Reflections on the epistemology of design: a Simondonian analysis

In this paper, I investigate what constitutes a design object and the process of creating it, using a Simondonian perspective. This perspective allows to reflect on how a design emerges, its epistemological, axiomatic and reflective processes. I will use Simondon’s theory on the mode of existence of technical objects to study design theories. This paper rethinks design as central in contemporary human sciences to propose a trans-disciplinary dialogue between design studies and philosophy, reflecting on the generation of knowledge in design. In this trans-disciplinary dialogue, I will analyse design as the outcome of a process that is innovative, emergent, fragile, existing in potentia until its boundaries are closed. I will contribute to design studies by demonstrating that the design’s materiality is fluid and variates, that it changes until it is closed in the final product. Objects are formed at a certain moment, but their technicity and materiality precede and go beyond them. They do not exist as predetermined, multifaceted matter but as of the outcome of the their variation and continuity, captured in the evolving form. In fact, until the form is closed, definite, the design is perpetually in assemblage.

Keywords: design studies, design object; design process; technical objects; epistemology of design; Simondon

**Introduction**

*In design, your goals are partly determined by others, the stakeholders, because the things you create must fulfil some practical purpose in the wider world. In art, this is not the case. Artists have this freedom because with their creation they do not aim for any practical application but strive to influence the feeling or thinking of an audience (Kees Dorst, “But, it is Art?”//2003)*

What is design? This is an open question since the publication of Simon’s book (Simon 1969). Despite design being one of the most ancient practices in mankind (Rosner 2018), it is not considered an unit of analysis in philosophy (Colomina and Wigley 2016). Not investigating design from a philosophical perspective could become detrimental to the design practice; to mitigate this risk, the paper rethinks design as central in contemporary human sciences, and discusses design studies as highly assorted and problematic in knowledge production by analysing the design process.

First of all, it is important to recognise that design is not art, although design can be at times considered a piece of art. The quote from Kees Dorst, one of the most influential design researchers on framing design, is quite representative of the debates on the differences between art and design. Design, even when judged as beautiful and worth becoming a museum exhibit, has always a practical application, and it is created by thinking about a users’ needs, how it will be used, its functionality and aesthetic.

Whilst there are shared agreements on what is art since Duchamp revolutionised its definition and ample debates on philosophical and ethical reflections of art (Carroll 2000), it is still unclear what constitutes design. Design objects are different from art objects because they are meant to be used; consequently, they are considered mundane. In fact, in philosophical discussions, design objects are presented as multiple modalities between human and economic sphere, between being an object of production and an object of consumption, not elevated to the state of art that is worth contemplating[[1]](#footnote-2). Not surprisingly, Heskett (2002, pg.1) suggested that: *“One of the most curious features of the modern world is the manner in which design has been widely transformed into something banal and inconsequential.”* There is a wide discussion on what constitutes design in various disciplines (e.g. history of design, management, sociology, engineering, design studies) but a systematic philosophical investigation on design is rare a part from the book by Marenko and Breassett (2015) on Deleuze and Design (an edited collection), by Parson (2015), which provides an introductory reflection on the philosophy of design and more recently by Rosner (2018) on critical fabulations (storytelling) of design from a feminist STS perspective.

Therefore, in order to make this mundane practice part of the philosophical debate, I will reflect upon what epistemologically constitutes a design process.

I will analyse the theories of design through the theoretical lenses of philosophy of the technical objects, in particular of the concepts of ontogenesis, technics, and technology, terms that will be explained in the “Analytical framework” section.

Before presenting the arguments, I would like to clarify the meaning of design. Design can be an object or a process. As an object, it is intended as final output (e.g. a chair, a table, a lamp); as process, it is intended as the set of practices and actions that are necessary to make it. The difference in the meaning (process or object) is derived from the etymology of design, as design comes from the Latin *designare* (to draw) and in English is used both as a noun (sign =object) and as verb (to draw= to design). Recently, it become a tool for innovating products and solving problems in the organisational, public sector and social context (e.g. Dorst 2015).

Verganti (2011), one of the leading researchers in innovation management, writes that one of the issues with design is that it has not been well defined, it is fluid, and the absence of a definition creates problems in managing it. Marenko and Breassett (2015) suggest that the scholars like Verganti, who are working in a linear manner, are approaching design concept normatively, and they tend to close the boundaries of its definition and of the object of study.

