Viewpoint

Philosophy applied to design: A design research teaching method

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From September 2005 to June 2013, I was in charge of several philosophy courses at the well-known school of art and design, called École Boulle (www.ecole-boulle.org), in Paris, France. One of these courses was part of a 2-year postgraduate programme in design called in France 'Diplôme Supérieur d'Arts Appliqués' (DSAA), which awards a degree equivalent to the first year of a Master's Design course. Within this programme, students are split into two groups corresponding to two disciplines: product design and what we call in France 'spatial design' (which includes various design disciplines such as interior design, landscape design, exhibition design, environment design, architecture, etc.)

During the second and final year of the programme (what we call 'année de diplôme' or graduation year), all courses were organised around a central curriculum, i.e. a personal design project (what we call 'projet de diplôme' or graduation project). Overseen by two design professors who were often

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former professional designers, students had to choose a topic (design theme), identify a realistic context for their project (a place or a building, a market segment or a sector of usage, etc.), define the commission and specifications of the project (possibly based on a real client within an actual partnership), and individually prepare a complete design project resulting, at the end of the year, in a presentation to a jury of professors and outside professionals. In parallel with this work on the design project, students were asked to write a dissertation of approximately 10 000 words (60 000 characters) with the main requirement being that it had to be linked to their design project. This thesis, developed and undertaken during the first term, was given to the members of the jury several weeks before the final presentation.

Such a pedagogical environment will probably not surprise anyone as it is in no way exceptional: apart from a few details, it is in line with the current global educational standards of a Master's in Design. However, it differentiates itself through a remarkable feature: the dissertation that students had to write was a philosophy thesis and therefore had to be supervised by a professor of philosophy. The reason why the students were required

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to write a philosophy thesis came from the French national design education policy (led by the 'Inspection générale d'arts appliqués'). The motivation for combining philosophy and design in this unconventional way was to stimulate students ability to connect theory and practice, to develop their capacity to create a personal and original theorizing approach of their design project, and finally to make them think about their social responsibility as designers.

This was my role for 8 years, until the official rules of this programme changed because of a new design education policy[1] (and, in the same time, I moved to the University of Nîmes). During this period (2005−2013), I oversaw the philosophy theses of more than 220 students, both in product design and spatial design. To do this, I gradually developed a design research methodology, which I called 'philosophy applied to design,' and which is an attempt to answer to a series of methodological issues (teaching research questions) and epistemological issues (theory research questions) on the association between philosophy and design:

1) Methodological issues: How to create a philosophy thesis relating to a design project? How to approach such a relationship so that it can make sense for both the philosopher (anxious to develop theoretical concepts) and the designer (anxious to design practical solutions)? How to create a philosophy thesis applied to design?
2) Epistemological issues: How to approach the juxtaposition of design and philosophy? How to define a common understanding between them? How to get them to create knowledge together, but a knowledge that does not belong more to one than the other but that is the result of their coming together?

I do not pretend today to have answered these questions. Nevertheless, it is while trying to answer them *under the pedagogical pressure* of my daily teaching with students that I have

gradually started to create a methodological model, of which I argue today that it is a first educational response to the epistemological issues that I have just raised and, hopefully, that it can be a useful tool for teachers interested in this kind of interdisciplinary approach.

1 Pedagogical organisation

To better understand the organisation put in place, it should first be noted that I had to supervise 2 groups of about 15 students (one group in product design and the other in spatial design) every week for three hours during the first term only. Courses started at the beginning of September and ended in February.

First, I divided the work into 3 stages corresponding to 3 main objectives:

1) *September-October*: choose a thesis topic, that is to say, define a title, a theme, an issue and a bibliography (these being understood to be provisional and subject to continuous revisions);
2) *November-December*: develop the plan of the thesis and write a short synopsis comprising of an introduction, a plan divided into three parts and an updated bibliography; the first part of the thesis had to be informative (taking stock of the subject), the second had to be reflective (addressing a contemporary issue); and the third had to be prescriptive (promoting an idea);
3) *January-February*: fully write the thesis in the form of a typed text of approximately 10 000 words (60 000 characters) respecting the typographical rules in use in French publishing and the editorial standards in use in the French academic world; the thesis had to include a cover page, an introduction, three parts, a conclusion, and a bibliography.

