

Chapter 9

The Project or the Specificity of Design Thinking

Stéphane Vial

Abstract Design is fundamentally linked to the project. But design does not have the monopoly of the project. The goal of this chapter is to show that there is a specificity of the concept of design “project” and to propose a definition of it based on French uses of the term. Going back to the origin of the project in the Renaissance as methodical design, I will show that design belongs to projectual logics rather than to projective anticipation logics although one may be inferred or induced by the other. I will then argue that the project belongs to design by essence, and I will propose five distinctive characteristics of the design culture specific to design as well as a definition of the design project. In addition, I will conclude with an examination of the recent contribution of information technology to the theory and methodology of the project, particularly through agile methodology, which has the potential of inspiring designers.

Keywords Project · Design · Method · Project cultures · Project disciplines
Design project

Introduction

For a designer, nothing seems more natural than the concept of project. In design schools, it is what one calls the design work that engages students in the studio. ‘As the place where, in principle, one teaches and learns the act of design and project management in design, the studio is considered a strategic place in all design

This chapter is a translated and adapted version of a journal article previously published in French: Vial (2014). De la spécificité du projet en design: une démonstration. *Communication et organisation*, 46, 17–32.

S. Vial (✉)
PROJEKT Lab, University of Nîmes, Nîmes, France
e-mail: stephane.vial@unimes.fr
URL: <https://projekt.unimes.fr>

© Springer Nature Singapore Pte Ltd. 2017
F. Darbellay et al. (eds.), *Creativity, Design Thinking and Interdisciplinarity*, Creativity in the Twenty First Century,
https://doi.org/10.1007/978-981-10-7524-7_9

schools' (Findeli & Bousbaci, 2005, p. 39). In the professional world, it is also the name given to a work in progress, but also (more surprisingly) completed achievements. So much so that, most design or architecture agencies dedicate an entire section to 'Projects' on their website or in their portfolio. In the field of design, *project* is the name given to a unit of design work, whether completed or not. While the artist creates work for the public, the designer creates projects for users. Therefore, from the point of view of practice, not only does the concept of project seem more natural in design but also more structural. It is as if there was a fundamental and founding assumption that is summarized in the following equation: 'making design = making project'. In this perspective, one can call it a tropism of the design project, in the sense that design is entirely focused on the project. Design and project are seen as somehow synonymous, which seems to be confirmed by the most advanced literature on the subject (see, e.g. the following formula in Findeli and Bousbaci: 'theories of project in design (or theories of design)' (2005, p. 38).

Yet, as everyone knows, design has no monopoly on project. Everyone makes projects. People often ask 'What are your plans for summer?' (in French, 'faire des projets' means 'to make plans') in the sense of: 'What do you intend to do this summer?'. On this point, the lexicographical data is clear: first appearing in the fifteenth century, 'project' is a term of everyday language, both in French and in the 'main' European languages (*progetto* in Italian, *project* in English, *projekt* in German).¹ From the Latin *pro-jacere* (to throw forward), which led to the old French word *pourget* or *pourjet* (1470), which then became *project* (1529) and *projet* (1637),² its etymological sense is thrown (-ject) forward (*pro-*), whether it is abstract elements developing in time (an idea, a plan to achieve) or tangible elements unfolding in space (a 'projected architectural element' such as a balcony).³ In the eighteenth century, one could even say in French 'avoir des projets sur quelqu'un' ('having plans on someone') meaning 'planning to marry someone' (today one can sometimes say, in familiar language, 'avoir des vues sur', i.e. 'to have views on someone'). It is also worth underlining that the vast expansion of the term 'project' in everyday language can be compared to the broader existential use made of it by modern phenomenology (Boutinet, 2014, p. 12 and following), notably Sartre:

Man is, indeed, a project which possesses a subjective life, instead of being a kind of moss, or a fungus or a cauliflower. Before that projection of the self, nothing exists; not even in the heaven of intelligence: man will only attain existence when he is what he purposes to be. (Sartre, 1970, p. 23).

¹On the subtle nuances between these languages; see Boutinet (1990, p. 13).

²Descartes, *The Discourse on Method*, II "le projet de l'ouvrage que j'entreprendis".

