imagining the unknown and being able to adapt current knowledge on future scenarios. Gedenryd writes: "...design can be described as an inquiry into this future situation of use"¹⁹. The open-endedness of a design task and the uncertainty of the prerequisites require a flexible design process. In order to use new impressions in a creative process, a non-discriminative view of what kind of information shall be associated with each unique design task is required. In this way the process is similar to that of a bricoleur.

Both design and bricolage are dependent on and strongly related to the personal self. Design work implies using a subjective interpretation and a subjective value judgement of a problem²⁰. The bricoleur uses all available knowledge, of immediate interest or outdated, within or outside of him/herself, to solve a given problem²¹.

Panagiotis Louridas compares the professional design activity to *bricolage*. He describes design as a kind of *metaphorical bricolage*²², as a hermeneutic process where the designer is in a discussion with the materials and prerequisites of the situation at hand. Louridas points out four general similarities between bricolage and design work.

Design as bricolage has four intertwined strands. First, design is a form of art. Second, design is a form of science. Third, design is extensive. Fourth, design arises from the interplay of structure and event.²³

¹³ Gedenryd, H., pp. 60-61

¹⁴ Ibid., p. 98

¹⁵ Lawson, B., p.123

¹⁶ Lévi-Strauss, C., pp. 17-18

¹⁷ Louridas, P., p. 519

¹⁸ Simon, H., p.111

¹⁹ Gedenryd, H., p. 157

²⁰ Lawson, B., pp.121-122 + 126

²¹ Lévi-Strauss, C., in Louridas, P., p. 518.

²² Louridas, P., p. 530

²³ Ibid., p. 534

What exemplifies those four similarities is the importance of aesthetics, the inquiring working process, the dependency of open target and the effect of contingencies. Lévi-Strauss explained bricolage as the science of the concrete and meant that if we look at history one must conclude that bricolage is a form of knowledge-seeking that has been as successful as that, which we today call science. He points how the use of senses, personal experiences, intuition and imagination can be used in a different research approach:

... there are two distinct modes of scientific thought. These are certainly not a function of different stages of development of the human mind but rather of two strategic levels at which nature is accessible to scientific enquiry: one roughly adapted to that of perception and the imagination: the other at a remove from it. It is as if the necessary connections which are the object of all science, neolithic or modern, could be arrived at by two different routes, one very close to, and the other more remote from, sensible intuition.²⁴

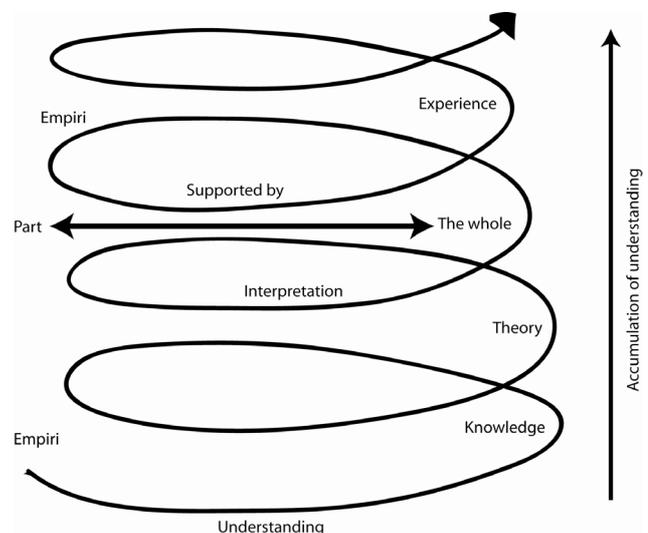
Design is probably closer to the mode where intuition and personal accumulated experiences are put to use in an exploratory work. As Lévi-Strauss points out, the successfulness of this approach is equivalent to that of traditional scientific research. In design it can be a strategic choice since the production of new ideas can be experienced as more frequent with this approach.

Four hermeneutic aspects

The origin of hermeneutics dealt with the interpretation of texts and mainly those in the Bible. It became a more general scientific theory during the 18th century, when the focus shifted from interpretation to understanding. “Hermeneutics aims at understanding and is founded on interpretation as its principal form of knowledge”²⁵ (author’s translation). Gradually the theory has achieved relevance in various social sciences where the understanding of human behaviour is crucial. There are four important aspects in hermeneutics²⁶:

- *The interpretation*, which means that one conveys the meaning of something. In order to make correct interpretations it is crucial to try to see things in relation to their context.
- *The understanding*, which corresponds to insight and is said to depend on skill and intuition²⁷, but also requires empathy in order to identify with others.
- *The preconception*, which is the basis for all our understanding. It includes prior knowledge, our experiences and the way we feel about things, our value judgement.
- *The explanation*, which is to verbalise something based on a theory. That also proves the opportunity to revise an interpretation through the use of dialogues, and through that, increase the depth of understanding.

It is important to recognise that a hermeneutic attitude implies a dynamic changing process where the interpretation varies, due to the fact that changes in the relation between explanation and understanding influence the interpretation. The preconceptions become the foundation onto which everything is put in relation. To understand scientific interpretation as a



The hermeneutic spiral interpreted after Gustavsson 2003

²⁴ Lévi-Strauss, C., p.15

²⁵ Ödman, P-J. in Gustavsson, B., p, 71

²⁶ Ibid., p. 74

²⁷ Ibid., p. 73

dynamic process also means that one must see the knowledge and the results as temporary. *The Hermeneutic Circle* or *Spiral* illustrates the interplay between the whole and its parts, between preconceptions and experiences²⁸.