Second, for each of these periods, the course took the form of a research seminar, which included a form of group maieutics. Each week, for three

hours, the 15 students and I sat around a large table, and in turn each student would present the progress of his/her work. Meanwhile, I asked other students to do the same job as me: try to identify the background of the person making the presentation; try to understand the origin and purpose of his/her approach; question it, analyse it and criticize it; suggest reading material and offer different avenues of thought; identify and analyse the hopes and dreams of the student; and above all differentiate what relates to the thesis and what relates to the project. Inspired by Socrates' maieutics and group psychodynamics, this approach aimed at helping students with the difficult process of defining their project, helping them to realize what was emerging or growing in them. Some students were paralyzed by inhibition and did not produce anything for several weeks; after one of these sessions, it was not uncommon for them to find a second wind; others, obsessed with a single idea, remained blocked but indirectly allowed other students who attended the session to understand something and progress in their own approach. Maybe it was not very far from a form of group therapy because, as students were free to choose their subject (as opposed to the normal situation of a professional designer), they often tended to make very personal and even autobiographical choices (i.e. working on a location or building in their hometown). In all cases, the psychological commitment during this 'graduation year' was very intense and moments of emotional discharge were quite common, most often through laughter but sometimes through tears.

2 Overview of the students' work

To better understand the methodological and epistemological considerations that will follow, I will present below a brief list of examples of the topics chosen by students. As it is not possible to present here the 220 projects I supervised over the last 8 years, I have made a selection of 22 of them: 11 from the Spatial Design group (Table 1), 11 from the Product Design group (Table 2). This selection is quite arbitrary but despite everything based on the following criteria: (1) quality of the thesis, (2) quality of the project, (3) originality of the approach, (4) recentness, (5) diversity of overall topics. For each item, I briefly indicate the type of design project on which the student worked, and the title of the philosophy

Table 1 Spatial design group

Student	Project	Thesis title
Student #1	Designing the reception areas and wards of a psychiatric hospital in Paris	Society is struggling to deal with the mentally ill
Student #2	Creating a funeral home on Paris's Left Bank	Experiencing mourning
Student #3	Recreating the flea market in the town of Montreuil.	Towards the disembodiment of public space?
Student #4	Refurbishing an emergency shelter in Paris	Social commitment or good conscience?
Student #5	Redesigning the surrounding area of a motorway junction	The Hyper-Urban
Student #6	Redesigning the Fender bandstands in Paris	Urban events, a tool to build and reinvent the city
Student #7	Converting an area in the 11th district of Paris into a multidisciplinary space with shops	Model(s) for the city
Student #8	Creating a sporting, social and cultural area in a rural environment	The phenomenon of 'rurbanisation'
Student #9	Redesigning the police headquarters of the 13th district of Paris	The imaginary world of the police
Student #10	Refurbishing a shelter for migrant workers in Paris	What is successful social integration?
Student #11	Designing a project to raise children's awareness about their environment	In praise of the disregarded aspects of daily life

Table 2 Product design group

Student	Project	Thesis title
Student #1	Creating an eco-friendly canteen	Learning how to eat well, becoming a better consumer
Student #2	Those who have lost their tongue	Immigrants: towards a new collective imaginary approach
Student #3	Dialogue regarding care in nursing homes	Old age: experiencing the end of life
Student #4	Thinking digital, new concepts	Creativity and virtuality: the act of creation in the digital age
Student #5	Re-co-naissance	On parentalisation
Student #6	One morning like any other	Waking up: morning rituals
Student #7	Shameless design	Shamelessness: the specificity of a social behaviour
Student #8	Cultivating idleness in the domestic environment	Innovating through idleness: questioning the rational habitat
Student #9	Remembering: from object to emotion	Remembering: a short study on the practice of remembrance
Student #10	Stimulation of elderly people in nursing homes	Narcissism in the elderly
Student #11	Handle with care	The Tumult of the body: the Experience of pain

thesis, which was produced in conjunction with the project. The connection between the two titles is particularly interesting to observe.

3 Methodological model and epistemological issues

The methodological model I developed is quite simple. It was mostly clear after the first year but, of course, it has been improved and strengthened after being repeated and stabilised year after year. It is based on an operational response, in the pedagogical perspective of a thesis, to the epistemological issue of the relationship between the philosophical approach and the design approach. To introduce it, here are some pertinent excerpts from the document I gave students every year, and which I called 'The Art of Writing a Philosophy thesis for the DSAA':

'The philosophy thesis for the DSAA is a philosophical essay independent from your project, which has its own purpose and advocates a theoretical position to be rigorously developed and personally supported on a topic based on the human, social and cultural project questions. That means that you must consider the project as material to raise philosophical questions [...]. What questions (social, cultural, human, etc.) does the project address? [...] To which social, cultural, psychological, political or industrial question does it relate

to? In short, what is the human dimension of the project, beyond its formal, functional, spatial or architectural meaning? What is the human dimension of the project for the philosopher, beyond its meaning for the designer or the architect?'