Closing the boundaries of a definition is bizarre from a philosophical perspective, as the process of closing the boundaries makes the investigated object a-problematic, taking it for granted because it becomes well defined, and consequently it is not necessary to question it. This approach of closing the definition’s boundaries by determining a priori ‘what is design?’ creates phenomenal doxa and un-reflexive thinking, which has been hindering the development of its philosophical theorisation, creating a black box on its meaning, transforming the design into a matter of fact rather than matter of concern.

When black-boxed, design becomes a matter of fact, unproblematic, its mode of existence becomes objective, mechanical and determined, monoculturalist rather than multiculturalist, making it disconnected from the social-material assemblage that it creates (Latour 2008).

In the next section, I analyse Simondon as analytical framework to open the black-box.

**Analytical framework**

In order to make design central to human sciences, I propose a trans-disciplinary dialogue between design studies and philosophy. In particular, I will investigate the mode of existence of design, how it emerges, how it is socialised in the collective, which are reflexive, epistemological and axiontological problems, mediated by the theory of Simondon. Although Simondon has not discussed design in his seminal work (the first book on design, by Simon 1969, was published 10 years later than Modes of Existence of Technical Objects) his philosophy can be used as a framework to appreciate a design object through the modes of existence of technical objects and experience.

Simondon criticises the accepted idea that the form of technical objects is fixed and homogeneous, which is problematic. Since form and matter are not distinct and separate entities, if we assume they are fixed, it is not possible to account for the active and affective dynamism that permeates the matter. Objects’ and technical artefacts’ materiality remain fluid, variates, changes until it is closed in the final product. Objects are formed at a certain moment, but their technicity “*precedes them and goes beyond them*” (Simondon, 1958, pg. 176). Therefore, they do not exist as predetermined and multifaceted form and matter, but as the outcome of the continuous variation of the matter captured in an evolving form. In fact, designers work on this past and present applying reflections-in-actions (Cossentino 2010), even though “often cannot explain what they do” (Hatleskog 2014, pg. 144). In design, until the form is closed and becomes definite, it is perpetually in assemblage.

Design objects are constituted by technical objects and technics of design. As technical objects, design objects are going through a process of concretisation by synergistically moving towards internal consistency and resonance. In fact, in addition of being a technical object, they are also an aesthetic form. Their mode of existence and immanence is produced by the mode of activity called design process, and they are brought to be used in the everyday life of a society.

There are three concepts in Simondon’s writing that are useful for the analysis of design (as object and as process): ontogenesis, technics and technical.

The question of ontogenesis is a question of individuation (Bardin 2015). Ontogenesis investigates the becoming of a technical object, and it is approached from an epistemological and an ontological perspective. Ontological because it is the process of individuation (Bardin 2015); epistemological because it is constitutively entangled with modes of knowledge and their associated practices. In the ontogenesis, the individuation of thought is happening by the same token of an individuation of matter, which is embedded in a technological innovation, key embodiment of the becoming (De Boever et al. 2012). At the foundations of the ontogenesis, there are the theories of exchanges and of state modifications, processes of singularization and transductivization (Bardin 2015). This individuation process is associated with both an individual (individuated’) and with a system milieu (Bardin 2015) that influences the individual. Therefore, an individual is not something that is only individuated and separated, but it is a constant space for individuation(s).

In terms of technics, the design objects have a degree of technicity – for example cars as design objects are both technological and technical objects but they are meant to be sold, purchased and used by a final user, not necessarily by a technician (as in the Simondon’s book), and they have a degree of aesthetics.

Technicity refers to the technical mentality.

Technics provides the basis for a representation more powerful than formalism, because it absorbs the subject-object relations through the reversible mediation between the tool and the instrument, which is the third reality of technical objects, suturing the human being and the world, and the paradigm of the relation between the living and its milieu (Bardin 2015 p. 156) .

Technics and culture are related:

technics [la technique] is an organization of otherwise indifferent means towards ulterior ends; culture becomes a kingdom of ends, while technics tends to be a kingdom of means that must sustain a being under the authority of the kingdom of ends; culture has domesticated technics like an enslaved species [espèce asservie] (Simondon 2015, pg 17).

The technics helps the designer to familiarise with the new organic schema of the extended human environment, reconciliating culture and technics by simultaneously encountering with the mental contents concerning culture and technics throughout one’s culture and education.

