

# PIECEWORK

111/01-02

*Copytheft – Cultural Practices  
Transgressing Copyright Boundaries*



# Disegno

JOURNAL OF DESIGN CULTURE

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## Aims and Scope

*Disegno publishes original research papers, essays, reviews on all possible aspects of design cultures. The notion of design culture is understood by us as resolutely vague: our aim is to freely discuss the designed environment as mutually intertwined flows of sociocultural products, practices and discourses. This attitude openly ventures beyond the academic distinctions between art, design and visual culture being accordingly open to all themes with relation to sociocultural creativity and innovation. Our post-disciplinary undertaking expects intellectual contribution from all potential members of different design cultures. Besides providing a living platform for debating issues of design culture our particular aim is to consolidate and enhance the social legitimacy of design culture studies as an emerging field in the Central European academe providing criticism of fundamental biases and misleading cultural imprinting with respect to the field of design.*

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# Editorial

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The papers of *Disegno* are presented from the particular perspective of design culture studies, which is the fundamental approach of our journal. Design culture studies is a relatively new and emerging field, and as such it remains variously understood, hence *Disegno* is resolutely post-disciplinary in its approach to it. This means that we are generally following in the footsteps of Pyrrhonian skepticism and Potamonian eclecticism. Our methodological *epoché*—that is, our adogmatic suspension of judgment—helps us to observe as many scholarly aspects of design culture as possible. As a result of this, we are able to combine components of design culture studies from an extremely wide range of theoretical practices. We take design culture to be a flow of cultural products produced by and reflected in social practices and cultural discourses, and therefore we welcome papers from all academic fields that are interested in different aspects of design culture, such as: design history, design studies, literary criticism, linguistics, cultural studies, cultural anthropology, sociology, media theory, film theory, intellectual history, and the history of knowledge (among others).

In the twenty-first century, human beings live almost exclusively in designed environments that surround their life in all its aspects. In order to better understand this surrounded life, we should constantly seek effective ways of understanding the designed products we use, the design practices that influence us, and the design discourses that flow around us twenty-four hours a day, determining our emotions and decisions. To work towards this goal, one has to combine interpretative techniques that have been established in the humanities and can elucidate our knowledge of the cultural usability of objects. In turn, social sciences provide knowledge that sheds light on how to comprehend the design practices of the stakeholders of different design processes. Finally, design discourses are explained and understood by the interpretation strategies of narrative disciplines. Naturally, this Aristotelian model (in the sense of Victor Margolin)—that echoes the triad of *theoria*, *praxis* and *poesis*—only separates these three aspects of design culture for the sake of analysis; they are only three hypostases of the hyper-complicated single substance of design culture.

Undoubtedly, the most important concrete motivation behind the call for papers of this issue was the belief of the editorial staff that the real transmission of ideas is a tool for the reduction of inequality.



As Thomas Piketty puts it, ‘historical experience suggests that the principal mechanism for convergence at the international as well as the domestic level is the diffusion of knowledge. In other words, the poor catch up with the rich to the extent that they achieve the same level of technological know-how, skill, and education, not by becoming the property of the wealthy.’ (Piketty 2014, 71) This is the reason why we think that the defense of intellectual property, copyright and patents are among the major tools of global capitalism to maintain social and economic inequality. *Disegno* not only fights the limitation of the transmission of knowledge through the choice of its topic, but also through the fact that it is published according to the standards of open-access academic publications, under the Creative Commons Attribution-ShareAlike 4.0 license. This issue is thus also a protest against the enormous and immoral profit making of commercial scholarly publishers, which are the main barriers to the free circulation of knowledge, and are the clearest examples of the privatization of knowledge created by public funding.

The papers assembled in the current issue evolve around the already canonical topic of the crisis of the author and of the artwork or the design product itself. We were interested in research papers that targeted artistic or design practices that were based on copyright infringement strategies that tried to circumvent or directly question copyright laws and practices. Our original idea was to critically investigate and better understand the currently fashionable cultural phenomenon of open design in the broadest possible sense, with special attention to the different traditions of transgressing copyright boundaries and suspending the power control of intellectual property that impedes truly democratic creativity and innovation. In addition, we were also interested in the analysis of redesign, remake, and remix practices that question the very idea of exclusive authority in design culture. The papers published in the following pages deal—among others—with fake design products (Bea Correa), copies of buildings (Giuseppe Resta), remix and remake strategies in moving images (Adele Muntean) and photography (Gábor Pfisztner), the role of copies and replicas in fast-fashion companies and the legal boundaries of copyright in the fashion industry (Amanda Queiroz Campos, Luiz Salomão Ribas Gomez), and standardization and quality control in the mash-up era (Dr. Robert Phillips, Dr. Matt Dexter, Prof. Sharon Baurley, Prof. Paul Atkinson). Of course, copyright infringement is not only used to transcend social and class barriers. As is well-known, mass-copying is one of the main driving forces of the current economic system. This is clearly shown in a paper that explores the motivational factors of design protection legislation on knockoff manufacturing (Megan E. Blissick, Belinda T. Orzada). Another tantalizing side of copyright infringement is that ‘the design, architecture, and aesthetic language of Western luxury is copied and consumed by a rapidly growing Chinese

<sup>1</sup> See <https://stallman.org/>, <http://www.gnu.org/>, <http://www.fsf.org/>. All accessed on 01/07/2016.

middle class with little compunction about the moral, ethical, or environmental implications of their consumption.’ (Dr. Christopher Brisbin) Another different strategy related to the reuse of forms, styles, buildings and public spaces of past is discussed by a paper, which analyzes the logic of a process of restoration that took place in a Transylvanian town in the last five to six years; a process that tried to remove the signs of the communist era and hide or replace them with the restored and remixed image of the late nineteenth to early-twentieth century urban development (Dr. Dénes Tamás).

Recently, the issues of authorship and copyright have also been brought into question by the ever more pervading cultural phenomenon of open design, which originated in several open-source software movements, such as those represented by the pioneering programmer activist Richard Matthew Stallman, who launched the GNU Project, wrote the GNU General Public Licence (GPL), and founded the Free Software Foundation<sup>1</sup>. The original idea was to build a global community of free programmers and users subverting the power concentration of neo-liberal software companies monopolizing the field. The program of freedom embodied in such efforts truly foreshadowed the idea recently popularized by Jeremy Rifkin of building a post-capitalist society of ‘collaborative commons’ in which open design and the sharing of ideas using 3D printers and other free and open-source hardware (FOSH) plays a crucial role (Rifkin, 2014). One of the papers proposes a preliminary framework for understanding and working with the integration of design with open, P2P, diffuse, distributed and decentralized systems. (Massimo Menichinelli) Another truly stirring aspect of this issue is related to the ramifications of open design for ‘author-driven’ contexts (Deanna Herst, Michelle Kasprzak).

The papers collected here demonstrate that the questions raised in the current issue of *Disegno* are relevant to many aspects of the contemporary art world and design culture. We hope that this collection of papers offers a unique insight into the topic and that it can reach far beyond the commonplace and vague mainstream discourses on copyright and intellectual property. We also hope that with this issue of our journal we could advance the idea touched upon by Piketty, and we were able to contribute—at least to a minor extent—to the open transmission of knowledge and hence to the intellectual struggle against the increase of social inequality.

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# ***THE EFFECTS OF DESIGN PROTECTION LEGISLATION ON MANUFACTURER MOTIVATION***

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***Megan E. Blissick, Belinda T. Orzada***

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## ***ABSTRACT***

*This theoretical paper reviews the motivational factors of design protection legislation on knockoff manufacturing in the United States. Since at least the early 20th Century, U.S. apparel designers have requested design protection legislation. In fact, more than ninety attempts have been made to gain legal recognition and protection for original apparel designs through the U.S. legislative system since 1914. In France, however, from the time of Charles Frederick Worth, rules existed concerning what qualified as couture design, and over the following years, design protection in Europe evolved to continually protect creative design. In contrast, the United States continues to have limited design legislation that fails to protect fashion design. Parties in opposition to increased protection argue that legislation will stifle creativity, whereas parties in support counter that protection will encourage designers to create. This paper proposes the necessity of future research based on Tedmond Wong's Innovative Design Protection and Piracy Prevention Act (IDPPPA) Game Theory Model to gauge the effect of design protection legislation on apparel manufacturer motivation to knock off designs. While this paper does not test the proposed research, it provides background supported by analysis and synthesis of current facts, data and research literature, and proposes directions of inquiry that may support design protection legislation.*

*#United States, #knock off, #apparel manufacturing, #motivation  
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## **INTRODUCTION**

This paper seeks to identify the impact of design protection legislation for apparel goods on manufacturer motivation to knock off fashion products in the United States. Knockoff fashion pieces are copies or imitations of retailer products, often created or obtained unethically and distributed without accreditation to the origin of design. Knockoffs have the ability to impact the 1.9 million fashion and apparel workers in the United States (US) (Maloney 2015), and the 1.7 million members of the European manufacturing industry. (Textiles and Clothing 2016). High-end industry members claim that knock offs of their designs dilute their brands and erode their profit margins. Statistics indicate that in 97 percent of cases, the net present value of the original design drops an average 13 percent (Appel, Li-bai, & Muller 2013). Even with these losses, designers are restricted when they attempt to seek legal recourse. US copyright law offers restricted legislation in regards to protecting fashion compared to the European Union (EU), and the unprotected area of fashion design allows for manufacturers to knock off designer styles at margins of the price.

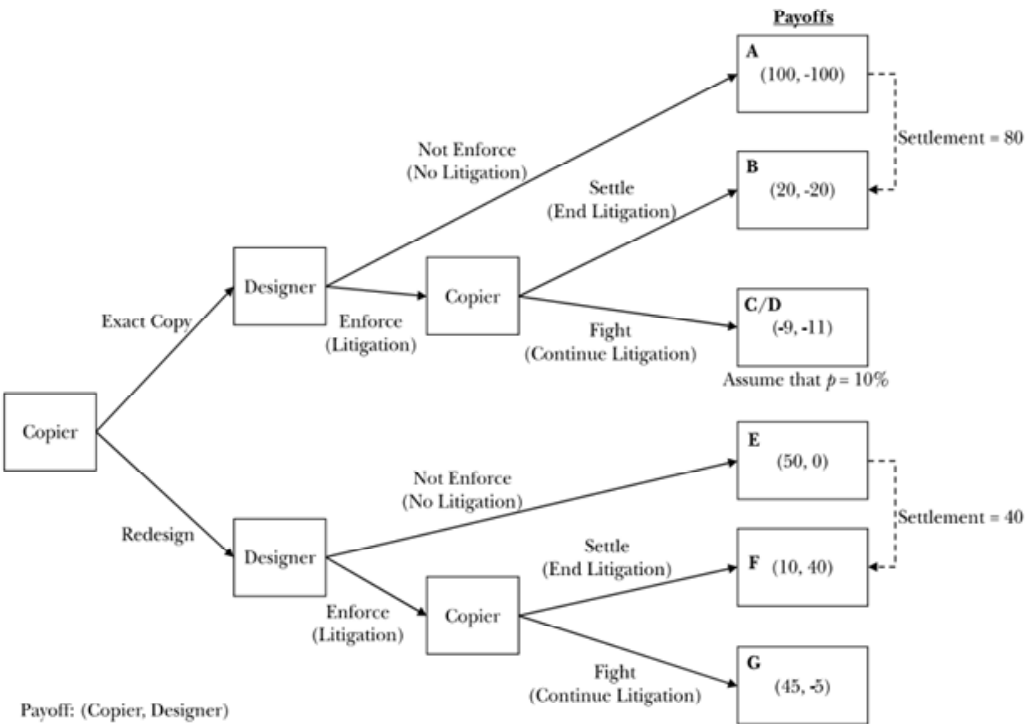
Knockoff fashion designs harbor economic and social influence over-fashion retailers, designers, and their firms. Retailers could find their companies failing due to brand dilution from knockoff styles, or could face heavy litigation and negative brand image by infringing on patent or trademark property. Designers of creative and unique work face the possibility of their property being mass-produced without their knowledge or consent. The effect of knockoff goods can even fall back to the manufacturer, who could lose contracts from designers concerned with their intellectual property. Overall, the knockoff industry negates economic and environmental growth in both the social and trade divisions (The Economic 2007). The extent to which the knockoff industry impacts the apparel industry drives the necessity to implement stronger design protection legislation in the United States.

Opinions vary regarding increased design legislation in the United States. Some parties insinuate that a lack of legislation increases creativity by not allowing a monopoly on fashion design (Raustiala & Sprigman 2012, 168). Opposing views argue a lack of legislation results in a lack of creativity, citing trends of duplication as a result of decreased cost and effort of copying (Wong 2013, 1139-1192). In order to see lasting change in United States design legislation, factual evidence of the effects of design legislation must be identified.

**THEORETICAL FRAMEWORK**

The theoretical framework of this study is the Innovative Design Protection and Piracy Prevention Act (IDPPPA) Game Theory Model proposed by Tedmond Wong of the University of Pennsylvania Law School (Wong 2013, 1165-1181). The IDPPPA is the proposed extension of chapter 13 of the Copyright Act, a statute in place for fashion design that does not protect creative design (Ellis 2011, 163-212). The IDPPPA would extend the current copyright statute to provide *sui generis* protection for fashion design, protection that would cover intellectual property areas outside of traditional copyright laws (Ellis 2011, 165). Wong’s proposed framework outlines the scenarios and outcomes between designers and copiers in various degrees of legal protection, and the IDPPPA model outlines the potential gain or loss in each scenario for a copier to create an exact copy or redesign a designer’s work, theorizing the copier’s motivation as the potential payoff (Wong 2013, 1180). The model predicts copier behavior based on the potential payoff, as shown in figure 1.

Fig.1. Innovative Design Protection and Piracy Prevention Act Game Model, from Tedmond Wong, 2013, 1180.



Wong's IDPPPA Game Theory Model theorizes as to the positive effects of increased knockoff legislation on decreased participation in the knockoff fashion industry. (Wong 2013, 1161-1164). As legislation or designer ability to enforce litigation becomes apparent, knockoff manufacturers lose motivation in the form of payoffs to fight litigation, pushing them to settle. Further, increased legislation should reduce exact copying, thus increasing the motivation to create unique and original designs (Wong 2013, 1165-1181). This theoretical framework addresses the possibility for design protection legislation to incentivize creativity over copying.

## **RESEARCH GOALS/OBJECTIVES**

The objective of this paper is to identify and evaluate the potential for design protection legislation to decrease knockoff manufacturing motivation while maintaining creativity in the fashion industry. Legislation regarding design protection in both the United States as well as the EU is explored with the EU legislation providing a comparison for this research. Knockoff retailers and the economic impact of the knockoff apparel industry on both the US and the EU is discussed. We utilize information gathered from the literature review to identify directions of future research. Our investigation is guided by two research questions:

*RQ 1: How does design legislation influence designers in the United States?*

*RQ 2: Does design legislation deter knockoff manufacturing in the United States?*

## **LITERATURE REVIEW HISTORY**

Following trends is the way of life in the fashion world. Trickle-down theory suggests that styles emerge from top design houses and flow into mainstream fashion. Of course the reverse is also true, with "the streets" influencing high fashion as well (Mendes & De la Have 1999). The question is, when did following trends evolve from taking an idea and elaborating on it—a designer putting their own spin on it, so it becomes unique in its own right—to the outright copying of most details?

In the late-nineteenth and early-twentieth century, the beginnings of the ready-made apparel industry found US manufacturers influenced by French fashion houses. The trickle-down process became more widespread (Marcketti & Parsons, 2006, 214-228) as copy houses were disseminating cheap copies of couture designs. This was accomplished by sketching designs at fashion shows or purchasing toiles, and was later aided by new types of trade literature, which provided fashion forecasts (Mendes & De la Have 1999). Thus, French

couture houses sought to establish copyright protection. Design protection began with the formation of *L'Association de protection des industries artistiques saisonnières* (PAIS), a group formed by designer Madeline Vionnet in 1921 to protect haute couture designs (Palmer 2013). Under the advisement of PAIS, designs would be photographed and documented as evidence in the case of copying. Any formal complaints of piracy would be handled under French penal code until 1943, at which time the *Chambre Syndicale de la haute couture*, Charles Frederick Worth's organization to distinguish between haute couture and ready-made clothing, took over the service (Palmer 2013). A system was developed allowing major retailers to purchase toiles of Parisian couture designs for legal reproduction. There were strict rules forbidding sketching and photography of fashion shows, and each season's design release dates were strictly controlled (Mendes & De la Have 1999). However, design piracy still occurred.

Regarding design piracy in the United States fashion industry, Sara Marcketti and Jean Parsons identified trade publications calling for manufacturers and retailers to end this practice as early as the 1910s. By 1932, the Fashion Originators' Guild of America had been formed, in part, to protect style originators from copying or piracy by a system of self-regulation. The Guild's registration system functioned very similarly to that of PAIS, with manufacturers required to submit a sketch of the original design, a brief description, and an affidavit of originality. The Guild did not protect foreign models and styles considered "generic" (Marcketti & Parsons 2006, 214-228). Ultimately, the Guild did not succeed because the regulation it proposed became too controlling. Schmidt notes that seventy-three bills were proposed in Congress between 1914–1983 to protect design through legal measures, however none passed because of the ambiguity of design protection (Schmidt 1983, 861-880).

## **LEGISLATION**

### **UNITED STATES DESIGN PROTECTION**

In the United States, design protection is available through copyright, patent and trademark laws. Design patents are available for new, non-obvious ornamental design, but fall short for fashion design—the registration process for a design patent takes eighteen to twenty-four months, and protection only begins upon issuing of the patent, not filing (Dinwoodie 2008). Design is protected under copyright "only if, and only to the extent that, such design incorporates pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article" (Copyright Law 2011). Trademarks apply only to the source of design; a designer can protect their brand name, but not the designs under that name (Trademan 2014), failing to protect individual design.



## **COPYRIGHT LAWS**

Separability testing for design copyright involves the applicant party displaying separation of physicality and conceptuality with the intention to distinguish between applied art and industrial design (Protection 2007). This high-level separation restricts most industrial designs, and in this case, fashion designs, from copyright protection (Protection 2007).

The Congressional hearing on H.R. 5055 in July 2006 regarded the inclusion of fashion design protection under chapter 13 of title 17 of the United States Code (Protection 2007). This hearing explained the current design protection available under existing law, which mainly protects counterfeit products. Where knockoffs mimic the design of another product in a non-deceptive manner, counterfeit goods infringe on trademarks, patents, or copyrights of the original designer, such as brand names and logos (Chadury & Zimmerman 2009).

Though unlikely, any product that does obtain copyright protection will be protected against infringement up to \$50,000 or \$1 per copy (whichever is greater) as compensation and not as a penalty (Copyright Law 2011). This means that the infringing party will not face an increased fine for a subsequent violation. The July 2006 Congressional hearing proposed changes to the recovery for infringement for up to \$250,000 or \$5 per copy (Protection 2007).

Proposed legislation under chapter 13 of title 17, which provides very similar protection to copyright protection but is technically distinct, would define an article of apparel as a “useful article,” which is currently protected under chapter 13 (Protection 2007). Apparel products (clothing, fashion accessories, and footwear) would receive three years of protection if the apparel firm filed for protection within three months of the product being made public (Protection 2007). This protection would be geared mostly towards haute couture designers making four or more figures off of apparel products.

As of the most recent publication of the United States Code, no changes have been made to include fashion designs as useful articles, thus fashion design remains restricted from copyright protection in the United States (United States 2015). For apparel designers to protect any of their original work, they must apply for other legislative means.

## **PATENT LAWS**

United States patent laws regarding design fall under 35 U.S.C. 171, and state that anyone that invents a new, original, and ornamental design for an article may obtain a patent for a term of fifteen years (United States 2015). Filing on an original design patent costs \$220 per patent, and examination of an original design patent costs \$140

(United States 2015). Finally, the cost for issuing a design patent is \$860, costing a company \$1,420 in total per design patent (United States 2015).

There are some ways for businesses to circumvent the high costs of patenting their designs. Small businesses see some relief in patent fees; under the Small Business Act, all patent fees are reduced by 50 percent (United States 2015). If a company files more than twenty claims at one time, the filing cost for the additional claims will be reduced to \$52, and the filing fee will be reduced by 75 percent if filed electronically (United States 2015). However, the examination and issuing charges remain static for all large companies, so though they may reduce filing costs, companies will still face high fees to patent their designs.

### **TRADEMARK LAWS**

High-end fashion houses often have trademarks to differentiate their products from the numerous imitators on the market. In the United States, a trademark provides protection for products, allowing the affected party to claim compensation for damages if their trademark was illegally used. Paper applications for trademarks come with a \$375 fee, which can be reduced to \$325 if the application is submitted online (U.S. Trademark 2015). Any trademark registered after November 16th, 1989, will remain in force for ten years, and may be renewed for periods of ten years with a fee of \$400 in paper, or \$300 online (U.S. Trademark 2015).

In relation to fashion goods, US trademark laws protect jewelry, precious metals and stones, “fancy goods”, furnishing, leather and leather imitation products, yarns and threads for textile uses, textiles, textile goods, clothing, footwear, lace, and embroidery (U.S. Trademark 2015). If a trademark is infringed upon, the owner of the trademark is entitled to recover the infringing party’s profits and damages sustained by the infringing party as well as all legal fees (U.S. Trademark 2015). If the defending party is found guilty of intentionally using a counterfeit trademark in connection with the distribution of goods and services, the party will enter judgment to pay three times profits or damages sustained to the infringing party, up to \$2,000,000 (U.S. Trademark 2015). The harsh penalization of the infringing party falls in sharp contrast to copyright laws, which only threaten the infringing party with compensatory fees instead of penalization.

For fashion retailers, a trademark is the best option with which to protect their goods due to the penalization of infringing parties and the ability to protect the trademark over a long period of time. However, trademarks only apply to the source of the goods and services from a party, and not the designs under that trademark (Trademan 2014). A designer cannot protect their specific designs under a trademark, limiting the power of trademark use as a form of design legislation.

## **THE EUROPEAN UNION**

### *Design Protection*

In the European Union, design can be protected under apparel copyright law, intellectual rights, trademark protection, or community design protection. Copyright law allows designers to register dress design, apparel, accessories, footwear, and fashion design for all or part of a product (Montalvo 2014). This protection lasts for five years, and is available for extensions. Community protection is an informal means of design protection that lasts for three years, protecting designers of short-term products (Montalvo 2014). Trademark law protects non-utilitarian, distinctive design for up to ten years, and can be renewed indefinitely (Schickl 2013, 15-38).

### *Apparel copyright laws*

Apparel copyright laws for Europe are enforced under the Single Market of the EU (Countries 2015). National copyright law in the EU protects dress design, apparel, accessories, and footwear (Montalvo 2014). In 1998, the implementation of the EU Designs Protection Directive allowed a means of registration for fashion design (Montalvo 2014). Design was defined as “the appearance of the whole or a part of a product resulting from the features of [...] the lines, contours, colors, shape, texture [...] or its ornamentation” (Directive 1998, cited in Montalvo 2014). The Directive also protects novel design, which is determined by the design’s availability to the public (Montalvo 2014).

### *Community Protected Design*

In addition to copyright laws, the EU enacted protection of Community design rights to protect both registered and unregistered goods (Montalvo 2014). Registered designs benefit from protection for five years with renewal up to twenty-five years, and unregistered designs are protected for three years from the date that they were published in community, giving fashion designers that produce products with short life cycles a means of protecting their designs (Montalvo 2014). Table 1 displays fees for community design registration.

If a party is found infringing on another party’s community-protected design, the claimant may file for injunctive relief in the form of a cease and desist (Design Protection 2015). In cases of trademark, design, or copyright protection in which the infringing party does not oblige to a cease and desist, the proprietor may file for a preliminary injunction. Claims in a district court may request compensation for damages to the proprietor in the form of lost profits, infringed profits, or reasonable royalty; the court does not award punitive damages. From the

filing of the complaint to final judgment, the process takes on average six to nine months (Design Protection 2015).

*Intellectual Property*

	Fee (1st Design)	Additional fee (Designs 2-10)	Additional fee (Designs 11+)
Registration	€230	€115	€50
Publication	€120	€60	€30
Deferred Publication	€40	€20	€10

Table 1. Community design fees

The concept of design protection for European fashion design begins with the distinction between clothing for the purpose of utility (ready-to-wear) and design supremacy (haute couture) (Palmer 2013). Instead of guaranteeing rights to a certain product, the EU grants designer intellectual rights to their creative designs. Designers can seek design protection in cases of the materialization of their intangible creative idea (example: the physical embodiment of a unique pattern). This type of design protection is commonly used for exceptional and unique designs and patterns, whereas products with a shorter and more mainstream life cycle seek Community or trademark protection (Fischer 2008).

*Trademark Protection*

For products that require a broader scope of protection, the EU offers Community trademark protection for industrial designs. Community trademark protection, which applies to the twenty-eight member states of the EU, is offered to designs that are distinctive (indicative of the originating source) and non-functional; functional designs cannot obtain protection via trademark law. Trademark law deems a design as functional if it consists exclusively of shapes derivative of the nature of the product, if the design is necessary to achieve a level of technicality for the product, or if the design provides substantial value to the product (Schickl 2004). If a design can meet the requirements of distinction and non-functionality, trademark protection can extend to protect three-dimensional design. This process occurs within a six- to twelve-month period, and can be renewed indefinitely in ten-year periods (Schickl 2004).

With complex protective measures to allow designers freedom to create without fear of their designs being stolen, Europe has produced the highest number of the most influential designers since 1923 listed by TIME Magazine (Skarda 2012). Legislative protection has not restricted creativity, nor resulted in a monopoly over the fashion industry, but instead has inspired designers to create iconic, industry-shaping fashion. Evidence of influential and creative fashion emerging from areas of higher protection and restrictive legislation could potentially influence the US to review their opinions towards design protection.



## **KNOCKOFF RETAILERS**

A knockoff is defined as a copy or imitation, especially of an expensive or designer product (“Knockoff” 2016). Knockoffs vary from counterfeit products, products that are an exact imitation of something valuable or important with the intention to deceive or defraud; fraudulent imitations of something else; or forgeries (Counterfeit 2016). Knockoffs are one of three forms of piracy common in the fashion industry (Ellis 2011, 163-212). Trend imitation as previously discussed borrows some characteristics but also incorporates changes to designs. Knockoffs replicate another firm’s designs, often very closely, but at lower prices by using cheap labor and/or less expensive fabrics, and then sell them under a different company’s name.

## **MEDIA**

Knockoff retailing in the United States is highly prevalent in fast-fashion retailers. Retailer Nasty Gal faces legal repercussions for a claim made on Twitter in June 2015 that singer-songwriter Taylor Swift wore one of their designs to the 2015 Billboard Music awards (Laugel 2015). The design in question was a knockoff of the Balmain jumpsuit that the singer-songwriter was actually wearing at the event. Due to the lack of copyright protection for fashion designs, the legal repercussions will only cover the false advertisement, not the knockoff product (Laugel 2015).

Another fashion retailer that has been identified as a knockoff manufacturer is Forever 21. Sued over fifty times, Forever 21 has never lost a case, always opting to settle out of court (Laugel 2015). The result of out-of-court settlements is the lack of conviction; Forever 21 has never been convicted for infringing on trademarks or designs. Speculations point to knockoff retailing as part of Forever 21’s business strategy, inferring that the retailer spends less money by settling out of court and draws positive attention to consumers seeking designer products at a fraction of the price (Laugel 2015).

Design knockoff is highly prevalent in fast fashion, but does occur in both directions. In September 2015, Yves Saint Laurent was accused of knocking off a Forever 21 dress print (Siebert 2015). The dress in question, sold for \$23 at Forever 21, retailed for \$3,490 from Yves Saint Laurent (Siebert 2015). The copied design received both positive and negative media attention; respondents were amused by the “reversed” knockoff, while other consumers found the action of copying fast fashion distasteful (Siebert 2015). Knockoff accusations toward luxury designers and high fashion houses has led to the questioning of the evolution of the role of the creative director (Phipps-Rufus 2015).

Italian fashion house Moschino’s head designer Jeremy Scott faces a lawsuit regarding copyright infringement on the Moschino autumn/winter 2015 collection (Jeremy Scott 2015). The line featured at Milan Fashion week featured graffiti designs claimed to be originals from

graffiti artist Joseph Tierney (Jeremy 2015). Scott has been accused on multiple occasions, and admitted to infringing on Tierney's graffiti designs, incorporating them into Moschino's autumn/winter 2015 collection without permission (Jeremy 2015). After this admission of guilt, Scott removed the products in question from the collection. However, as of December 2015, Moschino graffiti print products were still available for purchase on the Moschino website.

Knockoff retail does not always occur at opposing price points; designer Mansur Gavriel was accused of knocking off designer Maryam Nassir Zadeh's line of open-toe mule sandals in September 2015 (Coscarelli 2015). The two designers offer identical price points, with the Mansur Gavriel shoes retailing for \$325 to \$625 and the Zadeh shoes retailing for \$391. Zadeh made a statement accusing Mansur Gavriel of purchasing the shoes in question from her store in July 2014, stating that the store records served as proof of Mansur Gavriel knocking off the mule sandals (Sherman 2015). Though the records could prove intent to knock off the designs, copyright protection in the United States does not protect anything functional, and the design lacks distinctiveness that could be protected by trademark law (Sherman 2015).

Due to lack of legislative action, US retailers have turned to knockoff designing as a way of life. This stifling of creativity results in drawn-out lawsuits, negative publicity, and products removed from lines, giving designers a bad name and causing doubt among their success. Rather than working towards innovation, creation has come to a standstill filled with lawsuits and cyclical design.

### **PUBLIC OPINION**

Kim and Karpova's research into the theory of planned behavior identified consumer attitudes towards non-deceptive counterfeit fashion goods (Kim & Karpova 2010, 79-94). Participants in the study who had purchased counterfeit goods in the past were more likely to purchase again, as were participants who identified themselves as value-conscious consumers. Integrity and consumption habits were not found to be related, inferring that consumers do not perceive counterfeit product purchases as unethical or irresponsible. Consumers were least likely to purchase counterfeit goods when functioning under the belief that public opinion of counterfeit product consumption was undesirable (Kim & Karpova 2010, 79-94).

Acceptance of knockoff manufacturing is voiced through media outlets that support the process. In Kal Raustiala and Christopher Sprigman's 2012 publication, *The Knockoff Economy: How Imitation Sparks Innovation*, the two authors argue that the economy of the United States thrives on production of knockoffs. The authors argue the viewpoint that patent and copyright laws are conducive to creativity, and propose that copying can be beneficial for creativity (Raustiala & Sprigman 2012, 7). They further argue that even though copying is a

common event in the fashion industry, and though there are victims to knock-off products, the industry as a whole has continued to thrive and innovate in the face of copying (Kim & Karpova 2010).

Raustiala and Sprigman view copyright protection as restrictive towards innovation, serving to increase the profits of the creator to increase their willingness to continue to create (Kim & Karpova 2010, 167-168). They describe this process as “hostile”, and argue that increased protection would decrease competition, which they claim is a notable source of both economic and cultural importance. The belief that copyright and rules that deter copying will decrease competition, and in turn creativity drives the argument to minimize knockoff protection (Kim & Karpova 2010, 169).

Acknowledging the lack of ethical discord and the encouragement of knockoff fashion to promote competition, Amy Landers proposed justifications towards the intellectual protection of fashion design (Landers 2014, 427-508). Landers approached the field of fashion with distinction between creative design and mass-market product, discriminating between clothes created for commodity and clothes that are capable of conveying meaning (Landers 2014). This distinction identifies apparel with value that transcends utilitarian needs as worthwhile of design protection, and rejects mass-market clothing designed to appeal to a broad market. The paper argues that apparel design with cultural significance that is expressive and not driven solely by customer taste, but rather contributes to cultural conversation deserves intellectual property protection.

Amy Landers proposed an openwork model for fashion protection (Landers 2014). Because fashion design is a highly collaborative process that involves inspiration and influence from multiple parties, Landers proposes that a minimal level of intellectual property protection will still incentivize and stimulate creativity. Rather than focus on copyright protection as a means solely for a company to maintain profits, she states that the focus should instead be on crediting the original author with cultural authority. This approach focuses on the aesthetic creation of the designer, aligning the rationale of design protection for fashion with that of artists in other fields (Landers 2014).

## **INDUSTRY RESPONSE: LEGAL ACTION**

### *United States*

Although United States legislation is limited in comparison to Europe, designers file for and win lawsuits for products protected by patent and trademark law. Lydia Dishman’s October 2015 article outlines the victories of Tory Burch, Christian Louboutin, Hermes, and Belstaff in the United States (Dishman 2015). In 2013, Tory Burch was awarded \$38.9 million in a lawsuit against jewelry designer Lin & J International regarding the trademarked “Isis Cross” design. Christian Louboutin successfully trademarked the red sole of his shoes in a New York federal court after

two years of litigation. The New York firm, Thursday Friday Inc. featured a screen-printed image of the Hermes Birkin bag on a tote bag, and was ordered to terminate production and pull products from the floor. In September 2015, Belstaff was awarded \$42 million in damages from 678 counterfeit websites. These successful legal actions all involved aspects of products that were protected by some form of legislation. When legislation protects design, the designer is able to defend their intellectual property against knockoff manufacturers.

### *European Union*

In the EU, lawsuits emerge for similar reasons, but designers are able to demand compensation for cultural as well as intellectual design protection. Chanel filed a lawsuit in January 2015 against Shop Jeen for trademark infringement and counterfeiting (Zerbo 2015). In addition to filing for their legally-protected designs, Chanel claimed that the means of advertising the infringing products were non-cohesive with that of the Chanel brand, further damaging the company (Zerbo 2015). European brand Adidas has sued both Forever 21 and Sketchers over their designs, arguing that the designs in question are confusingly similar, and will dilute the distinctive quality of Adidas (Weisberg 2015). The nature of these lawsuits allude to the additional layer of design protection representative of the European view of fashion design as a non-functional work that is indicative of the originating source (Schickl 2013).

### **IMPLICATIONS**

The goal of this research was to shed light on the major concerns restricting the implementation of stricter design protection in the United States. Those opposed to design protection legislation claim that monopolistic copyright will stifle creativity in lieu of profits (Raustiala & Sprigman 2012, 168). Parties in support of design legislation, including Tedmond Wong, the author of the game theory model, propose that protection will incentivize designers to create and innovate (Landers 2014). Gaining insight into the creative processes of industry members, the influence of copying and knocking off other retailers, and the power of knockoff legislation as part of the creative process is imperative. Research findings supporting the belief that legislation will incentivize creative design could serve as ground on which to propose more stringent design protection legislation in the United States.

Fashion retailers in the United States are denied legal protection to their designs due to the functionality of clothing as well as the potential monopolization of the fashion industry. Congress hesitates to enforce design protection that would decrease creativity and limit an industry that provides a necessary function for consumers. Evidence of the positive effects of the proposed legislation on creative



design can increase positive public opinion towards design protection, further incentivizing the creation of fashion design.

### **RECOMMENDED FUTURE RESEARCH**

It is our viewpoint that an understanding of the motivations of apparel manufacturers to copy the work of others rather than apply their own creativity to a design. During Congressional hearings, apparel industry executives testified as to the harms of design piracy. Others argued that the limited protection afforded through the court system improves or allows for creativity. What motivates the act of design piracy? Is it purely a profit-influenced decision? Following trends in fashion is important. Design variations are one thing—knockoffs and counterfeits are another. Has the pressure to reduce lead times and reduce costs led to this problem?

Research is needed to gain information regarding both attitudes and actions in the US apparel industry, including the knocking off of other retailer's designs and the motivational factors behind knocking off products. For Congress to make informed decisions leading to a balance of protection vs. freedom, they need to understand the other side of the industry. Gaining information regarding product development team's creative inspiration techniques, owners, designers, and product developers' attitudes towards knocking off apparel goods, and their experiences regarding knockoff legislation will provide insight to the problem and hopefully lead to solutions that benefit the industry.

It is important to understand the influence of design legislation on designers and apparel manufacturers at all levels of the industry. From where does a product developer draw inspiration? What resources, both inside and outside of the fashion industry influence the product developer? How would the product development and design process change if US protections against design piracy were more stringent (or more lenient)? Wong's IDPPPA game theory states that more stringent design protection will decrease piracy incentive, at the worst motivating retailers to become creative with copies, and at the best motivating retailers to be creative and avoid piracy altogether (Wong 2013).

The implications of this research could serve to clarify the varying opinions surrounding increased design legislation in the United States. In order to see lasting change in United States design legislation, Congress must be assured that design legislation will increase creativity and manufacturer motivation in the United States. This research can gauge the motivational factors of the knockoff industry, the effect of design legislation, and the relationship between these two on manufacturer motivation, with the hopes of a positive relationship to encourage increased design legislation in the United States.

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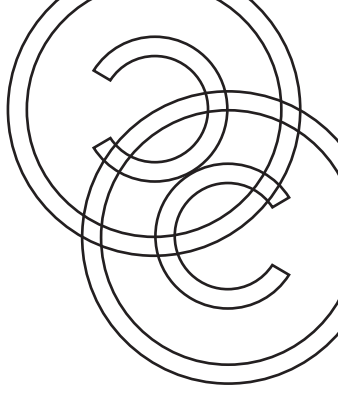
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# **FAST FASHION AND GLOBALIZATION**

## **STUDY OF FLORIANÓPOLIS' SISTER STORE OF THE SPANISH FAST- FASHION RETAIL CHAIN ZARA**

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**Amanda Queiroz Campos  
Luiz Salomão Ribas Gomez**

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### **ABSTRACT**

*This paper consists of a comparative study of the contextual contrast between data from the business model of the Spanish brand Zara, and data from the brand's sister store in the city of Florianópolis, located in the south of Brazil. The data collection methods were participant observation in the local shopping mall store, and semi-structured interviews with employees and former employees of this store. Theoretical references to globalization, fashion and modernity ground this study. The aim is to investigate the non-hegemonic aspects of globalization in the specific case of the importation of the Zara brand—which operates as a fast-fashion company—to Brazil. The study contends that the speed of change in fashion trends is characteristic of modernity's radicalization, and that the copying of Zara's business model and products by national and local companies is characteristic of popularization of fashion products. The extent to which fashion is a non-hegemonic system is considered through Zara's "inspired appropriation" of great designs from prêt-à-porter collections as well as the reproduction of Zara's clothes by other Brazilian fast-fashion retail chains—for example by the local Sul Center. The dynamism generated, among others, by the copying mechanism stimulates the creative efforts of fashion designers, making fashion an even stronger creative center.*

#Zara, #fashion, #fast fashion, #globalization

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## INTRODUCTION

One may consider wardrobes as microcosms that express the changes in manufacture due to globalization processes. As a mark of the economic globalization that generated opening of the market in the 1980s, the impact of global commerce on clothing and apparel engendered the contemporary concept of fast-fashion—quickly produced, low-cost, and visually appealing clothing—that dominates fashion retail nowadays.

The change of the specific fashion calendar of two annual seasons and the growth of a geographic network that goes beyond the traditional fashion capitals are the main modifications that the new business model inaugurated. Besides its characteristic seasonality, the creative fashion market was, for a long time limited to a very specific geography. However, despite the fact that the context of globalization implies a conjuncture of non-supremacy, remarkably, European preeminence remains, and is antecedent to an expert condition (Giddens 1991). Therefore, notwithstanding changes, the European expertise in fashion endures.

The methodology that guided this work's development was comprised of comparative research. The specific comparative approach consisted of the contrasting of contexts (Morlino & Sartori 1994), i.e., by analyzing information about Zara's business model and stores and the brand's store in the city of Florianópolis, Brazil. The data on the Spanish brand Zara's business model was retrieved from scientific papers, books, journalistic articles and the brand's website. The data about the specific Brazilian sister store, located in the city of Florianópolis, on the southern coast of Brazil, was collected through interviews with the current manager and three former employers of the only Zara store in the city of Florianópolis. The interview framework was based on the secondary research data about Zara, and was adapted for the different interviewees. This characterizes the interviews as semi-structured. The application of the comparison procedure to the data collected in the interviews relied on the secondary literature on globalization, modernity, and the fashion market, referenced in the bibliography.

Despite the already mentioned European tradition in fashion, the research results elucidate non-hegemonic aspects of globalization in the specific case of the adoption (or *translation*) and consumption of

<sup>1</sup> In this context, I use Sant'Anna's understanding of fashion system, which is mostly based on Lipovetsky, to indicate the ethos that constitutes the current society in which changes occur rapidly and constantly, and are ruled. Although I acknowledge Kawamura's (2014; 2005) comprehension of the fashion system as the institutionalization of fashion, mostly through haute couture and the createur Charles Frederick Worth and later with the emergence of prêt-à-porter, for the purposes of this paper, fashion system will mean having novelty in the present and appearing as the main grounding pillar of modern and contemporary societies.

Zara products in Brazil. One identifies a non-hegemonic system (Ribeiro 2010) in fashion when exploring the manner through which apparel of the Spanish brand is reinvented, produced, distributed, commercialized, and appropriated in Florianópolis.

Zara, as fast-fashion retail chain, appropriates the creations and trends of *prêt-à-porter* into its products. On the other side, Zara's sister store in Florianópolis itself serves as a point of reference for the local retail chains—for example, the local chain, Sul Center—their customers and other customers who shop online. Hence the store serves as a barometer of trendiness for fashion products.

### **FASHION AND MODERNITY**

The changes that occur from time to time are features of a system that constitutes contemporary society. The historical beginning of such a system—in the Late Middle Ages (Lipovetsky 2007)—was contemporary with the emergence of the idea of man as an individual. One of the milestones in the definition of the fashion system's<sup>1</sup> birth was that changes in furniture, manner, clothing, and in verbal and many other expressions are no longer random and casual, but ruled, ordered and constant. The fashion system consists in the very dynamic that produced modernity (Sant'Anna 2010). Therefore, scholars consider that the late-Middle Ages in the West set up a society that altered subjects and the meanings they produced.

At the end of the twentieth century, the hypothesis arises that humanity is on the threshold of a new era beyond modernity itself. Authors use terms like „postmodernity” and „post-industrial society” to name the transition, which marks the end of absolute certainties, the break with faith in human progress and the failure of science. Giddens (1991) attests that modernity produced lifestyles that broke with the tradition. After globalization and the decline of European centrality, striking features of a radicalized form of modernity are: that the pace of change is faster, the scope of change is global interconnection, and the nature of institutions.

I have decided to use the term “reflexive modernity”, citing Giddens as its main supporter, due to the fact that the fashion system, unlike other areas such as cinema and the arts, is still grounded in a traditional logic of fashion. Giddens, Lash and Beck chose the term “reflectivity” as an alternative to “postmodernity”, which implies the complete end of an era. Reflectivity, therefore, points to the possibility of a new phase of modernity: the reinvention of modernity and its industrial forms. Reflectivity also implies that a new modernity is examined and redefined in the light of new information about its practices.

Thus, the alterations proposed by fast fashion as the acceleration of consumption and production cycles interfere with the traditional structural logic of fashion, but to radicalize it, rather than to subvert

or to end it altogether. Another determining factor relative to the modernity of the fashion system is the remarkable and decisive presence of experts in the whole process, central figures for the consolidation of fashion trends and for the success of fashion brands. The “disembeddings” accentuated in the contemporary situation are mediated through symbolic tokens, “expert systems” (Giddens, 1991), i.e., the institutionalized and rationalist organization of specific knowledge. These expert systems have therefore become central to the organization of social life—in this specific case, fashion as a social field.

One cannot deny that the heyday of blogs and street style lent a supposed democratization to fashion and its expertise. However, as a commercial system, fashion promptly manages to make such „individuals” expert personalities on the judgment of fashion and style trends, making them major opinion makers. We need look no further than the success and consolidated career of fashion bloggers and “instagrammers”. Furthermore, many people plan and lead these careers as life projects, desiring the visibility and recognition they provide. Giddens considers, therefore, that globalization deepened the reflectivity processes of modernity in different areas, achieving higher levels of reach and intensity (Giddens 1991).

The modernity of the fashion system is still very evident in the changes in fashion, which “can mostly translate the desire for novelties in social practice” (Baldini 2005). The fashion market—responsible for the production of consumer garments and accessories—has, since the end of the nineteenth century, been a stage for exchanges of novelties with a fixed schedule: two collections per year (Godart 2010). After World War II, short cycles (characteristic of modernity and fashion) operated in the wider exchange of products and confirmed “planned obsolescence” as a strategy to strengthen consumption.

In the 1960s, the fashion market saw the emergence of prêt-à-porter and ready-to-wear and the inauguration of a supposed “democratization of fashion” as a strategy to meet the demand of the growing population of baby boomers. The middle class, in love with novelties, became the consumer of fashion, what was once restricted to the elite. Also in the 1960s, the rise of counterculture boosted the emergence of exotic styles and pluralism. This added speed to the whole fashion production chain. Also, regarding the supposed democratization of fashion since 1970, cities such as Milan, Tokyo, Bangkok and Antwerp have gained notoriety in the fashion world, but as previously mentioned, they were legitimated by the fashion system.

The last twenty years have brought substantial changes in fashion, mostly in terms of its breadth, which comprises the geographical globalization of fashion (Riello 2013). It is necessary, however, to pay attention to the term globalization. Understanding that fashion has expanded its reach to the entire globe, does not mean that it operates in the different locations with the same force and in the same way (Wallerstein 2006; Ribeiro 2010).