Practice in research—a question of question?

Michael Biggs writes about practice-based research in art and design that we have to acknowledge that there are practice-based questions²⁹. He states that research is an answer to a question and—as in philosophy—it should be possible to examine the question rather than answering it. He states that “good research generates answers/solutions/responses that are useful to us”³⁰, meaning that a question that cannot be answered is a bad research question, while a question that has several answers can work well, but he also states that the answers do not have to be true. As different answers to the same question will provide different satisfaction to different audiences, one also has to be clear who the research audience is, and what answer will satisfy them³¹. Method is to Biggs “a persuasive connection between the question and the answer”³². If finding multiple solutions is an asset—as can be the case in design projects—it is also difficult to evaluate methods according to their accuracy. Instead method should be the last variable to be determined with the choice based on appropriateness.³³ The method can then be the tool that best gives knowledge of the relation between context, question, answer and audience.³⁴

The research object and the communication of results

How then can such research be performed? Biggs points at the difficulty of reflecting on experiential feelings as they are much related to the individual. This can be understood as a questioning of the idea of reflection on practice, but he rather initiates a discussion about the object of study and the effect of reflection and expression on the research result³⁵. Biggs hopes that shifting focus from experiential feeling to experiential content can provide a closer relation to a research context.

Practice-based research has gained much interest in the discipline of Fine Art. Katy Macleod and Lin Holdridge have described and evaluated the grade of scientific rigour in a number of PhD theses in Fine Art from the Royal College of Art and Design³⁶. They state that visualisations can be an equivalent way of communication and that the research subject in it holds prerequisites for communicative forms other than exclusively text. They assert that theory and practice enrich each other’s purposes if they are granted the same relative value. They write that theory in artistic thesis work often is used as a tool to assist in the analytical reasoning of issues that emanate during the practical work.

Discussion

There is a desire for research within the discipline of industrial design and a desire for design practitioners to be a research audience. If design research does not take place within the

²⁸ Ibid., p. 78

²⁹ Biggs, M.A.R., p.13

³⁰ Ibid., p.14

³¹ Ibid., p.16

³² Ibid., p.14

³³ Ibid., p.20

³⁴ Ibid., p.17

³⁵ Ibid., p.10

³⁶ Macleod, K., Holdridge, L.

discipline, but in other disciplines such as art history, economics and so forth, or when professional competence is not in demand, it can lead to the research being relevant to other professional groups but not of one's own. That would be unfortunate for the research. How then to integrate design competence in research and what results can be achieved? Letting practice-based experimental modes stimulate research work in a similar way as has been done in Fine Art can be one option. Not before such research exists, can we speak about or evaluate different ways of carrying out research and how they increase or decrease our knowledge of the discipline.

Design is both an extroverted and extensive activity in relation to clients, work teams and users and an introverted process, where the designer uses his personal means and methods to achieve at a design proposal. Bricolage is a way to understand the design process as a more complex activity than what is suggested in many methodological descriptions. To include practice in research is to give room for the complexity of a practice that depends on both structure and contingencies.

The contingent is as essential to the nature of design as is the structure that the designer tries to achieve. If there is no contingent, we do not have design, we have manufacturing".³⁷

In order to do practice-based research, one must decide the position of both the activity and the result. Considering the process in design as bricolage offers new possibilities to analyse the design activity. Hermeneutics offers the opportunity to search for situated knowledge, accept biases and to see the result as a part of an explanation that is open to interpretation. Therefore hermeneutics can be a starting point for the interpretation of the design results.

In hermeneutics, ambiguity can be seen as a way to deepen and expand the understanding of something, and different interpretations can be complementary. The process of evaluating and re-evaluating the way one understands a problem—the use of intuition, context, preconception and experiences—is similar between hermeneutics and bricolage in the way it is formulated. In hermeneutics the understandings and interpretations of human activity are based on identifying feelings and experiences through introspection. Being and performing research as a designer provides the empirical base for such understanding.

Terminology in a theoretical and a practical approach	Hermeneutics	Bricolage
Coherence/ structure	Context Understanding	Structure from events
Design/ activity/ practice	Interpretation Explanation	Reinvented meaning Improvisation Metaphor
The self/ Subjectivity	Interpretation Preconceptions	Available knowledge The self
Open target/ uncertainty	Dynamic process	Improvisation Contingencies

³⁷ Louridas, P., p. 534

To use several theories is in line with the view of design as a practice that accepts complexity and aims at relational coherence. However, theories are developed in contexts different from where one's work is situated, which can make them less useful as a whole. The consequence is that one takes the risk of being perceived as someone who picks parts as one pleases, out of a coherent whole, and of not being serious or honest in one's research. This attitude is reminiscent of rules of conduct such as "You have to take the rough with the smooth" or "Clean up your plate" or "Finish reading one book before starting a new one". None of these rules of conduct appear to have any objective relevance. Why should such ideas then be more relevant for theories than in other cases? Let us instead look at all theories as a big "smorgasbord" filled with cookies and sweets. Some match well together, others are too large or lack relevance. But one can have a taste of the ones that suit the research approach.

A designer performs during the design process an inquiring work, trying to make the object and its prerequisites translucent in order to be able to add any contributing idea without concealing the main goal. This mental layering of ideas makes it possible to incorporate things, which from a strictly intellectual point of view seem out of place, but in time can be perceived as right to do, or right in time. Here is where designers can make use of their skilled intuition. A similar process in research would be to give temporary functions to means—like theories and methods—in pursuit of understanding the research question. This way of working in research is yet to be done.

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