In this statement, there is a distinction between two types of questions: (1) *project questions*, presented here in terms of formal, functional, spatial, technical (and more) issues; (2) *thesis questions*, presented here in terms of human, social or cultural issues. The first type corresponds to the *design question*; the second corresponds to the *philosophical question*. For example, the fact of asking oneself how to revitalize the market place in an urban public space is clearly a project or design question, but the fact of asking oneself whether the contemporary public space is subject to disembodiment is a philosophical question (Group 1, Student #3). To help students understand the distinction between these two types of questions, I sometimes even made it a rhetorical issue, at the risk of exaggerating: I told them that a question beginning with 'How... ?' is usually a project question while a philosophical question usually begins with 'What...?' or 'Why...?' Obviously, I explained to them that they should not take this literally: the aim was simply to show that a philosophical question is either a question on essence (i.e. what is shamelessness? Group 2,

Student #7), or a question about causality or finality (i.e. why should we encourage and support narcissism in the elderly? Group 2, Student #10) while a project or design question is most often a question about the means of action (i.e. how to raise awareness about good eating habits in a school canteen? Group 2, Student #1). I also explained to them that a good way to check if a question is philosophical is to check if this question would be raised even if the project did not exist. If a question cannot arise independently of a project, then it is a project question, not a philosophical one, or it is a philosophical question that has not been addressed properly. Indeed, it is not necessary to create and design a funeral home in Paris to reflect on the anthropological and psychological issue of death (Group 1, Student #2). But reflecting on this question through a project for a funeral home gives addressing this question a particular dimension, in which lies the whole purpose of 'philosophy applied to design' as a design research method.

The main pedagogical challenge was therefore to get students to acquire the intellectual skills that would allow them to distinguish between the two types of questions, most of them failing to do so spontaneously. I would say today that this skill is not only the first one that a designer should acquire if he/she wishes to become a design researcher but also that, without it, he/she never will have access to the research level.[2] For proof, one must simply give this problem a greater scope by observing how it is approached in doctoral research. On this point, the approach of my colleague Alain Findeli is probably one of the most advanced to date. He reminds us that, in a design PhD, 'the central distinction that needs to be made is between a *research question* and a *design question:*'
'A steady observation reveals that the PhD candidates in design usually tackle their subject matter in the form of a design question. […] This reflex is quite normal, but the next step and important step that needs to be made is to transform their design question into a research question.' (Findeli, 2010, 296).

A *research question* probably means something broader and more ambitious than what I called a *philosophical question* with my DSAA students, since it involves 3 years of PhD work using a wide range of disciplines and methods. However, the methodological effort is the same. The difference lies in the fact that, in my experience through DSAA courses, the philosophical question that emerges from the design question feeds into the *design answer* of the project and only generates a philosophy thesis in parallel to the project; while in the experience to which Findeli refers at PhD level, the research question that emerges from the design question must generate a *design answer* related to a *research answer*. Therefore, what characterizes the methodology of 'philosophy applied to design' is that it does not produce actual research answers. However, it produces something more than the project, which can be called a philosophical approach to the project, and from which the concept of the project is enriched, as shown in this new excerpt from my aforementioned 'Art of Writing a Philosophy thesis for the DSAA:'
'While being independent from the project on the theoretical level, the philosophical question of the thesis takes on a particular importance in practical terms when related to the project. And vice versa, the project takes on a special significance when related to the philosophical reflection of the thesis. Because the project is not only a conceptual approach of projection (defining the aim) and anticipation, founded on a complex and progressive methodology in response to a demand' [official statements taken from the regulations of the school, Author's note]. It is also an intellectual approach of interrogation and problematization of human and social issues related to the project. When put together, these two joint approaches form the perspective of the project, to which the student is both philosophically and personally committed.'

Although it does not produce actual research answers, 'philosophy applied to design' nevertheless has a double interest for design research. First, it provides a good introduction to the logic of research as part of a Master's course in Design and, as such, facilitates access to the Doctorate programme. It is probably not a coincidence if some of those who wrote the best theses then went on working on a PhD. In this perspective, this model deserves to be developed and refined in order to better align it to the PhD 'project-grounded research' model according to Alain Findeli (2005, 2010). Second, this methodology contains the basis for a potential new epistemological model that would consists in a philosophy-oriented design research, applicable at Doctorate level and beyond, which I call 'philosophy by design'.