In terms of the textile industrial chain, production centers such as Asia, Southern Asia, Turkey, Northern Africa, and the Caribbean countries have become the main workforce market in the non-hegemonic geography of fashion. This non-hegemonic character (Ribeiro 2010) combines the world's fashion cities with other cities that consume and produce fashion in a network. Gilbert (2006, 10) advises: "it is necessary to understand cities as part of a world system, emphasizing the connections and interdependencies between major cities, but also their positions in a structured hierarchy."

The term globalization carries with it connotations of intensified flows of people, money, goods, images, information, and technology (Appadurai 1990). It does not necessarily create uniformity. The hegemonic character of fashion was broken with the emergence of exotic styles of dress in the 1960s and 1970s as a form of countercultural expression. The different fluxes of globalization were also pushed by fashion itself, and are very evident in the processes of many fast-fashion companies. A customer in the United States can purchase a sweater from a European brand, designed by a South-American designer, and produced in Southern Africa.

Of course, as previously mentioned, the different processes imply different fluxes of products, intelligence, and money. In the field of fashion, so-called "immaterial work" is the best appreciated and paid. Fast fashion has induced a radical change in the fashion industry. With the new model, fashion's dynamism reaches shores beyond the traditional corporate system, invades transnational populations in global cities, and forwards hybridizations of global and local influence in emerging centers of this so-called fast fashion (Gilbert 2006).

### **FAST FASHION**

In the late twentieth century, the fast fashion model caused a furor in fashion marketing. French and Italians dispute the invention of such "achievement". For Cietta (2010), the new business model emerged in the 1980s and 1990s in Italian retail, driven by changes in apparel production. Alternatively, Erner (2005) considers France the home of fast fashion, specifically the Paris district Sentier, in which small traders began to produce clothing slightly later, only after acknowledging consumers' demands and trends.

The main change introduced by fast fashion is the launch of more collections (Slack et. al. 2008). The Spanish company Zara launches an average of seventeen mini-collections in a single year (Godart 2010), while companies that are more traditional maintain two annual collections. The change began with the launch of intermediate collections between the two main collections. Those collections allowed a more frequent renewal of designs. The name of those in-between collections are often pre-spring and pre-fall. There are also some indicators that companies use the names Cruise

and Resort for special summer collections that are not necessarily launched during the summer.

The context of the rise of fast fashion responded to consumers' demands for new and good-looking products—rapidly adapted to the market from fashion shows. As characteristic of a modernity radicalization (Giddens 1991), the desire for increasingly urgent novelties on the catwalks implies the shortening of fashion production cycles due to consumer requirements. The new dynamic stresses the role of consumers, since they demand the availability of products when they want them (Cietta 2010). One of the foundations of such a system, however, originates in the United States of America, where real mass-production had already started in the 1960s.

The old production models lasted around six months and had as their starting point the trends predicted by forecasting agencies, *bureaux de style*. What drives the creation of fashion products in the fast-fashion model is usually sales efficiency. Fast-fashion companies substituted a logic in which companies respond directly to changing consumer demands for the logic of the designer. The responsiveness to the consumers' wishes is possible due to the industrial coordination of the supply chain, making it feasible for a new product to be available for purchase in few weeks.

The fashion market has difficulties that involve the production process. Among them are: 1) the risk of unpredictability of demand, and, 2) the management of the creative system and the supply chain (which includes the distribution of products at the points of sale). The greatest success of the fast fashion model is the coordinated management of creation, production, and distribution, for it became possible to develop products with shorter lead time, investing more assertively in the consumers' desires through the conjunction between the short circuit and a directly controlled distribution network<sup>2</sup> (Erner 2005).

Another relevant aspect of fast fashion is the low prices, which, in a certain manner, have illustrated the democratic approach of fashion since the second half of the twentieth century (Baldini 2005). The reasons for such practice are cheapened production, due to a poorly paid and outsourced workforce (Riello 2013) and the low-cost equipment compared with other industries. Another rate-reducing aspect consists in the non-payment of royalties to the great designers' houses of the original models that serve as inspiration for companies. At the same time, fast fashion companies save by not investing in fashion shows, magazines, advertising, and high-end shops (Ribeiro 2010).

Consumers do not see fast-fashion products as investment. Purchases are more frequent, and consumers use clothing items for the duration of about two collections (Mihm 2010). Low prices are attractive to consumers, who are able to please themselves more often, which becomes therapeutic phenomenon. According to Lipovestly (2007), with the purchase of small items, we have the opportunity not

<sup>2</sup> The original quote in Portuguese is: [...] através da "conjunção entre o circuito curto e uma rede de distribuição diretamente controlada" (Erner 2005, 146).

<sup>3</sup> The original quote in Portuguese is: „com a compra de pequenas peças, não só temos ocasião de exercer a escolha mais frequentemente, como também nos damos prazer mais vezes” (Lipovetsky 2007. 226).

only to exercise choice more often, but also to give us pleasure more often<sup>3</sup> (Lipovetsky 2007).

According to Delgado (2008), fast fashion operates according to a logic of homogeneous demand, and on the assumption that the whole globe would be interested in the same aesthetic trends and fashion proposals, without paying attention to local characteristics. Global media works towards the increase of a homogenized taste, and is also enhanced by the fast and wide access to the internet and cable television—*mediascapes* (Appadurai 1990). The homogenization of demand corroborates with reduced costs, since companies produce a single clothing item on a large scale for worldwide distribution.

Overall, one can consider that fast fashion operates on a model of rapid production, mostly by verticalizing the production chain, where one actor controls the whole design-production-retail chain. Another strategy of rapid production in the productive structure, relying on an elastic and decentralized distribution network. As the name fast fashion suggests, the biggest innovation involves the *time to market*. Both models meet the required speed by excluding lengthy design and patterning processes, mostly by copying trends and styles directly from the catwalk and offering them in a *delivery flow* rather than in a collection structure (Saviolo & Testa 2015).

### **THE BRAND ZARA®**

Founded in La Coruña, Spain, in 1975, the brand started as a lingerie business (Mihm 2010). In 1985, Inditex Group—Industria de Diseño Textil—purchased and incorporated the brand. Currently, the brand is the group's largest contributor, selling fashion, accessories, shoes, and decoration products in more than 1,600 points of sale in eighty-two countries (Inditex 2013).

Around forty new products enter Zara's stores every replacement day. The wide range is the key differentiator of Zara: rapid creation and distribution. The company uses the so-called vertical integration model, controlling every part of design procedures, manufacturing, and distribution. According to the reviewed data, design takes place in La Coruña and involves a team of 260 designers in the group's headquarters in the industrial center. The design collections adopt the most urgent fashion trends, also called micro-trends. There is also a strong reference to the “inspiration” of renowned designers' collections and fashion week catwalk shows, suggesting copying or plagiarism.

The main job of the designers is to adapt—translate—the northern hemisphere collections for the southern hemisphere, in which Brazil is prominent. The practice of „translation” involves amending specific aspects of each clothing item, such as fabrics, prints and colors to the mood and preferences of the southern half of the globe. According to Mihm (2010), 85 percent of the product line offered at different points of sale is standard and only 15 percent varies according to local



tastes. As strategy attending to local tastes, the Zara network works so that each store manager is an informant of successes and failures of the collections—along with sales and stock data. Consequently, the point of sale is not the end of the supply chain, but the beginning (Slack et al. 2008).

To promptly meet the retail demands, the company adopts Quick response manufacturing or Just-in-time manufacturing (Minadeo 2008). Unlike other fashion companies, which have about eighty percent of its collection already produced at the collection launch, Zara produces only fifteen percent of its clothing before the season, fifty percent at the beginning of the season, and the remaining thirty-five percent during the season; based on information from points of sale (Kumar & Linguri 2006). Part of the strategy is to have vast amounts of basic pieces made with neutral fabric—without color or prints—and submit them for modifications only after acknowledging consumer preferences (Mihm 2010).

The creation and production chain takes merely two weeks, i.e., the entire company manages to go from scratch to product in only fifteen days (Tiplady 2006). Thus, “the speed of response, [the] time to produce a new collection fell from twenty-four months to a few weeks” (Cietta 2010, 23). Zara produces approximately sixty percent of its collection in its own factories in La Coruña, which contributes to the ability to operate with such short production periods. After production, the clothing items travel to the logistics center located in northern Spain for exportation (Mihm 2010). In European countries, the produced items arrive at Zara’s points of sale within twenty-four hours— by truck—and in up to thirty-six hours in countries that are further afield. To reflect the costs of logistics and importation, prices vary from country to country; in Spain, Zara charges its lowest prices.

Another success factor is the supply-chain approach. The strategy is to maintain low stock levels. Like other brands of fast fashion, Zara tends to fill shelves with new products, rather than replacing old products. By doing so, the brand motivates consumers to buy the products before they definitely disappear from the stores (Ferdows, Lewis & Machuca 2004), encouraging frequent visits and purchases. This reinforces the novelty appeal and avoids a product-crowded store. The company collects and relocates items that remain in the store for over two weeks (Minadeo 2008) so that the shelves are deliberately left empty.

### **THE ZARA SISTER STORE IN FLORIANÓPOLIS**

The first Zara sister store opened in Florianópolis in 2008, right after the opening of a new mall—*Shopping Iguatemi*, a shopping center chain of São Paulo. Just like all the stores of the Inditex Group, this store belongs directly to the group, without corresponding to the franchising model operated by many retail chains. The store occupies

a major area of the first floor of the mall, being an anchor store. In this space, Zara's area is divided into three sections: male, female and children—with each one being coordinated by a specific manager.

All the names of the internal sectors come from Spain without changes. The male section is entitled *Cro*, the child, *Niño* and the female, *Señora*. Each section offers different product lines, from formal to casual. The female sector offers, as in all Zara stores, the product lines *Woman*, *Basic* and *Trafaluc*. Whereas *Basic* changes little with time, depending on the trends on color, and the lines *Woman* and *Trafaluc* are more volatile to obvious aesthetic changes. The male section also offers both basic and trendier items, but without line differentiation.

The offered pieces come from different industrial parks around the world, which rules out the existence of any unique production center close to the single creation center in La Coruña. Most of the jeans originate from São Paulo and address the Brazilian tradition, specifically regarding jeans patterning. Argentina produces the greatest part of the available clothing, due to its geographic proximity.

The interviewers reported the existence of a Zara creation center in Brazil, in the state of São Paulo. The style team creates for the national and for the international market. The representative of the Brazilian design team presents the clothing ideas to the Spanish design team in La Coruña, who select them based on marketability. The Florianópolis' store manager, Natasha, stated that even the clothing items created and produced in Brazil are presented to the European public before coming to Brazil.

Based on the experience in Spain, the clothing items that sell well arrive in the Brazilian sister stores. Hence, Spain—and the entire northern hemisphere—serves as a laboratory to evaluate which products will go to the southern hemisphere. The top selling items go through another filter that corresponds to the local public's characteristics. According to a former-employee, Lara, one of the preferences of the local public is the preference for vibrant colors and patterns, such as animal prints.

Lara also reports that Brazilian women's body specificities require the alteration of clothing sizes, which need to be larger in Brazil than in Europe. However, the store manager, Natasha, denies the size-grading alteration, insisting that it is standardized worldwide. Also regarding the sizes, Natasha affirms that the brand does not offer the products in very large sizes. The grading, limited to smaller sizes, is a consciously aimed at the slimmer woman, excluding those not adequate to the brands'—and fashion's—standards.

As the literature proposes, the replacement of clothes on the shelves is the main activity of the employees. The store works in the system of self-service—which diverges from the traditional fashion retail models in Brazil. According to Natasha, the local public is not yet accustomed to shopping in department stores—which are traditional in Europe and

in the United States. The selling approach of Zara, however, intends to educate the Brazilian consumer in the model, since the store employees do not offer help and only speak to clients when spoken to.

It is also a common practice in Zara clothing items to be discontinued after the production batch sells out completely. Natasha says that with time, the clients get used to buying the clothes as they see them for the first time because they know there is a high chance that the product will be unavailable within days. The store's design tactic encourages purchases. In specific cases, the brand re-launches top-selling items, but usually with a different finishing or detail, or in a different color or print.

A former employee, Lara, commented that more people frequent the store on weekends or after 6:00 p.m. on weekdays, when the high-street closes. Sunday is the busiest day. Another former employee, Renata, said that people do buy on Sundays; conversely, Lara drew attention to the large crowd that visits the store without purchasing anything. According to Lara, many visit Zara to know and be able to copy the season's trends. This public often buys from Chinese websites, which offer similar products in extreme low prices, and in more popular local retail chains, such as Sul Center in Florianópolis. As a result, this public would visit Zara with the goal of finding out which clothes to buy in other sale points.

Employees and clients do not know about launched collections and there are no events or fashion shows to launch a new collection. For the internal worker and external public the only visible collection division is between summer and winter clothing, but recurrences of winter clothes in summer and vice-versa also occur. The employees—regardless of level—are unaware the specific collections and just know that new clothes come twice a week—on Tuesdays and Fridays. Renata, who holds a degree in fashion, recalled that one can notice similar or matching pieces that could compose a fashion collection, but which Zara does not officially communicate.

One of Zara's employees is to follow catwalk shows and the fashion weeks of Paris, London, Milan and New York. They also need to be acquainted with the latest trends. Lara mentions that the female department manager, Carolina, indicates the website *Fashion Forward* (<http://ffw.com.br/>) as information source. The knowledge is central, because Zara often appropriates international catwalk shows and *haute couture* collections as points of reference for the products they offer—having them match the catwalk trends.

When asked about the reason for Zara's success, opinions diverge. Some attest that the material quality of products is higher than the apparent national competition, for example, the brands Riachuelo and Renner; others reject the idea of associating Zara with superior material quality. However, they share the impression that the brand's distinctive feature is fashionable appeal, which the local companies have not yet managed to reproduce. This alignment with trends and the ur-

gent answer to novelty allow Zara to launch products far in advance of the market. For Lara, another distinctive feature is the brand itself and the strong tradition of European fashion.

### **ZARA AND A CREATIVE DYNAMISM**

The fashion world is distinctive for its highly fragmented fluxes of messages, processes, projects, languages and forms that do not present a single vision (Próni 2008). The fragmentation of fashion media and processes characterize modernity's radicalization (Giddens, Lash & Beck 2012) that accelerates the rhythm of change and puts its trust less and less in trend forecasting reports. The Zara store in Florianópolis confirms the business model of rapid response that almost eliminates experts forecasting fashion trends.

Zara's success is testified by the fact that the fashion market is experiencing the fall of explicit seasonal collections and is being forced into institutionalized fashion trends. On the other hand, "global" media incites similar desires in a vast fashion-enthusiastic public. Zara addresses a large public with its broadening of the product range and the rapid response to fads publicized by the formal and informal media in websites, blogs and other popular media, such as the currently popular Instagram and Snapchat; in total composing a *mediascape* (Appadurai 1990) and a global community of fashion enthusiasts.

The importance of technology—*technoscape* (Appadurai 1990)—is also explicit and essential to the business connections in different parts of the world at the present stage of globalization. There is a wide range of technologies that directly influence and support the development of fast fashion. Intricate operating systems allow Zara to capture information and readily alter product offerings to the store in Florianópolis, supported by flexible supply chains, processes of creation, production, logistics, and retail.

One might think that the public of Florianópolis is not fully adequate to Zara's retail model that falls into the category department store. It reflects the local resistance to giving up the personalized service tradition in regular stores. As well as other department stores, the Zara store in Shopping Iguatemi in Florianópolis can be considered a non-place (Augé, 1992), given the anonymity of its clients and attendants—who could be substituted by mannequins—and the fact that labels, cash registers, and credit cards are the mediators of the interactions inside the store.

Nevertheless, considering the brand opened another point of sale on the outskirts of the city in 2013, the retail chain is successful in Florianópolis. In total, there are more than 1,600 Zara stores worldwide, of which fifty-five are in Brazil. Despite not investing large amounts of money in traditional advertising, the brand gained notoriety for investing in brand loyalty through the reputation of employees and opinion leaders (Cietta 2010), which was reinforced by

the success of its products—whose discontinuation strategy leads to clothing items becoming “irresistible”. Thus, the brand achieves massive profits and reaches new markets with a fast and supposedly globalized fashion.

Overall, Zara cultivates the air of fashion boutiques without the exorbitant prices and invests in its brand name rather than in the name of designers. The clothes are inexpensive and the prices are rarely reduced, which implies profits. In Brazil, however, the cost of the clothing items is considerably higher when compared with Europe. According to the store manager in Florianópolis, the price increase is directly related to the import and logistic costs. In turn, the markup cost suits a Brazilian public that already has awareness of the brand from their travels to Europe, which helped the brand’s positioning in Brazil.

Considering the Brazilian market, the brands who could compete with Zara either offer similar product appeal for much higher costs or similar costs for rather basic or unattractive products. Zara is an enormous company that controls the whole design-production-retail process and smaller Brazilian companies cannot compete with Zara’s strength and control, often depending on less stable and trustworthy suppliers and retailers. Furthermore, despite being considered a regular brand in Europe, Zara enters the Brazilian market as European brand and is associated with the historical value of European expertise in fashion.

The positive valuation of Zara as European fashion by the local (Florianópolis) public coincides with the fashion tradition of the continent. Accordingly, some brand practices reinforce the idea of an earlier developed fashion system, such as having a delayed product launch calendar in the southern hemisphere—suggesting that Brazilian fashion is lagging behind European fashion. As for being Spanish, the brand’s success has already broken with the hegemony of French, Italian, and English fashion expertise, but it also maintains the dominance of European fashion in the sector.

Making reference to a global fashion, but with a European tag, Zara commercializes similar products worldwide, slightly altering attributes such as color and print according to sales data. Also, although they have different creative centers around the world, all designs must be accepted by the European public—being multicultural does not reflect global heterogeneity.

Often in fast fashion, copyright and patent registration is faced with the reproduction (or adaption) of *prêt-à-porter* designers. Although the great designers complain about the illegality of copy, it is also evident that in this way fashionable creations became accessible to a much larger public. Johanna Blakely (2013) attests that the freedom of copying in the fashion industry is revolutionary. As utility items of basic (not always so basic) needs, clothes cannot be patented in the USA and are only rarely in Europe. Even if patenting

were possible, it would not likely happen, since a designer collection presents numerous clothing items and is completely renewed within months.

The context analyzed by this work elucidates the inspiring appropriation of designs from famous *prêt-à-porter* designers by Zara, but also the reproduction and appropriation of Zara's versions of designs by national and local brands. The Florianópolis retail store in Sul Center offers global products, sometimes visually identical to those of Zara, for much lower prices. Zara's affiliate in Florianópolis not only provides products visually similar to those of fashion houses at a price affordable for the local upper-middle class, but also works as a mediator of the major trends from the catwalks to the lower-middle and lower classes. By doing so, Zara anticipates the speed with which the public with less purchasing power assimilates fashion trends.

The recent furor of designers giving up their positions due to industry pressure draws attention to the industry's creative (un)sustainability (Corner 2014). As a strategy for escaping the copies of fast-fashion companies, other brands have positioned themselves differently in the market regarding traditional fashion specificities. For example, in the latest fashion week shows, British house Burberry has completely altered the fashion calendar and geography by presenting a collection without seasons, available in stores directly after the show and with the intention of appealing to clients in both hemispheres—a model called “see-now/buy-now” (Friedman 2016).

In addition to the effort of fashion houses and designers to strengthen intellectual property laws, in the recently published article “The Copycat Economy”, Vanessa Pike presents the following strategies of designers as a form of protecting their creations. One of them is the use of technical fabrics and complicated designs that cannot be easily copied or reproduced in low-cost production. Another strategy is close communication with customers through the internet; by defending their designs, and going public against plagiarism (Op. cit.).

These strategies aim to prevent an old habit in fashion. According to Pike (2016), already in the 1930s Worth started labeling his clothes in the attempt to authenticate his creations and avoid unauthorized copies. Fast-fashion companies build their business by assimilating other designers' creations and reproducing them for lower prices and therefore are viewed badly by the fashion business. The “Piracy Paradox” that considers the benefits of copying within fashion is rejected by Pike (2016). Traditional fashion cycles have been accelerated since information has become accessible instantaneously on the internet. In such a scenario, she contends that “copyists are winning right now” (Op. cit.).

However, a group of theorists and other actors consider piracy rather positive for the fashion system, considering the drive for creating new products and styles, defending the “Piracy Paradox”. The

threat of copying stimulates not only more elaborate designs, but also the creation of new strategies in fashion, whether in product design, marketing or retailing. This dynamism—long since characteristic of fashion—stimulates the creative efforts of fashion designers, who increasingly provide news creations for the public, making fashion an even greater creative force that never tires of reinventing itself.



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# **A FRAMEWORK FOR UNDERSTANDING THE POSSIBLE INTERSECTIONS OF DESIGN WITH OPEN, P2P, DIFFUSE, DISTRIBUTED AND DECENTRALIZED SYSTEMS**

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**Massimo Menichinelli**

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## **ABSTRACT**

Since the turn of the century, the discipline of design has increasingly focused its attention on its application to projects and groups of users at a larger scale. Researchers and practitioners have tried to understand how design could shift its focus from single users to local and online communities, from isolated projects to whole complex systems. These new perspectives consequently brought the interest of designers to the tools and strategies that can enable their interactions with larger groups of people distributed in several localities. More specifically, designers and researchers started adopting many approaches coming from software development and web-based technologies, like open source, P2P, diffuse, distributed and decentralized systems. This article proposes a preliminary framework for understanding and working with the integration of design with open, P2P, diffuse, distributed and decentralized systems. In one direction, such open, P2P, DDD systems can be applied into design practice: this first intersection has many applications, from digital projects to P2P-based initiatives to physical projects designed and manufactured on global networks of distributed laboratories like Fab Labs and Makerspaces. In another direction, design practice can also have a role in enabling such systems through the analysis, visualization, and design of their collaborative tools, platforms, processes, and organizations. Design, therefore, could learn from such systems and also improve them. This second intersection falls into the meta-design domain, where designers can have a role in building environments for the collaborative design of open processes and their resulting organizations.

The article therefore addresses this phenomenon by providing both an analysis of the concepts and the history of both directions and, in order to understand the phenomena with a broader overview, it proposes a preliminary framework for understanding the possible intersections of design with open, P2P, diffuse, distributed and decentralized systems through both literature and case studies. As the framework is still preliminary, the article provides as a conclusion some possible strategies for validating or improving the framework.

## **INTRODUCTION**

Since the turn of the last century, the discipline of design<sup>1</sup> has increasingly focused its attention on its application to projects and groups of users on a larger scale than in the previous decades. Several approaches have addressed the participation of users inside design processes, from participatory design to user-centered design, from user experience design to co-design (Rizzo 2009). Even in the art world, participation has been relevant in the past decades, especially with new media art, net art<sup>2</sup> and activism (Bazzichelli 2008; Dezeuze 2012) where it has grown on a larger scale. More recently, design researchers have worked on co-designing with communities instead of single users (David, Sabiescu & Cantoni 2013), and even with online communities using both online and offline tools (Näkki & Antikainen 2008). The shift from local to online communities is important in the path towards including more users in the design processes, potentially even a large number of them thanks to the scaling and enabling features of social media and online platforms. Researchers and practitioners have tried therefore to understand how design could shift its focus from single users to local and online communities, from isolated projects to whole complex systems. The social, economic and technological changes of the past decades have created new scenarios that are strongly influenced by the phenomena of globalization, the quest for sustainability and recurring economic crises. All these phenomena have brought to the attention of a considerable number of researchers and practitioners in many fields the emerging role of territories and of the communities that live in them for shaping the future of society. Even the design discipline itself—which traditionally focused only on artifacts (be they material or immaterial), but much less on territories and communities—has, since the first years of this century, started to focus on how it could address and foster local resources, communities, and initiatives. Some research projects, workshops, and exhibitions were developed, especially in Europe and Italy, with the focus on the relationships between design and local resources, communities, identities and economies (Verwijnen & Karkku 2004; Fagnoni, Gambaro & Vannicola 2004; Cristallo et al. 2006). Some of these researches also focused on how design could interact with the local dimension and the local community (Villari 2013; Maffei & Villari 2006; Menichinelli 2006). These new perspectives have consequently brought the interest of designers and design researchers to the tools and strategies that can enable their interactions with larger groups of people distributed in several localities. More specifically, designers and researchers

<sup>1</sup> The design term has several meanings in the English language and it is adopted by several disciplines. Within this paper, we consider design any project or approach developed by the professional and research community of designers, in all its kinds (industrial design, graphic design, interaction design, and so on), and therefore it could refer to both digital and physical artifacts, material and immaterial projects.

<sup>2</sup> Within this paper, we refer to net art broadly as artworks and approaches developed with the support of Internet for their development, fruition, interaction and participation by users.

started adopting many approaches coming from software development and web-based initiatives and technologies, like *open source*, *P2P*, *diffuse*, *distributed* and *decentralized systems* [Fig. 4].

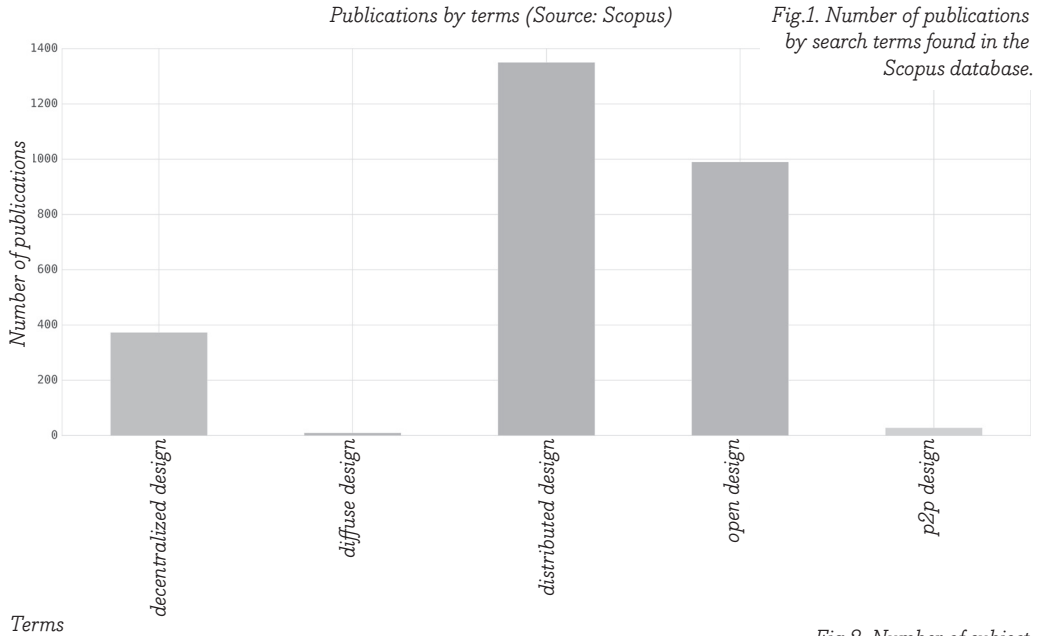
All these web-based initiatives and technologies have become interesting for their ability to exploit the possibility of scaling to hundreds or thousands of people. This new scale for participation and for projects also brought more interest to the dimension of complexity, which is one of the frontiers for the discipline of design, both for visualizing it and for embracing it in many directions. The complexity of the local dimension and of the collective intelligence emerging from potentially high scale participation are redefining many design approaches.

In this direction, we might find relevant and useful all the possible projects, approaches and tools that may be generated from the intersections of the design discipline with open, P2P, DDD systems. One of the most popular approaches is open design, intended as the intersection of design with open source, which is an approach commonly credited to the designer Ronen Kadushin (Troxler 2011). According to Ronen Kadushin, open design projects are strictly CAD information published online under a Creative Commons license that can be downloaded, produced, copied, modified, and produced directly from file by CNC machines (Kadushin 2010). Further research has investigated the dimension of the open design phenomenon by addressing open source physical objects (Balka, Raasch, & Herstatt 2009; Raasch, Herstatt, & Balka 2009). This current article argues that there might be many more approaches generated from the intersections of the discipline of design with open, P2P, DDD systems and that they are not necessarily restricted to tangible goods, since many design projects are immaterial or digital. In order to explore this landscape, a search for possible publications was done in several databases like Scopus, Web of Science, JSTOR, Google Scholar [Table 1]:

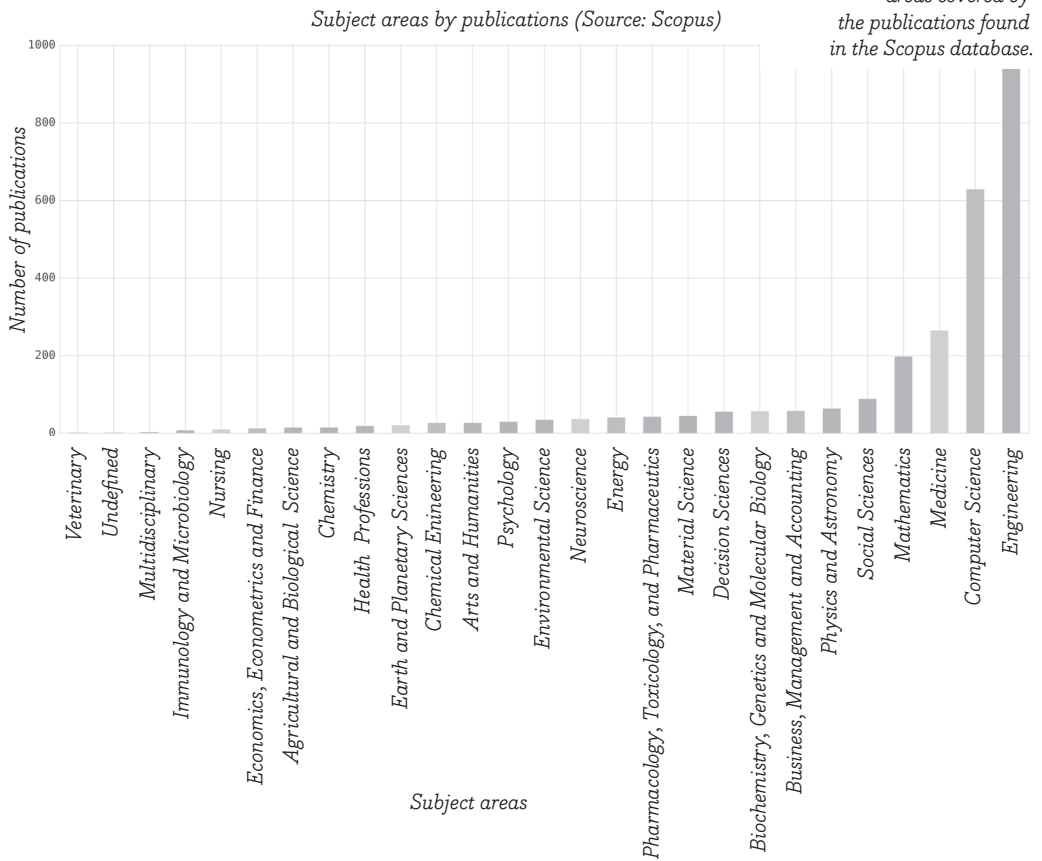
Search term	Scopus	Web of Science	JSTOR	Google Scholar
“open design”	636	754	36	400
“p2p design”	23	8	0	22
“distributed design”	817	557	26	985
“diffuse design”	6	6	0	0
“decentralized design”	232	111	11	144

Table 1. Number of possible publications about the intersections of design with open, P2P, DDD Systems in the databases of Scopus, Web of Science, JSTOR, Google Scholar. The terms were searched in title, keywords, abstracts except for Google Scholar, where they were searched in title only.

The results from the databases generally fall in the same scale. The data gathered from Scopus was further investigated, since it provided additional metadata regarding the subject areas and time of the publications. We can generally observe that the publications mostly cover distributed, open and then decentralized design, and very little P2P and diffuse design [Fig. 1]. The publications were mainly produced in the subject areas of engineering and computer science; medicine and mathematics followed [Fig. 2].



*Fig.1. Number of publications by search terms found in the Scopus database.*



*Fig.2. Number of subject areas covered by the publications found in the Scopus database.*

Arts and humanities, and subject areas related to design and net art are poorly represented, showing that the publications in such disciplines are either few, not mapped by Scopus, or that the size of the phenomenon is still small. Furthermore, data about the date of publication shows how the topics were not really addressed in the 1960s and 1970s, but they mostly grew in popularity the 1990s and have experienced a high growth since the 2000s [Fig.3].

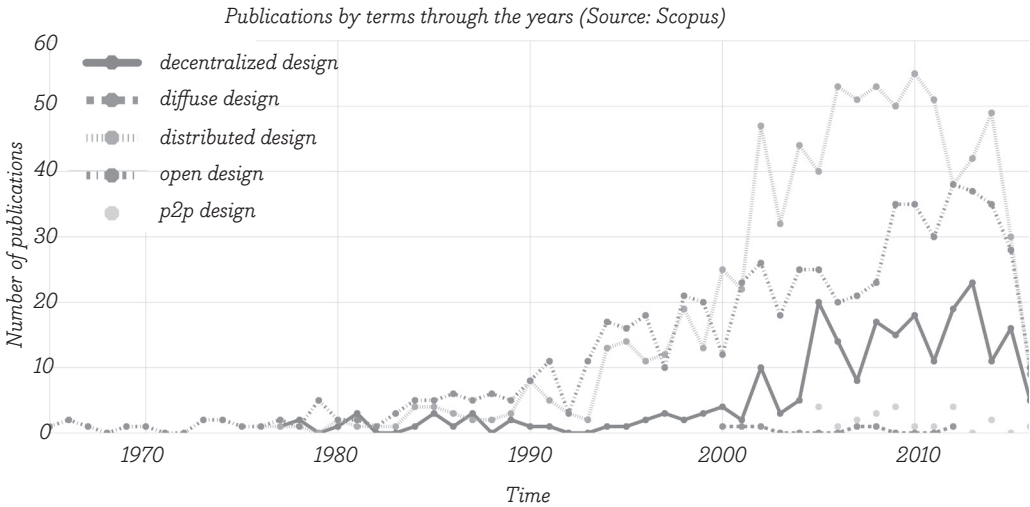


Fig.3. Time plot of the number of publications by search terms found in the Scopus database.

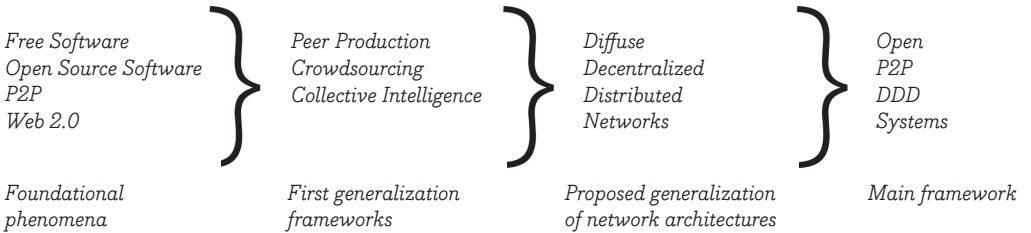
The gathered publications could be therefore only partially related to the discipline of design, only very recently for their majority, and unevenly among open, P2P and DDD systems; questioning the ability of such literature or of such databases to explain the phenomenon, or suggesting that more extensive research could provide more insight. Therefore, the thesis of this paper is that there might be many more approaches generated from the intersections of the discipline of design with open, P2P, DDD systems, that they are not necessarily restricted to tangible goods, that existing literature might be insufficient for understanding them, and that a preliminary framework could be proposed here by analyzing both literature and practical cases. Such a framework is intended for future literature and case analysis in order to enable design researchers to both understand the phenomenon and improve or reject the framework, and design practitioners to know which possible formats, approaches, tools and projects could be adopted in designing projects in their work and how many combinations are possible at the moment, for designing new approaches and tools. A preliminary framework needs validation, rejection, or modifications, and possible strategies for this evolution are outlined in the conclusions of this article.

In order to build this preliminary framework, relevant literature and cases regarding the intersections of design with open, P2P, DDD sys-



tems were analyzed by trying to understand how they integrate, especially with regard to three questions: 1) is the case/publication inspired by open, P2P, DDD systems? 2) is the case/publication based on the adoption of open, P2P, DDD systems? 3) is the case/publication aimed at designing open, P2P, DDD systems? After analyzing the cases and publications, the position of this article is that design could interact with *open source, P2P, diffuse, distributed and decentralized systems* in two directions: 1) by embracing them in its practices or 2) by applying its practices in order to improve and implement them [Fig. 6]. Many projects and publications have been produced in both directions, but generally with more focus on how design could adopt open source practices and tools inside its practice. Both directions could be therefore explored more by design practitioners and researchers. The article therefore addresses this phenomena by providing both an analysis of the concepts and the history of both directions and, in order to understand the phenomena with a broader overview, it proposes a framework for understanding current possible intersections of design with *open, P2P, diffuse, distributed and decentralized systems* through literature review and case studies. In conclusion, it points to possible strategies for validation and evolution of the framework.

**PROMISING APPROACHES FOR DESIGNING AT A LARGER SCALE: OPEN, P2P, DIFFUSE, DISTRIBUTED AND DECENTRALIZED SYSTEMS**



The introduction of digital technologies in the past decades has either enabled new forms of organization and new forms of distribution of resources, or it has modified or rendered obsolete old forms, especially thanks to infrastructures such global network of devices and technologies (the Internet) or information and documents (the World Wide Web). These technologies have shaped new ways of working and participating in projects, which in turn have contributed to shaping these technologies. These new technologies and their related organizational forms have been experimented with not only in software and web projects, but also in projects related to music, biotechnology, movies, science, art, design and so on (Goetz 2003). There are, however, different formats, terms, and approaches for understanding and therefore designing with and for these web-enabled technologies and organizational forms. In order to understand the possible relationships be-

*Fig.4. Frameworks for understanding mass-participation phenomena.*

tween design and them, this section provides a brief overview of them through a literature review and some cases. This overview intends to establish a starting point for a connection between open, P2P, DDD systems and their integration with design in the next two sections.

These technologies and organizational forms have become interesting for their ability to enable participation, collaboration, and sharing on a mass level. Historically, their origin can be traced back to the first years of computer science and software development, when it took place in many academic institutions, and from where it also took the ethic of sharing and participation which would later become the *Hacker ethic* (Himanen 2001). At the beginning of the 1980s, however, the software industry started changing its business models with the introduction of personal computers, and the development of software was less based on sharing and more on closed strategies based on proprietary rather than common licenses. In 1985, Richard Stallman founded an initiative that would be the starting point for renewed interest in sharing and collaboration: for him, being able to access the source code of a software is a requirement for personal freedom, hence the term *free software* (and the Free Software Foundation he established for facilitating its development) (Stallman 2002). The main components of free software were the *GNU operating system* and the *GPL license*, which are still the basis for many projects today. The free software movement, however, grew slowly because of the difficulties in finding like-minded hackers. A turning point came with the opening up of the Internet to the general public at the beginning of the 1990s, which enabled more hackers to meet and create a community, and Linus Torvalds to develop the core of the *GNU operating system*, the *Linux kernel* (hence the more formal name *GNU/Linux* for the commonly named Linux operating systems). Linux proved to be another foundational project, not just on the technical level, but also for proving that a complex project could be developed by an online community in a more efficient way than a traditional closed and hierarchical project: the participation of a large complex social system is the key to its success (Raymond 1999; Kuwabara 2000). The term *free* was controversial and less accepted by companies, and in order to promote the concepts further, a group of hackers developed the term *open source* and the Open Source Initiative instead (Perens 1999), shifting the focus from freedom to openness, with a stronger accent on methods and processes than on philosophy, with more focus on the design of systems and processes than on ideas and principles. Both terms and approaches overlap and have different nuances at the same time, but the term *open source* gained particular momentum and became an inspiration for the adoption of the same practices and principles outside the software movement, a phenomenon that was firstly witnessed at the beginning of the 2000s (Goetz 2003) and that has sometimes been called *open source everything* (Steele 2012). The concept has been considered not just in terms of technology, but as an organiza-

tional form and approach more suited to the knowledge society (Mulgan, Steinberg, & Salem 2005).

Like software development, the same trend is found with Web platforms which, around 2005, stopped being static or managed only by a closed team and started opening the production of content to every user. This phenomenon became associated with a further evolution of the Web and therefore of many initiatives that could be organized on the Web, thanks to the term *web 2.0* (O'Reilly 2005). New online platforms like YouTube or Facebook emerged and at the time they were considered as both new kind of business and a social experiment of digital democracy on a mass scale, thus also representing a further evolution in the role of citizens (Grossman 2006). All these free, open and 2.0 initiatives of potential mass-collaboration were then analyzed mainly in terms of business potential (Tapscott & Williams 2006; Tapscott & Williams 2010) or in terms social and collaborative approaches which could lead to the emergence of a global *collective intelligence* (Leadbeater 2009; Shirky 2008; Shirky 2011; Surowiecki 2005). All these approaches tried to create a framework for understanding and promoting these initiatives of mass-collaboration, and slowly more differences and criticisms emerged in the approaches and in the literature and public opinion. The term *crowdsourcing*, for example, started as a generic term for mass-collaboration (Howe 2006; Howe 2008), but later became more synonymous with mass-competition where tasks are highly regimented and pre-specified in order to exploit cost reduction thanks to the outsourcing to the online crowd, rather than a free and collective exploration of creative opportunities (Benkler 2016). Web 2.0 platforms and social media are increasingly under the analysis regarding their real neutral position and influence on the social, political, and economic dimensions of society (Lovink & Rasch 2013; Morozov 2014; Morozov 2012). The increase in the size of such platforms has brought more side effects to society and welfare (Morozov 2016) and politics (Epstein 2015) than just global interactions; there are effects that work at a deeper level, affecting our relationship with knowledge by making us privilege some ways of processing information over others, with unprecedented dynamics that are not always necessarily democratic or expressions of a collective intelligence, and with more profound philosophical and epistemological implications (Lynch 2016). These critical dimensions further suggest how such formats are not always completely positive, but also how important it is to reflect on how it would be possible to modify and design them.

Some approaches therefore have tried to find differences among all these cases of mass-participation. A relevant approach that focuses on the organizational and economic implications of such initiatives is the concept of *peer production* (Benkler 2002), which consists of a subset of cases of collective intelligence where control and activity are decentralized, where monetary and non-monetary incentives are present and where inputs and outputs are mostly governed as open

commons (Benkler 2016). Peer production is important not as a technological innovation, but rather as an innovation in the organization of work thanks to technology, which enables an organization different from markets or hierarchies. In peer production, the distributed pool of users/designers participating in a project can better identify who is the best person for a task, with an improved identification and allocation of human creativity, since human knowledge, experiences and skills are highly variable and distributed. The concept of peer production has been mainly developed around the production of digital content, but it has also inspired discussion around how it could be applied to physical goods (Siefkes 2008; Bauwens 2009).

The same goal of generalizing methods and principles from mass-collaboration to the whole society is one of the aspects that has generated interesting reflections on the possible dynamics enabled by *peer-to-peer* software, where nodes in the network (devices, but also users) are directly connected without a middleman. Peer-to-peer software infamously emerged at the end of the 1990s with the file-sharing service *Napster* and are therefore commonly linked to the illegal distribution of digital content. However, such and similar cases proved to be more interesting because of their more efficient distribution for a much wider variety of content than a traditional centralized network (Benkler 2002). Furthermore, this principle for social interaction has been elaborated as a whole scenario for a sustainable future society besides mere software applications (Bauwens 2005; Kostakis & Bauwens 2014). Peer-to-peer software is indeed bringing innovative approaches to many practices, and not just in video-conference systems or file sharing. An interesting example in this direction comes from *Bitcoin*, a peer-to-peer based software that enables decentralized pseudonymous transactions of a digital currency which is in turn generated by the distributed data processing that users offer in order to verify and record such transactions in a distributed database, the *blockchain* (Nakamoto 2008). The blockchain is what is commonly considered as the most innovative component of Bitcoin, as the decentralized “trustless” proof mechanism of all the transactions on the network, that can be extended from currency to markets to organization, art and many other projects (Swan 2015). The global interest around Bitcoin and the blockchain has generated many experiments and approaches regarding their generalization, like *Dapps* (decentralized applications), *DAOs* (decentralized autonomous organizations), *DACs* (decentralized autonomous corporations), and *DASs* (decentralized autonomous societies). All these terms essentially propose peer-to-peer-based and sometimes AI-based software that can decentralize consensus without a centralized communication and control that can manage organizations, sometimes in an autonomous way (Swan 2015; Raval 2016).

We have seen the main technologies and related organizational forms, principles and framework that have influenced the general

awareness about the possibilities and modalities for managing participation (collaboration and competition) on a mass scale. They mostly refer to decentralized communications where each participant is a peer, where the work is based on shared assets and outcomes and agency is distributed over networks. All these initiatives started as technological innovation but have also reached (or are believed to reach in the future) the economic and social dimensions of society. As we have seen, there is a common stress on the distributed and decentralized nature of communication, control and agency in socio-technological networks. The distinction between centralized, decentralized and distributed networks of communication has been part of many reflections on the architecture of communication networks since the inception of the Internet, with the goal of designing a network that could withstand enemy attacks (Baran 1964). These, however, are mainly theoretical discussions about ideal types of networks, and many times there are no clear boundaries and definitions of them, or terms are adopted mainly as a reaction to traditional hierarchies, intended as centralized networks where one node control all the other nodes or the interactions among the other nodes. As a conclusion of this section, we propose to integrate open and P2P dynamics into a simple framework that tries to clarify such concepts of systems defined by network architectures as the fundamental architecture of social and technological interactions. We propose to add a *diffuse* kind of system, and we integrate diffuse, distributed and decentralized systems with open and P2P systems, extending Paul Baran's famous visualization of networks (Baran 1964) [Figure 4 — Figure 6]:

*Diffuse systems:* the general meaning of this term could be linked to ill-organized, not concentrated or localized initiatives ("Diffuse" 2015). Therefore, they could generally refer to systems where the agents are spread and not connected or coordinated (if not at the local level within a very short range) and where activities and assets are not homogeneously present in all the agents.