³On the etymology of the 'project'; see, in French *Le Robert—Dictionnaire historique de la langue française* (1998, book 3), *Le Trésor de la Langue Française Informatisée* (online) and Boutinet (1990, pp. 13–14, p. 116).

Beyond linguistic diversity, one must of course consider the variety of social, cultural and theoretical practices of the project (including those of design and existential phenomenology, which are only types of practices among others). Not only does everyone make (or have) plans (*projets* in French) but, in a few decades, the figure of the project has become the organizational matrix of most human activities in contemporary postmodern societies. In his monumental work *Anthropologie du projet* (1990), of which Findeli and Bousbaci rightly say that it is ‘the richest theory of the project available’ to this day (2005, p. 47), psychologist Boutinet gave a complete and almost exhaustive overview of the concept of project and how it has become a social reality or a ‘culture’.

However, it should be noted that Boutinet (1990) discussed the concept of project in a very broad sense. By ‘project’ he meant any socially observable conduct of anticipation, whether individual or collective. ‘Speaking of an anthropology of the project is in the end questioning how individuals, groups, cultures experience time’ (Boutinet, 1990, p. 5). In contrast to traditional societies considered as ‘hors-projet’ (projectless) or ‘sans-projet’ (without project) (Boutinet, 1990, p. 2) as they focus on the preservation of the past and the ritualization of the present (especially due to religious fatalism), contemporary postmodern societies are keen to control the future and actively seek to anticipate, predict and prepare.

This is the objective of the multiple contemporary conducts of anticipation (*conduites d’anticipation*) (Boutinet, 1990) or conducts geared towards a project (*conduites à projet*) (Boutinet, 2014), i.e. ‘career project’ (career plan) for young people, ‘planning project’ for a region/area, ‘educational project’ for teachers, *projet de loi* (literally ‘legal project’, which means in France ‘draft bill’), ‘business plan’, ‘societal project’ and of course ‘architectural project’ and design project. All these terms established by usage stress to what extent the project has become, more than an ‘incantatory concept’ (Boutinet, 2014, p. 23), ‘a figure that is trying to impose itself in many spheres of our existence’ (Boutinet, 1990, p. 9).

In a technological society subject to the requirements of ever-increasing performance, we are even more drawn towards a ‘prospective time’, which, if we do not adapt to it, we marginalize ourselves and regress, as do the excluded, to the precariousness of projectlessness and its share of ‘current constraints’, which prevents us from ‘taking the necessary perspective to anticipate’ (Boutinet, 1990, p. 3). Thus, motivated by ‘a kind of voluntarism keen to control, direct or redirect everything’ (Boutinet, 2014, p. 7), ‘we charge the future with all our hopes’ (p. 58) and build our lives according to this concern. This is why for the last thirty years one has observed ‘a profusion of anticipatory behaviour that borders on projective relentlessness’ (Boutinet, 1990, p. 323) and constitutes ‘a major fact of our time’ (p. 1).

The whole point of Boutinet consisted of seeking a kind of anthropological constant in the ‘variety of project situations’ (1990, p. 8), that is to say, to ‘identify the different functions performed by any project in our culture compared to what can happen in other cultures’ (p. 5). His monumental work leads to a typological analysis of the various forms of observable anticipation and culminates in a gigantic taxonomy of projects (Boutinet, 1990, p. 127; 2014, p. 56) that we recommend the reader to refer to (cf. Fig. 9.1).

Fig. 9.1 French-based taxonomy of conducts geared towards a project according to Boutinet (2014, p. 27)

<p>1) Individual projects linked to the stages of life:</p> <ul style="list-style-type: none"> - Youth project <ul style="list-style-type: none"> > career plan > integration project (social, professional) > life projects - Adult life project <ul style="list-style-type: none"> > professional project (employment, identity, career) > family project > personal project > lateral project - Retirement project (or plans) <ul style="list-style-type: none"> > Change of career project > Life-changing project <p>2) Object and action projects:</p> <ul style="list-style-type: none"> > Architectural project > Technological innovation project > Development project > Pedagogical project > Therapeutic project... <p>3) Organizational projects:</p> <ul style="list-style-type: none"> > Reference project > Participative project > Service project > Project management... <p>4) Societal projects:</p> <ul style="list-style-type: none"> - sectorial: <ul style="list-style-type: none"> > Educational project > Cultural project > Urbanistic project - global: <ul style="list-style-type: none"> > attestatory: reform project > contestatory: revolutionary project, self-managed project, alternative project