Design is in potentia; this does not involve exclusively only the material form, but also the technical, functional, emotional, aesthetic and political dimensions of the design. The degree of potentia diminishes when the level of technical details increases, as in a technical object: higher the technicity of an element, more the margin of indeterminacy diminishes, making the technical object concretising itself. Generally, the higher the technicity of an element, the wider the conditions of deployment of this element are, as a result of the “high level of stability of this element” (Simondon 1958, 75).

Consequently, design as an object is the outcome of a process that is innovative and emergent, fragile, existing in *potentia* until its boundaries are closed. This means that during the design process, the designer is prototyping, creating multiple versions of how the object could be, thus potentially the design object could perpetually change until all the boundaries are closed. The process of design is a constant back and forth, a constant negotiation among actors, it is always in the making, it concerns the near future and what has not happened yet, but might happen (Marenko 2015).

Thus, design is fluid and in potentia until the boundaries are fixed by the shape, as it is part of an epistemological creative process of ontogenesis.

Design is a creative and innovative process, which can be learned through practical experience and training, by apprehending epistemic techniques and epistemological methods, which are collective (Le Masson, Weil, and Hatchuel 2017). Design is a collective process, it is not the outcome of a single individual, which is an interesting difference between art and design: art is mostly an individual process carried out by an artist. Designers work in team, discuss their ideas with the stakeholders, question the clients on the prototype and on suitable modifications. Design is in potentia a collective socio- economic process, the result of imagination concretised through doing a design, embedding significant purpose from work, emotions, thoughts and actions, shaped by institutional conditions.

Thus, in a philosophical analysis of design, ontogenesis and conditions of singularisation emerge by relating forms, information, and potential, and requires design not as a simple linear process to create a new product or service, nor as an object socially situated, but as an intelligible mediator that connects humans, social interactions, and distributes agencies.

As Latour (2008) already suggested, design cannot be limited only to the dichotomous relation between form and aesthetic, as the word semantically alludes (coming from the Latin disegno/ disegnare), but to “collective definition of action”(pg.3).

Thus, design is not simply a tool of production and consumption. Similarly to the Simondian technical object, design is not an object per se, but in relation to the society, in an evolutionary context that denotes both relaxation and continuity throughout an evolution of technicity.

The intellectual contributions of Simondon are significative in providing autonomy and ontological independence to technical objects.

Simondon, influenced by the anthropological work of Mauss (who dignifies the material achievement and importance of even insignificant objects as social facts), states that every single artefact possesses historical and scientific value as constituent of human culture, regardless their assessment on the technical level, whilst culture is understood as the product of the interaction of man with the environment.

The artefact and the technical objects are therefore socialised, achieving individuation and constituent part of the social and cultural life, not only instruments for human labour. Design (as technical objects) have consistency, independence, capacity of producing meanings for the producers that allow to achieve their own mode of existence, meaning that they become as important as the work of art, science, religion and science. Meanings are not in the object nor in the interpretation of the person, but they are in the practices of doing things. Thus, the consistency of the artefacts are a phyla: axles of development acquiring shape with their own gradient of consistency and creating a taxonomy comparable to the evolution of biological species.

The technical objects are constituted by a relationship of theoretical knowledge, which is transformed into schemas that give praxis and ethical reflections upon the design, accepted (or not) by the group involved in the process, and design objects also of aesthetic knowledge.

**Design as an object**

Design is a vague term, it is the representation of acreative and catalytic process (Heskett 1980), and creativity is considered central to the design problem-solving process to create a usable and valuable product. Thus, design can be not only a product or a process, but the connection between the final product and the creative process (Parson 2015).

Design is the outcome of an epistemological problem: creativity is the capacity and capability of putting forward ideas that are novel, unforeseen and surprising (Le Masson, Weil, and Hatchuel 2017), expanding the concepts and organising their expansion through knowledge (Le Masson, Hatchuel, and Weil 2011).

Therefore, from a philosophical perspective, design is the output of the socio-material embodiment of the creative process, the actualisation of future possibilities, the crystallisation of various agencies that have been acting upon indeterminacy until the design is reified.

Design is a problem solving activity (Simon 1969), which devises a plan that is open to potential alternatives until it is concretised into the design object, and creates innovative solutions.