*Distributed systems:* the general meaning of this term could be linked to computer networks in which processing and storage of information is shared among many coordinated devices ("Distributed" 2015). Therefore, they could generally refer to systems where activities and assets are shared and coordinated among the agents, and where control and influence is spread as much as possible among the agents and locally optimized at short range.

*Decentralized systems:* the general meaning of this term could be linked to the dispersion, distribution, or delegation of functions, position and powers from a central authority or place to regional and local authorities or places ("Decentralization" 2015). Therefore, they could generally refer to systems where activities and assets are shared and coordinated among the agents, and where control and influence is con-

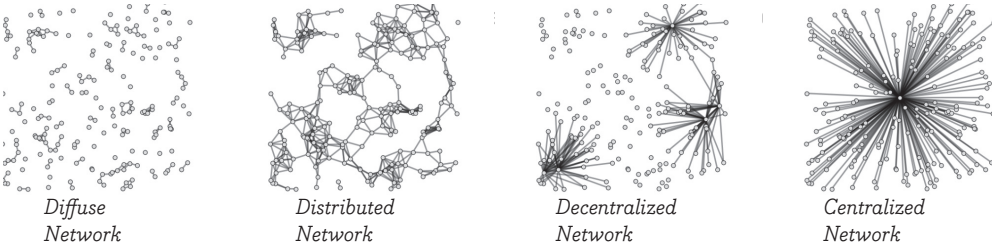


Fig.5. Network simulations for DDD Systems.

<sup>3</sup> <https://gist.github.com/openp2pdesign/ecb64798f004bd9c7619a5445d3cbfe4>

The framework of such DDD systems is a preliminary and broad one, and it would require a more complex formulation that is beyond the scope of this article, especially with approaches related to network science in order to uncover its network structure. This article proposes a simple and preliminary description, in order to build the preliminary framework of design with open, P2P, DDD systems. In this case, DDD networks were simulated by software [Fig.6]<sup>3</sup>, providing a first rough description of such networks: 1) in diffuse systems, nodes are connected by network proximity at a very low distance, enabling only very local structures; 2) in distributed systems, nodes are connected by proximity, but at a larger distance, enabling local structures to be connected globally; 3) in decentralized systems, nodes are connected by proximity to local hubs which are more important in the networks; 4) in centralized systems, nodes are connected to one or very few hubs who completely control the whole network.

Open and P2P systems, coupled with general DDD systems can be regarded as the main framework for understanding phenomena of mass-participation. The intersections of these phenomena with the design discipline has generated several approaches and applications that will be explored in the next two sections and that will be referred by number to the main visualization of the framework proposed in this article [Figure 4 — Figure 6]. There are two main directions for the intersections we will examine here, and the following sections will address them in their interactions with design.

### **DESIGN ADOPTS OPEN, P2P, DIFFUSE, DISTRIBUTED AND DECENTRALIZED SYSTEMS**

In one direction (1), such open, P2P, diffuse, distributed and decentralized systems can be applied in design practice: this first intersection has many applications, mostly with the open source practice. The open design phenomenon (1.1) has passed through a first stage of hypotheses and first attempts (1999-2005), then through a period of expansion and construction of an ecosystem between several projects (2005-2010), and finally to a stage of relevant interest from mainstream researchers, media and institutions (2010-) in which it is seen not only as a hypothesis but as a feasible proposal with many elements yet to be explored. The origin of open design is sometimes traced back

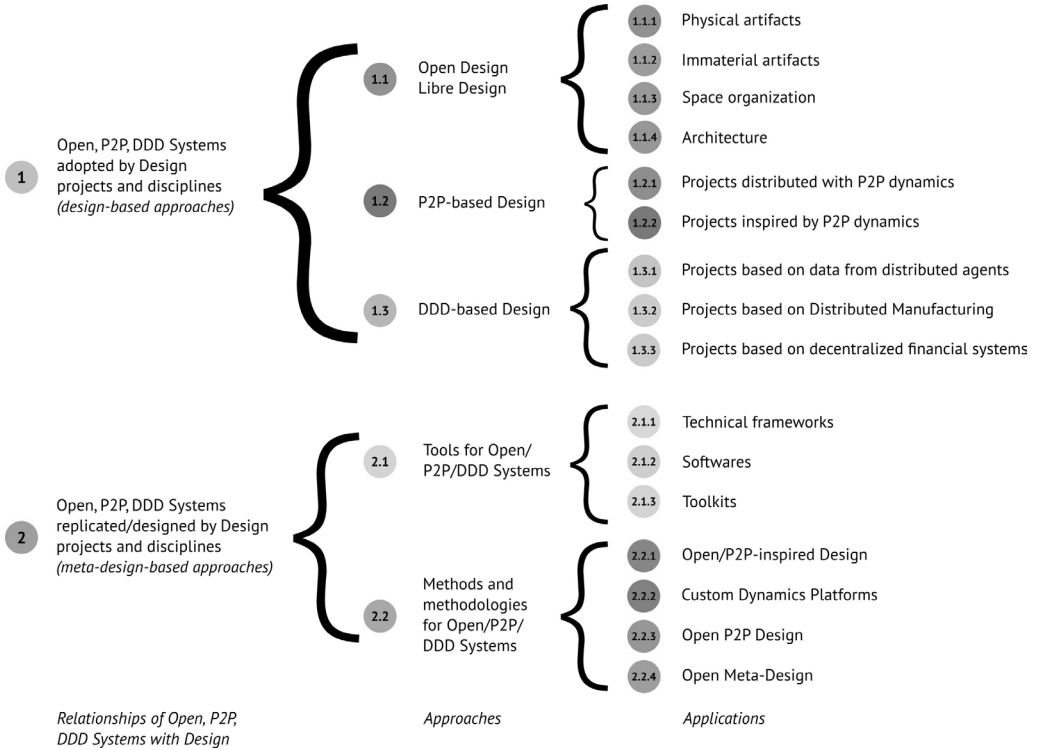


Fig.6. A framework for understanding the intersections of design with open, P2P, DDD

to the work of Ronen Kadushin and his *Open Design Collection* of Creative Commons-licensed objects that can be manufactured digitally and that started in 2005 (Troxler 2011). However, one of the first online platforms for open and collaborative design, *Thinkcycle*, was already active in a research project at MIT during 2001-2002 (Sawhney 2003). These two origins already show different approaches: open design as digital files of projects (which is the focus of this section) or open design as an online platform for collaborative design processes (which is the focus of the next section). The following cases and publications are examples of this direction, and could be adopted in existing projects and research or they could provide inspiration for further work along this direction.

As shared digital files of projects (**1.1.1**), open design has been applied to several different fields of design, and not just to product design. Among the early projects, *Openmoko* (“Openmoko™—Open. Mobile. Free.” 2013) and then *BugLabs* (“Bug Labs” 2015) are particularly interesting for being completely open products in the software, hardware and design (encasing and interface) files. Openmoko was a smartphone project released as open source; BugLabs consists of a series of electronic devices that can be integrated in order to build complete products (furthermore, the design components of BugLabs were designed by IDEO). There have been, however, cases of open design that are not



related to technology or industrial products; among the many projects, two directions are particularly interesting: fashion design and typographic design. The fashion industry is an interesting case for open design, given its peculiar IP regime with little protection and a tradition of imitation and learning from peers (Raustiala and Sprigman 2012). One of the most interesting projects of open design in fashion design, for its wide reach and completeness, was *OpenWear*, a collaborative clothing platform, open fashion collection, and brand developed between 2009 and 2012 with the goal to optimize the competitiveness of small producers through collaboration, common-based resources and community (Niessen et al. 2010; Romano 2015). Besides the reflection and the experimentation on the economic and social impact of an open design project on workers, the project made a founding contribution to the reflection on open design not just as blueprints but also as a brand. Regarding typographic design, this direction is interesting because this is an immaterial kind of design, but definitely linked to its tradition more than to technology (1.1.2). The first examples could be seen in the *Gentium* font (“Gentium” 2015), the *Ubuntu Font Family* for the Ubuntu Linux operating system (“Ubuntu Font Family” 2011) but even in *Source Sans Pro* (Hunt 2012), designed by Adobe, the company that delivers an important part of the proprietary software used by designers (and therefore a historical step in the diffusion of open design among commercial and proprietary companies). Other interesting open design experimentations can be found also regarding the organization of spaces as in interior design like the *Instructable Restaurant* (Hendriks 2011) (1.1.3) or in architecture (1.1.4), with first experimentations in competitions like *Open Architecture Network* (TED 2006) or in academic research such as the *Open Source Building Alliance Operation (OSBA)* at MIT (Larson et al. 2004), in experiments from practitioners such as the *WikiHouse* online platform (TED 2013) or in recent collaborative reflections on open design in architecture as a new culture (Ratti & Claudel 2014). Recent cases of corporations and media becoming more interested in experimenting with open design could be considered as a sign of it entering the mainstream (Menichinelli 2011b; Menichinelli 2011c; Menichinelli 2011d). A further element that has contributed to the growth of the phenomenon is the emergence of the distributed manufacturing scenario (Bauwens 2009; Bianchini & Maffei 2013) and of the identity of Makers (Anderson 2012; Hatch 2014), which in part develop design projects in a collaborative way in a global community of many Maker laboratories with shared traditional and digital manufacturing technologies such as Fab Labs, Makerspaces, Hackerspaces etc. (Abel et al. 2011).

The main reflections regarding open design have been early attempts at understanding it as a potential framework (Ciuccarelli 2008), statistical analysis of the early cases (Balca, Raasch, & Her-



statt 2009), mainstream diffusion (Abel et al. 2011), and analysis regarding its relationship with innovation and the role of designers (Cruickshank 2014). Other authors link open design with the evolving practices of co-design, identifying it as a fourth “turn” directed towards a further engagement of users in the design process thanks to a focus on open and peer-driven processes taking place in resources as shared commons (Marttila & Botero 2013). A common approach for understanding these collaborative phenomena is the drafting of definitions instead of manifestos (Perens 1999; Stallman 2002). As a further sign of the recent emergence of the phenomenon, there are many attempts at defining open design (Tooze et al. 2014; Aitamurto, Holland, & Hussain 2014), but at the time of writing there is no generic, common and collectively shared or developed complete definition. Furthermore, almost mirroring the split between free software and open source software (but without the same history, chronological order and dynamics) some activists, practitioners and researchers prefer to use a term closer to free software such as *libre design* or its local translation—mainly in Brazil (Instituto Faber-Ludens 2012) and France (Association Entropie 2013).

The P2P, diffuse, distributed and decentralized systems mostly refer to social dynamics and organizational formats, and therefore these are approaches that can be translated to design projects less easily, due to the complexity of the topic. Regarding P2P, although we could see a series of P2P-based design initiatives **(1.2)**, few examples can be traced to the introduction of a category of *physibles* (i.e. digital files of physical object that could be 3D printed) on The Pirate Bay (Laird 2012), concretizing the common fears of a piracy of physical products within P2P networks. Other examples, while not directly linked to P2P, can be understood as being inspired by P2P dynamics (1.2.2): the Coca-Cola Company manufactured a few cans and bottles for its beverages that enable and foster the sharing of the beverage among its customers, almost in a P2P way (Kiefaber 2013; Monllos 2014). Regarding DDD systems and *DDD-based design initiatives (1.3)*, there are three main directions of application inside design projects: **(1.3.1)** using data from distributed agents to build a collective project, even if it is uncoordinated (Agarwal et al. 2011); **(1.3.2)** the adoption of the distributed manufacturing scenario for the production and distribution of projects (Bauwens 2009; Bianchini & Maffei 2013); **(1.3.3)** the use of decentralized financial systems for the production and distribution of an artifact: *Plantoid* by Okhaos (okhaos 2015) is an example of a self-creating, self-propagating artwork that uses Bitcoin to gather and manage the necessary resources for funding artists to participate in its creation and distribution. Here the main concepts are therefore linked to the managing and exploiting of networks in developing, producing and distributing projects.

## **DESIGN FOR THE ORGANIZATION OF OPEN, P2P, DIFFUSE, DISTRIBUTED AND DECENTRALIZED SYSTEMS**

On another direction (2), design practice can also have a role on enabling and replicating such open, P2P and DDD systems through the analysis, visualization, and design of their tools, software, toolkits, platforms and collaborative processes and organizations. Design, therefore, could not only learn from such systems but also improve them. This second intersection can be considered more as part of the meta-design domain, where designers can have a role in the building of environments for the collaborative design of open processes and their resulting organizations. Meta-design is a broader concept with several meanings and no single definition; here we refer to Giaccardi's overview of the topic (Giaccardi 2003). Meta-design is not an established design approach and practice, but rather an emerging design culture (especially related to interaction design) that intersects with net art. The interest on the meta-level shifts the focus from objects to process, from contents to structures, from design as planning to design as seeding or emergence. Giaccardi identifies three main different meanings for meta-design, based on the different meanings of the prefix "meta-":

1. *behind* (or *designing design*): "Design of design processes" / "Design of the generative principle of forms" / "Design of the design tools";
2. *with* (or *designing together*): "Design of media and environments that allow users to act as designers" / "Design of the organization of flows";
3. *between/among* (or *designing the "in-between"*): "Designing the spaces of participation" / "Design of relational settings and affective bodies".

Open, P2P, DDD systems have many connections with meta-design: on one hand there are many meta-design approaches that enable them; on another hand, meta-design has historically been associated with many technologies and approaches which are now related with such systems, such as mass-customization, digital fabrication, generative design, open processes, and participation in online communities. This direction is mostly related to the concept of design for social innovation, where designers work on the social dimension and for social goals (Manzini 2015), with these approaches therefore considered (2.1) tools, components and toolkits to be applied in projects or (2.2) as a whole project or rather comprehensive approaches to projects. Both approaches could be integrated: for example, tools from (2.1) could be part of comprehensive approaches in (2.2). These approaches have different philosophies and different interest at the meta-level, and therefore they enable different types of projects and systems [Table 2].

<i>Approach</i>	<i>Short description</i>	<i>Meaning of the meta-level</i>	<i>Focus of the meta-level</i>
<i>Design projects Linked with Open, P2P, DDD Systems (1)</i>	<i>Design of a physical or immaterial artifact inspired by, based on or distributed or realized by Open, P2P, DDD Systems</i>	—	—
<i>Open Projects for Open Projects (2.1)</i>	<i>Design of a physical or immaterial artifacts that can facilitate the develop- ment of projects within Open, P2P, DDD Systems</i>	1 (behind)	Tools
<i>Open/P2P-inspired Design (2.2.1)</i>	<i>Design of an organization, service or process with dy- namics inspired by Open, P2P, DDD Systems</i>	3 (between/among)	Platforms
<i>Custom platforms (2.2.2)</i>	<i>Design of a custom platform with hybrid organizational dynamics</i>	2 (with) 3 (between/among)	Platforms
<i>Open P2P Design (2.2.3)</i>	<i>Design of an Open and P2P process for the emer- gence of an Open and P2P process</i>	1 (behind) 2 (with) 3 (between/among)	Platforms, processes
<i>Open Meta-Design (2.2.4)</i>	<i>Meta-Design of Open, P2P, DDD Systems orga- nizations and processes based on open platforms and data</i>	1 (behind) 2 (with) 3 (between/among)	Platforms, organizations, processes, data

In **(2.1)** we can find *tools for open, P2P, DDD systems* such as **(2.1.1)** technical frameworks that facilitate the collaboration in open projects, **(2.1.2)** software specifically design for enabling open projects, or adopted by open projects and **(2.1.3)** toolkits as collections of tools, technical frameworks, and software. An example of technical frameworks **(2.1.1)** can be found in *OpenStructures* (TEDx Talks 2012), an open grid designed in order to facilitate the integration of several open projects or several modules into larger assemblies. There are many examples of free/open source software projects that facilitates the development of open and P2P projects **(2.1.2)**. Regarding design projects, these might be generic raster, vector or 3D design software, or more specific software for fashion design projects such as *Valentina* (Prokoudine 2013) or typographic design projects such as *Birdfont* (Prokoudine 2014), specifically designed for fostering open projects by giving more accessible and therefore democratized tools. However, many more free/open source or proprietary software projects could be helpful in replicating open and P2P projects even if this is not the primary goal or if design is not necessarily involved. Software projects like *Sourcemap* (Bonanni et al. 2010), which provide a diagnostic tool for carbon accounting through design, analysis,

Table 2. Synthesis of main approaches and their relationships with Meta-Design.

and visualization of supply chain management, could be adopted in the improvement of the Distribute Manufacturing scenario. Frameworks, tools, and software projects could then be packaged in custom toolkits for replicating open projects (2.1.3), thus providing a ready-made and logically constructed toolkit. An example of such toolkits could be experimentations like *P2P Design Strategies* (Bonetti 2009), a set of techniques that allow a team of graphic designers working in a peer-to-peer environment, or Frog Design's *Collective Action Toolkit*, a set of activities and methods edited in order to enable groups of people to create solutions their local communities through collaboration and organization ("Collective Action Toolkit" 2013).

Material or immaterial tools (such as frameworks and software), used alone or in collections (toolkits), are an example of meta-design (2.1). In this case, the focus is on tools; however, there are also many cases where the focus is on the process or organization of the design projects or generally on *methods and methodologies for open, P2P, DDD systems* (2.2). Among these cases, we can identify informal or less structured approaches that can be therefore named *open/P2P-inspired design* (2.2.1); environment for an active participation of users in projects which have *custom dynamics platforms* (2.2.2); open and P2P processes integrated with design tools and culture in order to build open and P2P organizational forms in *open P2P design* (2.2.3) and the integration and simplification of this approach into an open version of meta-design in *open meta-design* (2.2.4).

*Open/P2P-inspired design* (2.2.1) could be considered a category for all the cases where open, P2P, DDD systems were designed, or where their emergence and growth was facilitated as the main object of the project; usually through a platform (generally an online platform, but sometimes coupled with physical artifacts and physically-located services and activities) as the foundation for the interactions among the participants. Here there is much less interest in the meta- level, a less structured approach, or an approach that has not been developed for open, P2P, DDD systems. Early experimentations in this direction were developed by the *RED* unit within the UK Design Council, where reflections and projects of public services based on P2P interactions were developed (Cottam & Leadbeater 2004). Beside these first experimentations, there have been several more cases of both research and design, and production and provision of public services with P2P dynamics through co-creation (Botero, Paterson, & Saad-Sulonen 2012). These cases have been mostly developed in the context of an integration of the public sector, the third sector and citizens, but the last decade has seen an enormous amount of services designed with P2P dynamics that are mostly localized in the integration of private sector and citizens. These are mainly cases of online platforms which provide a space for P2P dynamics between users and are based more on sharing, bartering, lending, trading, renting, gifting and swapping dynamics than conventional dynamics of selling, buying or serving (which are

still present, but in a minority of cases). Some of the most famous examples of these businesses are *eBay*, *craigslist*, *Zopa*, *Zipcar*, *Uber*, *Airbnb*. Generally, within these platforms goods and services are distributed with P2P dynamics rather than from a central point of control; there are however several possible patterns of organization and business models, which has led to several different terms for these cases (Botsman 2015): *collaborative economy* (an economic system of decentralized networks and marketplaces with p2p dynamics); *sharing economy* (an economic system based on sharing underused assets or services, for free or for a fee, directly from individuals); *collaborative consumption* (the reinvention of traditional market behaviors through technology, taking place in ways and on a scale not possible before the internet); *on-demand services* (platforms that directly match customer needs with providers to immediately deliver goods and services). Even if these seem to be mostly technology-driven initiatives, design is increasingly one of the forces driving them. One of the most famous of these cases is Airbnb, an online platform that enables users to rent their houses or rooms to other users in an almost P2P way (admittedly, Airbnb's platform is still the central place for the interactions). Airbnb was designed, developed and managed by two designers and it is considered a relevant example of the growing phenomenon of design-led entrepreneurship (Mata Garcia 2014). The founders developed its business around the users rather than around the market or a technology, and this approach surprised Silicon Valley (Fairs 2014).

There are many business-based social media or free and open source online platforms that open, P2P, DDD systems could adopt for their organization and processes; however there are interesting cases in *custom dynamics platforms (2.2.2)*, that is, online platforms that are specifically designed with uncommon organization and processes as a goal. One of the best examples in this direction can be found in *OpenIDEO*, an online platform (coupled with a toolkit) for the development of solution of social challenges by a global community of designers. Launched by IDEO in 2010, it was specifically designed around IDEO's design methodology. Each social issue is addressed via a challenge, a three- to five-month collaborative process within an online community where members can contribute and build off each other. OpenIDEO could be also considered as part crowdsourcing, part Web 2.0, and part open design. This experience could be connected to the idea that there are several different formats of social (or organizational) dynamics and that, at least at this stage where these phenomena are still recent and under development, custom organizations and processes could be a promising strategy instead of relying on ready-made platforms, and therefore organizations and processes.

These considerations share a common idea with another approach called *open P2P design (2.2.3)* which tries to develop custom organizations and processes for each community (Menichinelli 2006). This approach was developed within the context of exploring the relation-

ships between design and localities and therefore local communities (Verwijnen & Karkku 2004; Fagnoni, Gambaro, & Vannicola 2004): given the extreme diversity of each locality and its communities regarding culture, history, geography, economy, and many more dimensions, the basic concept of this approach is that specific organizations and processes are needed for each community and locality. Inspired by the idea that the key to the success of many open source projects is the complexity of a community that can therefore tackle a complex challenge and project (Kuwabara 2000), the open P2P design approach tries to build open, P2P, DDD systems through organizations and processes where both designers and communities work together in the designing of open, P2P, DDD systems that can be helpful for the future self-organization of the communities. The approach is based on the idea that collaborative processes can be modeled as activities and it is therefore linked to activity-centered design approaches (Kaptelinin & Nardi 2009; Gay & Hembrooke 2004); it further extends the concept of platform for collaborative communities from an online place, to a set of artifacts, rules, and roles that must be shared within the social network of the participants, thus giving a network-based architecture to platforms. The approach first started as a generic methodology (Menichinelli 2006), which was then extended with a set of tools from service design, participatory urbanism, sociology, and other disciplines (Menichinelli 2011a). The approach was experimented with in a series of workshops where it was applied to Maker communities and Maker laboratories, after which it was simplified and transformed into the more recent *open meta-design* approach (2.2.4) (Menichinelli 2015; FAD Barcelona 2013). The workshops proved that the open P2P design approach is too complex and suggested the development of a simpler approach which could be understood more clearly by users, and which could be considered as a broader class of open P2P design. While open P2P design could be framed as “open design of open P2P processes”, open meta-design reframes it as “open design of design processes”: the approach tries to present a simpler way for generating different formats of processes and organizations instead of generic open and P2P processes. The approach focuses on processes made as networks of activities in an ecosystem of actors and on the organizations emerging from such networks of interactions. Such processes and organizations are approached through a combination of 1) a specific visualization format (instead of relying on separate tools and toolkits); 2) a software platform for their management and on 3) a specific ontology and related data format.

## **CONCLUSIONS**

Open, P2P and diffuse, distributed and decentralized systems can be considered a preliminary broad framework for understanding several different formats of mass-participation that have emerged in the past

years thanks to the emergence of the Internet and the World Wide Web. This framework refers to several terms, frameworks and experiments that are a still recent phenomenon, and have recently been the subject of discussion and criticism, after the initial phase of general optimism. This article addressed how this phenomenon has encountered the design discipline by providing both an analysis of the concepts and the history of the phenomenon, and by providing a general and preliminary framework for understanding it. As a first step, concepts and cases of the main mass-participation phenomena have been contextualized into an open, P2P, DDD systems framework. As a second step, two main directions of relationships of such systems with the discipline of design were identified and structured into families of approaches. The article therefore tried to show that the intersection of open, P2P and DDD systems with design is not limited to the popular view of open 3D models that can be downloaded with P2P applications and 3D printed locally, but that there are more approaches to work on immaterial, social, and organizational levels as well. The broader and more comprehensive overview of the phenomenon could be a starting point not only for understanding it, but for further experimenting with it, by both researchers and practitioners.

The framework presented, however, is still preliminary. DDD systems are mostly abstract and ideal types of networks and therefore activities, and a more rigorous formulation according to network science is suggested. The network structures presented in the article are just simple descriptions that explain the DDD framework in very generic terms, and further development of such network structures is suggested, by adopting several centrality measures and real life cases. The proposed framework is still theoretical and represents a first proposal for categorizing the possible cases of intersections between design and open, P2P and DDD systems. Further research is required in order to understand the validity of such framework, for modifying and improving it; we suggest three possible directions for this here, by rebuilding the framework from: data (a *data-driven approach*), the experience of makers, hackers, designers (a *bottom-up approach*), or from the experience of experts like researchers, relevant designers and so on (an *expert-driven approach*). In the first direction, the framework could be tested or even rebuilt with a data-driven approach, by analyzing literature and cases. Several approaches might be adopted according to the available data and its structure: co-authorship networks could show the social dimension of the cases; if only textual data is available, the text could be analyzed with natural language processing. Machine-learning algorithms could then be useful for clustering the analyzed cases and literatures in groups that could later be labeled. A second direction could bring the experience and knowledge of practitioners working with design and open, P2P, DDD systems such as makers, hackers, designers: surveys or interviews could uncover their perception of all the possibilities. A third direction would instead focus on the experience and knowledge

of experts (researchers, authors, journalists) about such possibilities. This triangulation would open up the framework proposed here, and mix it with a global overview (1), an overview from the practice (2) and an overview from experts (3). Furthermore, as the integration of design with open, P2P and DDD systems could be seen as a relatively recent, emerging, and unstable phenomenon, such frameworks should take this into consideration and any research should also focus on the evolution of the phenomenon in order to understand the real scale and also therefore the possible adoption of any frameworks. We suggest that such a recent phenomenon could be understood and improved not just with research but also with experimentation with communities and other organizations. As a conclusion, further quantitative research on the dimension of the phenomena and of its applications would be strategic in order to understand its real impact and the value of any framework that tries to describe it.



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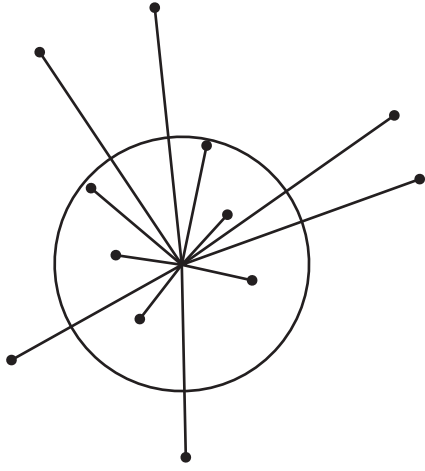
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# ON “OPEN” AUTHORSHIP: THE AFTERLIFE OF A DESIGN

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**Deanna Herst, Michelle Kasprzak**

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## **ABSTRACT**

*This article discusses the ramifications of open design for “author-driven” contexts in the curriculum of the Open Design program (profile: Social Practice) at the Willem de Kooning Academy, University of Applied Sciences, Rotterdam, as a primary case study. We intend to question the supposed juxtaposition between the principles of open design (sharing, participation) and traditional notions of authorship (exclusivity) by investigating “open authorship”. Moreover, how could the aesthetic dimension contribute to a socially or individually relevant “afterlife” of the design for the user?*

*Open design is defined as design whose creators allow it to be freely distributed and documented and condone modifications and derivations of it (Abel, Bas van, and R. Klaassen, 2011). It mainly borrows from two traditions: open-source technology (accessible digital fabrication) and participatory design (social involvement and relevance). These perspectives secure the “afterlife” of a design the user iterations.*

*Besides these user-driven domains, we can also witness the emergence of open design in ‘author driven’ design fields. Besides open source software and online sharing, the visual language and open-ended structure of Jens Dyrvik’s Layer Chair (2012), for example, provokes user iteration. In its afterlife, his chair becomes an object in flux. This open form of authorship questions the author’s exclusivity, embodying a paradigm shift in authorship.*

*This paper also explores the notion of “open authorship” through examples from the Open Design program of the Willem de Kooning Academy, University of Applied Sciences, Rotterdam. One of the objectives is to investigate the as yet underexposed aesthetic tradition of open design and its possible relevance for art and design education. This is embodied as “open form”, a (historical) perspective on openness from an author’s point of view (Wölfflin 1929, Eco 1962, Hansen 1959, Raaijmakers 1988-92).*

*We discuss how a series of open-design methods and working with “non-expert expert” communities have encouraged new design approaches to aesthetics and participation. The results show that an aesthetic is not necessarily about beauty, but more importantly functions as evidence of a process that allows for flaws to become a part of a product. We believe these are the hallmarks of an emerging “open design aesthetic”.*

*#open design, #open authorship, #open-design aesthetics, #knowledge sharing, #participation, #non-expert experts, #social design*

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## 1. INTRODUCTION: THE AFTERLIFE OF A DESIGN

“There can be beauty—convulsive beauty—only at the price of the formation of the reciprocal relationship that joins an object in movement to the same object in response”. (Breton 1937)

In 1927 *La Révolution Surréaliste* published the first *cadavre exquis* (Breton 1927), a procedural and collective poem, drawing, or painting, made according to a participatory method. One person is responsible for the first line of the drawing or the sentence of the poem. By folding the sheet, one line or word remains visible for the next participant, making the completion of a *cadavre exquis* a collective work. As an artistic statement, it questions the concept of “the author as genius”, as the participating artists remained anonymous: who is the author; the inventor of the game, or the participants who completed the piece?

This avant-garde surrealist collaborative method embodies a paradigm shift in authorship that remains relevant to contemporary open and participatory design. Nowadays, we can see similar participatory, open-design practices that investigate the open process and open-ended result in order to make the design more relevant to the people that use it. Networked technologies and digital fabrication have encouraged the process of open design and design sharing, as can be seen in the Fablab network, for example. The relevance of these new, open, and participatory design practices has recently been discussed from the point of view of new modes of production and new possibilities for manufacturing (Troxler 2015).

Focusing on the notion of “open authorship”, this paper intends to investigate the so far underexposed aesthetic context of open design and its possible relevance for art and design education. Examples will be taken from the Open Design program (profile: Social Practice), Willem de Kooning Academy (WdKA), University of Applied Sciences, Rotterdam. Besides reflecting on the ramifications of networked production, digital fabrication, and the social objective of design sharing, the aim of this program is to explore “openness” from the perspective of the designer. Educational practice at WdKA shows that designing for users sometimes encounters resistance among students and opens up questions related to the space for experiment or artistic expression. As our students are not educated to become engineers or social professionals but artists and designers, the program also focuses on

its artistic context and the exploration of a possible common ground between participatory artistic strategies in order to develop parameters for new open design practices. As such, it aims to reconsider traditional notions of authorship within contexts of collaboration, participation, and iteration. The central questions include: Could open design learn from artistic strategies that specifically aim at participation and iteration, like the *cadavre exquis* model, for example? How can a participatory product or process be designed such that leaves room for the expression of both designer and user (open and participatory methods)? What is the role of an online platform as an intermediary between the designer and the user? (Herst 2013)

Open design is an approach towards designing participation and iteration by stakeholders, as presented in 2011 in the publication and online platform *Opendesignnow.org*. However, it is not an entirely new phenomenon; it has its primary origins in the open source engineering tradition. Until now, open design has mainly been practiced in product design and investigated in contexts such as art and design schools (for example, Willem de Kooning Academy, Master Open Design, Humboldt-Universität Berlin, Universidad de Buenos Aires).

The following is a commonly employed definition: *Open design is design whose creators allow it to be freely distributed and documented and condone modifications and derivations of it* (Open Design Now 2015). An alternative definition is: *Open design is the development of physical products, machines and systems through use of publicly shared design information. The process is generally facilitated by the internet and often performed without monetary compensation.* (Wikipedia 2015) Or, thirdly: *Open design signifies open-access digital blueprints that can be adapted at will to meet situated requirements, and can subsequently be used by consumers to fabricate products on demand by commercial, off-the-shelf production method.* (Avital 2011)

According to these definitions, open design's properties include: 1) the design of physical objects; 2) open production and design process, open-ended product; 3) online design knowledge dissemination; 4) creating personal relevance for all stakeholders.

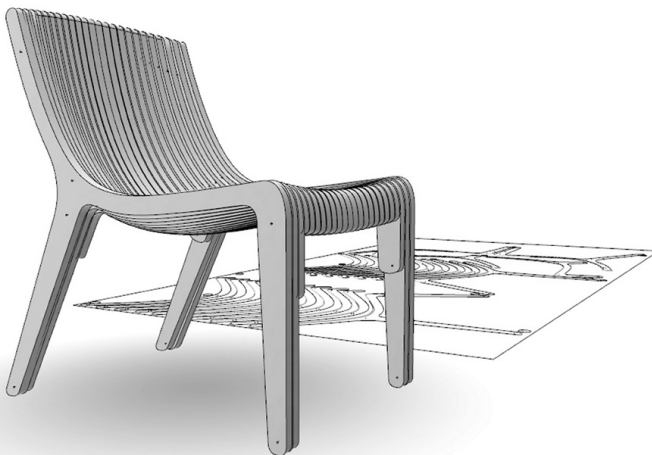
An example that embodies these parameters is the *Layer Chair* (2012–) by designer Jens Dyvik. The *Layer Chair* could be seen as a “design exquis”, a design interpretation of the *cadavre exquis*. The further development of the work through iterations by its users is implemented within the concept of the design. This not only expressed through the online dissemination of knowledge (blueprint, manual) but also through the use of parametric software (Rhino, OS plug-in Grasshopper) and modular elements. Several people have developed twelve iterations in twelve countries, for different needs and purposes, including a chair for playing the cello and a sofa developed with local material. Examples of adaptations and “new” authorship include the *Layer Stool* by designer Nick Graham and the *Layer Chair, Viking*

edition by Haakon Karlsen. As such, the *Layer Chair* reveals a specific open design approach that targets designers and makers, showing that “open” does not always necessarily imply openness for everybody and for all users, as it is often and commonly interpreted.

**LAYER CHAIR, JENS DYVIK, DYVIK DESIGN**



*Fig.1. Layer Chair, Amsterdam edition, collection of three, Jens Dyvik, Dyvik Design  
<http://www.dyvikdesign.com/site/portfolio-jens/the-layer-chair-amsterdam-edition.html>*



*Fig.2. Layer Chair, Lounge version, Jens Dyvik, Dyvik Design  
<http://www.dyvikdesign.com/site/wp-content/uploads/Layer-Chair-CNC-Lounge-version-DyvikDesign.jpg>*

Fig.3. Layer Stool, Wellington version, iteration by Nick Graham  
<http://www.dyvikdesign.com/site/research/fablab/layer-chair-iteration-by-nick-graham.html>



Fig.4. Layer Chair, Viking edition, iteration by Haakon Karlsen and Jens Dyvik  
<http://www.dyvikdesign.com/site/portfolio-jens/the-layer-chair-viking-edition.html>



The *Layer Chair* expresses an important promise of open design: the afterlife of the design, based on user iterations by designers and makers whose names are also mentioned in their re-designs as new authors. By providing open-ended products, open design “out sources” the evolution of the design to its users, in a way allowing them to question the author as “genius”. The design becomes an “object in flux” without a fixed end result. The designer has become a meta-designer, an initiator of a design process with unknown and uncertain results, marking a paradigm shift in (artistic) authorship.

This development raises several questions: concerning authorship and ownership—what happens to the designer’s “unique” signature and intellectual property?; concerning openness related to authorship—what room is there for designer expression and experiment in a user-centered context?; concerning tradition—what is the role of the aesthetic tradition within this user-centered approach?; and, most importantly, concerning its own promise—how to stimulate user iteration?.

## **2. THE AUTHOR AND THE USER**

Openness, embodied by participation and user iteration, disrupts the traditional concept of artistic authorship, commonly defined in terms of “authenticity” or the “author as genius”. This notion has historically been applied to literature and the arts for the validation of quality and originality. As a “genius”, the author is the originator of a work and bears responsibility for it. Since the late nineties, this debate about authorship has also been present in design, in order to validate the applied arts as artistic expressions. In his essay “Graphic Authorship”, Yale Design professor Michael Rock identifies several models for defining authorship: the designer as self expressionist (artist’s books, Dieter Rot), the designer as a critical writer and producer, the designer as a constructor of narration (Irma Boom), the designer as a self-referential or critical creator. (Rock 2004) What these roles have in common is their autonomy and freedom from applied contexts (client’s wishes/user’s needs). Self-expression, critique and experiment confirm the designer’s status as an author. In “self-authored design”, the designer transcends her/his role as a “service oriented” producer and reaches an autonomous status. As Steven McCarthy writes: “self-authored graphic design is a dance between two central partners with varying degrees of differentiation: the designer as self and the content. The designer as self is recognition of the central presence of the designer as a voice and a vision in the process of form-creation and message-formulation.” (McCarthy 1996)

The conference *Authorship in Design* (Mainz, November 20–21, 2009) investigated the role of the graphic designer in the time of media design. It proposed possible future artistic roles of the designer/author: “a visual explorer, a meaningful narrator or a developer of inter-medial tools”, in short: a meta-designer, a role that now seems equally appropriate for open designers. (Authorship in Design 2009) Here, the notion of the meta-designer represents the need for a new, inclusive notion of authorship: a locus where the input of both author and user is negotiated. How could we redefine this (design) authorship? As Rock mentions, what will be the designer’s space for, expression, critique, or narration in this hybrid, shared context?

## **3. ON THE ORIGINS OF (SHARED) AUTHORSHIP**

“It is not enough, however, to repeat the empty affirmation that the author has disappeared. For the same reason, it is not enough to keep repeating (after Nietzsche) that God and man have died a common death. Instead, we must locate the space left empty by the authors disappearance [...] and watch for the openings that this disappearance uncovers.” (Foucault 1969)

Several definitions of authorship can be identified in Western history. In philosophical and legal terms, the main notions of authorship refer

to the author as “originator and owner of an idea” and, within artistic discourse, the author as “genius”. These concepts predominantly refer to the Platonic concept of the “divine idea” (*idein*) that embodies the “essence or inner structure of things”. According to Plato, ideas are inseparable from “form” (*eidos*), as described in his Theory of Forms. In Plato’s view, the real world does not exist in material things but only in ideas. Therefore, only ideas can represent the truth and are to be considered the only objects of knowledge. These concepts were adapted and applied to definitions of legal authorship (ownership of ideas), scientific authorship (validation of ‘truth’) and artistic authorship (artist/designer as “genius”).

In the Middle Ages and Renaissance, authorship was first related to the sciences, to validate the “truth” of the author’s ideas. As such, it could be considered a first stage in defining intellectual property. In the seventeenth and eighteenth centuries, this concept shifted to the artistic and legal position of the author in literature, where the individual writer manifested himself as the originator and owner of an idea. In the age of the printing press and the birth of copyright, writers were compelled to distinguish themselves for economic reasons, and began to claim rights over their own works. Hence individual authorship was not only articulated through the creation and ownership of ideas, but more specifically, through the translation of these ideas in *expressive form* as a reflection of a “unique personality”. (Fichte 1791)

From the turn of the nineteenth century, this notion of authorship was related to the romantic ideal of author as “genius”, and developed into the modernist concept of “originality”, which was expressed in both formalism and conceptualism. Deconstruction of the myth of the author as a “genius” started in the late 1960s with critical cultural theorists (Barthes, Foucault, Eco), who denied any “god like character”. By introducing the audience as contributors to the completion of the—proposing an “open work”—these perspectives can be considered an important context for open, participatory design practices. I will elaborate on these in section five.

According to Carla Hesse, shared authorship originated in eighteenth century discourse about intellectual property, embodied by the debate between Diderot (1713–1784) and the philosopher/mathematician De Condorcet (1743–1794) (Hesse 2005). Diderot, like his predecessors John Locke and Edward Young, was one of the protagonists of the notion that authors are “natural owners of the idea”, which represents a “unique creation of the mind”. Copyright should therefore protect intellectual property, a statement also embraced by publishers and other intermediaries between writers and audiences. (Hesse 2002)

Opposed to this, De Condorcet proposed a *utilitarian* view on intellectual property. For him, ideas are not created by God or a human being, but already exist in nature. Therefore, ideas should be public and contribute to a social experience. (De Condorcet 1776) For this reason, De Condorcet was strongly opposed to the use of personal style and



expression to validate authorship: “It is thus uniquely for expressions, for phrases, that privileges exist.” (Hesse 2002) According to him, an idea was the result of a social creation and could only be valuable on the basis of its social utility.

These two historical views on authorship (ownership and “usership”) embody the contemporary paradigm in open and participatory design practices. Within this context, the perspective from “ownership of ideas or forms” to the *responsibility for the participatory form and its aesthetics* needs further investigation. In the debate between Diderot and De Condorcet we might find an approach for open authorship by exploring both perspectives of *form* and *utility* as well as *hybrid in-between states*.

#### **4. AN UNDEREXPOSED TRADITION OF OPEN DESIGN**

In order to find parameters by which to define open authorship and aesthetics, we need to focus on an as yet overlooked background of open design: the aesthetic tradition. If we look at the definitions and practices of open design (open product and process, knowledge dissemination, personal and social relevance for users) we can relate it to three traditions.

##### **4.1. Technological innovation: knowledge dissemination**

After open source software, the concept of openness in hardware was first applied in engineering. As the mission statement of the Open Design Foundation (2000) reads:

*The mission [...] is to promote an alternative method for designing and developing technology, based on the free exchange of comprehensive design information. The ODF provides the collaborative space to foster open source physical design, and seeks to strike a balance between the independence of individual designers and the collective power of collaboration. The ODF hopes that this method will enable and promote design projects, which are motivated by personal conviction and passion of designers for the greater benefit of a global society. (Opendedesign.org 2000)*

The principles of sharing design knowledge, collaboration and modification of the product have been applied specifically to tools and machines. A well-known example is the self-replicating 3D printer RepRap (RepRap.org 2007), several generations of which have been developed as a result of user iteration by a expert community. What many open hardware projects designs have in common is modularity of the product, which allows users to develop parts separately. Online platforms (toolkits, manuals) are used for knowledge distribution and development. This model can also be found in the concept of FabLabs, which share an identical digital fabrication inventory in their global network in order to share knowledge and innovate from a technological point of view. The participatory incentives are the aim of

both technological development (global communities of expert users) and working for social or personal objectives.

#### **4.2. Participatory design: social change and relevance**

The social dimension of open design can be compared to the Scandinavian tradition of participatory design, as defined by Pelle Ehn:

*Participatory design is characterized as an approach to involve users in the design and (as suggested by Redström) in the design process encounter “use-before-use”. (Ehn 2008)*

Participatory design originated in cooperative design, derived from Scandinavian organizational models of the late 1970s. These aimed at a socially oriented organizational change through the equal exchange of knowledge between workers and researchers. (Bødker, Ehn, Sjøgren, and Sundblad 2000) As an approach to empowerment, participatory design was based on the belief that anyone involved in creating or using the design should also have a say in the design process: researchers, designers and end-users should already collaborate in the prototyping stage in order to make the design more relevant. An important objective of this design process (based on social interaction) was to gather not only formal knowledge, but, especially, tacit knowledge from the participants. (Ehn 1991) The principle of involving stakeholders in the design process can be seen in several design approaches, such as social or human centered design.

*Participatory Design (PD) today is an emerging design practice that involves different non-designers in various co-design activities throughout the design process. By non-designers we refer to potential users, other external stakeholders and/or people on the development team who are from disciplines other than design such as those in marketing, engineering, sales, etc. PD processes usually involve many people having different backgrounds, experiences, interests, and roles within the project. (Sanders, Brandt, Binder, 2010)*

In a later interpretation of participatory design, Ehn proposes the design of Things (socio-material assemblies) instead of merely “things” (objects), a design process that requires appropriate infrastructures. (Bjögvinsson, Ehn and Hillgren 2010) Socially oriented open-design projects have expanded collaboration with the design of infrastructures and systems for collaboration. One example is the “Low Cost prosthesis” project, a fifty-dollar prosthetic leg co-developed by Waag Society Amsterdam, FabLab Yogyakarta and the rehabilitation center Yakkum, Yogyakarta. The project was created with the input of users, designers and medical scientists in the early stages of the development process. (Schaub et al. 2015) It was a response to an urgent social and medical situation: the increasing rate of below-knee amputations related to diabetes in Indonesia. Due to financial and social reasons, it is common that amputees see doctors infrequently. To meet their needs, (self-) adjustability of the prosthesis and the use of local materials (bamboo fiber) were important parameters. Here openness is implemented in



both the development process and the result, which is always under construction because of new user insights and material research.