In this ‘society of project accumulation’ (Boutinet, 1990, p. 126), everything becomes the (subject or matter) of a project. If this is remarkable from an anthropological point of view, it nevertheless poses a problem for design on an epistemological level. Indeed, what sense should we continue to give the tropism of the design project (‘*making design = making project*’)? Should the design project ultimately be regarded as a mere anticipation behaviour among others, immanent to the time, which illustrates a form of postmodernity where everything is already a project? Does it only translate in the field of design a deep inclination to be concerned about the future that is emerging in all areas of postmodern society? Or does the design project have a meaning and value of its own that transcend the general determinisms of our hyper-projective era? In a word, what is the status of the design project at the time of a widespread culture of anticipation? If it does exist, what is its specificity?

This epistemological question should not leave designers indifferent as, according to the answer given to it, design and project are intimately associated or totally disassociated. My goal in this chapter is therefore twofold: firstly, to try to show that there is a specificity of the concept of the design project; and secondly, to try and offer a definition of this concept. The benefit I expect is the following: explaining the legitimacy of the designers’ projectual claim, that is to say, to put it in simpler terms, the ability of designers⁴ to claim the *necessity* of the project and to

⁴The term ‘design’ is not used here in the restricted historical sense of ‘industrial design’ but in the broad sense accepted by the international research community, including a variety of design fields.

define design as a discipline of project by essence, whose *specificity* I will try to define here. This will not prevent us from highlighting, at the end of this chapter, the fact that other disciplines have embraced the project over the last thirty years, especially information technology (IT), which teaches us a lot about the methodology of the design project.

The Project or the Creation of Methodical Design

One generally associates the emergence of design to that of industry, going back to the nineteenth century, with the rise of the decorative arts movement.⁵ One less often associates its emergence with that of the project. Yet, as shown by Boutinet (2002) design is fundamentally linked to the project and to its architectural origins in the Italian Renaissance.

The architectural project was invented in Florence around 1420 by the architect Brunelleschi:

To separate and unite simultaneously two critical times in the act of creation applied to the construction of a building: the time working in the studio, dedicated to the design of the model, and the time working on site, realised in the construction of the work from the model previously designed. (Boutinet, 2002, p. 224)

Before that, development and realization were combined with the trial and error process that it implied (Boutinet, 2014, p. 9). The project is therefore the brainchild of a dualism, or even, a division of labour: design and realization. The objective is ‘both to distinguish and unify a time of design and a time of realisation in the act of building’ (Boutinet, 1990, p. 10). The Italian language subtly highlights this distinction with the terms *progettazione* (intellectual development activity) and *progetto* (realization activity), which French also differentiates in its own way with the words *dessein* (intention, goal, aim) and *dessin* (drawing, figure, sketching) (Boutinet, 1990, p. 13). ‘These two similar meanings of *dessein intérieurisé* (internalized intention) and *dessin extérieurisé* (externalized drawing) are combined in the Italian term *disegno*, as in the English term *design*’ (Boutinet, 1990, p. 116). In other words, *design* is originally a term that unites the two fundamental dimensions of any project. The two terms are therefore historically synonyms.

Somehow, the advent of the architectural project in Italy was to be confused with the history of the concept of *disegno* that Italians have divided into *disegno interno* and *disegno esterno*, and that three centuries later, the French language translated, using the same etymology, into two separate concepts, but closely associated within the project: *dessein* relating to development and design and *dessin* relating to achievement and realisation; the

⁵However, as noted elsewhere, one must remember that design did not exactly emerge *with* industry but *with the assumption* of industry, that is to say, from the moment when decorative artists, after having long rejected industrial production, decided to adopt it and take an active part in it (Vial, 2014, p. 14).