Design as field category has emerged in the industrial revolution. According to cultural critics, including John Ruskin and William Morris, the industrial revolution created new manufactured objects, made by the quarryman’s tools, but at the same time it created a sense of loss for the craft-making processes, due to the incumbent taking over by machines, disintegrating a whole system in which the object materialises (Heskett 2005). Morris’s and Ruskin’s critique towards design as manufacturing-made had the foundations in the Marxist critique, as the industrial mode of production alienated the workers.

In the book on “the mode of existence of the technical objects” Simondon refutes this thesis, confuting the Marxist analysis on the history of technology. In the 18th century, the idea of technical objects as tools developed, making them prolongment of the body to achieve a better perception, at the service of the scientific investigation (Simondon 1958). In the 19th century, instead, progress is no longer technical element made by technicians, but it is conceived by scientists and it considered as a progress for the overall humanity (Simondon 1958), which creates production machines and tools that can alienate workers. According to Simondon (1958), the alienation is created not only because the worker is not any longer the owner of the means of production and experience poor working conditions in the factories, but also because there is a physiological and psychological rupture with the technology: technology stops being a tool to prologue the worker’s body and becomes a mean of production. In fact, the alienation is not only a struggle for the proletariat class (men of elements), but it happens also to the proprietor class (men of ensemble). The alienation, according to Simondon, can be surpassed not by a social/class struggle, which he considers outdated, but by acquiring knowledge on the technical object, developing a technical culture that can create different attitudes towards the instrument, that would allow to understand it, and work with it. This position was also supported by scholars at the beginning of 20th century (e.g. Kurt Ewald), who even glorified the role of the machine, since the production system can achieve a greater performance and economic return.

However, Simondon in his book has not analysed the transmuting of art’s individuation into something that is reproducible, which was addressed instead by a German movement - Bauhaus. Compared to art, design has a utilitarian function – the famous ditto “form follows function” was created by the Bauhaus in order to emphasise the utility and the functionality of the objects, by making the design visually intuitive rather than an ornament difficult to understand and without use value. The Bauhaus’s stand point concerns the design as a political statement, because it is strongly refusing to be associated with the idea of the art for arts’ sake: design is political (Rosner, 2018), social and constituent of the human experience, even if it is at times becoming silent as part of everyday routine, and it becomes taken for granted. Thus, the modernists aimed not to turn design into fine art (or craft, as Morris and Ruskin sought to do), but to blend the concepts of fine art, craft, and manufacturing to create new goods that could make sense in contemporary life. In this kind design, ornament becomes a crime as it is wasted labour, not something to achieve (which is antithetic to Ruskin’s approach).

Papenek (1995), a designer theorist, similarly to the Bauhaus critique, considered design and the work of his fellow colleagues dangerous. In the 70s and 80s, designers predominantly focused on design as ornament rather than as a tool to change society. Once design becomes embedded within the capitalist machine, it must be considered criminal, because, in order to maximise profit, it is produced with sloppy materials and manufacturing process that are harmful, polluting and unsustainable (Papenek, 1995). Instead, designers have the skills to make a positive impact and create a more sustainable society, and they are not pursuing this aim (Papanek 1995). The “mass-manufactured” design that enters in the market is regulated by purely economic logic needs; designers, should do otherwise: they should bring a different set of values that are independent from the economic priorities. In this way, design, if properly used, can become an agent of change (Fry 2010). This is the underlying assumption to a new approach of design called “slow design”.

These debates emerge as a design object is assembled, co-produced in a complex sociotechnical system, and, as Simondon put it for the technical objects, its productivity (what it produces) is not limited to its function of use, but reverberates across the assemblage. Therefore, similarly to the technical object, design does not work only in a utilitarian way but has effects in the space in which it is displaced.

Design can be singular and multiple at the same time. Singularity emerges as the closing of the potentially, resulting in a design artefact that is topologically consistent, present, and temporally articulated. The singularity is the immanent realisation of the process.

Design produces experiences and emotions that are important for the designer as well as for the consumer. Emotions characterise experience that moves and changes. Emotions help to make sense of the object and its meaning as experience has pattern and structure, action and consequences joint together (Dewey, 1987). Experience is stimulated by the senses, which is the meaning of things in immediate, through the participation of the body, imbued with the living in relation to the environment (Dewey 1987).