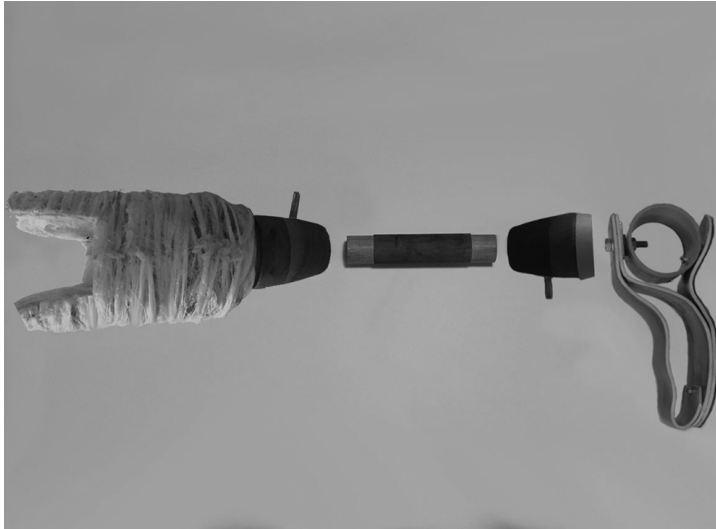


Fig.5. \$50 PROSTHESIS PROJECT, Waag Society (Alex Schaub, Jens Dyvik, Paulien Melis, Deanna Herst, Mickael Boulay, Takuma Oami, Angelika Grundmann, Sylvie Claes), HONF Fablab, Yogyakarta, Yakkum Rehabilitation Center, Yogyakarta <http://opendesignnow.org/index.php/case/fifty-dollar-leg-prosthesis-alex-schaub-et-al/>

In the cases mentioned, the open process, the open-ended product, and knowledge dissemination have instigated user involvement and iteration. The incentives for participation included the sense of involvement (stakeholders, communities), technological innovation and social urgency. But which aesthetic open and participatory strategies can we witness in open-design practices?

### 4.3. Open Form: artistic frictions

The origins of open design within open engineering and participatory design can be clearly identified, its objectives of technological innovation and social urgency securing its iterations and the “afterlife” of the design. However, in projects where the designer’s artistic identity is at stake, “openness” seems to become controversial. For example, the Open Design Contest ([Opendesigncontest.org](http://opendesigncontest.org)), a repository to encourage open design derivations, shows many uploaded designs, but hardly any iterations. According to a participant:

*“there is a difference between what you use from other designs as an inspiration for your own design, and basing your design entirely on somebody else’s. Originality is important to a designer, and designers aren’t used to explicitly recognizing others for contributing to their design. This makes us choose the safe way by inventing something new”.* (Abel, B. van 2011)

From an artistic point of view, there does not seem to be urgency for iteration. The problem at stake is the quest for originality and self-expression, in other words, for authorship of the work.

Similarly, in 2011, Dutch design studio Droog launched a platform for “downloadable design”, “(...) which will feature curated and

open content, easy-to-use parametric design tools and a network of local low- and high-tech manufacturers.” (Droog 2011) Although it was initiated as an open-design project, Droog states: “Open design is an interesting concept but also a tricky one. Do we really want our world flooded with a stream of ugly objects? And is the consumer really prepared (or capable...) of designing for himself?” (Ramakers 2011) As a consequence, the platform was curated for quality reasons, representing the tensions within the paradigm of authorship and openness.

Though the projects mentioned employ some properties of open design (open production and process, open-ended product, knowledge dissemination), the fundamental principle of user iteration is often not met. The responses show that the “designer as author” and “originator of an idea” (Diderot) is still associated with the designer’s signature in the end result and this leaves little space for users. Unlike open-source engineering and participatory design, open design’s aesthetic tradition has not yet been identified as a referential frame. How can we find an approach for open design and authorship by exploring both the perspectives of form (Diderot) and (social) utility (De Condorcet)?

#### **4.4 Open Form: “invitational aesthetics”**

It is within this context that the concept of open form (Wölfflin 1929, Hansen, 1959, Eco, 1989, Raaijmakers, 1988-92) could be reintroduced to validate open design and to contextualize it within an aesthetic tradition. Originating from art history, the exploration of the open form could offer possible parameters for “open” authorship. From this perspective, viewer participation has been defined as both interpretative and “real”, referring to real participation with audiences as contributors (Eco 1989). More concretely, the open form has been proposed as a theoretical framework for contextualizing participatory agency in (applied) arts. Influenced by the psychological theory of empathy, art historian Heinrich Wölfflin proposed the “closed/tectonic–open/a-tectonic form” as a parameter by which to interpret works of art. (Wölfflin, 1929) According to him, the open form allowed us to identify artworks that, by their dynamic form, leave the viewer more room for interpretation, in other words, to mentally finish the work.

In the *Open Form Manifesto*, architect and artist Oskar Hansen described how “real” participation could emerge from interaction between an artwork or design and its context. Hansen proposed the open form as a social and anti-hierarchical solution for artists, architects, and designers to meet the needs of their audiences (comparable to participatory design) and to also include these dynamics in their conceptual and formalistic approach (similar to Wölfflin’s view of the “a-tectonic”). (Hansen 1959)

Composer Dick Raaijmakers’ notion of “open form” originated in a more radical artistic principle. The *Fine Mechanics of the Open Form* (1988-1992) describes his approach to open form as a cultural critique of the closed nature of technology in consumer culture, comparing it

to the closed structures of classical compositions. He compared both systems to independently working machines that encourage passivity in the audience. (Mulder & Brouwer 2009)

Although open form is approached from different perspectives (interpretative, social, technological), these views share an interest in audience involvement through an unfinished work, an artistic strategy that marks the authors’ “signature”. Looking through the lens of the open form, it exposes a void in current open design practices: the closed-ness of the design product itself. “Openness” is mainly applied to knowledge dissemination (open-source technology) or process (participatory design), however, not to the designs themselves, as in the modular *Layer Chair* or the *Cadavre Exquis* system. When taking the open form as a possible new framework, we need to explore the unfinished work as an incentive for user iteration and appropriation. What happens if we open up aesthetics within the context of utilitarian infrastructures and social processes? In this context, we will especially explore the scenario of “real” participation and its possible use for open design education.

### **5. CASE STUDY: OPEN DESIGN PROGRAM, WILLEM DE KOONING ACADEMY**

“The poetics of the ‘work in movement’ (and partly that of the ‘open’ work) sets in motion a new cycle of relations between the artist and his audience, a new mechanics of aesthetic perception, a different status for the artistic product in contemporary society. It opens a new page in sociology and in pedagogy, as well as a new chapter in the history of art.” (Eco 1989)

The paradigm shift and debate about openness in design authorship—as has become manifest in art education—has instigated the undergraduate program Open Design at Willem de Kooning Academy, University of Applied Sciences, Rotterdam. The aim is to investigate a possible common ground between social, technological, and artistic design approaches, a form of design authorship where the (social) utilitarian (De Condorcet) and the aesthetic (Diderot) meet. Because the aesthetic tradition of open design is still relatively unexplored, we will introduce open and participatory strategies to complement the conventional set of design methodologies.

The Open Design program consists of interdisciplinary courses in the second year of study, a pre-minor in the third year, and a minor and graduation program in the fourth year. Each course introduces certain participatory and open strategies focused on aesthetics in relation to designing for users, which exposes students to “artistic frictions” as a result of this often complicated relationship. Students are challenged to critically reflect upon the fundamental properties of open design. The questions include: What is openness in design? What is open authorship? What are aesthetic design strategies for instigating participation, iteration and appropriation within the context of social needs and desires?

The strategies introduced in the courses are mostly derived from artistic practices, which are then questioned and explored within design projects. Examples include: *Cadavre Exquis* (elective course: exploring the open form and iteration), ‘Opening up. the (his)tory of things’ (second year: “design autopsy”, questioning the closed nature of mass products), *Collective Collection* (second year: collaborative design, networked infrastructures), *Cultural Probes: confrontation pieces* (third year: creating dialogue through provocative design), and *Non-Expert Experts* (minor, fourth year: disseminating expert-amateurs’ knowledge, user-based design).

Each course also offers the students new approach for their practice: whether testing provocation to generate user input, exploring the open form in relation to iteration, employing an ethnographic method in the Non-Expert Expert project or using prototyping and iteration methods in *Collective Collection*.

An example of a social open design project exploiting the aesthetics of food waste is the *Fairphone Case* (2013) by student Jolien van Delft. It uses an online system that invites people to make a mobile phone case for the Fairphone, a smartphone developed using open design principles. Users create their phone cases using everyday waste, and the site provides instructions for using the phone case as an open form in a networked context. The results show that the aesthetic of the final product (many cases are “lumpy” and strange looking, a contrast to the slick smartphone it envelops) is not about beauty, but evidence of a process that allows for flaws to become a part of a product and for genuinely unique results given the materials used. The *Fairphone Case* provides evidence of an emerging “open-design aesthetic”, a (visual) language to be developed to encourage users to participate.

### **5.1 Collaborative aesthetics**

*Collective Collection* (second year) focuses on collaborative authorship and “open”, participatory strategies in various design fields like product design (open design), graphic design (open-source typography) and fashion (open-source fashion). What happens to your role, identity, product or collection when it is composed in a (networked) collaboration? Students were required to design a collective collection (literally: a collectively-designed collection of works) based on possible needs, behavior, fantasies, frustrations or fears of users. They learned to direct a participatory design process by exploring instructions, rules or recipes, and to explore the participatory properties of the product. They were also encouraged to use prototyping and iteration techniques to explore possible ways to approach their chosen product.

Will Bindley’s project *Artists and their Notes* solicited screenshots of the “Notes” program on smartphones owned by artists. Inspired by street photographers and “readymade” collections such as the accumulations of objects in lost and found bins, Bindley ultimately decided to focus on explicitly sharing ideas through social media. The screenshots of the

notes application are sometimes arbitrary lists or reminders, and often also ideas for projects or objects. By posting these private notes on a public website (Bindley created a Tumblr blog for the project) and also creating a handmade zine to distribute the ideas, Bindley invites anyone to act upon the growing collection of half-articulated ideas and make them into projects, modify them, and in some cases, complete them.

Sophie Dirven’s *Memory Your Memory* project worked with the residents of a care home for the elderly in Rotterdam. Dirven interviewed the residents of the home, soliciting their most treasured memories and anecdotes. She then worked with the residents to draw a representative image of that memory, which was laser cut into a wooden game piece. The final game works much like the child’s game “Memory”, where tiles are placed face down and players flip tiles over and then put them back, trying to find matches and remember where the tiles are as they play. Thus, a common memory game is given more meaningful content, and provides a conversation piece for the residents as they play together and share their stories. The game itself functions as a collection or archive of the residents’ memories. The game is also open-ended and extendable: a new collection of memories can be added to the game at a later time.

### **5.2 Confrontation Piece: provocative aesthetics**

*Secret Stories of Users. A Confrontation Piece* (third year) introduced students to participatory design techniques through cultural probes and user research. They investigate how user research could also be used as a “tool” for participatory storytelling. How could secret stories about personal needs and fascinations of users inspire the design and contribute to its relevance? Taking the cultural probe as a starting point, the assignment challenged students to design a “confrontation piece”, a thought-provoking design intervention intended to connect with hidden stories, knowledge, and the skills of local artisans.

The project *Memre* (memory) by Hilko Idsinga focused on forgotten crafts from the Surinamese community in Rotterdam West and on ways to open up their knowledge for future generations. Through interviews in the neighborhood, he discovered that in Surinam, women used to make jewelry and toys from local fruits and kernels. How can jewelry and puppets making of seeds and nuts be reintroduced into the daily lives of expatriate Surinamese? His aim was to design a kit that encourages cultural fusion and inspires women to once again take up their former “craft” using similar Dutch fruits. This knowledge could then be transferred to children in order to honor and restore the craft. For his research project, he created a “kit”, whose aesthetic is reminiscent of the Surinamese Awara nut and which contains a combination of both Dutch and Surinamese materials, to make jewelry. When testing this confrontation piece, the object appeared to trigger many specific memories of Suriname. Based upon this outcome, he designed a new kit including a book to collect and disseminate stories about the objects. As a trigger for further participation, he designed new jewelry and shared his blueprints online.

A second example of collecting and sharing knowledge through a design intervention is the public loom (commissioned by the local and up-and-coming Maker Space), which collects artistic techniques from people in the neighborhood. Students set up a human sized loom in a public square, using alienating aesthetics and exaggerated dimensions to draw the peoples’ attention. This confrontation piece triggered various responses; women shared their special weaving techniques, while with others revealed personal stories. Because of these unexpected results, the loom became a tool for both skill and story sharing, providing useful insights in the neighborhood’s daily life. Maker Space will use these results in their workshops.

These are two examples that show the exploration of aesthetics to encourage knowledge dissemination: one by referring to memory, the other by provoking the audience.

### **5.3 Opening up: Sharing “Non-Expert Expert” knowledge**

As noted in our discussion of the three traditions supporting a notion of open design, it is clear that there are particular groups and communities with vested interests, and who invent, design, and create without being recognized as designers, artists, or even as being creative. This group of “non-expert experts” (Kasprzak 2014) may be highly skilled and devote exceptional amounts of time and money to their craft, but, without the validation of an art academy education, critical reviews, or engagement with particular niche marketplaces, they operate under the radar. In many ways, the “non-expert expert” groups, who focus more on explicitly creative output, are a slightly different variant of the “pro-am” concept described in a paper published by the think tank Demos: “amateurs who work to professional standards”. (Leadbeater & Miller, 2004). As groups with enormous talents and expertise, these non-expert expert communities are ideal for forming collaborations with practitioners in other disciplines, including design.

The recent Open Design Minor program requires the students to seek out, engage with, and co-produce an open design project with a community which holds deep, and possibly unusual, knowledge. The course syllabus states: “This project challenges you to develop a dialogue between non-expert expert makers, audiences and designers. Eventually you will define your own approach to open design. Think radically – open doesn’t mean allowing people a constricted set of choices (e.g. a dress offered in different colors and lengths) but having an honest, deep, and challenging engagement with user groups and communities to stretch the limits of your design concept.” (Kasprzak & Herst 2015)

In addition to being encouraged to discover non-expert expert communities themselves, the students were provided with a range of non-expert expert communities for their research. The intention was to break down the roles between designers and “amateurs” and have the students interact with groups which hold informal knowledge in a wide range of subject areas, and recognize that this informal yet valuable

knowledge production often remains unknown to a wider audience. The groups’ discussions and approaches included a broad range: road-kill chefs, DIY synthesizer enthusiasts, guerilla knitters, and miniature vegetable gardeners. The students were instructed to use an ethnographic approach, spending time with their target groups to first understand the group and its practices, and later understand how they could contribute.

To look at one example in detail: the electronic music community is enormous, and Dylan Degeling found an interesting niche within it in the active group of DIY synthesizer makers. Working mostly through online forums at first, Degeling developed a concept for a solar-powered DIY synthesizer which could be made in a modular way. Continually testing and obtaining feedback from the community, both in person and online, Degeling eventually developed a sophisticated prototype using an Arduino prototyping board<sup>1</sup>, and he released the source code to the community.

<sup>1</sup> An interesting note is that the Arduino electronics prototyping board is itself an open-source project, and a little-known feature of its history is that the Arduino was “forked” (copied) from an original, largely uncredited work by Hernando Barragán, who dubbed his open-source prototyping board “Wiring”. The full story is the detailed here: <http://arduinohistory.github.io/>

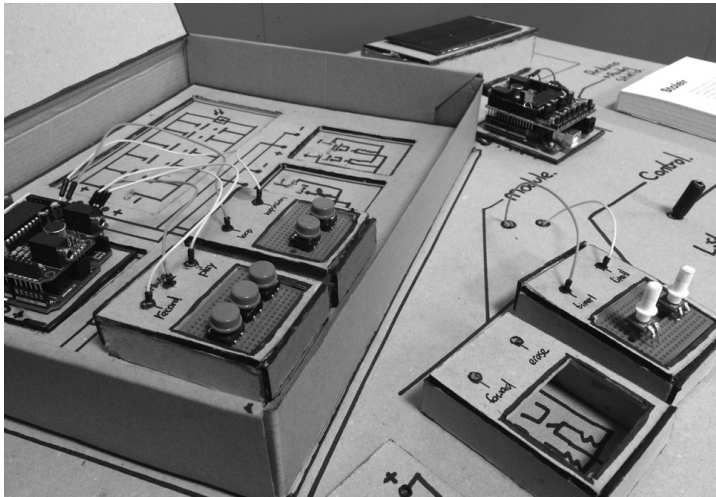


Fig.6. STOLEIR, open source, renewable, energy powered, cardboard, modular synthesizer prototyping kit. Dylan Degeling, student, minor in Open Design <http://stoleir.dylandegeling.nl>

The project *Exchange Knitting* shows fashion student Yvonne Swiers’ fascination for knitting techniques. She collected these skills from various sources (knitting clubs, specialists in open knitwear) and continued her search through an online platform she developed, thus both collecting and disseminating knitting knowledge. On her site she invites knitting enthusiasts to both upload and use files in order to preserve knowledge. At the same time, the project is about exploring collaborative aesthetics. In her own collection, she uses patches from different knitting techniques resulting in a “Frankenstein” dress or cardigan collection that reflect both her and the users’ identities. At the same time, this project also questions openness in design. Embodying the paradigm of open design for artists, Yvonne encourages sharing of the techniques, but is clear about her role as designer, as author of the project and the collection.



EXCHANGE KNITTING, the knitted patchwork collection based on shared knitting knowledge.

Yvonne Swiers, student Open Design

*Fig.7. Exchange Knitting, coat, Yvonne Swiers*



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*Fig.8. Exchange Knitting, collar, Yvonne Swiers*





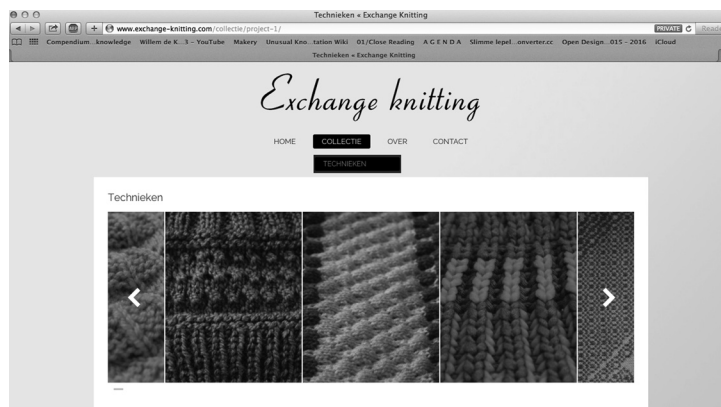


Fig.9. Exchange Knitting platform, Yvonne Swiers <http://www.exchange-knitting.com>

Shared aesthetics and knowledge are also fundamental aspects of *Wheelshare* by advertising student Wietske Lutgendorff, who closely collaborated with an expert wheelchair user (Eric Groot Kormelink) during the developing stage. With this project, she intends to make wheelchair users and their environment visible by providing them with an open source toolkit and platform. With this she allows them—as experts of the experience—to show what kind of obstacles they encounter on a daily basis. The project consists of a downloadable ready-to-print 3D file of a grip for a smartphone. Once the wheelchair user's phone is mounted onto their chair with the custom grip, they are encouraged to record videos of their movements through the city, including all the obstacles they encounter. The *Wheelshare* website makes the users and their videos visible, public and shareable.

*Wheelshare* exploits the aesthetic power of multiple perspectives and camera views to keep the viewers intrigued and encourage possible participants to contribute to this kaleidoscopic view. It also opens up new perspectives for non-wheelchair users, who have likely not seen the city from this point of view, and also have little idea about how inaccessible public space can be. Lutgendorff hopes that the platform will also serve as a policy tool, as public accessibility is currently being debated by Dutch politicians, and accessibility for wheelchair users in the Netherlands ranks among the worst in Europe. To fully exploit its potential, this student project needs further marketing and professional support.

WHEELSHARE, makes the environment of wheelchair users visible.  
Wietske Lutgendorff, student, minor in Open Design

Fig.10. Wheelshare, Wietske Lutgendorff, <http://wheelshare.nl/over>



Fig.11. Wheelshare, mounted on a wheelchair.

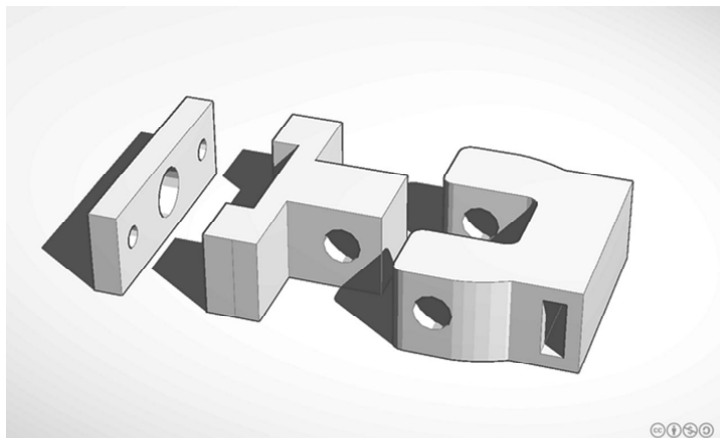















Fig.12. Wheelshare, downloadable 3D print <http://wheelshare.nl/downloads>




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-   

Download, koop en print zelf, of bestel en laat de onderdelen voor de rolstoel telefoonhouder printen.
-   

Bezoek of neem contact op met een van de rolstoeltoegankelijke FabLabs in jouw stad.
-  +  = 

Bevestig of laat de telefoonhouder aan je rolstoel bevestigen en schuif jouw smartphone in de universele rolstoel telefoonhouder.
-    

Zorg dat de camera van je telefoon iets naar beneden staat en niet gericht is op jezelf, maar op de grond.
-   

Doe wat je dagelijks doet en maak korte filmpjes van de knelpunten op je dagelijkse route.
-   

Deel jouw korte filmpjes op de Facebook pagina van Wheelshare of deel ze op je eigen Twitter of Instagram account met de hashtag #wheelshare

Fig.13. Wheelshare, instructions, <http://wheelshare.nl/start>

Fig.14. Wheelshare platform,  
clips uploaded  
by wheelchair users  
[http://wheelshare.  
nl/#shortclips](http://wheelshare.nl/#shortclips)



With a nod to code sharing and platforms like GitHub, the students were also tasked with disseminating the key elements of the informal knowledge they obtained from their communities, resulting in an online publication entitled *A Collection and Compendium of Unusual Knowledge*.

## CONCLUSION

In this paper we intended to question the supposed juxtaposition between the principles of open design (utilization, sharing, participation) and authorship (aesthetics). We contextualized the paradigm of “open authorship” and “open aesthetics” in relation to utilitarian appropriation by pointing out its as yet underexposed historical background: the debate about shared authorship (Diderot—De Condorcet) and the aesthetic tradition of open design—the open form (Eco, Wölfflin, Hansen, Raaijmakers), where it is aimed at “real” participation and contribution by stakeholders. From this perspective, we investigated “open authorship” in WdKA’s Open Design Program.

The outcomes showed that different approaches to openness ensure diversity in the field, which, in turn, will secure a long future for open design. Various attitudes towards openness emerged and several kinds of open form aesthetics were explored. Some examples: a kaleidoscopic multi-user aesthetic that, through its visual language, invites wheelchair users to join, (Lutgendorff’s *Wheelshare* video collection, Dirven’s *Memory game*), unconventional ad-hoc, wabi-sabi language based upon expressions of specific communities (Swiers’ “Frankenstein” sweaters, Degeling’s cardboard and wire DIY synthesizer), the familiarity of daily waste (Van Delft’s *Fairphone Case*), cultural prompts to activate memory and to open up personal stories (Idsinga’s *Memre*) or provoking forms to challenge and involve people (Public Loom Confrontation Piece).

These new approaches to open authorship in design show that traditional concepts of authorship are slowly being opened up. In the

projects mentioned, authorship is expressed as an investigation of shared aesthetics connected to an iterative approach (as open source coders do), and to the user’s needs (as practiced in participatory design). Exploring the social (community involvement), the technological (the use of networked platforms), and the “aesthetics of the unexpected”, these open design students created projects of indeterminate duration and a new, participatory, and constantly evolving aesthetic.

Although the notion of artistic “genius” is still present in the conception, infrastructure, and first version of the design, the afterlife of the work remains uncertain for the author. Users are becoming new authors—as seen with *Layer Chair*—or are now even explicitly mentioned as co-authors—as with the *\$50 Prosthesis Project*. These are examples of longer lasting open design projects, in which time has allowed them to further evolve within different (social and artistic) contexts without the “original creator”. The case studies explored here represent a new generation of designers and we are confident that there is a strongly interdisciplinary future for open design.

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# **STANDARD DEVIATION**

## **STANDARDIZATION AND QUALITY CONTROL IN THE MASH-UP ERA**

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**Dr. Robert Phillips, Dr. Matt Dexter,  
Prof. Sharon Baurley, Prof. Paul Atkinson**

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### **ABSTRACT**

Standards touch many aspects of our lives, from purchasing to consuming, to maintaining product consistencies (e.g. ISO 9001). Standardization aids replicating: compliance, quality and durability to diffuse geographic areas, driving innovation by providing constraints (BSI). Historically, standardization was a cornerstone for commerce enabling traders to interact, trusting accurate measures, used in judging a product's worth. Open Design utilizes Internet-accessible digital making platforms, for creating and disseminating ideas. The rise of Fabrication Laboratories and distributed digital manufacturing (e.g. domestic 3D printing) has increased accessibility of high-quality manufacture. Design agents as well as designers can create products; either for personal use from the bottom-up, or re-appropriate another maker's solution. Reciprocity is key to the process. As such, in this paper we refer to design agents, rather than applying labels of "professional" or "user". However, as design agents become enabled to produce complex artefacts, "objective validation" for shared blueprints quality, becomes imminent. For example, 3D printing is reviving DIY toy making, with materials that can degrade overtime, potentially presenting choking hazards. Due to this status quo, the authors are not presenting lawsuit opportunities, but preventative procedures whilst encouraging proliferation of design agent led Open Design. Regulatory requirements for sectors touched by "open phenomenon" are unprepared. How can maker communities, design agents and others lead the way in promoting ways of working that enable robust quality control in open environments? To answer this question, interviews with British Standards Institute (BSI) representatives were triangulated with design workshops. This participatory approach to knowledge creation was chosen due to its inherent compatibility with the theoretical underpinnings of Open Design. This paper presents models exploring "standards integration" for Open Design purposes, enabling design agents to create "compliant" outputs, to benefit all. We conclude that there are possible avenues for standardization, but that this must be tested in the field.

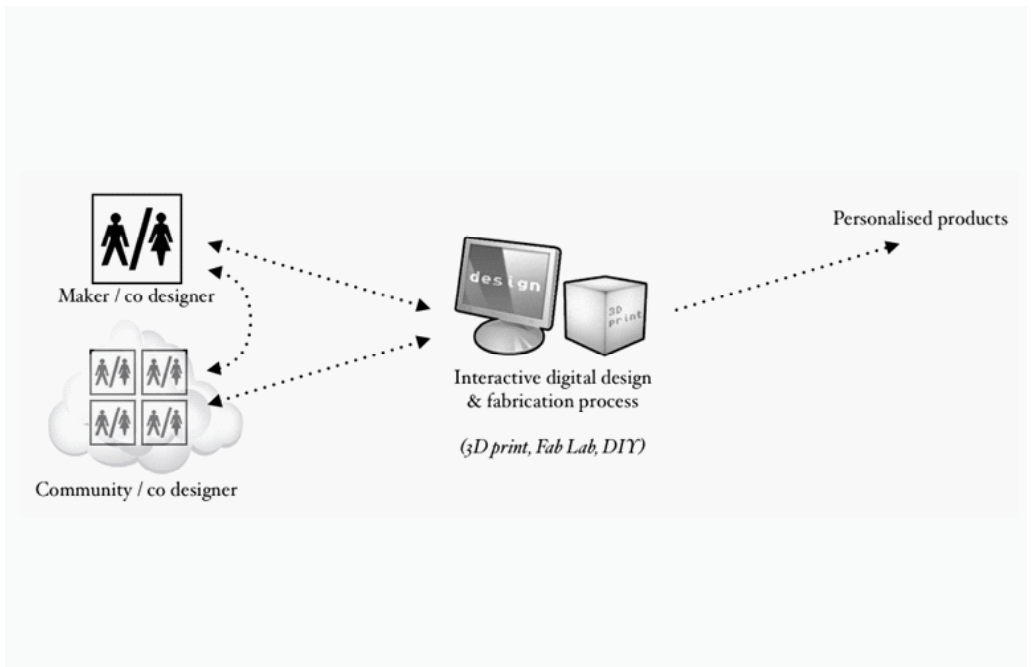
#open design, #digital manufacture, #industry standards  
doi:10.21096/diseqno\_2016\_1-2rp-md-sb-pa



## INTRODUCTION

Weblogs and Wikis have been readily adopted in civil society; transforming the way many of us access information, spreading information for either re-appropriation or use (Hasan & Pfaff 2006). The access to information and the capabilities to turn a digital file into a product give users the ability to design products they consume, becoming “pro-sumers” (Franke & Piller 2003), as well as enhancing the avenues of creation available to professional designers. Fabrication Laboratories (Fab Labs) housing digital fabrication equipment and manufacturing knowledge have existed in the United States since 2003 (Gershenfeld 2012) and are becoming more commonplace, with their number doubling every twelve months (Charny 2011). Fab Labs run public engagement events providing lay design agents access to equipment usually beyond their means. Open Design is the accessibility of design information providing the ability to produce items and artefacts through digital manufacture (Katz 2011).

Fig.1. Open Design diagram, adapted from (Atkinson 2011).



<sup>1</sup> See more at <http://opendefinition.org>

Open Design is “the internet enabled collaborative creation of artefacts by a dispersed group of otherwise unrelated individuals” (Atkinson 2011) differing significantly from the traditional product creation. Open Design is born out of two enabling technologies, the Internet, and Distributed Digital Fabrication (DDF). In particular, the shift to “Web 2.0” (technologies for sharing and dialogue) has allowed the rapid community-driven development of technologies that underpin DDF—with one of the most prominent of these being open-source 3D printing.

Open Design has inputs and outputs that can be used by professionals and amateurs (Tooze et al. 2014); therefore Open Design is not necessarily equal to “amateur design”, it is also a means for professionals to accessibly distribute content for manufacture at source or provide editable outputs. The authors focus this paper on 3D Printing, as it is the most accessible and ubiquitous form of digital manufacture, emulating its professionally produced injection molded counterparts. However, the concepts can be cascaded to other forms of digital manufacture, and the spaces where collaborative open design happens.

The precursor for the rapid growth of new companies manufacturing the most popular variants (for example, MakerBot) was the RepRap project (Bowyer 2004) which initiated the open-source development of 3D printers.

The conventional manufacturing process presents a path to a finished product, enabling conventional standards and quality control procedures to be applied at relevant project stages. This is different to Open Design as design agents engage in stages of design that can be uncontrolled or unregulated. Open design can be defined as the four freedoms that a person has with regard to an artefact: “[the] freedom to use the design, and the freedom to use it to make a derivative and use this for any purpose; the freedom to study the design and change it, and then change it to make it do as you wish” (Katz 2011). These freedoms are summarized in the Open Knowledge Foundation’s definition of ‘openness’ (v1.1):<sup>1</sup>

*“A piece of data or content is open if anyone is free to use, reuse, and redistribute it—subject only, at most, to the requirement to attribute and/or share-alike.”*

Open Design is a process intended for all to engage with, not only the technically able. There is a “difference in the ability to use a tool and the intrinsic knowledge of craftsmanship and skill in using it” (Frayling 2011). This study focuses on lay design agents reproducing and developing digitally manufactured goods in compliance with standards and not the design agents’ knowledge and capability to design artefacts.

Open Design has engaged many communities where distributed manufacture is advantageous. Example projects include: farm equipment ([www.opensourceecology.org](http://www.opensourceecology.org)), remote underwater exploring equipment ([www.openrov.com](http://www.openrov.com)) and platforms that enable the free

sharing of interchangeable parts ([www.openstructures.net](http://www.openstructures.net)). Open Design has the positive attributes of: economics; product distribution; locals solving local problems and engagement with the products design agents consume (Carson 2009). Open Design is explored by “kit makers” selling components for design agents to assemble into products, (removing technical elements possibly beyond lay design agents). Kits are a variant of Open Design – elements can be tailored to meet specific needs whilst achieving successful, quality outcomes. Businesses using “open” and kit approaches include: DIY Drones, ([www.diydrones.com](http://www.diydrones.com)), Littlebits, ([www.littlebits.com](http://www.littlebits.com)) and Sugru’s Leon Paul fencing handle ([www.sugru.com](http://www.sugru.com)).

These examples (and the uptake of 3D printing) highlight Open Design as an emerging and successful market that warrants quality, compliance and regulation considerations—aiming to protect design agents from construction mistakes and improve the accurate replicability of products.

Atkinson and Cruickshank (Atkinson & Cruickshank 2013) critically look at the types of scenarios where Open Design is best suited; when designing complicated artefacts where a malfunction could endanger or have a serious negative economic impact, careful attention must be paid to the use of a design methodology such as Open Design. Regulatory impacts and safety concerns with distributed manufacturing mean that there are real questions surrounding the ability of current technologies to deliver artefacts of identical (or even verifiable) quality when manufactured by different people in different geographic locations.

Open Design has seen many projects attempt to tackle difficult or complex projects, comprised of multiple systems, sometimes interfacing with proprietary parts and systems (Raasch, Herstatt & Balka 2009). These complex projects follow the same principles of bazaar-like open source software development (Raymond 1999) with modular component parts and collaborative decision-making. The projects mentioned by Raasch et al. (Raasch, Herstatt & Balka 2009) intersect with standards in their inception OpenMoko ([www.openmoko.org](http://www.openmoko.org)) is a good example; in creating a fully open-source mobile phone this would necessarily mean compliance with different telecoms standards (such as GSM), and emission standards for wireless radiation (as prescribed by the FCC and other bodies). This would appear to be a failing of Open Design, that a diffuse community of people could not begin to tackle these regulatory hurdles. However, as Henkel (Henkel 2006) points out, such an open source approach can create interoperable standards more efficiently since there are no conflicting business interests; the best technical implementation is used, rather than being the survivor of a “format war”.

A misconception that designers occasionally have is in underestimating the creative potential of amateur makers (Phillips, Baurley & Silve 2013), in a similar vein to professional scientists underestimat-

ing or looking skeptically upon data collected by amateur scientists (Cohn 2008). This reticence to value the amateur in a field within the “Web 2.0” era is highlighted by Keen (Keen 2007), who uses prominent examples of communities focused around user-centered content to highlight the perceived negative effects on traditional businesses. Keen’s skepticism of ‘user’ content producers/curators can also be felt amongst designers about the amateur makers of equipment that could be considered “dangerous”—as professional designers specifying artefacts for manufacturers, it is necessary to adhere to and understand the relevant standards and regulations. If an “amateur maker” produces a wooden toy for a family member, they are potentially ignorant of the BS EN 71 standards governing the production of toys—however they may possess a wealth of tacit knowledge about the safe and effective use of oils, paints, and adhesives that are suitable for toy construction and finishing. Similarly, it is important for design agents working for profit that they can demonstrate a rigorous Open Design based product development process to their paying client, who might have to defend said process in a court of law.

Conventional products require trust; provided by standards: i.e. fire alarms (*BS EN 54-1:2011*), life jackets (*BS EN 396:1994*), medical products (*93/42/EEC*), toys (*BS EN 71*). This provides the design agent with safe products, and quality assurance from the manufacturer. Existing standards apply to finished end products, and the processes involved in their creation. However Open Design changes the context of standardization for design agent-creators. Does one standardize the tool that creates the product? Or, the finished product the design agent has created? This paper examines the requirements of moving this activity beyond products destined for the domestic environment via the Fab Lab, or DIY processes, into the realm of Open Design by; SMEs for distributed manufacture; larger corporate entities disseminating products as “pay-per-download” (or other such); or perhaps by individual artisans wishing to release their blueprints for distributed manufacture.

## **METHOD**

The authors presented contextual Open Design examples (Open Structures, Thingiverse, Hallmarking, Arduino and DIY Drones) to BSI representatives in an interview to discuss;

*“In a world capable of open product creation, what does BSI perceive as opportunities for standardization in the process, delivery or product created; and what do they perceive as difficulties?”*

In addition to discussing this with BSI representatives the Authors ran a LEGO™ Serious Play® workshop with designers to test the Models for standardization created as a response to the discussions with the BSI.

British Standards Institute Discussion



**1. Taking the example of Open Structures ([www.openstructures.net](http://www.openstructures.net)) [Fig.2 and Fig.3], and the open platform this represents, what are BSI's thoughts on the pitfalls and opportunities for the standards industry?**

*Fig.2. Open Structures water heater, (Lomme 2012)*

*Fig.3. Open Structures grid structure, (Lomme 2012)*

*BSI feedback:* The Open Structures example sparked a discussion around standards for design, with the *BS 8888* series of design standards mentioned. BSI noted that platforms like Open Structures are “definitely an area of interest”. BSI is very interested in grassroots manufacturing, with a desire to be more proactive about changes to the manufacturing landscape, rather than reactive. Supporting innovators is a key strategy for BSI, but there is recognition of “Standards surrounding a standard”—the water heater [Fig.2] built from the Open Structures platform was picked out as an example. If such a domestic appliance were produced, there are a number of standards that might not be immediately obvious or applicable, but could be considered, if this device were to be sold in the EU.

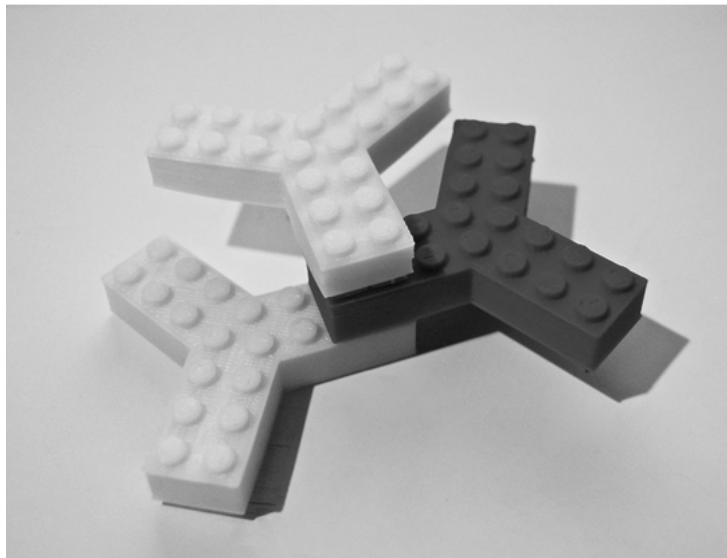
This level of complexity presents challenges, as the different standards that intersect with the original document might not be apparent. Standards by their nature are “often dry documents”; necessarily so, as they are to be unambiguous. Translating this technical text into an easy-to-read document is a significant challenge. There was a feeling that BSI “has always been open” in its method of creating standards, as it invites public comment, and allows anyone to initiate the process of standard creation. However, there was a feeling in the discussion that the definition of “openness” was key—perhaps BSI could best be described as having an open innovation strategy. Taking one of Dahlander and Gann’s (Dahlander & Gann 2010) four definitions, this might be sourcing—BSI invite innovation from the public in a non-pecuniary manner, and internalize this in the creation of a standard.

**2. BSI has a history in creating standards for processes, systems and quality control. What systems/protocols would be created for a self-made assembled product, designed by a design agent, distributed via a kit or downloaded and assembled by another design agent (particularly in relation to the use of Fab Labs as a distribution model)?**

*BSI feedback:* The introduction of the Fab Lab concept sparked considerable interest from BSI, as it was seen as a model to help engage Small to Medium Enterprises (SME) in the use of standards for their products; an area that BSI has previously found difficult to reach. The use of Fab Labs by SMEs (perhaps on days at the Fab Lab that are privately rented as a revenue source for the Lab) was a new concept to BSI. The discussion about self-certification (using hallmarks, for example) led BSI to be wary about this method, since it may compromise the effectiveness of the standard. BSI recognized that their traditional model for funding was more appropriate for large corporations with the means to send personnel for training, and to buy copies of the relevant standards for themselves. BSI is actively seeking new ways to engage (and therefore fund) standards for other entities—with SMEs being a particular focus.

During this discussion, the idea of “pay per download” (PPD), or a royalty scheme was suggested. These ideas have possible legal issues that would require resolution, with the current status quo having a concise definition of BSI’s legal standing in relation to the creation of a standard that a corporation might apply. The use of a royalty or PPD system may change the legal footing of the standard; potentially exposing BSI to charges of complicity in a faulty product.

*Fig.4. 3D printed building blocks*



*BSI feedback:* Currently, there are standards that govern the process by which a product is designed along with many other granular aspects of the development process. There was the suggestion that an application of a standard to Open Design would be about the process by which the product is designed. What was considered when certain aspects of the product were conceived? Designing toys was a popular example in the discussions [Fig.4].

One idea was that standards might be applied “further up the supply chain”, and begin with the manufacturers of 3D printers (as an example). The printer would identify the appropriate standards from the file (e.g. via metadata), or the maker could be prompted “prior to print” through a checklist procedure ensuring that the maker had considered alternate factors surrounding their design. This would then print, or grant access to the full standard if the procedure was deemed appropriate. The BSI suggested a nominal fee, with standards delivered via the 3D printer manufacturer’s website as a distributor. There was a feeling this method would be more suitable for SME engagement in Fab Labs, but perhaps not for individual domestic makers.

Fig.5. Silver Hallmarking



**3. What would BSI’s standpoint be on digitally approving products, imprinting or certifying a digital hallmark into individual products? What would it communicate and what would bespoke digital manufacture bring to standards?**

*BSI feedback:* The difficulty in allowing a person to self-certify centers around the scope of the standard; especially for such disparate objects as those created by makers in Fab Labs, and in their own homes. As such, the use of a self-certified hallmark (as opposed to a third party certified quality mark, like BSI's Kitemark) was not enthusiastically received by BSI.

However, the layout of a "maker's hallmark" could be standardized including, for instance, the maker, identification of the Fab Lab, and the country of origin. The concept of a digital hallmark raises wider questions of counterfeiting and liability in cases of misuse. This notion of hallmarking was recognized as not being a new idea since Artists sign their work as an approval of its authenticity.

**4. In a world of pay per download would BSI consider similar certification processes to ensure SME's could PPD rather than an initial investment, securing a longer-term revenue stream?**

*BSI feedback:* The radical shift from the traditional funding model of selling individual standards, or licenses to access the entire catalogue to a PPD or royalty funding model highlighted significant challenges for BSI. In particular, the "cost to setup and manage a system" such as this one, with multiple funding streams coming in does not exist at BSI presently. Similarly, there are legal issues, as touched on above. The concerns centered around legal liability, and the economics of charging smaller royalties regularly, rather than large amounts initially. This became complicated when weighed against the choice the company has to comply with a standard, or to not (but declare as such). In a royalty-fee system, the BSI could face a situation where a "company pays for a standard and then it is their decision to comply or not comply". The BSI is actively seeking new business models for revenue — and something similar to PPD or royalties might spur a 'new product lifecycle' for standardization.

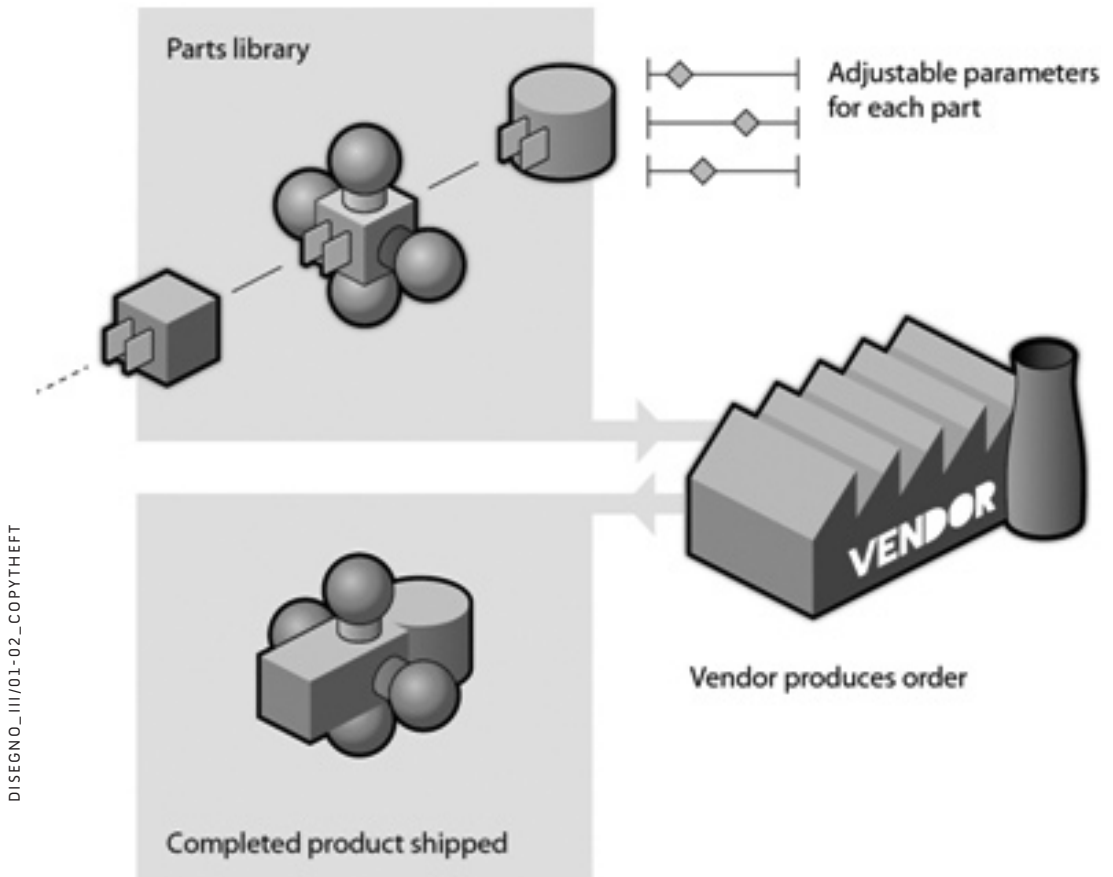
These factors raise the question; "How can the application of standards to the Open Design process be delivered, to benefit the designer in the act of designing, and the maker in the quality assurance of the designs received?"