English language, although using the same etymology, remains more concise and even more syncretic with its concept of design. (Boutinet, 2014, p. 10)

Historically, the first meaning of the term *design* is therefore not that of *industrial design*, but of *project*. It was only during the age of industrial production and consumer society, i.e. during the twentieth century, in order to give a name to a new profession, that the term *design* acquired the restricted meaning of *industrial design* (which, for the last twenty years, has no longer been able to cover all current forms of design). To avoid confusion, one must distinguish between (at least) two meanings of the term *design*, which correspond to two different historical moments: design as a *project of methodical design* (Renaissance) and design as *industrial creation* (twentieth century). In this perspective, industrial design is a relatively recent form of the design project. We can also identify a third meaning of the word design that we can only briefly mention here, and under which can be gathered all the new forms of design that have appeared since the late 1980s and which are not (or cannot be reduced to) industrial design (e.g. ecodesign, interactive design, service design, codesign, social design, etc.).

Therefore, if one does not want to lose one's way in the linguistic and conceptual complexity that too often leads design theorists to give up defining design⁶ which philosophy allows us to consider as unacceptable, it is important to understand what led to the emergence of the project in the Renaissance. Why did architects of the Quattrocento invent the project, this dualism of design and realization? The explanation is simple: it was an operational necessity in the face of mounting complexity. It was then no longer possible to improvise and rely on luck to escape the inevitable ups and downs of any construction. Only methodical anticipation could help control 'the complexity due to the diversity of materials used, and also due to the increasing number of specialized professional corporations, and to new construction methods' (Boutinet, 2014, p. 9). However, complexity is not new; the builders of the pyramids and cathedrals had already experienced it. What characterizes the Renaissance is that the management of this complexity was part of the modern project to systematically rationalize the world. This is why the invention of the project in architecture is nothing other than the creation of the rationalist method in the field of design. Design was then a meth-*odic* work, that is to say, a path (*odos* 'the road, the route') that was sequenced, split, cut and framed by reason. Because, as Descartes has shown, any method is a rational and orderly division of labour, that is to say, both decomposition into sections, parts, components and distribution into phases, stages, levels. The proof is that, even today, all the methods used in the design project do nothing other than try to model this division (see, e.g. the famous *Double Diamond* model developed by the Design Council).⁷

⁶Erlhoff and Marshall in their *Design Dictionary* affirm that 'it is impossible to offer a single and authoritative definition of the central term in this dictionary: design'. (2008, p. 104). See also Vial (2014, pp. 2–3).

⁷*Design Council*, 'Introducing Design Methods', online at: <http://goo.gl/dXXUA5>.

The invention of the project in the Renaissance with Brunelleschi is therefore the idea of the rational method applied to the design profession (technical domain), in the same way as the invention of modern science in the seventeenth century with Bacon, Galileo and Descartes is the idea of the experimental method applied to the knowledge profession (scientific domain). As Kant said in his *Critique of Pure Reason*, ‘Reason only perceives that which it produces after its own design’. Design as a *design project* must be understood as a *methodical* design project.

This sheds light on the often misunderstood etymology of the word *design*. Originating from the Latin term *de-signare* (‘to mark with a sign’) found in both the Italian *di-Segno* (diagram) and English *de-sign*, design must be understood as a methodical design project, as an anticipation through *signs* (i.e. drawings). The invention of the project by Brunelleschi is nothing more than ‘a methodology of *disegno*, that is to say, a methodology for anticipating the work to be realised: the objective was, thanks to the laws of perspective he had recently developed, to represent through drawing the projected construction’ (Boutinet, 2014, p. 10). Here, signs are representations in perspective, i.e. the images of the project.

Cultures and Disciplines of the Project

Now is the time to reap the fruits of our reasoning. Understanding the emergence of the project as methodical design was not intended to challenge an already identified and analysed historical moment, but to isolate the source from which the project took two different paths and to identify two distinct approaches (cf. Fig. 9.2). The first is anthropological and leads to the ‘cultures of project’ as analysed by Boutinet (1990) as social practices of anticipation: we call it *projective logics*.

The second is epistemological and leads to the ‘disciplines of project’, that some call ‘design regimes’ (Hatchuel & Weil, 2008), covering trades or professions as technical cultures of design, which we call *projectual logics*. By distinguishing