**Design process**

Marenko and Breassett (2015) advocate for a philosophy of design that looks at the creative process and Rosner (2018) investigates design process as a way to make a transition into framing a different situation. Building on these perspectives, here I explore design process as ontogenetic and reflective process opening infinite possibilities throughout bracketing during the development of a brief and of a prototype, two of the key moments in the design process.

In a design process, there are numerous interactions among team members and various stakeholders. Designers work together to overcome various constraints: stakeholders’ preferences, material challenges, costs and budget requirements, safety regulations, market prices, and critically answering to social, environmental and political concerns. Design is a political and social process because it creates and questions social situations in which design might be presented, used, and how it makes the user act upon the situation in which it is mobilised. It concerns considering a situation, imagine a better one, and work to improve it (Rosner, 2018).

Therefore, immanence, ontogenesis and becoming are both significant and present characteristics of design process at any given time, meshing chaos and order. In the design process, chaos does not destroy order, but it makes order become a chaotic multiplicity driving the creative force in the innovation journey.

The process is said to start with an intuition (Parson 2015). Designers do not only represent their inner world and thoughts (as painters), but they express unmet needs, imagine multiple future becomings of a design, the different shapes of the final output, and consider how it could be socialised, distributed and understood by other people; thus, they do not design only for them, for expressing their feeling, but for the use of others, for helping others express emotion. A designer’s intuition involves these future possible modes of existence. Intuition for the designer is not simply the idea of initiating the design process; the knowledge that is created at the initial stages is neither a priori nor posteriori, but it is created concomitantly with the existence it aims to clasp at the level of the being. The intuition is therefore neither contained yet, it does not belong to in the idea of the known being, nor it is a concept because it has not yet singularity nor autonomy. Instead,

“knowledge by way of intuition is really mediate in the sense that it does not grasp being in its absolute totality, like the idea, nor on the basis of elements and by combination, like the concept, but rather grasps being at the level of domains constituting a structured ensemble” (Simondon 1958, 242).

The intuition is a meeting point between the subjectification and objectivization, the coming-into-being of knowledge that is meeting the subject.

It is not merely abstract nor it is an element (like concepts) or a reference to a totality, like the Platonic ideas; but intuition is where a genesis transpires. Intuition is analogical to being, although it is not fully realism nor nominalism, but a mixture between these two philosophical modes, because the way designers express themselves is through a design language. Therefore, intuition in the design process is not completely personal as in art, but it is trainable, making design a profession that can be learnt (Parson 2015).

The intuition becomes synthesised in a brief, in which the construct of culture coexists with the technical problems. The brief consists of a becoming an object. The information used during the design process is not an absolute looming, but the representation subsequent to a relation of forms, both intrinsic and extrinsic to the designer. The designer frames the intuition throughout the guidelines of the received problem (design brief) to devise a solution. These are inscribed in a brief. The brief becomes materialised into the prototype and then crystallised in the final design.

The brief presents the features that will constitute the design, although these can be reinterpreted dynamically during the design process, modified on the way, absconding the agencies of the actors involved, and progressively creates shapes through various versions of the prototypes. These can be also dilated and at times diluted into new ideas, in a heterochrony turbulence of potentiality. The assemblage is done by the designer, not as a single individual, but as the representation of a collective process; in fact, the designer is not working in isolation, he/she interacts in a studio, works in teamwork, uses tools and technical objects, which according to Simondon, are essential in the technical development of the design and its specific features relating to the economic, affective and functional sphere.

A prototype is therefore a representation of the potential object, an experimental exercise to give shape to the design and construct a praxis of hybrid multiplicities by challenging doxa. This process presupposes care and attention to the details.

Design process is a transformative relation - a translation - from one mode of existence to another, enriched by the actors’ agency with whom the designer (as a collective actor) collaborates with. Agency is materialised in the object, and in this way the material agency cannot become disentangled from the object (Malafouris 2008).

This position contrasts the stream of design research in a linear way, previously discussed, in which design is depicted a linear process, consisting of a set of a priori defined activities, with well-defined specifications and outcomes. This approach to design as problem solving is a linear exercise to reduce uncertainty, which is measured through performance and is task-oriented, based on the view of design as a technology that reproduces and abides market logics and ideologies (Marenko 2015).