**OPEN DESIGN STANDARD INTEGRATION MODELS**

The discussions with BSI representatives, resulted in the creation of design models enabling design agents to pursue "Open Design activities in compliance with standards". The context of the models is critically based on the target audience for an "Open Design system" and could be applied for design agents, SME's or enterprise. 3D printing is used as an example in some models due to its popularity, however the models themselves could represent a wide (and expanding range of DDM techniques.



## 1) Standards pre-approved manufacturer parts library (Model 1)



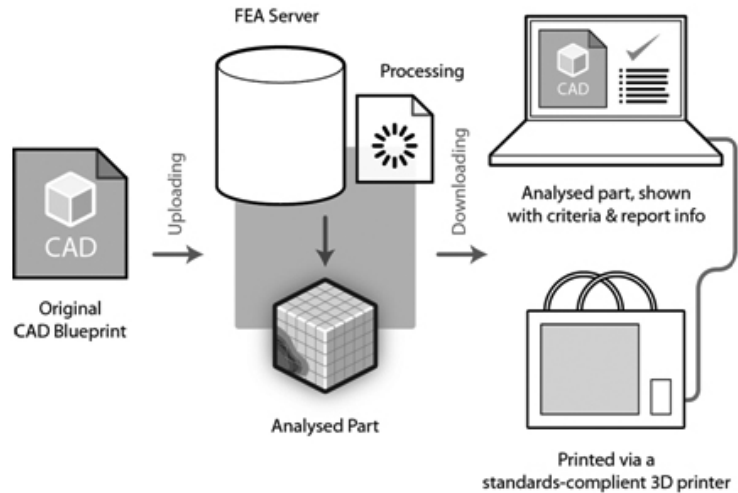
This model illustrates the mass customization of an object—since collaborative elements might not be required, and the only aspect that might be open is if the maker (who specifies some parts, or an assembly from those parts) could share that data. Even though Mass-customization is not Open Design (it does not provide design information for alternate use), it is a step to design agent controlled standards approved products. Some parts suppliers ([www.mossexpress.co.uk](http://www.mossexpress.co.uk)) already provide 3D models of products for “scale & fit” not for standard compliance, suggesting viability of such a system.

Fig.6. (Model 1) Specification of individual parts, in a mass-customization mode

## 2) Upload approval process (Upload &amp; Download/Model 2)

The design agent uploads their file for analysis, and the system suggests design alterations or networking to complement a design agent’s components based on the file attributes. Design agents could then contribute to component/product libraries for alternate parties to buy or use.

Fig. 7. (Model 2) FEA analysis of a part, and electronic verification for appropriate standards to suggest/apply.



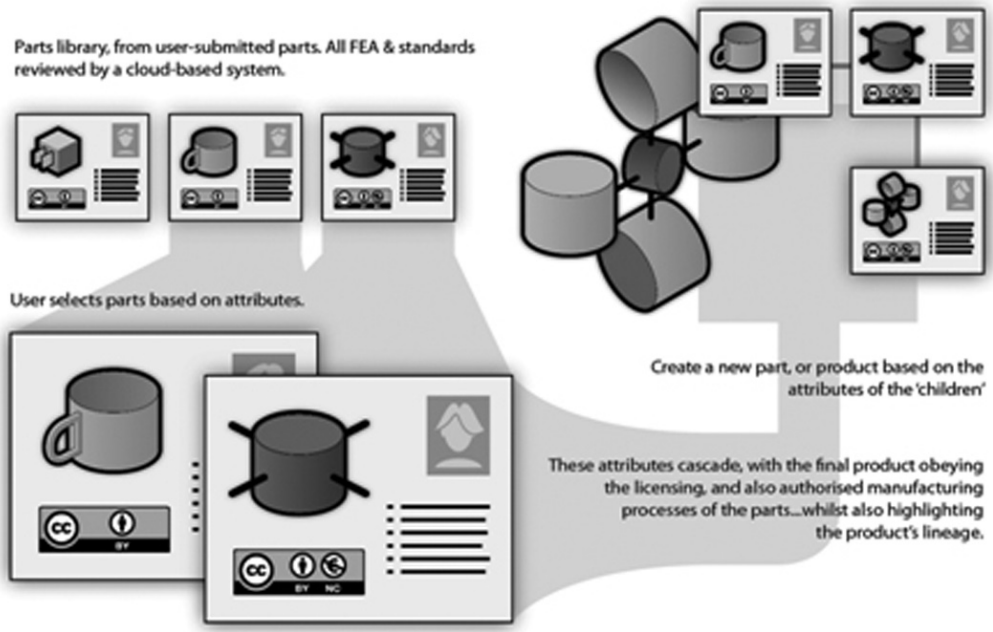
This model combines the BSI notion of a standards-aware domestic 3D printer (or equivalent manufacturing technique), and a cloud-based service providing detailed analytical information of the digital blueprint. In much the same way that Shapeways analyzes the CAD files uploaded to its service for their viability in different manufacturing processes, this service would go further and analyze the structural integrity of the finished part based on Finite Element Analysis (FEA). This service would therefore provide design guidance to the uploader of the designs, suggesting improvements based on the selected end material, and the stresses/use case prescribed. In order to make the use of such a service compelling (and therefore, economically viable) a suitable design agent experience would need to be developed to lower the cognitive barrier associated with FEA.

This information about standards compliance, combined with the structural report as to the integrity/durability of the part for its stated purpose would be made known to the person downloading the file—and perhaps even embedded within the data itself. Based on the analysis of the part, the report could also highlight applications inappropriate for a part; if an object is submitted that has sharp edges, or small parts, then an accompanying note could advise against its use for a child's toy.

If the producer decided to use the part for an application outside of the original scope for the product, then the original designer, and the service would not be liable since the information (contained in the report) would outline what the part was rated to achieve. In the same way that a person may use an artefact in any number of ways that the original creator did not envisage (and is not therefore liable). The aim of these systems is to instill confidence on the part of the producer that the proper due-diligence has been undertaken by the designer—the mechanism outlined aims to lower the barrier to entry for the amateur designer to access the useful and rigorous guidelines contained within a standard, whilst concurrently exploiting that technology to

add value to the process for the designer uploading their designs (via the use of FEA).

3) Design agent defined pre-approved library  
(Upload & Download/Model 3)



DISEGNO\_III/01-02\_COPYTHEFT

In this system, the designer can search for and include parts that have already been verified by the system in their own designs. These parts can be combined into products, or assemblies for products; at every stage with the lineage of the parts available. This lineage is important, as it allows the licenses applied to the parts to cascade down, with the most restrictive license dictating the overall license of the finished product. Similarly, the lineage will dictate the final DDM process; if one analyzed part can only be reliably produced at a Fab Lab, then this would set the conditions for manufacture for the overall product. This then would best ensure compliance with licensing, and also the electronic guidance based on the standards.

The lineage of components would show the bill of materials for the artefact, and help to credit the people who have therefore contributed to the creation of the new artefact. Of course, these systems are not intended to restrict the creative interpretation of the producer (except where licensing dictates), since the intended use of the final artefact might be outside the scope of the original component. This free agency of the producer places the liability on them. The issue of control is touched upon here—as the process by which the models are analyzed

Fig.8. (Model 3). The combination of design agent-designed parts, cloud-based FEA, and lineage of the included parts.

might rely upon a proprietary technology to provide the FEA, or measure against the standards available. In taking the democratic principles that underpin the Open Design movement, this would mean that such a system should not seek to be the only method by which files are disseminated; rather, it should be a system that adds value to the eventual customer of the artefact (this may or may not be the producer) by demonstrating the trustworthiness of its design, and construction.

### **LEGO™ SERIOUS PLAY® (LSP) WORKSHOP**

Creative strategy tools have gained much traction in the business sphere, with many coming to prominence through the use of the term “Design Thinking”.

In order to allow for a participatory exchange of ideas around the Models proposed above, an LSP workshop was organized with designers. An approach that allowed for genuine participation (Luck 2007) was essential to allow for a full critique of the models. LSP is fundamentally concerned with communicating ideas via metaphors rendered in 3D using LEGO bricks. This has the advantage of being readily and immediately accessible, whilst also a powerful means of thinking through making. This experiential learning (Piaget’s constructivism) through doing helps bring the mental models of the participants into a physical artefact able to be critiqued and reflected upon (Papert’s constructionism).

LSP was developed by The LEGO Group as such a strategy tool in 1996 in collaboration with Johan Roos (Roos, Victor & Statler 2004), for use at a boardroom level, tackling open-ended questions that have a high impact on the core activities of a business. LSP has moved beyond the boardroom and into other spheres, such as pedagogy (James 2013) and healthcare (Swann 2011), due to the potential for the methodology to tackle exceptionally complex or open-ended questions. These often involve personal, political, emotional, social and cultural dimensions which are easily missed in a systems approach, or a tokenistic method.

The workshop followed a simple structure of introducing the LSP kit to the participants. The introduction was followed by a presentation on Open Design giving contextual examples. Finally, the participants were introduced to the open design standards models.

### **WORKSHOP OUTPUT**

#### *Response to Model 1*

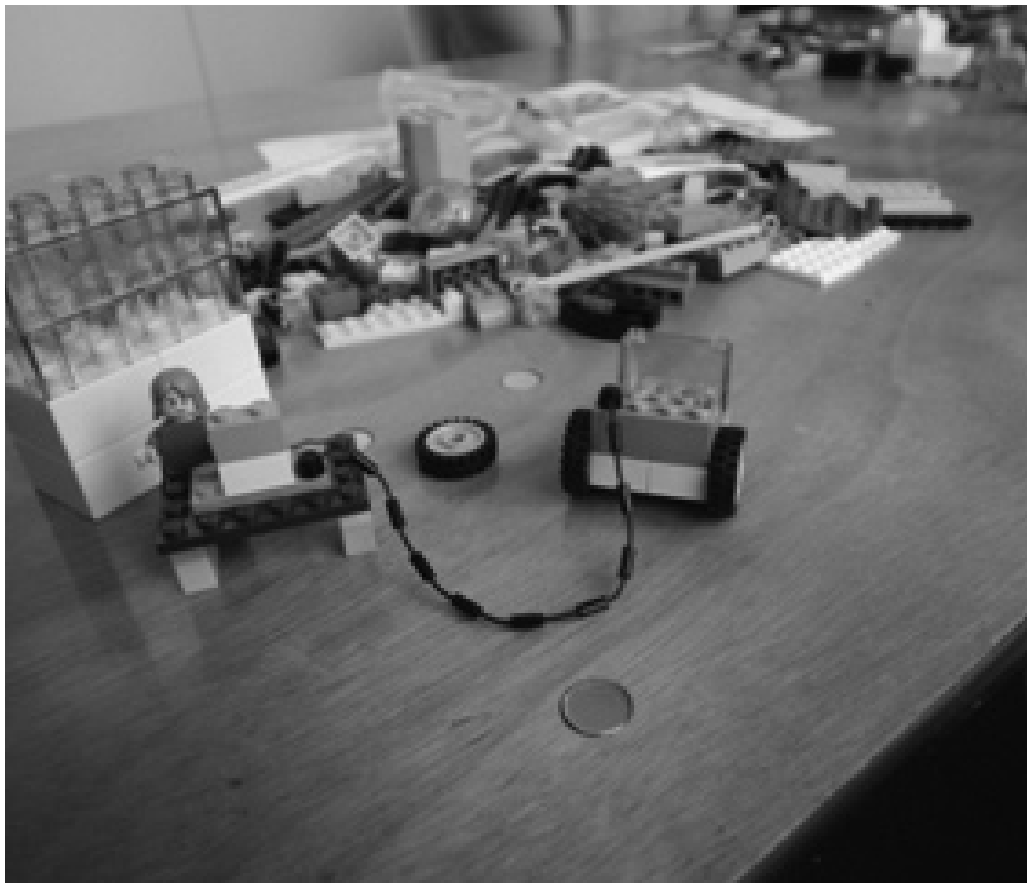
The designers engaged with Model 1 by building the process as a linear metaphor. An example is given in [Fig.9]—the designer created a one-way flow of data from the digital world to the physical. The output is a car, a device that is heavily regulated and expensive—suggesting that the benefits of rapid manufacture are well matched to complex, dif-

difficult to regulate products perhaps beyond the scope of an individual artisan. The designers felt that Model 1 should have gateways to check the product at stages of importance, designed into the design agent experience of the enabling software platform.

Branding was an important feature of this process, as it was felt that Model 1 could extend to a branded product; or that this might be a good way for a brand to foster engagement with a product offering that is difficult to release as a fully Open Source artefact (due to the regulatory burden, for instance).

The biggest criticisms of Model 1 came from the supporting system cost, and how this might be borne by SMEs with restricted capital that larger brands have. Similarly, how this cost might be borne by individuals—either individual makers (who use the platform for making their own work available), or “pro-ams” who use the system to create bespoke products. It was felt this could potentially be the biggest barrier to entry for the implementation of Model 1. There was also the recognition that this process is not actually Open Design. Hence the recognition that this might be useful for Brands, and some SMEs, but missing the point of Open Design somewhat.

*Fig.9. Artefact A, created in the LSP workshop*



### *Response to Model 2*

Model 2 provoked reactions that were less linear, as highlighted by Artefact B [Fig.10]. Here, we see a central column denoting an authority (with the crown), that judiciously applies the FEA and therefore analysis to individually uploaded blueprints. This is the central pivot around which the collaborating makers orbit—they combine in an environment that is strengthened by the extra data provided by the service. The complex nature of this design process was highlighted in Artefact C [Fig.11], with the red paths representing the touchpoints with Model 2 for critical components, and the grey paths representing the non-critical aspects of the design.

However, the restrictive nature of the analysis was a concern (Artefact B is built on a small base, not diffused very far), as was the ambiguous nature of the authority. What is the motivation of the authority providing the FEA service? The participants were skeptical of a “pay per download” model, pondering about individuals and small SMEs use. Instead thinking that an “in-house” service might be more appropriate; for instance, a Fab Lab providing or licensing the service from member’s dues, rather than this being under the control of a dispassionate corporate entity. This response came in conjunction with concerns over the perceived *value* to the maker of such an FEA system; or indeed, the barrier to entry that such a complex system might have (with a steep learning curve).

*Fig.10. Artefact B, created in the LSP workshop*





Fig.11. Artefact C, created in the LSP workshop

### Response to Model 3

The artefacts created in response to this model featured feedback loops required for meaningful combinations of individual artefacts, suggested in Fig.12 by the flexible sections connecting the modules from different creators. This feedback should therefore actively notify makers of derivations made. The creator of Artefact D initially thought about singular objects, but through the process of modelling and critically thinking through the scenario posed by the model began to represent and comprehend elements that work in unison.

Concerns were raised about the ability for the system to comprehend all real-world aspects of the objects in use, and that this predicated the use of standardized (or “approved”) digital manufacturing techniques. The concerns about the “authority” behind this work were also carried forward from the analysis of the previous Model 2. The applications of standards are often linked to the *process* that the designer/maker has followed, rather than just the finished product. Meaning that the use of a hallmark, or “maker marque” might be necessary in conjunction to this system denoting that the product has an appropriate provenance, and that a standardized process has been followed.



Fig.12. Artefact D, created in the LSP workshop

## DISCUSSION

This paper begins a discussion around the application of standards and meaningful provenance in DDM products, to allow for Open Design to have a role in sectors where a tight adherence to standards and regulations is absolutely required. The authors recognize that various standards function in unison, with production processes and dynamic factors that are difficult to simulate in software, but that this is an area for further investigation. The creation of standards can be expensive so the viability and justification of “why the access needs to be open” requires scrutiny.

Open Design also can present pitfalls in file or product misuse (Phillips, Baurley & Silve 2013) going against the creators intention, the most topical example of this is the Defense Distributed ([www.defdist.org](http://www.defdist.org)) open source weapons project. The ideas of cascading “rights” through the product provenance could be used to communicate a maker’s wishes, but ultimately the freedom to “derive a product” from another is a cornerstone of Open Design. In discussions around Artefact D [Fig.12], the feedback loops could be used to keep design agents informed of work based on theirs. Whilst using “Open Design Standards” is an opportunity for NGOs, charities and those who cannot afford the traditional standards method, it has to clarify products or scenarios that it is not prepared to cover/standardize. Design agents already take responsibility for the construction of products and procedures. For example: car repair manuals ([www.haynes.co.uk](http://www.haynes.co.uk)), household DIY ([www.harpercollins.co.uk](http://www.harpercollins.co.uk)) and home beer brewing ([www.brewuk.co.uk](http://www.brewuk.co.uk)). The bigger question is, who is liable for using or adapting a “design agent created Open Design”? The models [Figs.6-8] propose ways that design agent-created products can be “standards compliant”. Companies giving design agents control through digital manufacture of products opens opportunities for: “point of sale” design agent-adaptable manufacture; expanding on others parts; expanding business opportunities for geographically dispersed communities, and realizing compliant “downloadable” products. This might lead to companies allowing alternate parties to use their parts or components, whilst still crediting the original creator.

This partnership could offer opportunities to NGO’s and organizations not usually able to develop products. For example, “charities forming alliances with communities to create products that inform a wider community cause” (Phillips et al 2013). A central charity or organization could create product plans that design agents download or produce in a local Fab Lab. This concept could also expand to develop medical product prototypes as open source hardware, having potential benefits for multiple stakeholders (Dexter, Atkinson & Dearden 2013) yet the issue of standardization and the ability to trace the product’s development process is currently unresolved with current tools for the facilitation of distributed, collaborative design. Open design, enabled by distributed



digital manufacture enables people who would traditionally be excluded from the collaborative development of medical devices to have a role in their development; beyond simply being consulted on human factors/usability studies of a completed device. There are existing projects investigating the marking and tracking of 3D printed objects mainly for the purposes of intellectual property and authentication of an item's provenance (Seabrooke 2013). These considerations of watermarks do not consider the functional or contextual nature of a product. This initial discussion raises several questions including what repeatable symbols or watermarks do digitally manufactured objects require for standards compliance.

We imagine that the cloud-based system here defined as being the provider of the FEA suite and the standards compliance, would be a Notified Body—e.g. testing services laboratories in the current sense of standards compliance. The cloud-based FEA and standards analysis that this service would provide would be most advantageous to SMEs and corporate clients. If a “pay-per-download” or subscription based model was used, then this would broaden the market for standards provision beyond the high-cost, low-volume market currently delivered. Similarly, the use of a system like this could be advantageous for large brands wishing to foster engagement with their customers—as per the discussion around Artefact A [Fig.g].

Such a new market for standards could coexist with the existing one, as alluded to in the interview with the BSI. As SMEs use a service such as this, the utility and efficacy of working with standards could become more apparent and deepen the appeal of purchasing reference volumes. Standards are encouraged when selling products that an entity has produced; yet standards for open-source products cannot make such a distinction. A maker might design and produce an artefact for their own use, but if adopted and produced by another maker for retail (assuming the originator sanctions this), is it fair to insist that the original maker always seeks the proper standards? From the LSP workshop, can the individual maker bear the cost of the pay per download of the standardized (FEA analyzed) plans? Similarly, questions remain about the level of certification required for a part or assembly, and whether this can be determined by the digital system in a meaningful way [Fig.12].

Outcomes of the discussion could lead to standards integration opportunities within Open Design, both short and long term. Initially standards accessible within Fab Labs could help enable SMEs to integrate standardized products in approved spaces for international fabrication and local product distribution. Longer term, a plugin for CAD or digital fabrication layout software could integrate standards, enabling co-creators to produce downloadable products meeting quality and safety approvals. Standards could be a brand differentiator between domestic and profit based manufacturing. Raising the bigger question, “when should a design agent of an Open Design process, be aware of

standards affecting their output and who in the process enforces or dismisses that protocol”?

Material simulation is already considered of benefit to designers and engineers who use sophisticated CAD software. Since rapid prototyping can still be a lengthy process for very complex parts, and as such guidance on the structural integrity of a blueprint before prototyping can mean that the design process is further expedited. Domestic additive manufacturing (or, Fab Lab based) does not incur the same expense as industrial processes (especially those using exotic materials, or finishing), but building complex models can still take a long time. As per the discussions around Artefact A [Fig.9], there may be a place for a cloud-based system of FEA for objects of significant complexity as a way to mitigate certain aspects of this and lower the barrier to entry for makers. However, the models would require real world testing to ascertain at which point the complexity of the processes becomes too high a barrier to entry for makers, and whether the system complexity is sufficient and valued by makers.

It may be that design agents of a service that implement standards as a means by testing the compliance of digital blueprints actually performs as a business. This could give design agents access to complex processor-intensive simulations, with the standards procedure forming the rigorous foundation upon which a consumer-facing FEA platform is built.

## **CONCLUSION**

From the discussion with BSI, there appears to be short and long term perspectives with relation to the application of standards within Open Design practice. For instance, the use of Fab Labs to support SMEs in the act of designing (via process standards) or testing (through creation of their own test equipment to BSI standards) could be considered open via an open innovation model; the SMEs might not release their plans to wider communities as open source. However, this approach could be a stepping stone to define the legal ramifications, and economic implications for UK and international standards bodies. Overcoming these new challenges to the traditional funding, and legal positions would then lead to the long-term view of domestic production by individual makers. These may engage with a Fab Lab, but on different terms (if they visit the Lab for free, reciprocity in sharing their ideas source would be expected—therefore open source). This model might require the implementation of standards further up the supply chain; the manufacturers of domestic digital fabrication equipment becoming licensed vendors of standards, providing portals to checklists and considerations for the individual maker—or the ability to scan the file for FEA or reading the metadata from the file (if downloaded from a repository, such as Thingiverse) to check the intended use.

Standards provide valuable guidance for designers, with important considerations and information; but they are also complicated, opaque

documents. There appears much to be mutually gained by both makers and standards industries in successfully implementing a method facilitating the application of standards within Open Design practice. This would include translation effort for standards, perhaps akin to the work of Creative Commons, providing a “human readable” layer to the standard. This non-binding (in a legal sense) summary could assist the maker in judging whether the standard is right for them, with benefits for the existing BSI funding model also.

### **FURTHER WORK**

These discussions with BSI have not closed the questions originally asked; if anything, these questions have broadened territories within this investigation. For further research, the authors suggest a PhD inquiry into these approaches would be appropriate. Standards might not simply cover the design of the final artefact however, and could instead facilitate the creation of a “maker’s hallmark” layout for digitally distributed designs. This mark could not function as the BSI Kitemark does, but would instead indicate an agreed layout of information to identify an artefact. This information could act in addition to the application of Creative Commons licenses (identifying originators, and archiving version numbers or derivatives) and with the use of machine readable elements (such as QR codes) they could allow for augmented hallmarks with digital and human readable information.

### **ACKNOWLEDGEMENTS**

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# PHOTOGRAPHY

## REMAKING LIFE, THE UNIVERSE, AND EVERYTHING

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**Gábor Pfisztner**

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### **ABSTRACT**

*In this paper, I discuss some important characteristics of photography from a technical and historical perspective that are related to the cultural phenomenon of remix, which, in turn, casts a different light on the invention and use of photography through its almost hundredeighty year history.*

*First I outline the most important aspects of photographic practice that are affected by or related to activities that can be described as remix, redesign, or reuse. Then I point out the possible meanings of remix in contemporary culture in compliance with recent studies, and I also recall the basic structural features of remix.*

*Later on, I also draw attention to the significance of this technique as a kind of bricolage as Lévi-Strauss described the work process and the attitudes of the bricoleur. Bearing this in mind, we can realize that the invention of photography and some later technical improvements to it (as in pictorialism) make the similarities to the procedure of remix obvious.*

*Another important aspect of photography is how it remixes our memories and rearranges our remembrance with different images, compiling almost every kind of visual impression provided by photographic techniques and procedures with our own images into new and more (or even less) complex memories.*

*By reflecting on the structure of remix, I emphasize the importance of the term *Aufhebung* used by Hegel, mainly in his *Science of Logic*. I point to the potential of criticism in remix which can be observed in the usage of photography in avant-garde art, and later in the twentieth century with particular focus on appropriation in art. I also indicate how these artistic movements reflect on photography as one of the most important technical media that has formed our culture ever since.*

#photography, #remix, #bricolage, #Aufhebung  
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## I

Remix, redesign, and mashup are words with which we try to capture many phenomena that are characteristic of our society and culture. The two main areas that are the focus of research are popular culture on one hand and the arts on the other. In popular culture music is an important domain, where remix has been the most important characteristic since the early 1980s. The other is basically everything else that is connected in some way or other to digitized technologies. In this respect there is one thing in our culture that has been present for almost the last hundred eighty years, and formed and reformed the arts and culture, and at the same time radically influenced society: photography.

Photography<sup>1</sup> is usually surveyed as a medium (in a McLuhanian sense), that is, as a means of producing and conveying information, and criticism reflects on it as such. The other option is that photography will typically be viewed as an artistic medium (in the traditional sense of the word<sup>2</sup>), either in the sense of “photography as fine art” or as one of the most important mediums used in contemporary art since the 1970s. Most of the texts written on photography approach it from one of these two aspects. If their concern is more the socially (and politically) relevant gender or race aspect, or the politically important semiological point, they all regard photography as a mean generating images that delivers or alters information and knowledge, or as a medium that determines social behavior and establishes preformed social practices.

In art critique photography is usually a vehicle for documentation, reproduction, circulation, or the very medium of its own “deconstruction”<sup>3</sup>. There is, of course, another use of photography as contemporary art, where criticism addresses aesthetic aspects of the single image or a series instead.

Although all these approaches are legitimate and provide deeper insight into the very nature of photography, it is still relevant to look at it in regard to remix, reuse, and redesign. If we consider the prefix “re-” as the particle conveying the most important part of the meaning of words like remix or redesign, then we have to remember, how Walter Benjamin already analyzed photography (and film) in his seminal essay from 1936 as the medium of re-production. Though Benjamin concentrated on the loss of aura, democratization of information, the opening of the hermetic art world, and sharing art with a much broader public, the reference to the mode of production as re-production

<sup>1</sup> Osborne, P. 2013. *Anywhere or Not at All: Philosophy of Contemporary Art*. London, New York: Verso. See especially chapter 5 on *photographic ontology*.

<sup>2</sup> See to that Clement Greenberg’s theory of medium specificity and Osborne’s critical remarks on it in. (Osborne 2013)

<sup>3</sup> See for example in conceptual art, appropriation art, etc. To that, see also: Krauss, R. 1985. *The Originality of the Avant-Garde and Other Modernist Myths*. Cambridge MA: MIT Press. and more specifically Belting, H. 2011. *An Anthropology of Images: Picture, Medium, Body*. Princeton University Press. With special regard to chapter 6 ‘*The Transparency of the Medium: The Photographic Image?*’.

reveals some important aspects of photography that we tend to forget about. If we look at photography this way, it turns out that verbs prefixed by “re-” make up the core of it.

It will be evident that the original invention of photography was made possible through the reuse of previously known chemical and physical processes, and through the redesign of a centuries-old device. In the later history of photography, we find similar accounts, such as stereo photography.

Looking at early (and not so early) photographs, we see many similarities with the genres of painting, and in some later photography, even explicitly painterly qualities. In the early history of photography, we already find reinterpretations of old stories (biblical, mythological), theatre; and some decades later, the remix and reuse of cinema.

Photography and memory have a long history, going back at least to Proust’s novel and the publication of Siegfried Kracauer’s essay in the *Frankfurter Rundschau*. Both of them (Kracauer not entirely accidentally) compare images of memory with photographic images to express the very difference between their structure. Photography is responsible not just for recording anything that can later become something to be remembered, but for reshaping remembrance by remixing our own memories with others’, rebuilding and reconstructing them through images other than our own. In an extreme situation, a photograph can be a complete substitute for missing memories, like those of the replicants in Ridley Scott’s *Bladerunner*.

Photography, as we see it, is not productive but reproductive. At the same time, it creates a whole new universe of a special kind of imagery substituted for almost everything that was photographically recorded.

The aim of this paper is to outline the nature of photography as a “re-tool” and point out that there is a realm—art—where photography can be considered as a productive and creative tool by reflecting on the very nature and structure of its remix and reuse character.

## II

Remixing means “creating something that sounds completely different”. (Lankshear and Knobel 2008, 22) Similar to Lankshear and Knobel, Lawrence Lessig also says that “remix or quote is the basis for producing something new”. (Lessig 2008, 6g) All these authors point to the fact that remixing is not copy-pasting, not simply reusing, but generating something that is not similar to the original. Considering that they approach the problem from a creative or, in Lessig’s case, from a legal point of view, it can make one wonder why this is not obvious. Looking at the prefix “re-” in remix and focusing on its etymology, it appears quite palpable. Coming from Latin, it refers to an action or event that happens or appears again, or comes back (returns) with a sense of undoing the preceding state. It can also refer to a return to a previous stage of events or conditions, or in other cases to mutuality. “Re-” can express opposi-



tion as well, or being behind or after something. It can also indicate a withdrawn state. In verbs, “re-” refers to an event or activity with frequentative or intensive, in other cases rather negative force. However, it is rather the everyday use of the word (or its definition in a dictionary) which is implied by its use by Lankshear, Knobel or Lessig. Yet this recount of some trivia is important to see that it is less obvious when we use these words referring to actions with a different intention.

What is beyond doubt is the fact that “re-” in remix and redesign refers to an altered form, state, content or, at least, usage<sup>4</sup>. But does this prefix really have a very different meaning in reproduction? I would simply draw attention to Heidegger’s explication of the meaning of the word representation, which in some cases he writes with a hyphen (Heidegger 1977). Representation in its original form and usage implies a kind of substitution or a standing for something. In art history and art theory it refers mainly to a depiction, or to a kind of image. For Heidegger representation is also a kind of image, something that is not the original, something that closes our view of the original, it looks like it, but it is substantially different from it. It is not the thing (or concept, or any entity) itself. If we consider this, we can ask whether the word reproduction has such allusions. Does it refer to a different kind of object, thing; similar, but of different quality? As we will see, these are not insignificant differences regarding photography, as a re-tool.

### III

But what is a remix in fact? What role does remix play in contemporary culture? Some authors see our (and probably any other) culture as based primarily on a process that we can describe as a remix. Lankshear and Knobel write in their paper, that combining and manipulating cultural artefacts into “a new kind of creative blend” is, what we call remix, as it can be encountered for example in the music industry. (Lankshear and Knobel 2008, 22) This is emphasized also by Lev Manovich in a text titled “Remixability and Modularity”, where he says that “most human cultures developed by borrowing and reworking forms and styles from other cultures”. (Manovich 2005 October–November) To sum up, we can say that remix as the basis of any culture can be intracultural as well as intercultural. The former has probably been rather characteristic of modernity, whereas the latter was a main attribute of both pre-modern and modern cultures. This means, that remix is not a present-day phenomenon, only the name can be considered relatively new, and obviously, the technology of remix has radically changed in the last thirty decades, making this phenomenon more and more widespread, common and apparent in popular culture as well<sup>5</sup>. Although we are free to see the origins of remix in these new electronic based and digital technologies, technology has probably only added a new method to an “old fashioned” process. Likewise, Lessig stresses that “remix with ‘media’ is just the same form of stuff

<sup>4</sup> *Remix means here, that someone takes elements of already existing things, and with the help of different kind of devices, one puts these elements in a different order, or structure. If we look at it this way, we have to admit, that there is rather less difference between remix and redesign. The basic distinction could be, that in case of redesign, there are no defined parts in advance, that one can or have to use or alter. The parts can be altered individually, but they can be put together also in a different structure to get a different design, but always following a predefined plan, outline or draft. In case of remix, we have to face a different strategy. In the latter case random elements will be separated, collected and ordered in a sequence, where this will be defined throughout the production process.*

<sup>5</sup> *We have to recall here Flusser’s thoughts on the origins of mass culture, what he describes in Towards a Philosophy of Photography, where he says, that mass culture is made possible only through the existence of technical media and technical images. Flusser, V. 2000. Towards a Philosophy of Photography. Vol. III of Edition Flusser. London: Reaction Books. (Orig. pub. Für eine Philosophie der Fotografie, Göttingen, European Photography 1983.)*

<sup>6</sup> Martin Irvine's interpretation of this case is the inverse of Lessig's. Irvine says that the basis for remix is "human symbolic activity (semiosis, meaning productivity) ... in a social-cognitive position with others (through conversation, writing, music, artwork any shared cultural genre)". See: Irvine, M. 2015.

<sup>7</sup> See Lessig, citing Don Joyce in: Lessig, L. 2008. See also Manovich, who emphasizes how artists used photomontage (actually collage technique) for example in the early twentieth century (Manovich, L. 2005. October–November. See also Sonvilla-Weiss, S. 2010. In Mashup Cultures, ed. Sonvilla-Weiss, S, 8-23. Wien: Springer Verlag. He is referring to John Heartfelt, however, he states that "these cultural practices differentiate from today's mashup cultures."Ibid.

<sup>8</sup> *Aufhebung* is one of Hegel's main concepts and is discussed in many of his works (Phenomenology of Spirit, Science of Logic)

<sup>9</sup> "The contradiction between thesis and antithesis results in the dialectical resolution or superseding of the contradiction between opposites as a higher-level synthesis through the process of *Aufhebung*..."Cf. Horn, L.R. „Contradiction". In The Stanford Encyclopedia of Philosophy, ed. Zalta, EN.

that we've always done with words. ... It is how we talk all the time. ... this text-based remix ... is as common as dust."<sup>6</sup> (Lessig 2008, 82)

Even if it is evident that mixing different elements found in diverse spheres of culture with the effect of something original and new, was already recognized as early as the late nineteen-seventies and early nineteen-eighties in the realm of popular culture, it has to be remembered that there are some precedents to similar processes in cultural history from the preceding century. As we have seen, humans always tended to exchange their cultural "products" with each other or to simply take possession of others' products, as I referred to this above, and that language, or rather communication (in written or in oral form), has at all times been operative this way. The first precedents for a kind of remix, or what we can consider being that back in the nineteenth century, appeared most probably in photography. It was a kind of collage; in other cases, it could also be a montage, depending on the technique that was involved (gluing the parts together, or the so-called composite or combination print process).

Collage is understood by some authors as an early form of remix,<sup>7</sup> since "[collage] comes from combining elements ...; it succeeded leveraging the meaning created by the reference to build something new". (Lessig 2008, 76) The method is more or less similar. As Sonvilla-Weiss describes it in his introductory essay, sampling and montage, besides remix and collage, also use many different materials or disparate media from variable sources; however, the sources will not be recognisable in the form of the original. (Sonvilla-Weiss 2010, 8-9) So we cannot consider remix (as it shall be apparent through the comparison with the collage) as simple copying. Lessig uses a metaphor for this when referring to remix in music. He says that sounds are "like paint on a palette" but "all the paint has been scratched off of other paintings". (Lessig 2008, 79)

In popular culture (but most probably also in art practice with the intention of critical reflection), we can recognise the desire for alteration, correction or radical change in the gesture of remix. Alteration in a relatively small though crucial scale or a rather significant intervention or structural change in form, function or usage is quite characteristic of the process of redesign (in a broader sense). Any correction or change targets an improvement either in look, but also how the thing or process should function. This technique does not look similar to that of remix, yet there are some parallels, especially if we consider the meaning of Hegel's expression (*Aufhebung*)<sup>8</sup>. (Kaufmann 1978, 144-45, 80-81) *Aufheben* in German means raising something to a higher level, taking it further. In other cases, it can also mean taking something to examine it or save or preserve it. So if we lift something up to finish it, or negate it, we can preserve a part that can be considered further valid in another "system", which thus becomes something new and can be regarded as the critique of the former state.<sup>9</sup> The original thesis and antithesis will be still preserved in the new form of

synthesis, which emerges through *Aufhebung*. The critical attitude that is an essential constituent of this method will be emphasized also by Irvine and Lessig, though in a different context. (Irvine 2015, 16)(Lessig 2008)

It is important to recognize the potentially critical aspect of *Aufhebung*. However, not from the perspective of Hegel, who treated this phenomenon within the framework of philosophical logic. The critical aspect will be apparent when we focus on the implications concealed in the general meaning, as they were also relevant for Hegel in his concept. In recognizing this potentiality in this word, we have to assume that remix as a standard procedure would, without the critical approach, be nothing more than those early collages mentioned by Lessig. The critical aspect makes remix a suitable tool for an analytical reception of the parts/elements, and the forces that keep these elements together that will be instrumentalized in the remix process. Foucault elaborates the concept of attitude in a social-political context. Attitude does not only mean a way of behaving towards others, it is not only a posture, a pose, or a gesture, but a taking of a position towards the contemporary conditions, which will be chosen freely. Attitude in this sense is a way of thinking, a kind of feeling, an awareness, it is a mode of acting and conducting, which expresses that we belong to the present. (Foucault 1984, 39) This kind of attitude gives a different charge to remix practice either in the realm of music, literature or the arts.

There is one more important aspect of remix, which is the real foundation for a society using it extensively and that is do-it-yourself. This plays a role in our culture as fundamental as any art practice. Campanelli refers back to Claude Lévi-Strauss, who rendered this kind of activity with the concept of bricolage.<sup>10</sup> (Campanelli 2015, 74) It is worth remembering the most important aspects of this kind of undertaking, so we can recognize the structural similarities in some practices characteristic of photography from the very first struggles for the invention of the technique to some artistic self-expressions.

According to Manovich, remix relies on modularity, that is a phenomenon typical of mass production which is inextricable from industrial production methods. (Manovich 2005 October–November) He defines modularity quite similarly to how Lévi-Strauss does with rites and myths.<sup>11</sup> However, the elements in industrial production processes will be used automatically, or at least according to some standard procedures defined in advance. The bricoleur, like DJs, who sample out elements from music pieces, has “to turn back to an already existent set” when he wants to start with his work “to consider or reconsider what it contains”. (Lévi-Strauss 1966, 18) However, the elements consisted in the set, chosen and used by the bricoleur, are “pre-constrained”, notes Lévi-Strauss (19), which means that the bricoleur’s freedom of choice is restricted to the selection from an arbitrary series of “modules”, elements, pieces. But when using them, and

<sup>10</sup> Campanelli emphasizes too that Lévi-Strauss stresses how an activity similar to that of bricolage is inevitable for “primitive peoples” when organizing their beliefs, rites, myths and their society as a whole.

<sup>11</sup> “Rites and myths ... take to pieces and reconstruct sets of events (on a psychical, socio-historical or technical plane) and use them as so many indestructible pieces for structural patterns in which they serve alternatively as ends or means.” In: Lévi-Strauss, C. 1966.

<sup>12</sup> Here, I use the word *apparatus* in its common sense, referring to the camera, the lens, film or CCD and other elements, that make up the instrument or appliance, to make a distinction from the heavily loaded term, used by Vilém Flusser in his seminal book *Flusser*, V. 2000.

<sup>13</sup> See to that *Flusser*, V. 2000. Especially, when he stresses how the viewer traditionally tries to puzzle out the 'meaning' of the photographic image.

making a decision which one to use next, he is free to select one or the other. He is not limited by rules or patterns that would stipulate his choice. That is, they are always permutable, "capable of standing in successive relationship with other entities ... on the condition that they always form a system". (20) As we can see, the strategy of the bricoleur, who is neither a scientist nor an engineer, as Lévi-Strauss puts it, will be tolerated only as a pastime (18) that is, in some aspects, close to the artist's strategies. This is in many respects similar to that of today's remixers.

Remix is thus an activity that relies on technology and modularity, though, as we will see later, it does not mean necessarily that technology must be digital. Furthermore, remix is a strategy that can imply criticism, which is more an attitude, and that will be practiced systematically and regularly. And remix is also a practice that is based on intuition, creativity and, probably more importantly, on results of earlier experiences and successful trial and error, rather than on (systematic) research and (scientifically based) knowledge.

#### IV

When we analyze photography as a so-called re-tool, we have to distinguish between the technological part (the apparatus<sup>12</sup> itself) and the different practices that one can exercise with or through photography. To better understand the re-nature of this instrument, it is first worth taking a closer look at how "photographing" happens, and then at the "birth" of the different inventions that made photographing possible.

When taking (or for some, making) a picture with a photographic camera, we act in a way that Heidegger called *en-framing*. (Heidegger 1977) We cut out a square from the complexity of a three (plus one) dimensional world, rendering it in a two-dimensional flat surface with almost no reference to time. Doing this, we take the world apart and turn it into single and clearly distinguishable elements, that will be converted into a new structural order by the frame. All the parts within the frame will be separated from all others that were related to them in the three-dimensional "reality" depriving them of all possible meanings in their original context, and then recontextualizing them within the frame. While the "photographer" cuts up the world into samples, at the same time, he also remixes it by framing and reframing it, giving space for possible interpretations. These "new meanings" will not, however, refer to the photographic image, but to the original, i.e. the things and events in the world which they were singled out from.<sup>13</sup> This radical change in meaning can also be discovered in the process of re-production. As stated above, re-producing something through photographic means, results in the concealment or elimination of the original. The re-production thus allows such interpretations that do not depend on the meaning of the original object. Re-production in this sense becomes rather a kind of remix. We can find

many examples either from documentary practice or the arts. Walker Evans photographed signs and placates, shop-windows with different kinds of written texts. These have always been much more than just a kind of reproduction of the original. His intention was probably from the beginning to show the qualitative difference between the original and the photographic depiction of it. These elements of a unity were “converted” by photography into distinct parts of a different kind of unity within the frame of the photographic image. We can experience a similar effect in the work of Sherrie Levine, who rephotographed the reproductions of Walker Evans’ and Edward Weston’s photographs from a catalogue, using them as her own work, though indicating the reference to the two photographers. Through reproduction, she opened up a new possible horizon for interpretation by the “remix” of all earlier allusions that were attached to the images historically.

Looking at the origins of photographic procedures, we usually recount the names of the two Frenchmen, Joseph Nicéphore Niépce and Louis-Jacques-Mande Daguerre, who co-operated for a few years, and the British scientist, William Henry Fox Talbot<sup>14</sup>, who worked without being aware of what the two others were up to in France. Kittler gives an account of Niepce’s case, who according to him was not a scientist proper. He suggests that Niépce was a sort of inventor who was desperately chasing the dream of “invention of invention for itself” (Kittler 2009, 127). When he first heard of lithography, he started to research all known light-sensitive materials to “perpetuate images of nature” (128). Although we don’t know much about Daguerre’s efforts prior to his co-operation with Niépce, we can assume that he didn’t get too far in attempting to find the ultimate formula for technical image making/taking. He “brought nothing further to the contract than the joy of experimentation and patience” (128). As for Talbot, he is usually referred to as a scientist, a regular correspondent of the Royal Society, but in searching for a process to technically fix the image that appeared on the matt glass plate in the back of his camera obscura, he could not refer to any systematic methods. Though they all tried to acquire the sufficient knowledge, they did not start at scientific publications, but rather collected information that seemed useful for them. They all knew the camera obscura, the tool that was already described in detail in *La Grande Encyclopédie (The Great Encyclopaedia)*, and was used as a drawing aid or in many cases as a fun tool to entertain oneself or others. By that time, and with some aid and technical support from Humphrey Davy, Thomas Wedgwood made some experiments with “printing” leaves and other objects on light-sensitive paper, and this was also published in a journal of the Royal Institution in 1802. But there is no account of whether any of the distinguished inventors of photography had ever used such information. Both Daguerre and Niépce, and Talbot too, were rather acting as “bricoleurs” in Lévi-Strauss’ sense. They tried different methods, and those with which they were successful they could use it in further experiments. They

<sup>14</sup> See the history of the inventions in detail in Eder, J.M. 1932. *Geschichte der Photographie: Mit 372 Abbildungen und 4 Tafeln*. 4 ed. Halle: Verlag von Wilhelm Knapp. Frizot, M. ed. 1998. *A New History of Photography*. Köln: Könemann. and especially Kittler, F. 2009. *Optical Media. Berlin Lectures 1999*. Cambridge: Polity Press.

<sup>15</sup> See to that Lévi-Strauss, C. 1966. 'He interrogates all the heterogeneous objects of which his treasury is composed to discover what each of them could "signify" and so contribute to the definition of a set which has yet to materialise but which will ultimately differ from the instrumental set only in the internal disposition of its parts.'

<sup>16</sup> Symbolic and indexical are two of the three concepts that are used and defined by Charles Sanders Peirce in his early account of his sign theory. See to that: Atkin, A. 2013. *Peirce's Theory of Signs*. In *The Stanford Encyclopedia of Philosophy*, ed. Zalta, EN.

probably collected all the available information, before starting out with any action. They most likely found a new purpose for the good old camera, that seemed to be the only proper tool, since it was all dark on the inside, thus protecting any light sensitive material. By doing this, they "[addressed] the existent leftovers of human works ..." by reorganizing the existing. But in contrast to the bricoleur of Lévi-Strauss, they used already known items, that were "reused and reassembled, and put back into circulation ... determining new uses"(Campanelli 2015, 74-75)<sup>15</sup>, and giving them a different meaning, and of course significance in an incomparable way.