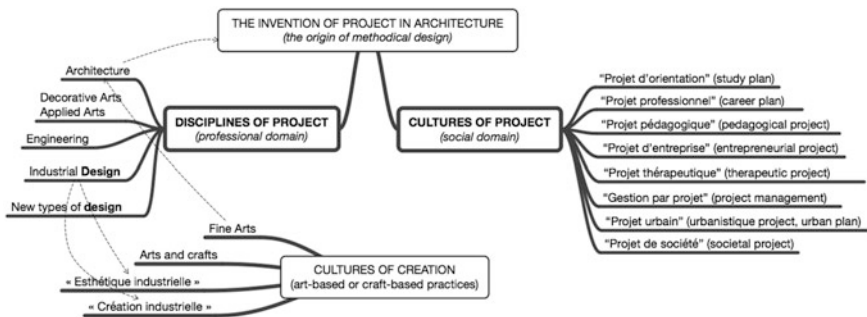


Fig. 9.2 French-based genetic model of the logics of project

between *cultures of project* (social domain) and *disciplines of project* (professional domain), one highlights the historical genesis of the various logics of the project, by differentiating the area of anticipation (projective logics) from the area of design (projectual logics) incidentally underlining the relationship the latter has with creation (artistic domain). This has the great advantage of manifesting a first aspect of the specificity that design has in relation to notion of project, regardless of the multiple contemporary conducts geared towards the project.

Indeed, if it is true that contemporary society is saturated with conducts geared towards a project, which are emblematic of its obsession for the future and anticipation thereof, design cannot be reduced to one of them as if it was just a trait of the time. Indeed design *is* project, but this has been so long before our time. It is *naturally* project, if one may say so. Basically, essentially, necessarily. Boutinet (1990) himself provided the reason for this, even if he did not grasp all of the consequences, probably because his main concern was not to define design and its specificity.

The idea appears in this sentence: ‘Some objects in their manufacturing cannot do without the project as a required intermediary’ (Boutinet, 1990, p. 110). Among these objects, he quotes the ‘building project’ (i.e. the architectural project) and the ‘technical device project’ or the ‘technical object project’ (i.e. the design project).⁸ To rephrase this, one can say that architectural objects (buildings) and design objects (technical objects) *cannot do without* the project as a *required* intermediary. The epistemological value of this statement has not been sufficiently evaluated. It clearly establishes that in design and architecture, there is a *necessary and substantial link* between the project and the object, that is to say, it is impossible for one to exist without the other. In practical terms, one must understand that it is simply impossible to construct a building or make an industrial object (or to develop a service, an interface, a communication device, etc.) without the project methodology (i.e. the methodical separation and union of design and realization). And it has nothing to do with the postmodern era. It has always been so, at least since the Renaissance, whenever there existed a certain level of complexity.

There is a major logical and epistemological consequence to this: the project belongs to design by essence, whatever the time in history. Of course, nowadays, design can be considered (from an anthropological point of view) as a practice of project among others (Boutinet, 1990), but it is certainly not (from an epistemological point of view) a practice of project like any other. Because, in design, the project is not a contextual trait (postmodern), but a structural trait (timeless). Whatever the complexity, there has not always been the need for the project (as methodical design) to offer, for example, professional guidance to young people (‘career plan or project’) or entrepreneurship (‘business plan’ or ‘start-up project’).

These practices of anticipation have always existed, especially in terms of individual career plans that still require a representation of the spectrum of

⁸We leave aside here the ‘projet de loi’ (draft law) also quoted by Boutinet (1990) in this category and that seems to belong to another field.

possibilities, but they were not explicitly stated in terms of ‘project’ (a term that the postmodern era uses exponentially⁹), nor embodied in institutions that have made a profession out of them (‘career advisors’). However, it has always been necessary to use the methodology of the project to construct a building or make an industrial object, once a certain level of complexity was reached. Design is therefore by essence a discipline of project. There is no design without a project that is inevitable. If Boutinet (1990) managed to outline the projective logics that have governed the social practices of anticipation for the last fifty years, it is by analysing the projectual logics that have been at work for five centuries in the technical practices of design. The project, in an anthropological sense, is only a generalization or extension of the project domain in an architectural sense.

However, as shown by our genetic model of the logics of project (cf. Fig. 9.2), if design is indeed a discipline of project, it is not the only one. Here, the necessary and essential relationship between design and project is only the first stage of the specificity of design. Indeed, architecture, engineering also constitute disciplines of project. As is often the case in a schematic model (Fig. 9.2), it is probably simplistic to present them as *technical* cultures of design as they are far from being only technical, particularly with regard to architecture or design, but if we have chosen this term, it is more to define their status compared to other elements of the model than to express their intrinsic nature.