4 Conclusion: towards a 'Philosophy by Design'?

If the creative act of design is an act of modelling (Archer 1979a,b), it should not however be confused with a purely technical procedure. The prototype is not only a tool, a method, a stage. It is a place where one projects an ideal, where one makes ideas for the future, where one works with the materials of the future. Design thinking is basically a thought of anticipation. It maintains a consubstantial link with the future. Herbert Simon was one of the firsts to have pointed this out, in 1969, in *The Sciences of the Artificial*: 'Everyone designs who devises courses of action aimed at changing existing situations into preferred ones.' (Simon, 1969, 111). The authors of the recent book *Design Research Through Practice* confirm it: design is future-oriented because 'Designers are people who are paid to produce visions of better futures and make those futures happen.' (Koskinen, Zimmerman, Binder, Redström, Wensveen, 2012, 42). In other words, Alain Findeli agrees, focusing on the concept of a 'project' dear to designers' hearts:
'*The approach of design on the world is* projective. *By this I mean that, for designers and researchers,*

the world has to be perfected, it is a project and not just an object that must be described, whose causes must be explained or whose meaning must be understood.' (Findeli, 2006, 23)
Design is therefore a future-oriented practice underpinned by a meliorative purpose. The objective is to improve the conditions or the environments of life, to 'improve or at least maintain the habitability of the world.' (Findeli, 2010, 292). This is what I have, in other works, called 'factitive enchantment' (Vial, 2013) which design creates: its creative purpose is to make-be and to make—make (which is the meaning of 'factitivity' in semiotics) in order to remodel the possible experience and to improve the experienced quality of existence (Vial, 2010).

In this perspective, the concept of modelling in design takes a philosophical and anthropological aspect bordering on the quasi-political. Because it is not only a technique of representation, as it can be in other disciplines such as engineering. It is a place for the development of an ideal that is taking form. The prototype is an attainable ideal which is philosophically engaged. Through it, the designer creates ideas, but these ideas are not the 'concepts' of science or philosophy, nor the 'affects' or 'percepts' of art (Deleuze & Guattari, 1991). This is what I suggest call 'idealects.' By this I mean concepts in the form of ideals, provided they are rationally achievable ideals. These *idealects* are ideas that are an executable must-be. This is why an *idealect* has the form of both a desirable ideal and the strength of an operational concept. It produces the design of a desirable and attainable future. And as design is always a situated practice, an *idealect* is always limited in scope, restricted to particular areas of intervention of the project in which it develops. For example, a design project in the medical field produces an *idealect* of medicine, that is to say, a certain idea of what medicine *should be*. And this *idealect* should not only be sensitive and perceptible within the practical device to which the project leads as a creative process (research

for design, related to *design questions*); it must be formulable and enunciable in a theoretical 'project-grounded research' (Findeli & Coste, 2007) that accompanies the creative process (research through design, related to *research questions*). An *idealect* is something on which one can construct theory.

In addition, as ideas in science according to Karl Popper, *idealects* in design are falsifiable. Their validity is ephemeral because they require constant updates based on social evolution. Each of them has a vision of the world that makes sense until it is sufficiently implemented to be exhausted. The *idealect* is the product of an era that renews itself with the era. For example, Le Corbusier's concept of a 'housing unit,' whose model is the famous *Cité Radieuse* in Marseille (France), is an *idealect*. That is to say, a certain idea-concept of what a home should look like at a given time. But this era is now outdated and this *idealect*, after being accomplished, is obsolete: one no longer builds housing on the principles of Le Corbusier because one is now driven by other *idealects* related to housing, which are based on the criticism of previous *idealects*. An *idealect* is therefore a certain vision of the world that is projected at a given time in a given area, that will feed the model of the future that one chooses for a certain time and that will inevitably exhaust itself. It is falsifiable not exactly as a factual proposition that is invalidated after being tested, but as an achievable ideal that is outdated after being accomplished.

This is why the concept of 'project' is so decisive in design, as the project in the making is the future searching for itself. Thus design is literally a *project*, in the sense it projects before us an *idealect* yet to be implemented. Modelling the world does not therefore mean representing it but rethinking it. Modelling in design is not just a technique; it is a philosophy of the world. Design research is not only aimed at transforming the world by creating effective and efficient solutions;

it is also aimed at better understanding the world by producing ideas through the act of transforming the world by producing solutions. From a design research perspective, design solutions generate their own design ideas, on condition that we consider such ideas as *idealects*.

I suggest we call 'philosophy by design' this type of philosophy-oriented design research, which involves conceiving, defining and theorizing an *idealect* through a design project (on which it thrives and which is an opportunity to experiment with it). If, as Bruce Archer (1979b) and Nigel Cross (1982) say, there is a 'designerly way of knowing,' then one can say that the theory of idealect allows us to characterize the specific type of ideas it produces. Different from the concepts of science and the percepts of art, the idealects of design constitute a new type of idea and, consequently, a new form of knowledge of the (coming) world. The role of *philosophy by design* is to build such idealects through design projects, offering at the same time a new development path for philosophy, in line with the evolution and expectations of the contemporary world.

Notes

1. According to the new rules, philosophy is no more the only discipline allowed for the thesis, therefore the experiment presented here has a particularly unique character.

2. I will not dwell here on the idea, advocated by some, that a design project would in itself and by itself be a research project. I am among those who think *search* should not be confused with *research*.

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