The reuse, and in some aspects the gesture of "remix", was also characteristic of stereo photography that progressed and evolved into one of the first mass media products of the nineteenth century: David Brewster's stereoscope. As a consequence of his scientific experiments in the field of stereoscopic vision, Charles Wheatstone had already made a device demonstrating his theory. On this basis photography was then used to produce the images, and a redesign of Wheatstone's original instrument was distributed with great success, and with this stereo photography gained unprecedented popularity.

In the practice of photographing stereoscopic images, we can recognize the gesture of remix too. It can be regarded as the TV of its age that had to provide the viewer with forevernew visual material, regardless of its content. Those, who produced (or rather manufactured) them, were eager to reach out for anything that they could use, which meant, in their case, everything they knew as the artefacts of culture, to be employed in a new context and in a new arrangement with meanings that inevitably must have been different.

## V

After the so-called first invention of photography (Marien 2002), all of the users of the technology were confronted with the challenge of finding out what the real destiny of photography's was. The second invention of the technology meant that photographers of the epoch "appropriated" the well-known genres of art, even when their aims were not specifically artistic. They did not imitate painting, but they used its well established "images" (Belting 2011), and from the moment when the development of technology (calotype and then the wet collodion process) permitted, these were also distributed in large circulation. This is more or less the same process that is described by Vilém Flusser as the origin of mass culture. (2000, 19) He accounts though technical images only from the perspective of reproduction and replacement of "traditional" (i.e. non-technical, crafted and irreproducible) images, it is acknowledged that this likely goes beyond that. Photography as a practice tends to change the qualities of the original genre since we see it not only as a symbolic image but also always as an index of some kind of reality<sup>16</sup>. What we have to acknowledge here,



is the fact how the “image” of reality will be mixed with the “images” of concepts (scientific and artistic), thus producing something completely different and in this respect also new. We can also observe this phenomenon or rather symptom throughout the subsequent history of photography. Oscar Gustav Rejlander, a Swedish-born painter turned photographer in the mid-nineteenth century, like as his contemporary Henry Peach Robinson, used photography to compose pictures which employed elements meant to be painterly but with the unintended reference to some pre-photographic reality (i.e., real persons as mythological or biblical characters).

At the turn of the century, some photographic associations, called camera clubs, were the meeting place of so-called amateur photographers who shared the same interest in aesthetic topics and in photographic techniques. They were all attracted by the kind of beauty of fashionable painting styles of their time with no capacity to practice it. So they “appropriated” the visual features of what Belting refers to as “image” (Belting 2011) in contrast to what he names “picture”. The interesting part of this well-known story is that as a consequence of the very techniques that were involved, the result cannot be regarded neither as a photograph nor as a painting. It is a very strange kind of remix (or rather a hybrid) of the two, characterized by what I described as the essential features of remix as bricolage. They were not trained artists (apart from a few exceptions like Fredrick Holland Day), nor commercial photographers, although they might have had a deeper knowledge of their “medium” than any other professional. They had a real passion for different techniques that were complicated to execute and provided a wide array for experimentations. They were probably more occupied with these experiments than with the subject they intended to depict. They were always tempted to try a new untested method, or change the already well-functioning ones just for the sake of new previously unseen effects. Rejlander already fitted that pattern in the mid-eighteenfifties. He employed composite technique to prove the exceptional qualities of his images that were considered non-photographic by Roger Fenton.

The previous examples indicate that remix culture did exist well before technical media became digital. It is quite evident how digital technologies promoted remix in every realm of popular culture and also in art practice, as emphasized by many researchers. It is, therefore, not necessary to point out that we can experience it in digital photography too, not to mention the extensive use of image manipulating software as we can see it in the works of Julie Blackmon or Ruud van Empel, just to name two from contemporary art practice.

Digital photography is in itself hybrid, combining traditional elements based on optics with digital technology that can detect and record data derived from light waves and then store as binary codes in a data file on some storage device. This hybrid makes it possible to reuse and remix “reality’s” image to infinity. In this respect, we are not

<sup>17</sup> See to that Crimp, D. 1980.

<sup>18</sup> Another possible manifestation of this phenomenon is the artistic practice when biblical (or mythological) allusions are used referring back to poses and gestures (or compositional elements) known from the history of painting. This is not only typical of „staged“ photographs or nineteenth century „Victorian photography“ but also of photojournalism.

<sup>19</sup> Kracauer, S. 1993.

<sup>20</sup> The “assemblage” of memories (especially when it is about collective memory of a group or of society) can occur through archives that also include photographs. The photographic image can be involved in many different ways to remix existing memories, influencing the whole collective. Foucault was right when he emphasized that reading an archive is to reconstruct the discourses and power relations of the epoch when the archive was founded or reorganized. However, the archive can be used for different purposes after a remix of its structure when discourses change causing also the change of power relations.

<sup>21</sup> Irvine refers to remix, appropriation and hybrid works that ‘implement the same normative process that enable combinatoriality in all expressions and are not special cases requiring genre- or medium-specific justification’. In: Irvine, M. 2015.

compelled to make a distinction between digital images based on photographs and pure digital images, which do not originate from digitized photographic captures. My aim is to draw attention to the fact, that we can associate remix not only with digital image making (included those originally captured photographically), but we can experience it in earlier periods in the history of photography, even if these attempts cannot be considered as the result of conscious actions. Most prominent examples are Walker Evans, Edward Weston,<sup>17</sup> and Lee Friedlander (similar to Evans).<sup>18</sup>

This unintentional aspect in photography that supports a kind of remix can also be observed in another separate sphere that is strongly related to photography, and this is memory and remembrance. The odd and special relation of photography and memory was first described in *Volume Four: Sodom and Gomorrah* of Marcel Proust’s work, *In Search of Lost Time*. Proust compared the differences between the photographic image and how he recalled the event when it was taken. Only a few years after his death and almost at the same time when the last volume was published in 1927, Siegfried Kracauer thoroughly analyzed the similarities and the differences in the structure of memory and the structure of the “image” that photography made possible as a “replacement” for our own memories.<sup>19</sup> Kracauer refers to the photographic image that “appears as a jumble that consists partly of garbage”. (Kracauer 1993, 426) These elements of a “fragmented reality” will be used by our mind to mix them with our own experiences, integrating them in our remembrance and resulting in a remix with the character of a homogenous compound. The composition of the fragments in the photographed picture reminds us of what Lévi-Strauss wrote about the bricoleur’s stratagem in addressing himself “to a collection of oddments left over from human endeavors”. (Lévi-Strauss 1966, 19) On the other hand, however, our memories, which appear to be fragments from the perspective of photography, become a kind of remix, which as a process will be supplied with photographic images from quite different sources. Our memory shall be considered as a set of remixes consisting of our own recollections of past events and of a vast amount of pictures, photographs, video and TV-images from many facets of our “visual cultural landscape”.<sup>20</sup>

## VI

We have already seen that Manovich and Irvine<sup>21</sup> refer to the collage as a remix technique used in the early-nineteenthundreds in the Dada movement as an intentional strategy for “deconstructing” traditional media (sculpture, painting) and photography as constitutive parts of the picture magazines, family albums, and representational portraits of the period. Here we rather see sampling technique prior to digitalization. The elements were cut out and then rearranged either arbitrarily or according to a cleverly disposed pattern. This stratagem can be



considered as highly critical since the artists did not just create an image (manifested in single artworks), but they also literally destroyed the old pictures and images, and symbolically destroyed the pictorial metaphors, and the whole culture that was founded on and maintained by these kinds of visual representations. This attitude, which was attested by the artistic practice, challenged the social and cultural system of the day through the unprecedented employment of its visual elements that were considered “vera icons”. With the remix of these elements, the artists created an annoying and highly ironic, but exact likeness of this world as they perceived it.<sup>22</sup>

Later the surrealists also discovered this potential in photography, which could be used (the technique and the photographed image too) to rearrange the elements of reality. However, whereas dada artists destroyed or deconstructed the original photographs (or copies or even reproductions of them), surrealists tended to use the whole image with its extraordinary capacity for joining distinct parts into an ensemble with meanings that are not to separate from this ensemble. Eugen Atget, who cannot be considered to be part of the Paris Surrealist Movement, was well known and highly appreciated by Andre Breton and his friends as a real surrealist. He used his camera to remix reality’s elements in a way in which the viewer became easily hesitant about what was to be considered real or unreal, especially, since it was all photography.

From the mid-nineteensixties, a different kind of remix played a crucial role in the work of Leslie Krims, and later, from the mid-nineteenseventies, this was also key for a little group of young New York based artists. This artistic strategy was later coined appropriation art. It used imagery and elements of popular media such as cinema, magazines, advertisements and billboards and, of course on occasion, also the medium itself. These artists did not take samples but used the “images” and transferred them to different “bodies”<sup>23</sup>, thus creating a kind of hybrid in the sense as Lancashire and Knobel use this term. (Lankshear and Knobel 2008) Their approach was highly critical in the sense I referred to previously. Similarly to the Dada practice, they took a position towards the media and their strategies within the culture of the epoch, and they attacked those practices that constitute the largest part of it, dominated by visual forms that would be technically produced.<sup>24</sup>

By no means critical, though typical, are the art works of the same period by Jeff Wall or Gregory Crewdson (and many others who can be considered as mere epigones). They both use techniques, staging, lighting and a dramatic composition of scenes as in cinema (or theatre). Wall hybridizes the light-box form, an advertising tool, with cinema and theatre, together with the tableau painting of the late-eighteenth and early-nineteenth century, putting new emphasis on the medium itself (as it was described and defined by Clement Greenberg and supported by Michael Fried). They emphasize the originality

<sup>22</sup> *Comparing with Dada, the technique of constructivist artists like Alexandr Rodchenko or El Lissitzky (and to some extent also Moholy-Nagy) was quite similar, apart from the fact that they aimed at something positive (i.e., educating the masses) instead of driving attention to something through deconstructing and destroying.*

<sup>23</sup> *See Belting’s medium concept in: Belting, H. 2011.*

<sup>24</sup> *There were many artists in different periods from the late sixties and seventies, but also in the eighties who used similar tactics but different means and “style” that can be regarded as similar to that of the Dada. John Baldessari, Jenny Holzer, Barbara Kruger, Louise Lawler or Martha Rosler, as well as Sherrie Levine but with a different aim, and in some respects the German Thomas Ruff with his strong critical approach to new image types and their extensive use.*

<sup>25</sup> See to that Campanelli, V. 2015.

He writes that “remix culture can ... be seen as the final destination of the process of disintegration of the modernist myth of originality ... , which is ‘the cultivation of the romantic myth of originality’”. See also Krauss, R. 1985. Also Osborne, P. 2013. Especially p. 46 ff.

<sup>26</sup> Participatory culture is one where there are relatively low barriers to artistic expression and civic engagement, where there is strong support for creating and sharing one’s creation with others. In: Sonvilla-Weiss, S. 2010.

<sup>27</sup> See more in detail to the performative character in contemporary art practice Wulf, C. and J. Zirfas. 2005.

and singular character of their work, which contradicts all tendencies in contemporary culture (and not just in the art world)<sup>25</sup>.

In contrast to the attempts of Wall et al. there are some progressive initiatives in art that are based on participation involving those members of society who are the “subject” and “object” of the art work proper. Sonvilla-Weiss points to the fact that this is what enables the individuals in such a society to share their creativity and work with others. Some artistic practices use photography and the whole apparatus attached to this “medium” to promote these tendencies in society.<sup>26</sup> By doing this, they also stress the performative character of their work, which is based on the procedural character of it, supporting and strengthening the involvement of all the participants<sup>27</sup>. The Mexico-based artist Francis Alÿs gave the opportunity to 500 volunteers to work with him in his project “When Faith Moves Mountains” (2002) and documented it in a video. The Dutch artist, Scarlett Hooft Graafland also reuses the technique of documenting an extraordinary event (the result of a joint struggle to create something special though typical of the local people), which turns out to be the work of art itself. In a quite different manner works Walid Ra’ad, a Lebanese artist, who founded and managed an internet archive for artefacts of the civil war in Lebanon from 1975 to 1990. He reuses originals and his own images, video recordings, and he receives critically their “proper” use, as we would see it on TV. He also mixes them with fictional elements, aka “documents” that he produced previously. He also reuses the lecture-form, when he makes presentations that seem to be real, in which he introduces the archive and its working methods, referring to the “contributors” as real persons. The audience or the viewer is not a passive agent anymore, but must get involved actively in the process of the “production” of the artwork, since it does not exist until the web-based archive is opened and used, thus becoming a real one. The “viewer” (or rather the participant) needs to use the technology, but also reflect on it at the same time throughout the whole process.

## VII

To conclude, photography cannot be other than a re-tool with both positive and in many cases negative features which anticipates many other technologies that make remix (and also other) techniques possible. As Flusser realized, photography is not only the first technical medium but also a prototype in its structure and trait for any other that followed it. Digitalization exhibited only the obvious, which was always a constitutive factor in photography. In this respect, there are no radical changes that would result in significant differences. Digitalization made photography even more volatile and attractive to many as a means of self-expression that very much involves technique, the products of which result in remix in its infinite varieties.

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# **THE ALGORITHMIC TURN IN THE FOUND FOOTAGE FILMMAKING THE DIGITAL REMAKE**

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**Adela Muntean**

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## **ABSTRACT**

*With digital technology arrive new possibilities for close analysis, quotation, juxtaposition and live, or time-based, experiential forms of comparison: The Digital Remake refers to the contemporary practices which are recycling art cinema classics into new media “artifacts” through a process dependent on the new interstice of software, an algorithmically enabled work process, and the availability of the Internet. These works place emphasis on interface rather than physicality, and they play in-between and on constructing systems that handle and reconfigure pre-existing media into new patterns: artists create software that offer themselves and users a form of empowerment and control that creates an entirely different order of interactive narratives than the conventional ones.*

*The following paper will examine Perry Bard’s Man With A Movie Camera: The Global Remake in the perspective of remake culture, participatory authorship, database narrative, and movies driven by a software algorithms to present the many elements through which the development of the avant-garde tactics of appropriation are using the language of new media. Secondly, the new contemporary ontology of analyzing movies as contemporary cultural data will be presented through similar approaches and projects as Lev Manovich is Visualizing Vertov.*

#remake, #digital remake, #algorithm, #visualization  
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With digital technology arrive new possibilities for close analysis, quotation, juxtaposition and live, or time-based, experiential forms of comparison: *The Digital Remake* refers to the contemporary practices which are recycling art cinema classics into new media “artifacts” through a process dependent on the new interstice of software, an algorithmically enabled work process and the availability of the Internet. These works place emphasis on interface rather than physicality, and they play in-between and on constructing systems that handle and reconfigure pre-existing media into new patterns: artists create software that offer themselves and users a form of empowerment and control that creates an entirely different order of interactive narratives than the conventional ones.

The series of works that remake the products of film history using new media technologies reflect upon the ways cinema is subject to the laws of the algorithm and the database, and emblemizes the new mutability and transportability of moving images after digitization: “the image is no longer a given, but an instantiation of code to be algorithmically manipulated, processed and disseminated in endless new ways. Critical attention has been directed toward the instability and malleability of the image” (Røssaak 2001, 16).

The following paper analyzes the changing vocation of the movies after they became technological objects of a different kind, that is, programmable objects: according to Manovich all programmable objects are composed of digital codes and are subject to algorithmic manipulation. Put simply, algorithms describe how a computer can carry out the task you want it to do. They are expressed in a form called a program or software. They accept an input and produce an output. A text or an image that undergoes this kind of treatment becomes a programmable object, or “softwareized” (Manovich 2001, 49). The turn toward the algorithm could, as Laura Marks would argue, as easily be called a turn toward information, code, the digital, the interface or the software (Marks 2007). These new technologies and artistic strategies produce a new interrogation of the image. Movies recycled by means of new media’s technology—sensors, software, database, internet (torrent, social networks, digital archive, etc.)—are thus deconstructed by our will to control information (Rodowick 2007, 174).<sup>1</sup> Each time the fragmentation is different and it is determined by the type of operation used to manipulate (Manovich 2013, 122) the complexities and multiple dimensions of movie data.

<sup>1</sup> “Before the digital screen, we do not feel powerlessness, but rather express a will to control information and to shape ourselves and the world through the medium of information. This is also a will to measure the world and communication, or to take measure of it, and so to manage it according to mathematical means. The most difficult question, then, relates to the ethics of computational interactions; that is, evaluating our contemporary mode of existence and addressing how our ontology has changed in our interactions with computer screens.” (Rodowick 2007, 174)

The first part of the paper will examine works in which the digital remake as artistic strategy comes to manipulate, alter, and re-create the narration of cinema and question the very idea of exclusive authority in design culture.

The second part will bring together projects that reflect on the paradigm of accumulated media which enables the analysis of movies as contemporary cultural data or object.

The core of both parts will contain a discussion about Dizga Vertov's *The Man with a Movie Camera* as both "paradigms" mentioned above are exemplified in the digital remaking of this movie: examining Perry Bard's *Man With A Movie Camera: The Global Remake* in the perspective of "remake culture", participatory authorship, database narrative, movie driven by a software algorithm will present many elements through which the development of the avant-garde tactics of appropriation are using the language of new media. Secondly, the paradigm of seeing movies as contemporary cultural data will be presented through similar approaches and projects such as Lev Manovich's *Visualizing Vertov* (Manovich 2013).

In both major parts other examples will also be mentioned to indicate a growing subset of work that operates with the aforementioned specific artistic strategy of the digital remake.

## **PART 1**

### ***Open Source Paradigm: Peer-to-Peer networks and online archives as a source for found footage and space for participatory practices***

Digital media are changing the practice of found footage filmmaking: "With new media, found footage films transcend the film archive, both as a physical location and as the only entity entitled to select film (artifacts) and make film available." Participatory platforms such as YouTube, Vimeo, UbuWeb, the Internet Archive or other commercial platforms such as Netflix, iTunes, and Ximon in the Netherlands offer more and more varied content, including alternative and archive content.

In his *Aporias of the Digital Avant-Garde*, Steve F. Anderson acknowledges that the online networks (Peer-to-peer, YouTube, Vimeo, UbuWeb, the Internet Archive) have a transformative impact on historical avant-garde tactics of appropriation and recombination: "by recycling movies available on these networks media practitioners are enacting new forms of networked subjectivity and creativity that are characteristic of an 'open source' authoring mode." (Anderson 2007, 4). The "new" partakes of the "old" through digital integration by means of which movies of twentieth century cinema are also accessed through online peer-to-peer networks: Nicholas Maignet's *The Pirate Cinema (2013)* project reflects on the very first step of the digitized material: the Peer-to-Peer Sharing protocol which is based on file fragmentation in which small samples constitute the exchange unit or chunk.

From a cinematic perspective, such a prior cutting of the media is also a way of cutting the film material and the narration. These “broadcasting mechanics” make possible a recombinant cinema—random collages—which weaves different films by interlacing them frame by frame. He also proposes a way of perceiving the film as more than a digital stream, or rather streams, spread worldwide: “Peer to peer is much more than files sharing. What it’s really about is how the computers are organized, but crucially how the people are organized. So Peer-to-Peer is a relation dynamic in a distributed network—it’s a network whereby every individual has the freedom to act and the freedom to engage in relationship without asking permission [...] it permits individuals to produce, to distribute, to share, to work together with other individuals without asking permission.” (Nicholas Maigret) Digitization and peer-to-peer file sharing represent the two very steps of rewriting the past in the digital environment. This process requires “the deconstruction of the traditional linear image of the past, (1) in order to show smaller units, such as events, objects, persons, texts and others; (2) by using these units, representation the past in a new way, integrating the possibilities offered by special software and/or a hypertext; (3) the integrating of large digital collections made by institutions or different online platforms’ (Laak 2010, 236).

These networked practices function as a space in which the development of database structures and recombinant media are crucial practices and a space where works based on preexisting films have proliferated: “Perhaps most importantly, we must address these networks in both material and functional terms, as cultural formations that are the products of material and ideological necessity and not merely passive conduits for data. Within the realm of the manipulated movies that are distributed online and via file-sharing networks it is possible to view the rhizomatic structure of the Internet as a corrective to the Cartesian coordinates of three-dimensional space. This is particularly realized in the structure of global peer-to-peer distribution networks, which can no longer be regarded as external and posterior to the digital artwork itself. Instead, I believe we are witnessing a transformation of the digital artwork’s position as fundamentally entangled with circuits of replication, recombination, dissemination, and along with them, endless potentials for productive mutation.” (Anderson 2007, 5).

*The Pirate Cinema* shows how digital platforms provide global accessibility in the way we connect, make meaning, experience and communicate. With twenty-four hours of video uploaded every minute, three billion videos viewed every day, and tens of millions of channels, YouTube is today, eleven years after its launch in 2005, the largest online platform for audiovisual content. If Maigret’s *The Pirate Cinema* project reflects on peer-to-peer distribution networks and the recombinant cinema, Jennifer Proctor (2010-2012) remakes Bruce Conner’s seminal 1958 found footage film *A Movie*

(1958) using appropriated material from YouTube and LiveLeak. This work comments on the pervasiveness of footage available for appropriation in an online world, and the way disparate threads in the YouTube and LiveLeak databases can be assembled to create “a movie.” As a remake, the video provides a parallel narrative that explores the changes in historical and visual icons from 1958 to 2010—and those images that remain surprisingly, and delightfully, the same.

The availability of the movies on these global platforms work almost as an invitation for viewers to imagine and create their own variations on different projects at the same time these practices are transforming virtually any electronic broadcast into potential raw materials for re-editing and redistribution: “In digital media, the act of copying has moved from figure to ground, whether at the level of the individual pixel, the sample, or the peer-to-peer network. In other words, the status of the copy is no longer at stake—it is as much of a given to digital composition as brush strokes are to painting. When addressing works that emerge from the informational space of the network, we are dealing not with originals and reproductions but memes and mutants—circuits of data flow and transformation that assert their own ontological status.” (Anderson 2007, 6).

The *Hitler Rants Parodies* (2009) are one of the most famous digital remakes in the sense of popularity: numerous users take the same clip to create different meanings. The remake titles include *Hitler gets banned from Xbox Live*; *Hitler gets scammed on eBay and banned From PlayStation Network*; *Hitler wants a PS3 for Christmas but gets a Wii instead*; *Hitler finds out Pokemon isn't real*; *Hitler gets deleted from Facebook, Loses His Ipod Touch and his internet connection too*. Users download the same movie clip and upload it to YouTube with a different subtitle track creating a sort of copycat avalanche, a dialogue between the people who remake the clip. In the *Hitler Rants Parodies* the users are entirely changing the meaning that the movie clip initially had. Jaimie Baron defines these types of clips “inappropriate” since it is difficult to theorize the contemporary appropriation practices. These clips reveal the awareness fundamental to appropriation art in that a recorded image can serve multiple ends, generate originally unintended associations, and take on perverse or contradictory connotations and also focus on the viewer’s awareness that the footage came from another (primary) context of use (Baron 2013, 16).

### ***Man with a Movie Camera: The Global Remake***

The term “global remake” is a kind of interactive and collective filmmaking, or as Feldman says, a “cinema made by all”, a technology which makes it possible for anyone to participate in the creation of cinema. The idea is in fact a remake of Dziga Vertov’s imaginary cinematic utopia put forward in such works as his *Kinoglaz* that Perry Bard in



her *Global Remake* realizes in our digital age: she takes *Man with a Movie Camera*, dissects it into sequence clips and makes it available through a website which is driven by a software (written by John Weir—now open source), and invites users to remake Dziga Vertov's movie in a "crowdsourced" way. Since 2008 Vertov's movie has been "restlessly reconfigured" on the Internet: on the left is Vertov's original and on the right is a shot uploaded from a participant. Within this work Vertov's time, the "then" of an earlier cinematic moment is thus juxtaposed with the "now" of the era of interactive digital media.

The digital aspect of *The Global Remake* is located not only in half of its source material but also in its participatory, interactive, and constantly shifting structure that collates the efforts of many filmmakers into a new, inherently digital film every day. This online work is a collaboration between a potentially unlimited number of filmmakers around the world. Everyday a new version of the movie is built, thus, *The Global Remake* is perpetually changing; however, the presence of Vertov's images, as well as the contemporary soundtrack created by Steve Baun, remains the same from one version to the next. Manovich points out that Dziga Vertov can be seen as an early database filmmaker and that his work is the most important example of database imagination in modern media art. The original film *Man with a Movie Camera* (1929) has three levels: cameraman filming the shots, audience watching the finished film and shots from street life in Russian cities edited in chronological order of that particular day. While the last level can be seen as text or "the story", the other two can be seen as meta-texts successfully merging database and narrative into a new form. In the original film, the radical experimentation with the formal structure of the documentary is what "happens". In addition, the remake establishes this as a possibility and characteristic of how digital media defines today's interactive films/documentaries: "Computers allow a different way of structuring filmic narratives. In Bard's project the software algorithm thus becomes comparable with a creative co-producer of the screened filmic remake, with the software having its own intentionality (Pedersen and Stephensen 2014, 87). The remake that has been constructed on the Internet is made automatically by a piece of software, by means of an algorithm. Random recordings are picked from a continuously updated, user-generated database of contemporary footage. The original sixty-six minute film is cut down into a series of short clips that comprise individual shots, each no more than a few seconds long, and that are at any time interchangeable, reflecting a similarity with new media objects which "lack this strong narrative component, they don't have a beginning or an end but can start or stop at any point. They are collections of discrete items coming from the database" (Manovich 1999).

The remake can cross both temporal and spatial boundaries as it reproduces existing material for new audiences, the past and present is shown side by side: Vertov's footage illustrates the industrial landscape of the 20s and the uploaded sequences translate the world today. The

software that powers this remake project thus displays variants of the film in daily rotation, so the built movie may never be quite the same. As both Vertov's and Bard's films can be accessed 24/7 on the website, Seth Feldman notes that the experience of the viewer and participant is "that two of the three montages are in flux. The 1929 film is a sort of baseline or, at least, the invocation of a baseline for the project. On the other side of the screen are the multiple images that change day-to-day, the new images that arrive, and the old ones that are not shown in any given iteration. And, of course, there is the third montage, the continually changing juxtaposition between the two sets of images." The effect of the 1929 work, "in juxtaposition to a stream of images responding to it" is akin to Roland Barthes' second layer of semiotic meaning (Feldman 2010). Feldman attempts to categorize some of the ways contributors' uploaded shots work in juxtaposition to Vertov's original film, providing a preliminary morphology for understanding the relationship established between the original images and the newly added images that in some way "mimic" the original: the situations when the participants upload images denotatively similar to Vertov's form a relationship that of "simple replication" (Feldman 2010).

Together, the modern replacement and Vertov's image, such as the contrast between a woman putting a letter in a mailbox and an email on computer screen, are the "chronological juxtapositions". The most popular forms of juxtaposition are the "quotation of movement" which also points to the kinetic nature of the medium and Vertov's signature (the word "Vertov" usually being translated as "spinning" or "whirling.") However, participants are also quoting stills, which breaks with the constructivist valuing of motion. Some shots function as a "contemporary commentary" as they use Vertov's original "as a jumping off to critique or identify the contributor's concerns with their contemporary world". The "text" (intertitles) is the part that Vertov wished to do away with and this is "almost" accomplished in the remake by participants who uploaded Vertovian cityscapes which work purely on a visual basis. The "expository metaphors" are rare contributions and "make explicit a metaphor implied by Vertov's original shot" (Feldman 2010). "Facebooking" calls attention to the maker like Vertov's film which was subtitled "From the Diary of a Film Cameraman". What is quoted in this case is the supposed cameraman himself. "Silence" is represented by the shots for which nothing has been uploaded: "deliberate non-participation", "may simply be technical" or "audience attention span". These blank spaces next to Vertov's film are contrasted with the ones that most often get remade for Bard's project: the movie theater, mobile phones which seem to revel in and celebrate new digital technology in a manner similar to Vertov's own celebration of mechanical invention. For Jaimie Baron, the split-screen format allows one to experience a temporal and intentional disparity between the original and remake within the moment of viewing the work itself on Bard's website, producing what she calls the "archive

effect”: on the one hand, this can be produced by the spectator’s phenomenological experience of a “temporal disparity” between different elements of the same text (Baron 2012, 471). In Bard’s project, of course, the split-screen creates this in a direct manner (the digital images are also completely “clean”), which exposes their own lack of material existence. Thus, the contrast between the “dirtiness” and “cleanness” produced as these different kinds of images are appropriated and become “archival” is one factor in the differential experiences of the material archive effect and the digital archive effect. Vertov’s filmic images are *also* pixelated because they, too, have been transformed into digital files. Thus, the distinction between filmic and digital imagery is blurred due to the online digital interface” (Baron 2012, 471). On the other hand, also be produced by the spectator’s phenomenological awareness of an “intentional disparity” between different elements of the same text, in which the spectator’s perception of the “original” intended use of a piece of footage contrasts with its current use. Vertov’s prime intention was to make a film about the “the magic of the medium,” as the work is a reflection about the medium itself. Vertov’s manifest declarations about the film medium and his resulting cinematic vision imply a new filmic language that redefines both the technical use *and* the conventions of depicting reality: *Life Caught Unawares* (a dedication to an unmediated recording of reality) and the *Kino-eye* (an equally emphatic commitment to presenting the world through the enhanced vision of machines)” (Feldman 2010). These two aspects comprised a radically different media expression: a new filmic language that redefines both the technical use *and* the conventions of depicting reality, and an immediate understanding of the documentary as genre. These algorithmic presentations of the documentary content from the user-generated database prove that “in this way, the Internet has also made it possible for Bard to do something Vertov found quite difficult: to step back and let the process itself manufacture the work in question. Weir’s computer software, in the best constructivist sense, identifies the making of the work as the work. Bard is left as something like the same position as Vertov when, in the opening credits of *The Man With the Movie Camera*, he identifies himself as the “author-supervisor” of the experiment” (Feldman 2010).

### ***The Algorithmic Process***

Other similar projects which integrate a movie on a website and invite users to participate and remake in a way or other the narrative of a movie using specific algorithms in a built in software are *Psycho Studio* (1999) by Brendan Dawes which is a little app programmed in Flash 4 which allows internet users to edit the shower scene from Hitchcock’s classic film *Psycho* and to save it into a gallery. Similarly *201:A Space Algorithm* (2001) is an online interactive software

program that allows users to re-edit Stanley Kubrick's film *2001: A Space Odyssey*. The re-edited versions compress or expand the film's running time and synthetically generate juxtapositions between images. The user and the computer collaborate to select and sequence shots. All these manipulations are characteristic of non-linear narrative, including the use of looping, real-time temporality, simultaneity, multiplicity, and persistence; and create what Henry Jenkins terms as "micronarratives". *The Infinite Trailer* (2014) is a never ending action drumroll, powered by a program which automatically creates clips looping randomly and forever from trailers by detecting the fade-to-black transitions. *Algorithmic search for love* (Julian Palacz, 2010) unfurls new possibilities for fragmented narratives enabled by a new type of search engine where viewers enter text to search in all video sequences extracted from films in which those words are uttered. By broadcasting them end to end in real time on the screen, a new audiovisual story emerges for the viewer. When analyzing similar works in his *Aporias of the Digital Avant-Garde*, Steve F. Anderson writes: "this deployment of an explicitly algorithmic process also exemplifies one aspect of art production in the database age by emphasizing the importance of keywords as a means of understanding and reprocessing the content of media broadcasts. The attribution of metadata, such as keywords, to any media set constitutes a similar process—the distillation of key concepts from a field of possibilities. The result, as with the information-handling capacity of a database system, is to amplify the power of recombination and use of the data set" (Anderson 2007, 9).

With computers we can create nonlinear narrations: "stories that allow seeing more clearly, narrations that enable us to see variety of relevant patterns and sense the connectedness of the things around". This is the concept of the Korsakow Institute, a Berlin based company established by Florian Thalhoffer who in 2000 created Korsakow, an open-source application for nonlinear, interactive narratives. The Korsakow System is an easy-to-use computer program for the creation of database narratives. The viewer has influence over the K-Film. Florian defines the smallest narrative unit as Snu, which has POC's (points of contact). There are in-POC's and out-POC's and all are inter-connected. They are rule-based—the author decides on the rules by which the scenes relate to each other, but s/he does not create fixed paths. K-Films are generative—the order of the scenes is calculated while viewing.

### **Digital Fandom**

The availability of the star's image offers itself for recontextualizations and the interrogation of the status of fandom in the digital age: actors disappear, are redrawn, multiplied or isolated from their background. Radical Software Group's (RSG) RSG-Black-1 (Black Hawk Down) is an

algorithmic reediting of Ridley Scott's *Black Hawk Down* (2001), a Hollywood blockbuster portrayal of a 1993 US raid in Somalia. In the RSG version, all the white characters have been algorithmically edited out. Martin Arnold's *Deanimated* transforms the original movie *The Invisible Ghost* into a study of the increasing disintegration of actor movies, leaving the cinematic space to become the actual leading actor in a precise and absurdly comical new interpretation. Kota Ezawa's<sup>2</sup> video *LYAM 3D* is based on the classic 1961 French film *Last Year at Marienbad* by Alain Resnais. Through redrawing and animating the scenes the artist removes most of the baroque details in the film, highlighting the movement of the camera and the statu- esque poses of the actors in their static environment. The addition of anaglyphic 3D (red, cyan) adds depth to the flattened quality of Ezawa's animation, entirely transforming the original film. In the works *Him* and *Her*, Candice Breitz creates stuttering kaleidoscopes of Jack Nicholson and Meryl Streep by combining clips from various roles the actors have played throughout their careers while in her *Mother and Father* she explores the gendered parental roles from various Hollywood films. In *Him* she makes use of twenty-three Jacks from forty years; and *Her* brings us twenty-eight Meryls from thirty years. In all the mentioned works, Breitz blacks out the background behind the figures, severing them as much as possible from the *mise-en-scène* of the source film. Gregg Biermann embraces digital technology's capacity "to alter, mask, fragment, super-impose, mutate, and reframe the actors play"<sup>3</sup>. In his work called *The sweet algorithm* he is repurposing *La dolce Vita*'s (Federico Fellini, 1960) classic Trevi Fountain film scene by making Anita Ekberg and Marcello Mastroianni to appear as digital multiples in a pulsating, never-ending loop.

All of the artists mentioned above are trying to tap our shared cultural memory of cinema, a collective system—according to Røsaak it is a notion of the moving image as a procedural system which is governed by algorithms and is attuned to the nervous system of a collective memory. The experience of computer-generated image processing opens up the potential for a new experience of the film as infinite resource for the new media image itself. Moreover, the new technicity of the image exposes time as a non-human nervous system or a becoming, in other words, as Rodowick puts it, the loss of a certain "feeling" of "human" time.

## **PART 2**

### **DATA: Cultural Analytics**

By 2004, all the films that constitute cinema became "digital intermediates" (Paredes, n.d.) available on the Internet. The massive digitization of movies also reflects today's cultural practice of finding innovative ways of using already accumulated media. Manovich writes:

<sup>2</sup> Kota Ezawa is a Japanese-German artist currently based in San Francisco. Ezawa meticulously recreates, frame-by-frame, animated sequences from television, cinema and art history using basic digital drawing and animation software.

<sup>3</sup> From artist's statement, <http://www.criticalcommons.org/Members/vaparedes/commentaries/the-hills-are-alive-commentary>

“Modernism—approximately from the 1860s to the 1960s, (or from Manet to Warhol; or from Baudelaire to McLuhan), including the avant-garde of the 1920s—corresponds to this period of media accumulation. The artists are concerned with representing the outside world; with *seeing* it in as many different ways as possible” (Manovich 2002, 9). Once that experimentation led to a tremendous accumulation of media records, society became concerned with the processing of data—Manovich calls this new stage in media history meta-society: “It becomes more important to find effective and efficient ways to deal with already accumulated volumes of media than to record more or in new ways. As had become apparent by the early 1980s, culture no longer tries to “make it new”. Rather, there is endless recycling and quoting of past media content, artistic styles and forms, which has become the new “international style” of a media-saturated society. In short, culture is now busy re-working, recombining and analyzing the media material already accumulated.”

Lev Manovich writes about this explosive growth of newly available cultural content on the web, and calls this paradigm of researching massive amounts of information on cultural artifacts, dynamics and flows Cultural Analytics: all Cultural Analytics are computer-based quantitative analysis and interactive visualization of large data sets and data flows. They employ statistical data analysis, data mining, information visualization, scientific visualization, visual analytics, simulation and other computer-based techniques as we have seen in all of the examples mentioned above where artists and researchers have started systematically applying these techniques to the analysis of the contemporary cultural data of thousands of movies.

### **Statistical analysis**

In this context many projects which focus on the statistical analysis of quantifiable data descriptive of the structure of film: *Cinema Redux* (2004) by Brendan Dawes distills a whole film down to a single image. Snapshots are taken from a movie at one second intervals and stitched together as 8×6 pixel frames into a single image while Frederic Brodbeck’s *Cinemetrics* (2011) extracts information such as the editing structure, color, speech or motion and transforms it into graphic representations creating a visual “*fingerprint*” for them. Then *CineMetrics* (2011) by Yuri Tsivian, Gunars Civjans, makes it possible to take shot lengths in real viewing time.

Other software compresses the film frames achieving a colorful print of the movie: *Western roundup* (2013) or *Movie bar code* (2013) by Kevin L. Ferguson are two examples where the movies become closely related to painting as the whole movie is reduced to a static colorful image. *Cory Arcangel’s Colors* (2009) used a slit scan technique to sample a horizontal row of colors from a single frame of Dennis Hopper’s *Colors* (1998) and extend them vertically to form a

video of undulating vertical lines. The source film's audio plays in real time, but the image track must repeat some thirty-three days in order to display the "entire" film. While the source material is skeletally preserved by maintaining the integrity of the soundtrack, the representational function of the visual field has been eclipsed by a play of color.

In Jason Salavon's *Top Grossing Film Series* (2000) the average colors in the 336,247 frames of *Titanic* (1997) are arranged conforming to the original sequence of the narrative in straight horizontal lines beginning at the upper left and moving to the lower right; while in his *Emblem* series uses *2001: A Space Odyssey* (1968) by Stanley Kubrick, *Taxi Driver* (1976) by Martin Scorsese, and *Apocalypse Now* (1979) by Francis Ford Coppola, and reduces each film to its average color and is reorganized in outwardly flowing concentric rings in accordance with the order of the narrative.

Angela Bulloch's *Z Point* (2002), which translates the closing sequence of Michelangelo Antonioni's *Zabriskie Point* (1970) into a bank of forty-eight "pixel boxes", six high and eight wide to mimic the aspect ratio of 35mm film. Each box is a fifty-centimeter glass-fronted square containing within it three fluorescent tubes. Using custom software, Bulloch's pixel boxes can produce up to sixteen million colors, as many as is possible on a computer screen. *Z Point* samples one frame from each second of the excerpt (since the pixel boxes are limited to one change per second) and translates it into an array of forty-eight large pixels, one for each box. Color and movement are retained while the representational powers of the image are obliterated. The result is a pulsing grid that brings together a sense of bodily rhythm with geometric rigor. Here remaking involves subjecting a preexisting film to a cross-medium process of translation: using software to create a new media artifact.

### **Visualization**

As the Net Gen is more comfortable in image-rich environments than with text (Oblinger & Oblinger 2005), designers and computer scientists are using data to help us understand more about ourselves and our surroundings, mainly through visualization. *Culturegraphy* (2014) developed by Kim Albrecht reveals complex relationships of over one hundred years of movie references. The color gradients from blue to red that originate in the 1980s denote the era of postmodern cinema, the era in which movies tend to adapt and combine references from other movies. *NetFlix Similarity Map visualization* (2009) created by Christopher Hefele depicts the similarities between 5,000 movies, as found by an algorithm used for the Netflix Prize. Movies are represented by dots with adjacent titles. *Movie Galaxies* (Kaminski & Schober 2011) provides a novel way of visualizing the narrative structure of the movie through its characters' social network. *Graph Alchemist* (2014) is a site that lets one easily visualize networks of

movies, actors, and directors. Orange circles are films, blue are people. *Patterns in Oscars movies* (2007) by Wesley Grubbs and Nick Yahnke demonstrate the relationship between Oscar-winning Directors to Oscar-winning actors.

After *Psycho*, Brendan Dawes created “a tool” to explore the director’s movies: *Hitchcock Filmography* (2002) creates a timeline of Alfred Hitchcock’s movies using birds on a telegraph wire as a metaphor. Decades and key actors can be filtered, making the irrelevant birds fly away, whilst scrubbing the date marks reveal the dates being pecked into the canvas. *In Cinematic Particles* (2007) by Eva Schindling subtitles and spoken dialog produce visualizations that consist mostly of black ink blobs that grow together. As the particles are constantly reset with new parameters movies that show long silent pauses between scenes gives particles more time to produce long lines and curves. By altering the replay speed of the movie, size and dynamic of the emerging drawings can be controlled.

Manovich explores how “media visualization” techniques can help us see films in new ways, supplementing already well-developed methods and tools in film and media studies: “one of the goals is to make a bridge between the two fields which at present are not connected: the field of digital humanities which is interested in new data visualization techniques, but does not study cinema, and quantitative film studies research which until now has used graphs in a more limited way”. He traces visualizations for the study and design of media to many artist and filmmakers who created diagrams of their projects before or after they were realized. Vertov, in particular, created many diagrams to work out production, content structures and editing in his films.

Benjamin Grosser shows what a computational system sees when it watches the same films that we do. *Computers Watching Movies* (2013) shows what a computational system sees when it watches the same films that we do. The work illustrates this vision as a series of temporal sketches, where the sketching process is presented in synchronized time with the audio from the original clip. Viewers are provoked to ask how computer vision differs from their own human vision, and what that difference reveals about our culturally-developed ways of looking. Why do we watch what we watch when we watch it? Will a system without our sense of narrative or historical patterns of vision watch the same things? *Computers Watching Movies* was computationally produced using software written by the artist. This software uses computer vision algorithms and artificial intelligence routines to give the system some degree of agency, allowing it to decide what it watches and what it does not. Six well-known clips from popular films are used in the work, enabling many viewers to draw upon their own visual memory of a scene when they watch it. The scenes are from the following movies: *2001: A Space Odyssey*, *American Beauty*, *Inception*, *Taxi Driver*, *The Matrix*, and *Annie Hall*.



### 3D

*Film frame motion analysis (2005)* by Martin Hilpoltsteiner includes motion analysis for film sequences by extracting and arranging them behind each other and the sound volume is mapped to a frame's width and height, or the frame frequency is translated as rotation. The frames create a three-dimensional space.

*Motion structures* (Everardo Reyes-Garcia, 2011) transforms movies from a 2D image sequence to a 3D shape done automatically by custom software. The project researches the artistic possibilities of 3D computer generated forms, and also offer a novel way to visualize moving image sequences. The outcome of the process is 3D digital objects which can be represented as images and also as 3D printed forms, which the artists call "motion object". Viewing data as object (Brendan Dawes: *Data as Object*, 2014) becomes a standard. The decomposition of narrative films through intense space-time compression, values of instantaneity and simultaneity, creates an emphasis on "real-time" and immediacy of action.

Eduardo Navas (*Remix Analytics*, n.d.) also provides remix analyses such as sliced visualization of videos montage and image plot visualizations proving that movie fragments used creatively by users can also be used as data (*Remix Data, Film analysis*, n.d.).

Manovich writes that computers are revealing interesting patterns at every scale: "from a single shot to billions of videos and can help us notice subtle patterns in editing, composition, movement, and other aspects of cinematography and narrative that maybe hard to see otherwise. Computers can also allow us to compare any number of films, helping us to understand what is typical and what is unique in the given dataset, and identify common characteristics and similar patterns" (Manovich 2013). The interest in this kind of approach is to show how other dimensions of films can also be explored using particular visualization techniques.

### Database

In *Found Footage Filmmaking, Film Archiving and New Participatory Platforms* Giovanna Fossati reminds us of two database projects through which EYE Film Institute of the Netherlands made available large amounts of films: *Scene Machine* (2010) is an interactive search engine that makes it possible for the user to associatively combine approximately 1,000 film fragments from the EYE collection. Using two hundred keywords such as "special effects," "chase," "innovation," "technique," "audience," the user can combine silent, sound, black and white, and color film fragments from the first half of the twentieth century. The user can intervene at any time while the remix is unfolding on the screen by changing, deleting, and adding new keywords to affect the selection of instant found footage films. Thanks to the metadata combined to each fragment available in *Scene Machine*, the film historical contextualization is also warranted. This online machine was also adapted to become an interactive installation that

<sup>4</sup> Refer to the concept of “convergence/divergence” as discussed in Fossati (2011, 134-137)

was first exhibited in the Amsterdam City Archive during the 24th International Documentary Film Festival Amsterdam in November 2010. The same kind of instant found footage filmmaking was made possible for the users, who could compile film fragments by placing wooden bricks holding a RFID (radio frequency identification) chip associated with a keyword. This live variation of *Scene Machine* combines online database principles with hands on users’ experience, something of a trend in today’s transition from analogue to digital technology (Fossati 2011, 134-137).<sup>4</sup>

The other project—*Eye Panorama* (2010) provides a three hundred sixty degree immersion in moving images from the EYE collection enabling different forms of interaction when entering the enclosed space of the installation. At first the visitors are overwhelmed by an abundance of moving images from the first one hundred twenty years of film history. As the visitors get accustomed to the space they can approach one of the seven consoles through which they can control different sections of the wall projections by zooming in to reveal a compilation of fragments that are sorted by themes. For instance, the theme “Netherlands” will reveal twelve to sixteen shots of bicycles from different films made in different times with different techniques, colors, and sounds. The theme “slapstick” will reveal shots of comedians trashing everything around them, and the theme “film stars” will reveal close ups of well-known and long-forgotten actors and actresses. Through the consoles the visitors can select one particular fragment and explore it by navigating back and forth. Also contextual film historical information about the films can be found via the navigation consoles. Different from online (websites) or mobile applications (iPads and smart phones), an immersive installation such as the EYE Panorama offers a communal experience that is typical of a cinema or museum experience. Still, it adds an element of interaction to it, and provides the visitors with a number of tools to participate in curating the content of his/her own and others’ (film) experience. “Thus, computer-based techniques of media access, manipulation and analysis are the new avant-garde. The new media avant-garde is about new ways of accessing and manipulating information. Its techniques are hypermedia, databases, search engines, data mining, image processing, visualization, simulation. The new avant-garde is no longer concerned with seeing or representing the world in new ways but rather with accessing and using previously accumulated media in new ways. In this respect new media is post-media or meta-media, as it uses old media as its primary material” (Manovich 2002, 8).