Architecture, design and engineering have in fact one thing in common: they give rise to material artefacts. Here ‘technical’ means ‘relative to the artefactual environment’. Therefore, if it is true that ‘the design project is among the phenomena of the world of which there is reason to wonder’ (Findeli & Bousbaci, 2005, p. 39), attempting to characterize its specificity, and therefore that of design, means isolating what distinguishes it from other disciplines of project.

Therefore, which characteristics of the culture of design exclusively come from conception or come exclusively from architecture or engineering? They may have in common *the fact of project*. But, obviously, there is a *certain way to make project* in design that is characterized by its finality, its methods, its philosophy; the practice of the design project probably distinguishes itself from that of engineering by its mastery of formal language, its sensitivity to usage and its concern for the user experience. It may distinguish itself from architecture by the subject addressed (design was created mostly by architects) although construction is a highly specialized field of design involving specific project management. Finally, the practice of the design project differentiates itself from art, which is not a culture of design, notably due to its social purpose. One can therefore consider design as a *particular culture of conception*. To this end, without pretending to be exhaustive, I suggest below five distinctive characteristics of the culture of conception specific to design.

⁹For the period from 1882 to 1959, Boutinet found four bibliographical references including the term ‘project’ in the catalogues of the *Bibliothèque nationale*; for the period from 1990 to 1999, he found 2’143 (1990, p. 4, note 1).

These are the hypotheses, to which my reflection has led, but which, to verify their relevance, would need to be developed and tested through further research.

- (1) Design is a *project discipline* as well as architecture and engineering (cf. Fig. 9.2).
- (2) Design is a project discipline based on a *specific creative culture*, which is not reducible to that of architecture, the decorative arts, engineering or marketing. By this, I mean a creative culture *sui generis*, which has its own ‘epistemological originality’ (Findeli, 2003, p. 168) and more generally belongs to the ‘*third culture*’ defined by Cross (1982, p. 221) and Archer (1979a, b). According to the latter, when removing refinement and complexity, only three skills essential to the foundation of any education remain reading, writing and arithmetic the ‘three Rs’ in English, *Reading, wRiting, aRithmetic* (Archer, 1979b, p. 18). *Reading and writing* correspond to the essential skills that have founded the field of Arts and Humanities (literary culture), while *arithmetic* is the essential skill that founded the field of science (scientific culture). The third way is the skill which is based on *modelling* or *giving shape* (creative culture). If the essential language of science is mathematical notation and that of humanities is natural language, then ‘the essential language of design is modelling’ (Archer, 1979b, p. 20). More recently, the following definition of the design project emphasizes this aspect rather well:

In design theory (as in architectural theory where the concept originated), a project refers both to the sequence of actions required to produce a new artefact and the means usually used to represent the different stages of development of this artefact (sketches, drawings, plans, models, prototypes). (Léchoth-Hirt, 2010, p. 29)

- (3) Design is a project discipline with its own *mode of knowledge* or *understanding* through which it contributes to the contemporary *episteme*. The idea that there is a ‘*mode of knowledge*’ exclusive to designers is based, according to Baynes (1974), on the intuition of Read (1945) according to whom there is a ‘mode of knowing’ distinct from mathematics, science or literature. If design is a ‘third culture’ (Cross, 1982), then it is not only a way to design and build artefacts but also, through them, a way of knowing and understanding the world (Findeli, 2003, 2006, 2010).
- (4) Design is a project discipline that is *philosophically committed to an ideal for a better and sustainable future*, whose goal is to improve the ‘inhabitability of the world’ (Findeli, 2010, p. 292). But this idea is rather old and dates back to Simon who wrote in 1969 in *The Sciences of the Artificial*: ‘Everyone designs who devises courses of action aimed at changing existing situations into preferred ones’ (p. 111). Or more recently: design is fundamentally 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, p. 42). That is why we have shown elsewhere that design creates ‘idealects’ (Vial, 2013), that is to say, methodical and reasoned concepts that formulate desirable and achievable ideals describing the world as it must be.

- (5) Design is a discipline of project in progress in which the concept of project changes over time. For Findeli and Bousbaci (2005), there are three successive models of the design project: the *object-centred* model (until the beginning of the modern movement), the *process-centred* model (since 1950) and the *agent-centred* model (since the 1990s). One must also note that this development gradually attests to an ‘eclipse of the object as a focus of design project theories’ (Findeli & Bousbaci, 2005, p. 47).