Instead, a Simondonian approach would consider organisations and their processes as not stabilised, ordered, and consequently, the complex and dynamic characters cannot be reduced to a simplified mechanic approach (Chia 1999). In fact, in a design process is permeated with complexity and constituted of wicked problems (Weick 2004), that are not tamed nor reduced, but it are embraced, which make the design process emergent and fragile. As in Simondon, the problem solving takes place at the edges of indeterminacies into correlation, which is impossible to determine a priori in a linear fashion. Thus, design becomes a problem-solving activity by stepping over the problem (rather than reducing its complexity), and by understanding the forms that are given within a problem. This allows “*the recurrence of the future with respect to the present, of the virtual with respect to the actual”* (Simondon, 1958 pg. 156), which is realised upon forces that converge and diverge, maintaining unity despite the forces pulling into different directions.

Design actualises the technical feasibility by converging into a structural unit rather than compromising it to solve conflicting arguments and technical feasibility.

This is an epistemological process that increases the problematisation of the complexity, which becomes “intuitive, material and sensitive-rich enterprise” (Marenko 2015, 118) and that increases the matters to the very substance, form of production (Hales 2015), and synthetize the potentials and vitalities. The design, therefore, is not attached to a hic and nunc, as spaces and times are neither continuous nor homogenous in the process, but they are reinvented throughout it through trans-individual relations.

The design is a reticulation of times and spaces concentrated and expressed through the forces that produce the reality in which it is embedded. Past and future mash together in the design when

[..] the past ceases to trouble and anticipations of the future are not perturbing is a being whole united with his environment and therefore fully alive (Dewey 1987, 17).

Space and time blur, and they become comprehensive and enclosed, allowing is a multiplicity of doings and actions in which the designer and the consumer engage through the design object.

**Conclusions: Reflections on design as philosophical mode of inquiry**

Design is central to the human activities. Everyday we are exposed to design objects, they influence humans’ milieu, natural and social systems. Nevertheless, despite the centrality of design on human activities, it has not been widely examined in philosophy. In this paper, I have used Simondon (1958) as analytical framework for analysing design as an object and as a process.

Simondon’s framework supports the argument that design is not a fixed object or a priori defined process, but the socio-material embodiment of the creative process, resulting in a object of a specific time, yet temporal within society, effect of a socio-materialisation of agencies, and at the same time it is distributing and mediating them. It represents the actualisation of future possibilities, the crystallisation of various agencies that have been acting upon indeterminacy until the design is reified.

The design is produced through a process of problem-solving activity by stepping over the problem (rather than reduce its complexity), going through several iterations and it is not defined until the final prototype. In the process, designers understand the forms that are given within a problem, allowing the recurrence of the future with respect to the present, of the virtual with respect to the actual. The design is always in the process of making, pulled by different interests and decisions, until the shape is closed in the final object. Design is a translation process, a process that connects, mediates, creates links between that were not connected before, creating a new social and epistemic reality. It creates also an aesthetic relation, which according to Simondon (1958) is a mediation that preserves the man’s nostalgia for the past, a sort of intermediary between minor and major ways of knowing and relating to the object*.*

The object is meaningful, but the meaning is not in the artefact or in a person; rather, people interpret the imagery through their practices of listening, watching, or engaging (Rosner 2018). Design as an object and as process presents different ways of knowing, transforming knowledge into different worlds; taking advantage of the fact that design is in potentia, it has an unrealised potential for the designers and for the users, as well as a political purpose. I have mentioned “slow design” as response to unethical approaches of design. The current models of production, distribution and consumption have stimulated a culture of overconsumption that is not sustainable and has caused climate change, biodiversity loss, natural resources degradation. Slow design is a reaction and aims to reduce the exploitation of natural resources.

Future researches should investigate slow design approach, and in particular what constitutes design at the time of climate change and what constitutes design at the time of Anthropocene.

A recently published multi-authored book launched in June 2019 (co-edited by Zalasiewicz, Williams and Collins) present the geological evidence for defining the Anthropocene as a geological epoch, ranging from chemical signals arising from pollution, to physical changes to the landscape associated with urbanisation, and biological changes associated with species invasion and extinctions. Because this change is human-driven and entangled into socio-economic processes, one needs a further reflection on the impact in the emerging Anthropocene world, and how to epistemologically engage in design processes to produce different design objects. Having demonstrated that design is a political object, what role will design play in this unprecedented scenario?

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1. See for example Dewey (1934): art as experience allows the viewer of being detached from the object and experience it [↑](#footnote-ref-2)