Manovich characterizes this will to access and control this world from behind interactive screens as a “database complex”—the irrational desire to preserve and store everything on computers. According to Rodowick, “in a world defined by the heady accumulation of information, the will defines the desire of the new ontology. The electronic screen sustains us in an expansive present, synthetic or digital expressions always have an air of science fiction about them. They anticipate a future world that has already emerged in the present” (Rodowick 2007, 133).

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# **“I HATE CHEAP KNOCK-OFFS!”**

## **MORPHOGENETIC TRANSFORMATIONS OF THE CHINESE “CULTURE OF THE COPY”**

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**Dr. Christopher Brisbin**

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### **ABSTRACT**

Over the past twenty years, The People’s Republic of China has actively solicited Western architectural practices to design many of their iconic and internationally recognizable cultural icons, such as the stadia of the 2008 Beijing Summer Olympics; the Beijing National Aquatics Center (2003–8), designed by Australian architects PTW Architects; and the Beijing National Stadium (2003–8), designed by Swiss architects Herzog & de Meuron. In such prominent cultural projects, Western architectural practices were partnered with local Chinese practices in order to catalyze cultural and knowledge exchange, and, more pragmatically, to document and administer day-to-day building construction. This article explores the philosophical implications that arise when this cross-cultural partnership leads to the illicit copying of Western-designed buildings in China, such as the Meiqian 22nd Century building’s (2012–) re-presentation of Zaha Hadid Architects’ Galaxy SOHO shopping complex in Beijing (2011–14). When Western architectural practices collaborate with Chinese partners on projects in China, many fundamental assumptions about Western Copyright Law, and the philosophical structures that underpin it, such as authorship, ownership, and originality, are fundamentally brought into question. The article instrumentalizes contemporary philosophical discourse concerning the relationship between a copy and its original by applying morphogenesis to the contemporary Chinese context. The article concludes that, rather than re-assembling the creative cultural capital of the West as reassembled Sino-Frankenstein “knock-offs”, China should embrace alternative philosophical and biological processes through which to generate new forms of “deviant originality”.

#copyright, #copying, #originality, #knock-off, #China, #morphogenesis, #identity  
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## **INTRODUCTION**

*Transformers: Age of Extinction* (2014), presents an action-packed thrill ride of robot-induced mayhem that has come to define the blockbuster Hollywood franchise. As the film progresses, its setting shifts from the United States of America to the People’s Republic of China, providing a sweeping panorama of Hong Kong. The scene foregrounds the penultimate battle between the protagonist Autobots and their human-fabricated robotic clones, brought into “being” via the re-programming of Transformium—the base element upon which the Transformers are composed. Modern China, the mythologized land of appropriation and copying, is staged as a battleground between the authentic “original” (Bumblebee) and its “copy” (Stinger). In ultimate victory, Bumblebee raises aloft the head of one of the defeated dopelgangers exclaiming, “I hate cheap knock-offs!” Bumblebee’s exclamation itself is ironically composed from reassembled audio samples of Western popular culture. The scene simultaneously presents the West’s acceptance of selective forms of appropriation and copying, whilst denigrating others. Whilst the West may have come to scorn the culture of Chinese “knock-offs” (Canaves and Ye 2009), the Chinese themselves have no ideological problems with counterfeit goods: they love them!

This example highlights the end of Walter Benjamin’s romanticism and yearning for the “aura” and experiential presence of an “authentic” original that has obsessed contemporary discourse on reproduction, originality, and authorship in creative practices such as art and architecture (Benjamin 1968, Goldstein & Hugenholtz 2012). The proliferation of computers in all aspects of contemporary Western culture has resulted in the removal of the physical trace or “facture” of the craftsman fashioning their artwork (Bryson 1983), as rapid prototyping and computer-numerical-control fabrication systems reproduce physical works with ever-higher degrees of verisimilitude: “With the electronic and digital ... the very notion of original [is] obsolete. Everything is a copy.” (Bosker 2013, 23) The ontological status of the “original” is no longer relevant in a society saturated with an ever-increasing volume of media content and designers that are fluent in its appropriation and re-assemblage. As Jean-Francois Lyotard observes: “Eclecticism is the degree zero of contemporary general culture: one listens to reggae, watches a western, eats McDon-

<sup>1</sup> Calculation of Chinese annual population growth rate =  $\left(\frac{677 - 451}{451} \times 100\right) / 7 = 7.15\%$ . This population growth rate data was projected over a seven year period from 2013 to 2020. When calculated as a constant exponential growth rate, 7 percent will result in the doubling of the population every ten years. This will effectively mean that every ten years we will have to produce double the amount of resources that we consumed in the preceding ten years; and so on, and so on. “Doubling time” refers to the time required for the discovery of more resources than have ever been located in the recorded history of China. Note: these calculations account for the Chinese population as of 16th August 2013. They do not account for the actual GDP growth rate.

ald’s food for lunch and local cuisine for dinner, wears Paris perfume in Tokyo and ‘retro’ clothes in Hong Kong; knowledge is a matter for TV games.” (Lyotard 1984, 76) Every aspect of our consumer life is infused with contradictions of cultural authenticity, reassembled as a complex lattice of simulacra of exotic places, experiences, and identities.

This is perhaps nowhere more prevalent today than in China where the design, architecture, and aesthetic language of Western luxury is copied and consumed by a rapidly growing Chinese middle class with little compunction about the moral, ethical, or environmental implications of their consumption. China’s middle class equated to one third of China’s 2013 population of 1.354 billion, which, by 2020, is projected to rise to approximately 50 percent (Gilbert 2002, Fukuyama 2013). Already three times larger than the USA’s middle class in 2013, China’s middle class is set to grow to four times that of the USA’s over the next decade, at an exponential population growth rate of 7.15 percent. At a 7 percent rate, China will experience a doubling of its population every ten years, which will effectively result in China having to produce and/or procure more than double the resources that have been consumed by China in all of its preceding history.<sup>1</sup>

There is substantial authoritative literature outlining adjudications as to the legal rights offered by WTO-endorsed International Copyright Law for designers operating in China. However, Western literature presents limited discussion as to the legal, moral, or philosophical structures underpinning Copyright, other than the quasi-Marxist CopyLeft movement and increasing popularity of Open-Source and Commons-based sharing (Söderberg 2002, Katz 2006). Nor is there an inclusivity of multiple cultural perspectives in the formation of alternative Copyright systems: questions of copyright infringement are debated from a culturally narrow viewpoint.

### **CHINESE MIDDLE-CLASS “STATUS” CONSUMPTION**

According to Julie Juan Li and Chenting Su, the influence of the Chinese concept of “face” cannot be underestimated in terms of its impact on the consumption of goods fueling China’s GDP and the growing consumption of all forms of copied goods in China (Li and Su 2007). Face is intrinsic to all collectivist cultures, which make up one third of the world’s population, but is especially important in understanding the consumption habits of China’s middle class (Ting-Toomey 1988). Face encourages consumptive practices that allow for the consumer to aspirationally project oneself as part of a desired social group, to reinforce culturally accepted norms of behavior within that group, and to differentiate oneself from others external to it (Ang et al. 2001). Chinese collectivist culture, which is Confucian at its ideological core, is “interdependent” in its social structuring: “to the interdependent Chinese, class reflects not only one’s achievement, but also



one’s group, usually one’s family, relatives, and kinship clan.” (Wong & Ahuvia 1998) It is through this very need to “enhance, maintain, or save face” that Chinese consumers find themselves, more than other cultures, more likely to purchase luxury goods to advance their social standing (Li and Su 2007).

Even in the West, “keeping” and “giving” face are necessary components of everyday social practices of what Erving Goffman calls “face-work” (Goffman 2005, 5). Face-work is a form of identity management that involves verbal and non-verbal social contracts that are conducted through either face-to-face or mediated social encounters. For both the Chinese and Americans, face-work is a vital social tool for determining and maintaining social impressions of oneself, and the social grouping one wishes others to identify oneself with. Whilst “keeping” face denotes the ability to maintain a social standing that is internally consistent with the social standards established by the group, “giving” face, on the other hand, refers to the gifting of face to an “other” and, in so doing, to oneself (Goffman 2005, 9). It is through this “face gifting” that the act of copying gives face to the authors of an original being copied as a form of cultural mastery and flattery. This is not dissimilar to traditional approaches in the West to fine arts education (from the Renaissance to today) in which students learn by initially mastering the Masters. Thus, the act of copying in China is not seen as an activity that could potentially lead to a loss of face, as would be the outcome in the West. Face in China thus presents a complex social account of identity construction that directly conflicts with the social standards expected of Western property law and the philosophical and ideological standards which support it.

However, what is being consumed is actually simply the aesthetics of the original. As Winnie Yin Wong notes, the production of the majority of copied European artworks in Dafen (the mythologized locus of fine arts copying in Shenzhen, China) were in fact sold through multinational retail chains, such as K-Mart and Wal-Mart, to an American audience who were unaware of the specific compositional structures of the original, other than its broad aesthetic and social appeal (Wong 2013, 5, 52, 58–9). Similarly, the Dafen painters responsible for the reproductions had never seen the original artworks either (Wong 2013, 86). In fact, the Dafen reproductions were more often than not dramatic deviations from the original artwork: “*Mona Lisas* painted in Dafen are almost always larger, *Starry Night* always thicker. David’s *Napoleon* smiles more, and Yue Minjun’s pink faces smile less cynically. Lichtenstein’s comic strip bubbles can be updated with new jokes, and Warhol’s contrast color stylization is applied to family portraits.” (Wong 2013, 20) Their copying thus concerned with the attainment of an aesthetic likeness to the original, and not the realization of precise and photo-realistic replication. Both painter and consumer operated from a limited disciplinary knowledge of the meticulous ideological and technical characteristics of the original artwork.

Wong further illustrates the conceptual irreconcilability between originals and copies in Chinese linguistics and philosophy in demonstrating how the Chinese understand, for example, the relationship between each painting in Monet’s early twentieth-century *Water Lilies* series relative to copies of them. Each of the *Water Lilies* paintings are understood as iterative copies of an overarching series of impressionistic representations of water lilies. This relationship is conceived as a *gao*, which encompasses relations that exist between versions of a work that can be understood as a series. For example, an analogue photograph, a scanned digital image, or a digital photograph of Monet’s *Water Lilies*—or indeed any other iteration in the study of water lilies by Monet. In each case, the *gao* is simply one iteration or “instance” of an infinite series of representations of the water lilies, inclusive of all of Monet’s *Water Lilies* as a “singular work” (*hua*). As Wong therefore concludes, the “original ... is conferred no absolute hierarchical status, and is merely a *yuangao*, or if you will, an ‘original copy’.” (Wong 2013, 18) Whilst there are semantic, legal, and moral associations with copying nomenclature in the West, the complexity of meaning between original and copy in Mandarin has exasperated attempted intercultural resolution of the contrasting ideas about copying between East and West.

It is also important to acknowledge that the West’s historical attitudes towards copying and replication is equally complex—particularly in relation to pre-modern concepts of copying. There is no definitive singular account or history that sufficiently accounts for the West’s intercultural and conceptual complexity when dealing with questions of ownership, authenticity, originality, copyright, or intellectual property. For example, Byzantine attitudes towards copying in early Modern Europe considered the meaning and embodied narrative of a copy more important than its aesthetic likeness to its idealized original. The apotropaic power of the medieval pre-Renaissance image embodied the “palpable presence and intervention of the deity” in the very fabric of the image (Kitzinger 1954, 119). The divine edict, transformed through *apotropaia* as a “magical object”, was altered into an image, thus making manifest the divine power of its representational subject: in this case the divine power of Jesus Christ (Kitzinger 1954, 104).

This deliberate conceptual transference of divine power was also employed by medieval architects when attempting to replicate sites that were believed to embody particular spiritual or divine presence, such as the site of Christ’s supposed burial in Jerusalem—the Church of the Holy Sepulcher. In medieval architecture, relative or proportional measurement was understood as an effective method of encapsulating the *apotropaia* of a subject (Kitzinger 1954, 105). It was common practice, for example, for the sick to take measurements from paintings and icons depicting divine figures, such as Christ, and then cut bandages with exacting measurements to provide a salutary affect to their afflicted limbs (Kitzinger 1954, 105).

These examples primarily relate to the empowerment of the image through magical transference of divine and/or supernatural power, however the image was also empowered through *acheiropoietai*; the “assumed” direct genealogical association or physical crafting of an artefact by non-mortal hands, or through the artefact’s “apparent” vestige by a direct miracle or structures of institutional power (Kitzinger 1954, 113–15). Thus the image or artefact became empowered through association or mythological genealogy, rather than through any tangible demonstration of divine or institutional power. However, the increasing use of the printing press in the fifteen hundreds removed the talismanic properties offered in the apotropaic copy, where any mass-produced printed book was essentially the same as any other (Nagal & Wood 2010). The copy relied on its perceptible facture, or legible trace of the means of its fabrication, in order to carry its genealogical meaning and relation to its original. However, in the copy, the mark of the artisan’s brush stroke was systematically erased. All that was left was the aesthetic pleasure that the image offered to its beholder.

In returning to the contemporary situation in China: the growing Chinese middle class want to look like and possess the same kinds of “stuff” as the middle class of the West. The consumptive desire for, and display of, Western aesthetic styles, brands, and architecture aims to deliberately promote the social status of the middle class, and demonstrate their good judgment and understanding of Chinese notions of “taste”. Thus, as Immanuel Kant observed of the emerging middle class of Europe in the eighteenth century, a citizen is able to denote their social standing to others by demonstrating their knowledge of the limits and boundaries of acceptable “taste” and, as such, be assimilated within a desired socio-economic grouping (Kant 2000). The effects of this overt need to display their luxury possessions is a growing legal, moral, and philosophical concern in China as the goods consumed are not always legally produced. Supercharged consumption breeds piracy of all forms of consumable goods, not least, China’s recent widespread copying of Western architecture.

### **COPYING AND COPYRIGHT LAW IN CHINA**

In the West, copying is not a question open to philosophical debate. Explicit rules and legislation have been developed in order to control what can, and cannot, be copied. Copyright law, after China’s acceptance into the World Trade Organization in 2001, explicitly acknowledges the protection of “construction works”, such as architectural buildings, as “forms of expression” that are protected from unauthorized reproduction (Hu Jintao February 26, 2010). This copyright is deemed valid when the “construction works” can be demonstrated to be “original” and specifically applied in a “built form”. Copyright only applies to built “expressions”, not to ideas, and lasts for the author’s life, plus

fifty years. The copyright is deemed to have been infringed when the "construction works" are used without the permission of the author, or copyright holder. Whilst the copying of Classical Western architectural styles is common in China, as it is throughout much of the Western world, it is not an infringement of legal copyright. Nor (contentiously) is the Meiquan 22nd Century building's aesthetic mimicry of the built "expression" of Zaha Hadid's Wanjing [Fig. 2] and Galaxy SOHO's Beijing shopping complex [Fig. 1], due to the vague and contradictory definitions in Chinese Copyright outlining imitation and, in particular, originality (Chen 2012): what makes something original? Perhaps the single greatest challenge to copyright today in the West is the breaking down of the ontological status of the object, and the arrival of media forms that only exist as intangible digital constructions of computer code.

In contrast to architectural copying, Wang et al. observe that approximately 98 percent of Chinese engage in computer software piracy (Wang et al. 2005, 341). In addition, up to 90 percent of everyday goods available in urban areas are counterfeit (Ang et al. 2001, 221). Whilst Chinese copyright law protects against unauthorized reproduction, it is not as clear-cut about the legality of consuming counterfeit goods in China. According to Swinyard et al. (1990), the Chinese make decisions about the consumption of illegal goods (the illegal downloading of copyrighted music, movies, computer software, or the consumption of counterfeit luxury goods), based on the socio-political and socio-economic context of each occasion in which such behavior is considered. In other words, their decisions are culturally determined by a simple analysis of the cost versus the benefit. The Chinese do not take all laws as seriously as their Western counterparts in the USA whom are more universal in their adherence to the rule-of-law. As Swinyard et al. note, Americans are "rule-orientated", whilst the Chinese are "circumstance-orientated" (Swinyard, Rinne, and Kau 1990, 657). But how does this newfound cultural understanding effect the question of architectural reproduction in China?; What meaning can we garner from China's ongoing cultural appropriations of high status goods and architecture from the West?; and, what effect does it have on achieving a better understanding of what Chinese copying says about Chinese aesthetic sensibilities and their cultural identity today?

### **WHAT DO COPIES SAY?**

As previously discussed, medieval European society believed fervently in the apotropaic power of representations of Christ to ward off and protect: from the use of medicinal bandages (copies) torn in proportion to images of Christ (the original), to medieval churches (copies) designed loosely upon proportional relations to the Holy Sepulchre (the original), to written documents that cited the power of Christ's



Fig.1.  
Galaxy SOHO (Beijing),  
Zaha Hadid Architects  
Rob Deutscher, 2013

DISEGNO\_ III/01-02\_ COPYTHEFT



Fig.2.  
Wanjing SOHO (left),  
Meiquan 22nd Century (right)

name in warding off disease and violence. In medieval European society, the value of the copy was not based on its likeness or verisimilitude, but on its relational meaning. Inversely, the Chinese subscribe to a philosophical position in which the likeness in the copy is a form of “cultural flattery” (Ang et al. 2001, 221), but absent of the power structures prevalent in Western representation. The Chinese are thus able to disassociate the semiotic meaning that oscillates between its sign and signifier than their Western counterparts who rely upon this binary association to infuse meaning in pre-modern Western visual culture. For the Chinese, the authentic “likeness” of a style is more important than its culturally specific meaning, echoing the Wests’ ongoing subservience to postmodern aesthetics.

This cultural indifference towards the integrity or sanctity of the “original” is further demonstrated in the Chinese appropriation of Western architecture at the height of the Qing Empire (late-eighteenth century). As a result of the increasing trade and cultural exchange between China and Europe, Western style pavilions became very popular. Whilst designs were based upon authentic baroque and Rococo styles, they were structurally and aesthetically transformed into “proximate imitations”, due to the limited experience or understanding of how to construct European buildings. In contrast, throughout the nineteenth and twentieth centuries, Chinese public architecture was contrived by the State as symbols of nationalism, expressing “grand narratives of the nation, its grand tradition, its heroic revolution and its glorious future” (Zhu 2009, 110). More recently, post-Mao China has witnessed a dramatic opening up to the West and its social autonomy, and a shying away from the austere and inhumane environments typified by Maoist China (1949-1976) and the grand narratives of Socialism present in the Beaux-Arts traditions it applied (Xue 2006, 16, Zhu 2005, 487). It is no surprise that, when left to freely appropriate preferred architectural styles from the West, the Chinese today have embraced a pluralist postmodern assemblage of Western aesthetic styles in order to distance themselves from their recent Maoist past (Bosker 2013, 81).

China has maintained a proud sense of national identity throughout its history that was often in direct ideological opposition to the West, such as during Mao-era China (1949-1976). As Karl Gerth notes, through Mao, “[n]ation-making included learning, or being coerced, to shape preferences around something called the Chinese nation and away from items deemed foreign.” (Gerth 2003) Thus consumption became a fundamental aspect of the formation of national identity, allowing the Chinese to project themselves as proud agents in the development of a modernized China. Mao’s China fueled national sentiment and identity through the segregation of consumptive goods into categories of Chinese-made and foreign. Foreign goods were demonized as “treasonous”; as a deliberate mechanism of the State through which to instill a sense of nationalist pride and

preference for the consumption of Chinese-produced goods (Gerth 2003, 3). The contention of this article is that China’s contemporary “knock-off” culture is rooted in this commodification of nationalism. However, for the middle class today, the projection of modernity and social status need not be directly associated with genuine originals. Rather, the aesthetic likeness of the “proximate” copy maintains the affirmational allure of the original without the ideological hang-ups of its Western-based production: “nationalists today allow for a Sino-Western space where Chinese can love China without hating the West.” (Dong & Tian 2009)

The appropriation and re-translation of canonical architectural styles from abroad has continued into the twentieth century, evident in reproductions of Le Corbusier’s Ronchamp (1954) in Zhengzhou in 2004, in the reproduction of the architecture and engineering of Haussmann’s nineteenth century Paris in the ironic montage of Tian Ducheng’s 2007 one third scale Eiffel Tower—inclusive of surrounding baroque cityscape. More recently, the reproduction of the aesthetic likeness of contemporary architectural styles has emerged, including a reproduction of Zaha Hadid Architects’ Galaxy SOHO shopping complex in Beijing, copied by the Meiquan 22nd Century building in Chongqing. China has also self-replicated its own vernacular architectural styles too in the contentious 2015 Zhenjiang re-translation of the Beijing Summer Palace—the site of China’s humiliating sacking by the English and French in 1860 (AFP 2015).

These systematic re-productions have altered the linguistic content and cultural meaning of contemporary Chinese architecture. For example, as architect Rem Koolhaas has observed, China’s rapid growth has created Photoshop-based design practices that re-conceptualize the content of architectural projects as reductive aesthetic symbols of success and power (Koolhaas et al. 2000). Architectural design praxis thus becomes an exercise in “cut-and-paste” reassemblage. Importantly, the socio-political power structures that are embedded within the collaged fragments are thus removed from their original cultural context; their culturally specific meaning disrupted and potentially destroyed. Any cultural meaning inherent in the original is distorted through its systematic compositional fragmentation and replaced with affirmational signs and symbols of familiar Western aesthetic brands and architectural styles.

It could be further argued that this cultural ambivalence to the integrity of the original is further entrenched in China’s feudal history; its historically undulating territorial boundaries, its ongoing subsuming of other cultural minority groups and their own culturally specific laws and rituals, and its ever-evolving ideological context—more recently from communism to “commu-capitalism”. (Spence 1990) In so doing, the culturally and place-specific value of the original is eroded; subsumed and altered through systematic reproductions that render its copies ontologically flat. It is important to re-



<sup>2</sup> Here I am referring specifically to the formation of the Magna Carta in 1215 and its effect upon cultural attitudes towards the rule-of-law, civil liberty, and ultimately, democracy (Linebaugh 2009). According to Siegan, whilst the Americans had effectively discontinued their political subservience to England, they still relied foundationally upon English common law in supporting the development of their own Constitution and Bill of Rights.

member that China has only achieved relative political and economic stability in the late-twentieth century post-Mao, whilst the West has had over 800 years to gradually entrench intellectual property rights at the core of its cultural ethos.<sup>2</sup> Basic human rights, intellectual property, and copyright are all relatively new concepts in a culture whose success has historically been defined by the strength of a sharing collective. Ideas are not owned by an individual, but for the advancement of Chinese society as a whole. It is therefore clear that China’s historical attitude towards the borrowing of another culture’s aesthetic language is complex. Further, as I have attempted to demonstrate, the legacy of China’s historical aesthetic appropriations continues to affect China’s ongoing identity formation today; built upon a deliberate State endorsed system of cultural appropriation and re-translations of the aesthetics of other cultures in presenting itself as a powerful modern nation.

The widespread copying of Western styles in China can therefore be understood as a combination of “fantasy dreamscapes and simulscapes” (Bosker 2013), “theme-park simulacra” (Baudrillard 1994), and ‘hyper-realities’ (Eco 1986, 26), that have resulted in an interesting cultural collision of aesthetic form and cultural pragmatism. For example, many new Western-styled buildings are being refurbished in order to accommodate the specific cultural rituals of everyday Chinese life (Bosker 2013, 51-55). Here Henri Lefebvre’s conception of “conceived” versus “lived” space is instrumentally useful through the acknowledgement of the contradictions inherent between an idealized space, represented by an aesthetic style, and its actual culturally specific inhabitation (Lefebvre 1991, 38-9). The Chinese actively dwell in a pluralist postmodern milieu of hyper-real surfaces, images, and simulated environments: The Chinese exist in the age of the simulacra (Baudrillard 1994). Contemporary China fashions itself as a simulacra of other cultures’ cultural production. However, Chinese attitudes to this trend are shifting. In 2014 at a literary symposium, Xi Jinping (President of the People’s Republic of China) cited a series of contemporary architectural projects across Beijing, such as OMA’s CCTV building (2002–08, facetiously nicknamed Big Pants for its striking silhouette’s similarity to a pair of pants), Zaha Hadid’s Galaxy SOHO (2011–14) and Wangjing SOHO (2009–14), Herzog & de Meuron’s Beijing National Stadium (2003–08, commonly nicknamed the Bird’s Nest), and PTW Architect’s Beijing National Aquatics Centre (2003–08, commonly nicknamed the Water Cube), in openly calling for an end to the “strange looking buildings” being built across China (Abkowitz and Si 2014). President Xi’s ultimate goal is to see a more Chinese-based spirituality embedded within its contemporary architecture (whether designed by foreigners or locals), that expresses a conscious social responsibility to the Chinese who will occupy them (Rivers & Chung 2016).



## **DEVIANT ORIGINALITY THROUGH MORPHOGENESIS**

In returning to the *Transformers* anecdote, the relationship between Bumblebee and its copy (Stinger) demonstrates Greg Lynn’s notion of the “primitive” geometric arrangement upon which all subsequent formal adaptations are based in transforming from one type to another (Lynn 1995, 39). Lynn’s “primitive” can be understood as the locus, or initial neo-platonic form, upon which “deviations and derivations” can be described (Culler 2007). The system of parametric relations that give shape to Bumblebee’s doppelgangers can only replicate certain aspects of its form, not its operational behavior or sentience. They are simplistic re-imaginings of Bumblebee’s visual “likeness”. The relationship thus shared between Bumblebee and Stinger demonstrates the inescapability of the “original” from its systematized parametric copies. Thus, the copy can always be differentiated from its “original” the degree to which it varies contributing to a quantification of its “deviant originality”, or deviation from its original “primitive” form.

Hadid’s growing family of iterative SOHO copies in China further emphasize this point: they do not deviate far from the “primitive” coding that underpins each architectural variation. In collaboration with Patrik Schumacher, author and leading contemporary thinker in computational-based design approaches, Hadid is generating a family of SOHO siblings across China that are generated from a common morphogenetic genome. Whilst similar in their formal language and aesthetic composition, the siblings are the outcome of a complex array of inter-relational rules that govern their growth. Their originality is embedded in their genetic structure: their spatial form is simply a manifestation of this structure. As in all such bio-mimicry-based systems, there is always a phenotype, or dominant presence of one genetic primitive over another; in this case the pragmatics of Chinese cultural ritual over the likeness to Western aesthetic Style. But, does it have to be an either/or binary situation?

Other systems, processes, or ecologies may be drawn from Nature to provide alternative insights through which to critique processes of design production, and equally cultural production. Morphogenesis, understood as the biological process through which an organism develops its form, provides a useful alternative lens through which to rethink the methods through which copies relate to their original. “Hopeful monsters” was a concept introduced by evolutionary biologists to envisage the mutations that deviate from the axial directionality of a conventional growth pattern (Weinstock 2008, 172). Architectural theorists, Peter Eisenman and Andrew Benjamin, have also problematized this relationship, identifying that our inability to transcend a logocentric idea of architecture leads to the regurgitation of familiar “traditional” solutions that are incapable of addressing emerging problems today (Benjamin 1997, Eisenman 1984). These

“hopeful monsters” parallel Mark Burry’s own search for a computational-based language through which to understand and describe Antoni Gaudí’s incomplete Sagrada Família Cathedral in Barcelona (1882–) (Burry 2005). Through the morphing of one geometric state (e.g. cube) along a set axis towards another (e.g. cone), Burry sought to forensically interrogate the remnant fragments of Sagrada Família in order to reveal its formal language. In so doing, a parametricized process of formal morphing was applied as a research methodology to read, understand, and emulate Gaudí’s architectural language. Existing fragments of the building were reduced to their base geometries and closely studied. Computer animation allows for these existing geometries to be extrapolated, to form the syntax by which the completion of the building’s form could be proposed. When these deviations and deformations expanded beyond the expected normative pathways for Weinstock, or the Cartesian system used to conventionally describe geometric characteristics for Burry, wholly new “deviant originals” were thus created. Thus the promise of morphogenesis is, in no small part, to break or transcend the limitations of existing normative models of design; or in the context of this article, the interchange between East and West in engendering a new form of Chinese-based “deviant originality”.

Burry’s diagramming of formal deviations allows for a critique of how an architectural language and conceptual parameters for the growth of a system is traditionally arrived at. What Burry’s deviations progressively elucidate is how these conventional transitions can be overcome by mutating the forms into wholly new trajectories. But there has to be a catalyst or agent that enacts this radical shift in thinking for the system to change. If we reconsider the method of morphing along defined morphogenetic axes in transforming between different recognizable formal outcomes in the Autobot—from its anthropomorphic human-like self to its camouflaged secondary state as car, boat, plane, dinosaur, or insect, etc.—we are provided with a genetic code through which to program the morphogenetic structure of subsequent iterations of the system. Similarly, if we consider the axial development between the copy and its original, between East and West or West to East, we are provided with an insightful alternative morphogenetic-based conception of how China might reframe its conceptual interaction with the West through “potentials for collaboration and opportunities for bi-directional knowledge transfers.” (Roudavski 2009, 346) However, as Tim McGinley has identified, wholly new conceptions of the architectural design process can be defined if these axes of development are reconceived through other biological examples, such as the application of the axial growth patterns of the *drosophila melanogaster* (common fruit fly) to the critical rethinking of axes applied in the design of architectural form (McGinley 2015, 6–7). Whilst McGinley’s focus is on the adaptation of natural growth systems to architecture, it can be equally applied in rethinking how

cities (as a complex suite of interrelated ecologies) grow and, in so doing, how the cultural ingredients or parameters of its growth might be infused in a process of identify formation. For example, when multiple transformers are combined through inter-operative transmutation an alternative hybrid is created that directly challenges the familiar relation to an original “primitive” form or reliance upon fixed loci in which design operations occur. This third state can be understood as a mutation, or as a deviation from a known axial developmental evolution between fixed states of being: This is how Nature innovates, adapts, and evolves. Morphogenesis thus becomes a critical tool in questioning assumptions about how China will develop its own specific identity that is not based on replications of the aesthetic Styles of the West.

## **CONCLUSION**

In returning to the article’s primary focus upon the status consumption of copied goods in China: it is argued that morphogenesis provides an alternative structure through which to understand how China might transcend the reductive appropriation and copying of the aesthetic styles and architecture of the West. China must reflect on the social impacts that result from their obsession with stylistic authenticity and status consumption; exemplified through their adoption of Western domestic planning typologies that are in direct conflict with Chinese modes of dwelling and utilizing space. This cultural fusion has led to dwellings that are binary chameleons: Western on the outside, but Chinese on the inside. In embracing a morphogenetic turn, China can transcend the cultural and aesthetic limitations of Western Styles, and its own hegemonic desires to demonstrate cultural perfection and transnational superiority. The morphogenetic turn provides China with a means through which to combine Western creative knowledge with Eastern pragmatism, deriving wholly new deviant architectural originals that more progressively expresses Chineseness than contemporary counterfeit assemblages in China today.

China is transitioning from kitsch copiers to cultural innovators; from simply mastering other cultures’ creative innovations to generating their own cultural commodity, however a morphogenetic approach may yield interesting and wholly unknown outcomes to this cultural evolution. Morphogenesis offers a liminal state through which parameters have agency on the formation of unknowable material and formal outcomes (Leach 2009). This is dissimilar to the logocentric nature of the Transformers, in that the Transformer is always in a state of transitioning between formal states of being. It is always defined by its taxonomic condition of what it is, as much as what it isn’t. Bumblebee’s voice, for example, is constructed through the assemblage of audio samples and can never escape the linguistic meaning that is embedded within their semantic constructions. The promise of a morphogenetic approach therefore is to assemble

and instrumentalize material behaviors from seemingly incompatible partners to generate wholly new mutually beneficial systems and ecologies. The Frankenstein assemblages that result potentially yield new ways through which to explore the pressing social and environmental challenges of our age. In so doing, morphogenesis facilitates a transformation of the discipline of Architecture through an operationalized fusion of other disciplinary knowledge beyond its traditional disciplinary boundaries. It allows for the transcending of the limiting parameters instigated by Lynn, Hadid, Eisenman, and Benjamin; and the analogies I have attempted to describe through the Transformers-based parametric reproductions of recognizable operable form. More than simply an assemblage of familiar tropes appropriated from the West, morphogenesis provides a structure through which to develop a Chinese identity freed from the pluralistic mish-mash of Western aesthetics.

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# **MODELS AND RE-ELABORATIONS IN LATE NINETEENTH CENTURY ARCHITECTURE THE GREAT TOWER FOR LONDON COMPETITION**

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**Giuseppe Resta**

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## **ABSTRACT**

*This paper explores the notion of plagiarism and re-elaboration of architectural form in the late nineteenth century (when the profession of architecture emerged), and the ensuing dispute between the École des Beaux-Arts and the École Polytechnique in Paris, which established a permanent split between architects and engineers. The proposed methodology involves the analysis of the international design competition for the Great Tower for London (1890), which describes the rise and the fall of the glorious plan to build a colossal steel tower in England. Sir Edward Watkin, the promoter of the project, was a member of parliament and a powerful railway entrepreneur. His aim was to build a landmark celebrating his company in an amusement park near Wembley station, which was built to serve this park. In retrospect, it is clear that the submissions were influenced by a model (Eiffel Tower), which was to be overtaken in terms of elevation (rather than formal evolution) and other formal prototypes already cross-referenced in the history of architecture—either real (Tower of Pisa) or imaginary (Tower of Babel). Watkin's tower offers the opportunity to investigate a century-old design competition, the main archetypal forms of that period, their relation to the applicant's geographical background, and their costs and materials. From the sixty-eight proposals, the winner of the competition was a three hundred sixty-six meter copy of the Eiffel tower. This leads directly to the idea of architectural prototype: as a new cultural object, the Eiffel Tower, like Crystal Palace, was neither meant to communicate its originality nor its author's style (the creation process), but rather its ability to be a model, namely the social consequences its construction would disclose to the entire world. An intrinsic objective of this research is to revisit, through a specific case study, the innovation of architectural form in the landmark as representative of common utopia: What was the importance of originality in a late-nineteenth century design competition? In the age of European industrialization, how did architectural bureaucracy treat landmarks differently from today? Today we experience distributed creativity, fragmented answers to custom issues. Is common utopia finally dead?*

*#architectural prototype, #landmark, #plagiarism, #the great tower for london, #design competition*  
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## **PRESENTATION OF THE CASE STUDY**

T. S. Eliot (1920), in his popular essay on Philip Massinger, maintains:

*One of the surest tests [of the superiority or inferiority of a poet] is the way in which a poet borrows. Immature poets imitate; mature poets steal; bad poets deface what they take, and good poets make it into something better, or at least something different. The good poet welds his theft into a whole of feeling which is unique, utterly different than that from which it is torn; the bad poet throws it into something which has no cohesion. A good poet will usually borrow from authors remote in time, or alien in language, or diverse in interest. (Eliot 1920, 114)*

Borrowing is a risky enterprise since the author has to use some existing matter as a point of departure, and only achieves new outputs avoiding if the original material is transformed. This paper explores the notion of the model and re-elaboration of the architectural landmark, which are generally conceived to be unique and not reproducible, during European industrialization. World expositions were, at the end of the nineteenth century, the stage where the highest level of scientific and technological development were exhibited around the world. Thus, architecture did not escape the evaluation criteria of the industrialization: the flagship building had to prove that it implemented the newest techniques and aesthetics, which would be used later in common edifices. While the notion of the original was not so strictly attached to the material as it is nowadays, it was ethically possible to reproduce and rework on previous artefacts with relative ease up until the end of the nineteenth century. Anderson-Riedel (2010) points out that the *Section of the Grauvre* at the *Institut de France*, at the beginning of the twentieth century, was the first body that distinguished imitative work (artisans) from creative work, defining “the guidelines of fine engraving as a creative art medium” (Anderson-Riedel 2010, 155). However, the authentic (original) and its representation were still physically distinguished up until the introduction of lithography; before being surpassed by photography, as the German philosopher Walter Benjamin maintains in “The Work of Art in the Age of Mechanical Reproduction” (1935), which introduces the possibility to displace reality, enabling the notion of originality in the field of visual culture (Benjamin 1969). Architecture

<sup>1</sup> Here the Great Tower for London is considered an early example of plagiarism in the frame of the democratization of design competition in late nineteenth century, with the introduction of formal regulations due to the formation of professional associations (Andersson, Zettersten, and Rönn 2013).

had a clear educational role since physical experience was the most important means of knowledge. In this regard, Benjamin argues that “Architecture has always represented the prototype of a work of art the reception of which is consummated by a collectivity in a state of distraction. The laws of its reception are most instructive” (1969, 222). In fact, replicas of the *Venus de Milo*, carved in butter, filled Crystal Palace, and a replica of the Bastille, stormed hourly by a group of actors disguised as *sans-culottes*, appeared in the 1889 Paris Expo (Sudjic 2005). Yet, architecture cannot be considered entirely in the artistic domain since it faces the construction process that implies a certain degree of standardization. For this reason, while part of the building, or even techniques, can be patented, the formal reproduction has a more questionable status, linked to the ethics and cultural prerogatives of the time. As a new cultural object, the Eiffel Tower, like Crystal Palace, was not meant to communicate its originality or its author’s style (the creation process), rather its ability to be a formal prototype, namely the social consequences its construction would disclose to the entire world.

Different authors agree that, in the context of the dispute between history and science, the universal exhibition created a unique milieu in which to build the perfect architectural prototype (Popescu 2008). Schwartz and Przyblyski (2004) underline that the relation between visual culture and nineteenth-century society is to be found outside the conventional art circuit, in an expanded field that includes the great World’s Fairs, where vast expo sites were transformed to create a spectacle of innovative objects. The visual structure of the expo is at least as interesting as the technology itself. A fundamental objective of this research is to open a path, through a specific case study, leading to the innovation of architectural form spearheaded by the landmark as common utopia, at the onset of the profession of architecture. Thereafter, the dispute between the *École des Beaux-Arts* and the *École Polytechnique*, in Paris, established a permanent split between architects and engineers.

The imitation of form was natural, since the expo building configured itself as a machine, a spectacle engine, where the unusual idea of improving or updating a copy of the original was not understood in terms of deficiency but rather as rivalry with an opponent. Therefore, I will use the word prototype, which is usually attached to industrial production, to address both technological and visual (formal) originality in architecture. The proposed methodology involves the analysis of one of the first<sup>1</sup> international design competitions, the *Great Tower For London* (1890). The contest was documented in some newspaper articles and publications, which will be cited later in this text. Initially, I will briefly describe the event. I will then provide a detailed analysis of the competition. This has three main advantages. Firstly, we can pay less attention to the temporal variable since the submissions offered an instantaneous panorama of the cultural

models; secondly, the criteria of evaluation offered a spectrum of the values to which architecture had to conform; and thirdly, the construction of a world's fair landmark simultaneously represented the advancements of aesthetics and technology.

The competition for the *Great Tower for London* depicts the rise and fall of the glorious plan to build a colossal steel tower in England, only one year after the Paris Expo. To make my argument, it will be instructive to take a close look at the *milieu* in which bureaucratic architectural institutions during the period of European industrialisation treated landmarks differently from today. Sir Edward Watkin, the promoter of the project, was a member of parliament and a powerful railway entrepreneur. His aim was to build a landmark celebrating his company in an amusement park nearby Wembley station, which was built to serve this park. In retrospect, it is clear that the submissions were influenced by a model (Eiffel Tower), which was to be overtaken in terms of elevation<sup>2</sup> (rather than formal evolution) and other prototypes already cross-referenced in the history of architecture—either real (Tower of Pisa) or imaginary (Tower of Babel).

The competition proposals were bundled with one image and a short text resuming construction and quantitative features. Since *The Getty Research Institute* has made the originals freely available, one can group, after more than a century, the main archetypal forms, their relation to the applicant's geographical background, their costs and materials. From the sixty-eight proposals, the winner of the competition was a three hundred sixty-six meter copy of the Eiffel tower [Fig. 1], roughly two hundred feet (sixty-one meters) taller than the French one. The First Prize, of five hundred Guineas, was awarded to submission number 37, thirty-seven, made by A. D. Stewart, J. M. MacLaren and W. Dunn of London. The original design was a truss tower on an octagonal base, three hundred feet (ninety-one meters) wide, and was finally reduced to four legs to reduce costs. This version did not allow for the equal distribution of weight on the field and the tower began to sink, due to poor ground surveying, after only fifty meters of the structure had been built. The construction subsided in 1892; followed by the death of its 'father' in 1901. The unsafe condition of the structure halted the initiative until 1904, when it was demolished with masses of dynamite.

### **ARCHITECTURAL PROTO-TYPE IN LATE NINETEENTH CENTURY SOCIETY**

A few years earlier, on the other side of the ocean, a supposed case of plagiarism marks the very beginning of the history of the skyscraper. This new building type arose for different reasons and in a different social environment than the European towers, yet, like the towers, they antagonized developers because they were the tallest landmarks on the continent. The high-rise building also originated at an exposition: "the baseline from which

<sup>2</sup> After the French tower had become the tallest structure in Europe, Edward Watkin said 'anything Paris can do, London can do better' (Milton 2015, 187).

<sup>3</sup> Buffington officially explained his delay was due to other ongoing projects in the eighties, but later admitted that he never intended to build the cloud-scraper and he was using it only as publicity device (Christison 1942). His patent “provided for a braced skeleton of metal with masonry veneer supported on shelves fastened to the skeleton at each story” (229).

<sup>4</sup> The period known as *The Gilded Age* takes its name from the title of a novel by Mark Twain and Charles Dudley Warner. Despite being a chapter of American history overshadowed by corruption and lack of political leadership, it was also a time in which momentous transformation took place, from the rapid growth of cities to the industrial progress with private investments (Twain and Warner 1873; Schlesinger 1933; Cashman 1993). For a deeper analysis of materialism in the Gilded Age see *The Gilded Age in American History* (De Santis 1988).

<sup>5</sup> In *Ground plan of the model town for the happy colony. To be established in New Zealand by the workmen of Great Britain, collected at the Library of Congress of Washington, Prints and Photographs Division, Robert Pemberton describes his utopia: “the first circle, and area of fifty acres, contains the four Colleges, with Conservatories, Workshops, Swimming Baths and Riding Schools adjoining. Also the Educational Circles, such as the Terrestrial and Celestial Maps, laid down on the ground, the Groves embodying History, and the Muses, and Mythology, the Botanic and*

to measure the history and the development of the skyscraper is the Centennial Exposition in Philadelphia in 1876” (Starrett 1928, 13). William Le Baron Jenney was commissioned to design the Chicago office of the *Home Insurance Company* in 1883 and used, for the first time, steel beams for the higher floors, building “the first of all skyscrapers” (27). However, the architect Leroy Sunderland Buffington from Minneapolis started proceedings against Jenney, since back in 1880 Buffington had sketched multi-storied steel structures of twenty, thirty, fifty, and even one hundred floors. He named his dream buildings “cloud-scrappers” and made engineering calculations of the steel columns when only wrought-iron floor beams were used for building purpose (28). Buffington designed and detailed a building to be “constructed of any desired eight” (Christison 1942, 230). In that period, the city of Minneapolis was considered “capable of physical expansion to an unlimited degree” (220). Nonetheless, Buffington only patented his construction system in 1888. He delayed the application for his patent<sup>3</sup>, but the fact that he realized his design first largely defeats any legal prosecution for patent infringement. In the largely materialistic American society of the Gilded Age, a factual circumstance easily overcame intellectual property, even if it is now generally acknowledged that Buffington first conceived this building method.<sup>4</sup> Christison reports the words of the 1882 *Joint Annual Report* of the Minneapolis Chamber of Commerce and Board of Trade, depicting the optimism in unlimited growth in the building industry: “The extraordinary increase in its [Minneapolis’] population; the rapid advance in the value of its realty; the number and value of new buildings erected [...], are facts which, unsupported by the solid array of absolutely reliable statistics . . . might well challenge the credulity of those not personally familiar with the phenomenal growth and progress of Minneapolis” (219-220).