These are the five criteria, though worthy of further research, that allow us to confirm my hypothesis: there is indeed a specificity of the design project. To complete my argument, I propose the following definition: *Making design projects means designing, in reference to an ideal of the world, a complex artefactual device that gives form to usages while producing knowledge, in response to a request or dissatisfaction, and through a constantly evolving rigorous methodology aiming at, in a creative and innovative manner, improving the inhabitability of the world.*

Conclusion

The emergence of new forms of design since the late 1980s (including interaction design and service design) coincides with the emergence of new project methods. Among the most recent, *design thinking* is probably the most fashionable (it is spreading like wildfire in colleges and agencies, and not just design agencies, as engineering and marketing are very interested in it too).¹⁰ However, in the age of the digital revolution, other disciplines have embraced the project and are giving it a new lease of life that could enrich the design project. We will briefly consider here information technology, which has made a remarkable contribution in the past fifteen years to the theory and methodology of the project in the form of *project management*.

The concept of ‘project management’ in the broad sense appeared in the USA in the 1940s and 1950s in the military and aerospace industry, especially at NASA, before spreading to civil engineering and technological development (Boutinet, 1990, p. 239). Designed to be developed laterally within businesses and involving a project team and a project manager that (partly) escape a vertical hierarchy, project management aims at stimulating creativity and innovation, notably in the area of ‘Research & Development’ (*R&D*). Closely associated with technological development, ‘it is similar in many aspects to the technical device project’ (Boutinet, 1990, p. 237) and, therefore, maintains close ties with the design project. We can indeed say that project management has significantly changed the way of conducting a project by completely remodelling the process. One can observe this phenomenon in the field of computer and information systems where, facing unprecedented complexity involving a very large number of agents interacting with

¹⁰For a general introduction to the concept of *design thinking*; see Vial (2014, pp. 49–54).

each other, the way of organizing design work had to be completely reviewed. This led to the advent of project management software (with their online platforms) used to centralize the division of tasks, problem-solving through ‘tickets’ and exchange of information and messages between employees, documents to share, planning, etc. (the *Basecamp* software is an example of this).

But it mainly gave rise to the agile project management methodology as defined in 2001 by 17 experts in the *Agile Manifesto* (Beck et al.) and based on incremental and iterative development. This methodology has totally revolutionized the field of software design in general, but also the entire chain of digital design, therefore providing sound methodological foundations to emerging disciplines such as interaction design. As emphasized in this *Manifesto*, the agile methodology puts the emphasis on ‘individuals and interactions over processes and tools’, on ‘working software over comprehensive documentation’ or on ‘responding to change over following a plan’ (Beck et al., 2001). Among the twelve principles of the manifesto, adapting to change is one of the most remarkable: contrary to what usually gets most designers’ backs up, it invites us to ‘welcome changing requirements, even late in development’ and to conduct frequent and cyclical deliveries. Co-design is also at the heart of agile methodology: ‘The sponsors, developers and users should work together daily throughout the project.’ These methodologies are applicable to any design situation and, on this point, contrary to what they usually believe, designers have much to learn from developers (i.e. computer scientists and computer engineers).

It is therefore not a coincidence that computer scientists are among the few to have shown interest in the concept of project and to have tried to define it. It is obviously not possible to provide here a review of the computer literature on the subject. I will, however, reflect on the definition proposed by Munk-Madsen during a research seminar held in Norway in 2005. Considering that ‘*Project* is a central phenomenon in the field of IS [Information Systems] as systems normally are developed and implemented in projects’ and that, practically, ‘everybody who talks about system development methodology will also use the word project’ (p. 5), he suggests the following definition: ‘A project is an organizational unit that solves a unique and complex task’ (p. 6). One must note the emphasis placed on the notion of complexity, which Boutinet (2002) showed to be at the origin of the methodical project in the Renaissance. One must also note the concept of *organizational unit*, to which we nevertheless prefer the term *design unit*. According to Munk-Madsen, this definition has the merit of embracing both traditional and agile project methodologies. What differentiates these two categories is the frequency with which one uses what Munk-Madsen calls ‘mutual adjustment’ in the coordination of the project, this frequency being very high in agile methods. Information system research thus has a lot to teach us about the theory of project.

References

- Archer, B. (1979a). Whatever became of design methodology? *Design Studies*, 1(1), 17–18.
- Archer, B. (1979b). The Three Rs. *Design Studies*, 1(1), 18–20.
- Baynes, K. (1974). The RCA study ‘design in general education’. *Studies in Design Education Craft & Technology*, 6(2), 46–48.
- Beck, K., et al. (2001). *Manifesto for agile software development*. Agile Alliance. Retrieved from: <http://agilemanifesto.org>.
- Boutinet, J.-P. (1990). *Anthropologie du projet*. Paris: PUF.
- Boutinet, J.-P. (2002). Projet. In J. Barus-Michel, E. Enriquez & A. Lévy (Eds.), J.-M. Huguet (coll.), *Vocabulaire de psychosociologie* (pp. 222–230). Paris: ERES.
- Boutinet, J.-P. (2014). *Psychologie des conduites à projet* (6th Ed.). Paris: PUF (original work published in 1993).
- Cross, N. (1982). Designerly ways of knowing. *Design Studies*, 3(4), 221–227.
- Erlhoff, M., & Marshall, T. (Eds.). (2008). *Design dictionary*. Basel, Boston, Berlin: Birkhäuser.
- Findeli, A. (2003). La recherche en design, questions épistémologiques et méthodologiques. In F. Jollant-Kneebone (dir.), *La critique en design: Contribution à une anthologie*. Nîmes: Jacqueline Chambon publishers.
- Findeli, A. (2006). Le design, discipline scientifique? Une esquisse programmatique. In *Proceedings of Les Ateliers de la Recherche en Design (ARD 1) seminar* (pp. 22–24), University of Nîmes, Nîmes, 13–14 November 2006. Retrieved from <http://goo.gl/Ui09QH>.
- Findeli, A. (2010). Searching for design research questions: some conceptual clarifications. In R. Chow (dir.), *Questions, Hypotheses & Conjectures: discussions on projects by early stage and senior design researchers* (pp. 286–303). Bloomington, IN: iUniverse.
- Findeli, A., & Bousbaci, R. (2005). L’éclipse de l’objet dans les théories du projet en design. *The Design Journal*, 8(3), 35–49.
- Hatchuel, A., & Weil, B. (dir.). (2008). *Les nouveaux régimes de la conception: langages, théories, métiers*. Paris: Vuibert/Cerisy.
- Koskinen, I., Zimmerman, J., Binder, T., Redström, J., & Wensveen, S. (2012). *Design research through practice: from the lab, field, and showroom*. Waltham, MA: Morgan Kaufmann.
- Léchet-Hirt, L. (dir.). (2010). *Recherche-création en design*. Geneva: MetisPresse.
- Munk-Madsen, A. (2005). The concept of ‘project’: A proposal for a unifying definition. In *Proceedings of the 28th Information Systems Research Seminar in Scandinavia (IRIS’ 28)* (pp. 1–15), Department of Information Systems, Agder University College, Kristiansand, Skottedevik, Norway, August 4–6, 2005. Retrieved from <http://www.metodica.dk/pers/Define032.pdf>.
- Read, H. (1945). *Art and society*. London: Faber & Faber.
- Sartre, J.-P. (1970). *L’existentialisme est un humanisme*. Paris: Nagel (original work published in 1946).
- Simon, H. A. (1969). *The sciences of the artificial*. Cambridge, MA: MIT Press.
- Vial, S. (2013). Design and creation: Outline of a philosophy of modelling. *Wikicreation*, Institute ACTE UMR 8218 (Univ. Paris 1 Sorbonne, CNRS)/LabEx CAP. Retrieved from: <https://hal.archives-ouvertes.fr/hal-01169095>.
- Vial, S. (2014). *Court traité du design* (2nd Ed.). Paris: PUF (original work published in 2010).

Author Biography

Stéphane Vial is an Associate Professor of Design at the University of Nîmes, France. He leads the University's design research activities in the PROJEKT laboratory, a research centre for design and social innovation. Stéphane is also a Co-Founder and the Editor-in-Chief of French language design research journal *Sciences du Design* published at Presses Universitaires de France.