In the second half of the nineteenth century, known as the late Victorian Age, Britain celebrated its belief in the inevitability of human progress in Joseph Paxton’s glass cathedral, Crystal Palace, at the Great Exhibition of 1851 (Bunce 1994, 19). The cast-iron and plate-glass structure built in Hyde Park, London, was dismantled and rebuilt in a different and enlarged form on Penge Common in 1854, where it stood until its destruction by fire in 1936. Crystal Palace served as a formal prototype for the Garden Palace at the Sydney International Exhibition in 1879, designed by colonial architect James Barnet. They even shared the same fate since the latter was also destroyed by fire three years after its completion (Scholliers and Teughels 2015, 294). The power of the prototypical idea, Eiffel Tower being no exception, lies in the clash between the innovative technological advancement (plate glass, steel beams) and the new philosophical sensibility of the society. In fact, four Crystal Palaces were used in Robert Pemberton’s utopian city *The Happy Colony*<sup>5</sup>, at the very center of its concentric design of 1854, functioning as educational buildings. Here the architecture acquires a symbolic meaning, supporting Pemberton’s educational system which aspires toward spiritual transformation. It is an architectural metaphor for his society based on “beauty, value, and holiness of labor” (Morrison 2015,

140-153). The previously mentioned architectural prototype was adopted differently in the same place with “upgraded” dimensions, in another place with the same function, and finally, multiplied in the theoretical speculation of an abstract environment. The same logic could be applied to the Eiffel Tower and its relationship to the Great Tower for London.

### **ORIGINALITY IN LATE NINETEENTH CENTURY**

Despite the failure of Watkin’s plan, his company became the precursor to the Metropolitan line of the present-day London Underground system. Wembley Park station serves thousands of visitors as a popular recreational venue, and Wembley Stadium resides exactly where the tower was meant to be. The multiplication of landmarks, even groups of them, is only a late consequence of the need to overcome the previous one as a programmatic attitude. While the landmark is concerned with power, the duration of its form is drastically diminished. The paradox is that ours is the period in which form, being preserved beyond visual obsolescence, can be recovered most rapidly with philological ease<sup>6</sup>. Watkin actually invited Eiffel to design his iron lattice tower, as a contemporary commercial company would do for any *starchitect* signing an iconic architectural project. He declined the invitation, since French people would have probably seen this as a standing on the rival’s side,<sup>7</sup> leading the entrepreneur to plagiarize the icon and surpass it in terms of quantity.

It would have been even taller than Renzo Piano’s “The Shard”, the one thousand sixteen feet (three hundred ten meter) skyscraper completed in March 2012 that is the tallest mixed-use structure in Western Europe. A three-story skycourt on the thirty-first floor separates working and living spaces, offering an iconic view of London (Pomeroy 2013, 112), allowing the population first-hand experience of the inside of the icon.

An insight into the late nineteenth century notion of originality could be expounded through a singular thinker in the German intellectual landscape who offered his view on the metropolis as a newly built environment. Georg Simmel observed the contradictory nature of man’s rush to individuality, as the main goal of life, and his early-modern phenomenological approach better explains the entanglement of corporeal experience in visual practices (Schwartz and Przyblyski 2004). In his paper “The Metropolis and Mental Life”, published in 1903, he maintains, “Nietzsche may have seen the relentless struggle of the individual as the prerequisite for his full development, while socialism found the same thing in the suppression of all competition—but in each of these the same fundamental motive was at work, namely the resistance of the individual to being levelled, swallowed up in the social-technological mechanism” (Simmel 1971, 324). The subject became central in philosophical thinking when the metropolis, given the rules of life in the new built environment, unveiled a deep problem in the possibility of maintaining personal independence. The German author established a general theory of fashion<sup>8</sup>, the field of aesthetics in which the two opposite forces, one thriving for imitation (or replica) and

*Horticultural Gardens, and the Geometrical forms etc. and the Miniature farm in the center. The second circle contains the Manufactories, and Public workshops. All the ground enclosed by the houses are orchards. The Arboretum and Horticultural gardens occupy the fourth circle. The outer circle is the Park, three miles in circumference. The public buildings are colored in [crimson] Lake, the churches in dark red, and the Dwelling houses in grey.’*

<sup>6</sup> Consider the visionary architecture of Etienne-Louis Boullée and Eugène Emmanuel Viollet-le Duc that influenced twentieth century architectural theory facing the issue of iconic building.

<sup>7</sup> Gilles Milton (2015) reports “Watkin even approached Gustav Eiffel and asked if he would care to submit an entry. Eiffel politely declined. ‘If I,’ he said, ‘after erecting my tower on French soil, were to erect one in England, they would not think me so good a Frenchman as I hope I am.’” (187-188).

<sup>8</sup> The quoted text is taken from the reprinted article of *The American Journal of Sociology* originally published in 1904 on *International Quarterly*.

the other for differentiation (or change), coexist. Fashion “is the imitation of a given example and satisfies the demand for social adaptation; it leads the individual upon the road which all travel; it furnishes a general condition, which resolves the conduct of every individual into a mere example. At the same time it satisfies in no less degree the need of differentiation, the tendency towards dissimilarity, the desire for change and contrast” (Simmel 1957, 543). Piedmont-Palladino (2007) observes that the issue of the architectural copy intensified in the twentieth century when the scale of the projects increased to that of skyscrapers and infrastructures, involving the necessity to share a complex design with a team of professionals.

It is important to specify that architectural plagiarism, as has been highlighted in this text, is very different from that relating to paintings and sculpture. The latter involves the act of deceiving the audience, using the same canvas, paint mixture, and technique as the author (artistic forgery), or the theft of another’s work presented as one’s own (artistic plagiarism). Forgery has to be perfect, plagiarism can be modified at will; forgery produces a fake, plagiarism involves copyright and intellectual property (Dutton 1998). The ethical implications are different since “the historical damage of plagiarism”, according to Dutton, “is normally minimal because the plagiarist is stealing contemporary work for his own designs, to help his own reputation” (338). Society’s positive reception of plagiarism is linked to the role aesthetic empiricism plays in a certain interval of time in a definite geographical context. This is especially true in late nineteenth century Europe, where fledgling nation-states required symbols for constructing national identities, even updating or reconstructing the architectural heritage within historical revivals. From 1852, the French architect Eugène Emmanuel Viollet-le-Duc restored the walls of Carcassonne in medieval style; in 1856 Elias Rogent, director of the *Escuela Provincial de Arquitectura de Barcelona*, supervised the work of rebuilding the Monastery of Santa Maria de Ripoll as the symbol of Catalan identity; in 1902 the bell tower of Piazza San Marco in Venice was reconstructed after its collapse, compensating for the trauma of the loss of the symbol of Venice. While these buildings replaced the original, others were reproduced elsewhere, such as the 1895 American replica of the Parthenon realized in Nashville, Tennessee. Formerly built out of wood and plaster as an ephemeral landmark of the 1897 *Centennial Exposition*, its iconic effect on the visitors led to a concrete reconstruction of the replica (Martínez 2010).

### **THE RISE AND FALL OF COMMON UTOPIA**

The odd dream of 14,659-ton steel tower was valued at £352,222 (Lynde 1890, 83). “The plan being octagonal, the greatest stability with economy is obtained. An octagon affords a nearly equal resistance to bending in all directions. This plan admits of equally favorable views from all sides, and gives a sufficient variety of light and shade on its faces” (83), it is the *incipit* of the concise explanation of the tower’s features, barring the fiasco that will eventually come from the ground rather than the wind. “The style



adopted is of oriental character”, claims, “four lifts are provided up to the first stage, and two staircases situated in the legs of the tower. The principal stage is two hundred feet above the ground, and contains a large central hall, of octagonal form, 20,000 square feet area, and sixty feet high. Around the platform is a balcony. A hotel with ninety bedrooms is provided.” This is the only “functional” part of the tower. “A covered hall 10,000 square feet area is on the second stage; three lifts are provided from the first stage upwards, with other accommodation, such as restaurants.” The description ends with: “It is intended to be lighted by Electricity” (83). This description applies to the French tower too.

In the preface to the catalogue of the competition, Frederick Lynde (1890, 3-7) refers directly to the Eiffel Tower as the “most remarkable feature of the French exhibition of 1889” (3). He says that the striking form of the landmark is the “result of mathematical considerations upon the condition of [the] wind’s intensity.” Namely, the purest representation of forces opposed to those of natural elements. What follows predicts exactly the shortcoming: “the total weight of the Tower is distributed over a large area, which reduces the pressure per square foot upon the foundations” (3). On the fourth page an interesting treat is found. A drawing gathers the western architectural icons, such as Notre Dame, Saint Peter’s, the Washington Obelisk, together on an abstract plane which compares their height [Fig. 2]. This clear-headed analytical reasoning incredibly prefigures the notorious 2006 collage by *OMA* called *Dubai Renaissance*.<sup>9</sup> Both are cut-and-paste collages of the iconic buildings of their time without contextual references, grouped together to be compared in terms of their formal eloquence.

Today we experience distributed creativity, fragmented answers to custom issues. Is common utopia finally dead? Rather than dwelling on contextual features, the postmodern operator (architect or writer), is a *bricoleur* who concentrates his efforts on dealing with connections between parts, which are copies or rather, re-elaborations. While art and architectural education is traditionally based on copying (Piedmont-Palladino 2007), the postmodern operator wants to keep the influence of his masters at bay while moving through multiple references. It is all about references. The more the master-pupil relationship is an outdated form of education today, the more a diffuse creativity takes its place<sup>10</sup>. A cloud of personal visions and projects condenses brief and intense artistic experiences.

Postproduction enters the field of contemporary art and uses the same tools as the audio-visual sector: new artistic devices are based on “sampling” and “alteration”. On the whole, the use of the English prefix post- (“after”) reveals the urge to re-elaborate consolidated bodies of work and question postulates. The competition is a post-Eiffel critical analysis of the idea of the urban landmark: the impulse to be spectacular, and to also be Europe’s symbol, completely overrides the functionality of the structure. Uselessness is no sin at all. Lynde (1890) emphasizes that, “it is not too much to anticipate that, in the course of a short time, every

<sup>9</sup> See the project by *OMA* for *Design Properties* in Dubai. The description says, “The ambition of this project is to end the current phase of architectural idolatry—the age of the icon—where obsession with individual genius far exceeds commitment to the collective effort that is needed to construct the city.”

<sup>10</sup> Let us consider “private copy” a consolidated educational method in university faculties: the teacher asks his students to elaborate certain assignments so specifically defined that the multiplicity of sources is very narrow. In this case the final product will be similar to the master’s (Dutton 1998).

<sup>11</sup> Michel Foucault was a twentieth-century French philosopher who based his research on the forms of social control by institutions. In relation to disciplinary society, “Foucault analyzed and defined the mechanisms of discipline, which he called *dispositifs* – by which he meant a heterogeneous apparatus consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, and philosophical, moral and philanthropic propositions, all of which were involved in maintaining the exercise of power within a society” (Fontana-Giusti 2013, 83).

<sup>12</sup> Han is a South Korean thinker born in 1959. The present essay proposes his theories for two reasons: Han moved from Seoul to Berlin, where, on the one hand, he integrated into the German philosophical tradition mentioned in the present text, while on the other hand he developed the (violent) late-modern relationship between man and society, moving between social philosophers such as Walter Benjamin, Gilles Deleuze, Michel Foucault, and Martin Heidegger. The key notions are present in his famous essay *Fatigue Society* (Han 2010) and further developed in other works such as *Transparency Society* (Han 2012b) and *Agony of the Eros* (Han 2012a).

important country will possess its tall Tower”(5). Thus, the competition is based on figures and facts: weight, height, cost, and materials. The performance of the construction is limited to its ability to stand freely on the ground. It is not surprising that Dickens, in *Hard Times*, had the English bourgeoisie use the word “fact” as the means for dispensing with dialectic dispute (Dickens 1854). This urban climate is subsequently analyzed by Simmel (1971) in the aforementioned paper on the metropolis: “The calculating exactness of practical life which has resulted from a money economy corresponds to the ideal of natural science, namely that of transforming the world into an arithmetical problem and of fixing every one of its parts in a mathematical formula”(327).

### **THE IDEA OF RE-PRODUCTION: THE WEST AND THE EAST**

The process that leads from the architectural prototype to its reproductions has different meanings in western and eastern cultures. Since European twenty-first century society is no longer the “disciplinary” one described by the French philosopher Michel Foucault,<sup>11</sup> Byung-Chul Han’s view<sup>12</sup> could disclose the actual mechanism of production: ours is a “performance society” (*Leistungsgesellschaft*), and it clusters “individuals of performance” rather than “individuals of obedience”. One is self-employed in the process of production, being a victim and an oppressor at the same time, focusing more on what one can do rather than what one cannot. The positive attitude of the subject, in conditions of self-compulsion, Han says, is far more productive for his society and eventually leading to more frequent psychological burnouts. The West and the East have different attitudes toward production and the idea of creation. *Shanzai*, to use Han’s Chinese neologism that is best translated as “fake”, is the deconstructive method by which the authority of uniqueness appears nonsensical as the category of the counterfeit. As Roland Döker noted in a July 2011 *Literaturen* article about Han’s work, “the West, one could conclude, cultivates a museum-like commemoration of dead origins, the East exists at the center of a living tradition that is cyclically repeated.” The holy *Ise Shrine* in Shintoist Japan is an example: “every year millions of religious pilgrims visit it in the belief that the sacred building is one thousand three hundred years old. In actual fact, the temple complex is completely renewed every twenty years. Not only is the building carried off and built from scratch but all the treasures inside it are removed and replaced, whatever can be burned is burnt and any metal is buried in the earth.” There is no difference between the original and the copy, the new *Ise* is built next to the old one, and the ritual creates the double of the monument before its demolition. Therefore, while the physical quality of the monument proves authenticity in the West, the reconstruction in the East shows that bequeathing centuries-old craftsmanship techniques to the next generation is an integral part of architectural heritage (Gavinelli 1997; Venegas and Mileto 2003). Authorship in architecture, which is itself problematic since the designer and builder are not the same operator, arises from the relationship between culture and its past. Theo-



ries about scientific intervention in architectural heritage and the refusal of replicas appeared, in Europe, as a reaction to the arbitrary restorations of monuments in the late-nineteenth century (Martínez 2010). In fact, Watkin could think of duplicating and upgrading an existing landmark, built elsewhere, without loosening efficacy of the icon compared to its formal prototype. I have advanced Simmel's position, and opposed it to the organicist view of Comte and Durkheim, because of its anticipating conception of society as a network of interactions between individuals whose selective perception gives form to contents. His perception of the centrality of information technology, in creating a bond of trust toward industrial nineteenth-century capitalism, surprisingly conforms to Foucault's thinking about technologies of knowledge (Kucich 1994, 19-21). And a tower erected with private investment, and of which Londoners would have been proud, was part of the bond.

### **MODELS AND RE-ELABORATIONS: TABLE OF THE COMPETITION PROTOTYPES**

Given the entire proposal framework, seven categories have been identified. If the aim is to find the *essence* of the idea of landmark, and this being the case, in a certain geographical and chronological interval, the operation of setting up the pattern of sixty-eight designs is convenient. Here *essence*, in Aristotle's sense,<sup>13</sup> is the sum of the minimally necessary attributes of a thing, as distinct from the others that are accidental. Now, if a sensible thing is the unfolded potential of a Form, a "theory of change" represents a reliable cognitive tool. In other words, it is convenient to use a nineteenth century analytical device, when new privileges were accorded to observation, and evolutionism revealed the continuous network of species (Foucault 2002). In the new system of knowledge, things were analyzed in terms of their internal temporal development and not as a spatial series (Fontana-Giusti 2013, 31). Moreover, the internal development of architecture should have been seen as the modification process of the grammar of a prototype: "The same can be said for the inverse system of the prototype and the terminal species. [...] The project of a complex being towards which nature makes its way from the starting-point of simple elements which it gradually combines and arranges" (Foucault 2002, 168). The proposed table<sup>14</sup> is the following [Fig. 3]:

*Eiffel Tower* (the most relevant category and the one including the winner; average-max.-min. height 1,367-2,007-1,198 feet; weight 13,698-32,000-6,000 tons; cost £409,029-£1,300,000-£40,957).

A spear with a differently marked curvatures. It has at least four radial supports, and cross bracing. The load-bearing scheme determines the aesthetic outcome: static balance shapes the tower and identifies a precise hierarchy by means of the thickness of the structural elements. The spear has one or more observatory decks.

<sup>13</sup> See the first chapter about the relationship between architectural typology and history of architecture in *Las variaciones de la identidad: Ensayo sobre el tipo en arquitectura* by Carlos Martí Arís (1993).

<sup>14</sup> Please note that every design has been categorized on a probabilistic base, the map of knowledge is drawn by homology of visible characters. Given the framework of the analyzed features, and considering the infinite number of possible frameworks, it is the most suitable according to the author and open to question. Foucault (2002) demonstrated how a "theory of signs analyzing representation", namely the "arrangement of identities and differences into ordered tables" (79) constitutes a *taxinomia*. The latter establishes "the table of visible differences; [...] treats of signs in their spatial simultaneity, as a *syn-tax*; [...] *taxinomia* functions as an ontology confronted by an apophantics; confronted by genesis, it functions as a semiology confronted by history. It defines, then, the general law of beings, and at the same time the conditions under which it is possible to know them" (82).

*Bell Tower* (the cheaper category; average–max.–min. height 1,261–1,400–1,200 feet; weight 20,956–32,000–7,890 tons; cost £245,222–£372,266–£130,000).

Based on a square or circular plan, straight or slightly tapering to the top. The structure is mostly massive barring some levels open to view. Given the form of the plan, it cannot reach remarkable heights without enlarging the base perimeter. The construction recalls European bell towers that historically served as principal urban landmarks.

*Tower of Babel* (the most expensive category; average–max.–min. height 1,585–2,296–1,200 feet; weight 76,895–312,550–9250 tons; cost £1,109,027–£3,159,500–£313,789).

Despite the tower being solely imaginary, its image is commonly rooted. The main feature is the vertical massive bulk, placed in the center of the construction. An infinite *promenade* runs round the edge connecting each level. The bulk, which can be tapered or straight, has a human-sized basement. The idea of a continuous *promenade* signifies the act of rising to be shared and made visible.

*Castle* (the least relevant category; average–max.–min. height 1,266–1,355–1,200 feet; weight 17,150–26,500–7800 tons; cost £948,575–£1,687,900–£209,250).

The structure displays groups of pinnacles and needles, massive walls and small openings. It gathers figurative references to defensive structures, like towered corners. The simple symmetry is a common rule of the composition, and the sole tool in designing the facade.

*Gothic cathedral* (the only non-civic building reference; average–max.–min. height 1,523–2,000–1,296 feet; weight 48,775–142,207–19,470 tons; cost £454,157–£674,592–£120,000).

An imposing structure referring to the image of the magnificent gothic cathedral. It displays a portal, flying buttresses, and light elements resembling a clerestory. The structure has pointed arches and pinnacles intended to arouse a sense of verticality. Sometimes a steel rose window is implemented.

*Tent* (gathers the lighter structures; average–max.–min. height 1,215–1,274–1,070 feet; weight 10,512–16,000–6278 tons; cost £291,970–£537,800–£107,000).

The construction refers to the figure of a temporary structure, truncated, cone shaped, and hosting collective events on the inside. It is the result of a geometrical rotation of a curvature around a vertical axis generating huge roofing. The figure, mostly based on a circle, has a uniform envelope evoking textile patterns.

*Montage* (includes the 2nd prize; average-max.-min.1,328–1,500–1,200 feet; weight 13,057–29,891–3256 tons; cost £331,702–£500,000–£155,080).

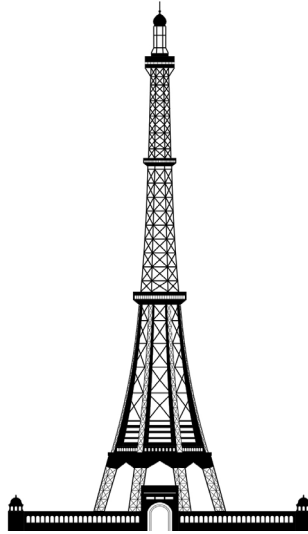
It is the outcome of a process in which parts of different styles have been welded together. Often, the massive one is used as a basement, while the higher part is lighter. Although many construction materials have been used, the outcome is completely unpredictable. The only feature they have in common is the possibility to be left out of the categories within the same collage process.

The proposals were mainly from England, but also USA, Scotland, Wales, Italy, Austria, Australia, France and Turkey. The total height ranges from 1,070 feet (326 meters) to 2,296 feet (700 meters) and an average measure of 1,200 feet (366 meters). The weight and the cost varied significantly, the first ranging from 3,256 tons to 142,207 tons and the second between £40,957 and £3,159,500.

If any of these types had failed to persuade the population of the convenience to build an observatory tower, the board would have played the therapeutic card: “Doctors in Paris have already discovered the benefits to be derived by patients suffering from pneumonia and throat affections, and many under their advice have availed themselves of the ‘pure air cure’ on the Eiffel Tower with very beneficial results, thus the Tower may be utilized in the interests of suffering humanity” (Lynde 1890, 7).

Fig.1. The winner of the competition was a 1,200-foot (366-meter) copy of the Eiffel's tower by A. D. Stewart, J. M. MacLaren and W. Dunn of London. The original design was a truss tower on octagonal basement, 300 feet (91 meters) wide, reduced finally to four legs. Text retrieved from the original proposal and image rendered by Giuseppe Resta on the base of the submission.

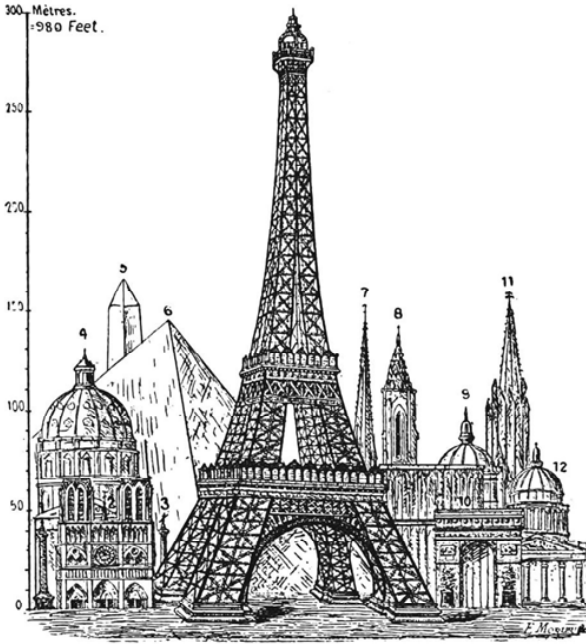
**LIST OF FIGURES**



**Design No. 37**  
The First Prize of 500 Guineas was awarded to this design  
**A. D. STEWART,**  
M.Inst.C.E.  
2, Queen Square Place, W.;  
**J. M. MACLAREN and W. DUNN,** A.R.I.B.A.  
21, King William Street, Strand, W.C.

**PARTICULARS.**  
Height: 1200 feet.  
Base: Octagonal, 300 feet diameter.  
Weight: 14659 tons.  
Material: Steel.  
Cost: £352222.

**CHIEF FEATURES CLAIMED.**  
The plan being octagonal, the greatest stability with economy is obtained. An octagon affords a nearly equal resistance to bending in all directions. This plan admits of equally favourable views from all sides, and gives a sufficient variety of light and shade on its faces. The style adopted is of Oriental character. Four Lifts are provided up to the first stage, and 2 staircases situated in the legs of the Tower. The principal stage is 200 feet above the ground, and contains a large Central Hall, of octagonal form, 20,000 square feet area, and 60 feet high. Around the platform is a balcony. An Hotel with 90 bedrooms is provided. The walling is formed of 3 thicknesses of plaster on wire netting fixed to iron studding forming 2 distinct air spaces. The Floors to be of concrete and steel. A Covered Hall 10,000 square feet area is on the second stage ; 3 lifts are provided from the first stage upwards, with other accommodation, such as Restaurants, &c, &c.  
It is intended to be lighted by Electricity.



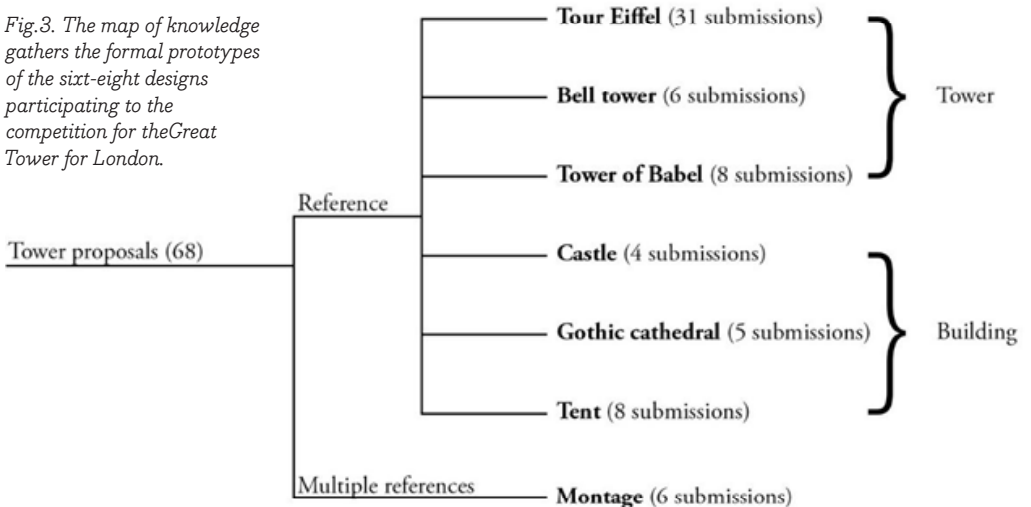
THE EIFFEL TOWER.

	Height in feet.	
1. THE VENDÔME COLUMN, PARIS ... ..	147	6. GREAT PYRAMID OF EGYPT 479
2. NOTRE DAME, PARIS ...	217	7. ROUEN CATHEDRAL ... 492
3. COLUMN OF JULY, PARIS 154		8. STRASBURG CATHEDRAL 467
4. SAINT PETER'S, ROME ... 433		9. INVALIDES AT PARIS ... 345
5. WASHINGTON OBELISK ... 554		10. ARC DE TRIOMPHE, PARIS 160
		11. COLOGNE CATHEDRAL ... 521
		12. PANTHEON AT PARIS ... 279

Fig.2. Illustration of the most important landmarks of the time compared by height and form. In Lynde, Frederick C. 1890. Descriptive illustrated catalogue of the sixty-eight competitive designs for the Great Tower for London. London: Industries, 4.

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Fig.3. The map of knowledge gathers the formal prototypes of the sixt-eight designs participating to the competition for the Great Tower for London.



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# A “REINVENTED” CITY<sup>1</sup>

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**Dr. Dénes Tamás**

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## **ABSTRACT**

*In this essay I will interpret and analyse the process of restoration that has been under way in the past five to six years in the Transylvanian city of Sepsiszentgyörgy. I will use an aesthetical-semiotic reading to uncover what meanings the places, buildings and public places of the city may specify for its inhabitants.*

*My analysis aims to verify two hypotheses. My presumption is that the renovation of the city brings back ideologies of the bourgeoisie: that the designers are trying to symbolically reinvigorate 19th century civic ideals. At the same time, it is predictable that while this renewal is partially a reawakening of tradition that has been radically eradicated, the result can only be a conglomerate of dispersed, indicative, but ultimately empty symbolical forms which are mostly discredited by the very context they come to be in. Thus only a simulacrum of the old civic ideals can be achieved.*

*In this analysis I also question the possibilities of urban development that exist for post-socialist cities of the Middle and Eastern Europe.*

*#post-socialist, #urban development, #bourgeoisie (citizenry), #simulacrum*

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## INTRODUCTION

There aren't many places more interesting than post-socialist cities for urban research. Compared to developed western cities, post-socialist cities are very different regarding their history, present state and possible future. The delay in their development, their relatively short civic history, the remnants of rural characteristics in towns, the enforcement of urbanization, the forced and failed industrialization, and the massive effect of the socialistic city planning has led to a very fragmented cityscape which is contradictory in its challenges and very different from developed Western cities with a significant civic history<sup>2</sup>. Since 1989 the post-socialist cities have found themselves in a new historical situation in which they needed to reinvent themselves whilst trying not to lose sight of the once devalued past but at the same time catching up with the accelerating present while reckoning with the cumbersome legacy of socialism. Most post-socialist cities could not cope with these challenges and not always because of lack of funds. This situation called for long-term planning and complex answers together with an idea of the city that is primarily defined by its inhabitants “right to the city” (Lefebvre 1991). Instead they responded to the immediate needs resulting in ad hoc decisions which only added to the already fragmented state of these cities.

This complex situation is present in the city I have chosen for my analysis, Sepsiszentgyörgy, which in the past five to six years has undergone urban renewal and transformation. This renewal was initially aimed at the public squares and spaces of the city and quite a few buildings have been renovated. It is nonetheless important to note, that although it is by far a finished process and the renovations are still underway, it is already possible to circumscribe and scientifically analyze the results of this work. In my analysis I will verify two hypotheses. My presumption is that the renovation of the city brings back ideologies of the bourgeoisie: that the designers are trying to symbolically reinvigorate the ideas of the 19th century civic ideals. To some extent this is logical because these architectural elements are present in the city and, although fragmented, they do define the image of the downtown area. At the same time, it is predictable that while this renewal is partially a reawakening of tradition that has been radically eradicated, the result can only be a conglomerate of dispersed, indicative, but ultimately empty symbolical forms which are mostly discredited by the very context they come to be in. Thus only a simulacrum of the civic nature can be achieved.

<sup>1</sup> This essay is the extended and updated version of my essay entitled “Sepsiszentgyörgy reloaded” 2011. In: *The Chair: Visual Encounters with Power*. ed. Bakó R.K. 77-86, Kolozsvár, Transylvanian Museum Society.

<sup>2</sup> Regarding this see also: Bodnár Judit. 2013. *A különbség megalkotása: A nyugati és nem nyugati, a kapitalista és a szocialista városlogika szembeállítása*. 455-479.

I will reveal this simulacrum by tracking the civilian's path defined by the spaces and places within the city. In following this path we can also discover the pitfalls and possibilities that exist for post-socialist cities in Middle and Eastern Europe.

### **THE METHODS OF APPROACH**

Nowadays, research into cities is not solely based on the definition of the city as the high-density permanent settlement of socially heterogeneous persons (Wirth 1938). Relative to this overly sociologistic definition, the concept of the city has expanded since the 1960s and new aspects of it come into play. Of these, the spatiality, and the relation between spatial and social processes will be my focus in the following analysis. The theory of this relation is based on the so called "spatial turn", concepts and theses of which have since evolved and have positively influenced a lot of research (Jo Guldi 2014). Not by chance does Ana Maria Rabe say that the "concept of space is experiencing a boom today" since the concept of space is often debated in relation to arts, society, politics and culture also.

My analysis is based on the spatial concept of Henri Lefebvre. For Lefebvre, space is a social structure defined by values, meanings and interpretations (Lefebvre 1991). Space is not an empty place in which happenings take place, but the structure of ideologies and meanings. In a dialectical relationship space is the creator of identities and can express the dimension of history. Lefebvre, like David Harvey (Harvey 1973), speaks of urban spaces as sites of social reproduction, space is produced by social structures: these could be economical, conceptual, or political. In other words, as the power of structures to produce spatial images, by which he means the structures of capitalism which are understandable since the city cannot be separated from the capitalist production dynamics (Castells 1978, 18). Post-socialist cities are more complex in this regard too, since they carry the socialist legacy, which is not an image of the capitalist mode of production, more an expression of a political will—which could be that of the state, the party or the designer.

If we link the concept of space to the concept of power we actually express the Foucauldian thesis of omnipresent power, which says that power is everywhere because everything draws from it. Though Foucault's research was primarily focused on the relation of power and knowledge he is the one who called the twentieth century the century of space in which simultaneity, syntheticity, closeness and distances matter (Foucault 2000, 147) as opposed to the nineteenth century, which was a century of time. This turn demands a change of methods for approaching urban space. When we research the manifestations of power in urban space we are actually researching the structure of space, its power of preserving and expressing significance/meaning, and the characteristics which tell us what may be

done, and how, at different places in the city. These possibilities also tell us who we are as the users of these spaces.

Obtaining results for the research described above is not a neutral work, but a critical task which is pursued by critical urban theory, which is quite fashionable these days. Critical urban theory emphasizes the mutable characteristics of urban space politically and ideologically conveyed and formed in social struggles and points out that “the incessant (re)building of the city is the site, conveyor and product of social power relations” (Brenner 2013, 22). Critique reveals those forms of power, exclusion, injustice and inequality that come from the capitalist social structures. This goes together with the research of the alternative and emancipatory possibilities of urbanism, possibilities that are present in cities but are suppressed (Brenner 2013, 30).

We also find forms of exclusion and inequality in post-socialist cities. It is important to note that in the case of these cities capitalist relations could only manifest themselves in the past twenty-five years and these were mainly characterized by disregarding the residential sections built under socialism, concentrating their renovation efforts on downtown areas. As to how these projects were carried out and how successful they were, we will see through the example city I have chosen for my analysis.

For the critical approach to be visible we need to be able to read the city, to be able to understand the signs. The “reading” of space is not an easy task even if we do it continually while contributing in a creative way in the realization of possibilities coded in the given spaces. Visible urban space is fundamentally different from the space based on participating, moving, experience, as Michael de Certeau says in his essay entitled “Walk in the city” (Certeau 1984). Walking in the city actually contributes to the realization of possibilities given by the constructed spaces. The critical viewpoint has a hard job, since the power manifesting in the public spaces often likes to hide behind masks, appear in non-expressive ways which impedes recognition of its real nature. On the other hand, the power of space oftentimes can only manifest in time which makes all methods of analysis and interpretation based on synchronicity inadequate. Thus a diachronic view is also needed to interpret the historical processes in relation to which the meanings of space can be interpreted. The next section is dedicated to creating such a perspective in which I will look through the “impossible” and “uncontainable” legacy of Sepsiszentgyörgy.

### ***THE “IMPOSSIBLE” LEGACY***

Sepsiszentgyörgy, the county town of Covasna is an average sized Transylvanian city with 5,400 inhabitants according to the 2011 census. This settlement gained the rank of city in the 15th century and followed the development path of many similar Transylvanian cities. The city’s development and architectural heritage was defined by three

<sup>3</sup> See also: Augustin Ioan, Ciprian Mihali: Privirea pașilor și mersul ochilor. Studiu de caz: Cluj. In. Augustin Ioan - Ciprian Mihali 2009. Privirea pașilor și mersul ochilor.

<sup>4</sup> See also: Augustin Ioan, Ciprian Mihali: Vitrinele național-comunismului. In. Augustin Ioan - Ciprian Mihali, 2009.

major social changes. The scope of these changes is proved by the fact that the number of inhabitants multiplied by several times and changed considerably.

These changes are manifest not only at the level of the city, they are integrated in the context of socio-political changes that define the region and the country.

The first radical change came during the Austro-Hungarian monarchy, which lasted from the mid-nineteenth century to the First World War, when the civic nature of the city was built in a characteristic neo-classical and art nouveau style of architecture. During this time, the original marketplace plaza gradually becomes a park, and the buildings which are still emblematic are built: the block of the old "bazaar", the library, the city hall, the theatre and the buildings of the Székely Mikó boarding-school. (Cserey & Álmos 1999)

The second change came between the nineteen sixties and seventies, when the strengthening of communist rule began a great attempt at urbanization, to which most of the county towns fell victim. A complex yet violent project started that changed the city on a social and architectural level.

We speak of social change because in this period great numbers of people whom till then had lived in rural areas were settled in this remote industrial city. The great apartment buildings of the city, which sometimes extend into the downtown area, were built for them. These people were torn from their natural living space and they had to accommodate to living among standardized circumstances, losing the buildings and spaces they knew. These people were made to live in new circumstances where they could not experience the openness of public space because their urban spaces were organized around the closed community of a stairwell or the institution of governing power.<sup>3</sup>

Interesting materializations of this technique are the tribunes where the high-ranking functionaries or the dictator himself could make their speeches. The space towards which the tribune faces is not for the free association of civilians—which would be a completely empty and unstructured space—but for the gathering of a faceless crowd which is ordered to be there.

The new architectural changes sought to symbolically enforce the new power relations. This also manifested in the destruction of remnants of civic and historical heritage. The typical buildings of socialist urban design were built in this period, such as the house of the party, the community center, the shopping center, and the hotel.<sup>4</sup> This new architectural wave peaks with the renewal of the city center. Many civic type houses are torn down and because the old city center does not permit many changes, a new city center is designed on a hillock behind the old center which bears all the hallmarks of architectural socialist realism. In this new center they placed the equestrian statue of Mihai Viteazul, who is nationalistic symbol of the communist dictatorship and completely alien to the history of the city.

The turn of '89 cannot overwrite these two massive changes in the architecture of the city. After the revolution only three types of buildings are erected: churches, banks and supermarkets. Banks are built primarily among socialist type buildings representing a type of modern/post-modern style and creating a new city center. At Sepsiszentgyörgy as at any other such city the surrounding hills will soon be built with villas and houses of the “winners” of the revolution creating a colorful patch that cannot be integrated in the city. At the same time, after '89 a de-urbanization process takes place with more and more people moving out to surrounding rural areas. We also have to consider a drastic decreasing of population since in the last twenty-five years the population of the city has decreased by fifteen thousand.

The presence of the equestrian statue of Mihai Viteazul also draws attention to another ambivalent aspect of the city, of the Romanian-Hungarian national opposition, which also surfaces in fruitless squabbles about the past (Tapodi 2014). These squabbles are mostly about the naming of streets, the erecting of statues, and the designating of memorial places which further fragment the already fragile image of the city.

These are the cultural and architectural challenges that awaited the designers when they embarked upon the renewal some six years ago, and the results of which are what I would like to analyze in this essay. I made reference to an “impossible” heritage in the title of this section, and I believe I have managed to reveal the main points of this complex legacy. But why is it impossible? Nowadays every city exists as a well-defined conglomerate of its own historicity. Not to mention that the cities of today are threatened by a loss of character, of identity, as Rem Koolhaas says in his text *The Generic City* (Rem Koolhaas 1995). But in the Western European cities these layers of historicity are clearly defined spatially and the city centers have mostly remained intact which helped them become musealised. Contrary to this, Transylvanian cities, including Sepsiszentgyörgy, have a much weaker historical background with a lesser civic heritage and are characterized by a lateness. The power that overtook them was highly organized, and its modernizing techniques—rebuilding and destroying—managed to undo the civic heritage, putting something in its place that should not be continued. Thus we simultaneously have to deal with a broken tradition and a heritage that cannot be continued but also cannot be disregarded because of its massive presence. In this situation, what can a renovation take as a starting point, considering that the start of renewal is late to begin with, and since the renewal is also at the same time an act of identification? The design of public places and the city buildings says something about the city itself. Figure 1, below, illustrates the problem that the designers and decision-makers were faced with.

In this photo, which shows the state of the Szabadság square a few years ago, the Fogolyán-house is visible between a block and the



Fig.1. Fogolyán house

new County Council Building—illustrating the dividing line between the civic and the socio-communist world. But what is important is not only the break-line but also on the wedging. The picture suggests that civic nature must be freed from the grip of the socio-communist way of life. Since Sepsiszentgyörgy has a well-defined city structure and building complex it is clear that this freeing can only be achieved through the symbolic occupation of space by redesigning public squares. Question: can an attempt like this manage to create authentic forms or merely over-extended, atavistic and self-revealing forms? What do the squares and objects placed in the squares say about the inhabitants of the city? Can these squares be reclaimed after the destruction of the communism? Can this transformation help us to become closer to these squares, to understand them again, to bring the ideal of the civic inhabitant to life again?

I will attempt to answer these questions by following the path of the “imaginary citizen” through the public spaces of the city. The concept of “imaginary citizen” is a tool concept which means the city dweller of today who encounters the results of reconstruction as he walks the streets of the city. I should note that not all the changes will be described, only those which possess a hint of ideological intention or meaning. The stopping points on this route are “stations” with imaginative names, and I will depict them with photos. I will then

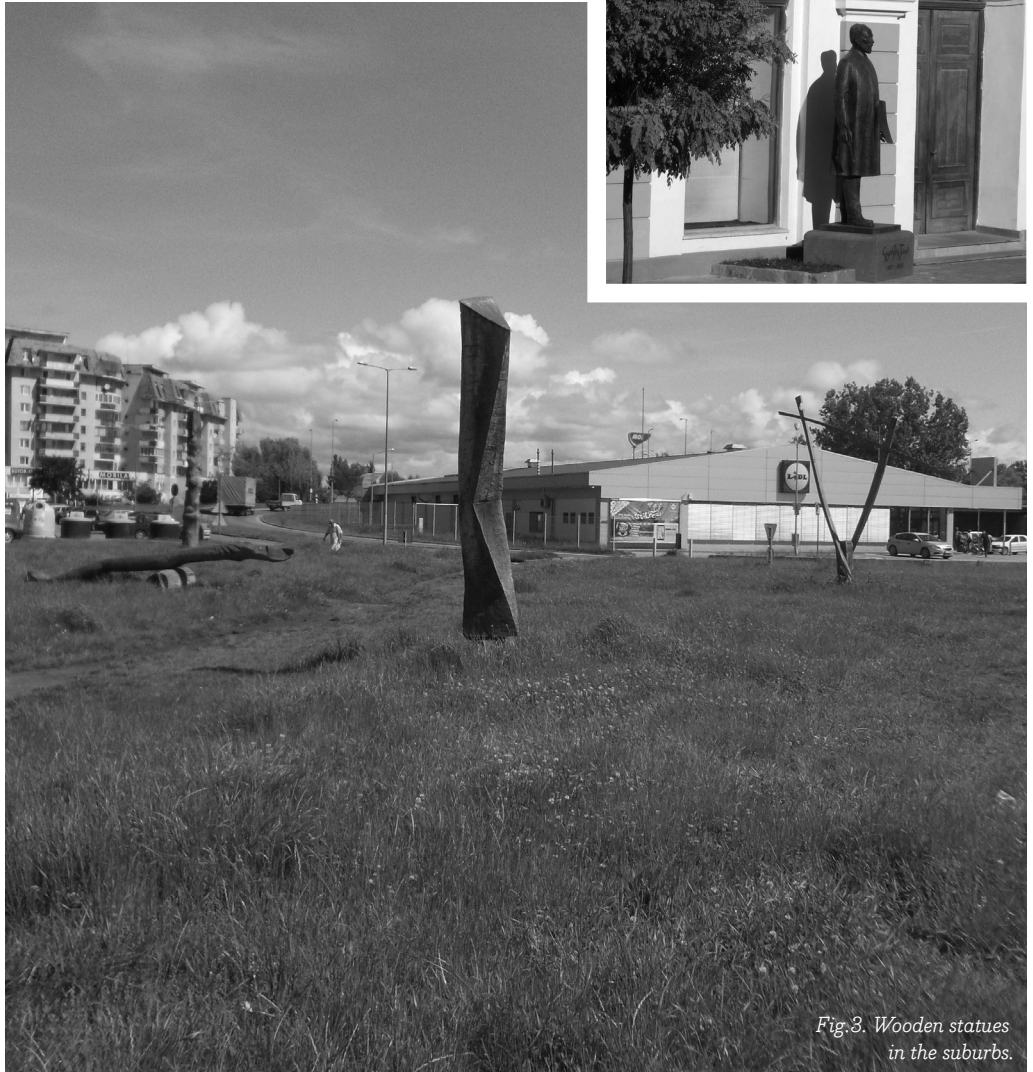


try to understand what kind of real and imaginary messages these stations relay to the city dwellers and how they try to provide meaning to those passing by. At the same time, I will signal the way the place itself relativizes and reveals the meanings. The analysis is not historical; I only interpret the intention of the makers when necessary because I primarily try to show the places with an indicative value. My analysis is understandable without a deeper analysis of the civic nature and lifestyle since they and their factual relations and relating habits are part of common knowledge today.

## **THE PATH OF THE CITIZEN**

### **I. “The patron of the arts” station**

*Fig.2. Statue of Gyárfás Jenő.*



*Fig.3. Wooden statues in the suburbs.*

<sup>5</sup> See:  
<http://www.sepsiszentgyorgyiinfo.ro/index.php?page=209&pid=840>

In recent years, the public squares of the city have become filled with statues and artworks, mostly made out of wood.

Regarding the statues, the intent is clear: they wish to commemorate the creators and officials from the nineteenth century who founded or ran an important institution (city hall, schools, and galleries). The official language uses the term “institution-guard”, which attaches these institutions to the spirituality of the golden era of the city in the nineteenth century.<sup>5</sup>

In the nineteenth century, art became part of the civic leisure time. This not only meant the patronage of arts, but also their “consummation”. The civic city dweller frequented the opera, the theatre, and galleries, donated to art and bought paintings—he loved art. Therefore it was important to give opportunity to the manifestation of these art forms. Many of the wooden sculptures exhibited in the squares (most of them the work of local artists) can be interpreted as such. These statues have no local meaning, no message to convey, they are decorative items, and yet, placed in these squares, these works of art no longer represent the auto-intelligible art work: a certain mediation between the place and the ideals singularly conveyed by the work of art is necessary. These wooden art pieces remain stranded and void of meaning in a space defined by an apartment block, trashcans, and a supermarket. Their dispersed meaning can only communicate the desire to have a city that is filled with artworks.

Fig.4. Artificial lake in Erzsébet park.

## II. “The bridge of recreation” station





Relaxation in nature has always been meaningful for the city dweller, so the possibility had to be presented within the body of the city. The central Erzsébet-park which lies on many hectares can satisfy such a need.<sup>6</sup>

One of the major focuses of the renewal of the city has been this park. The park has been redesigned, some pathways covered with flagstone, a rock-garden was made, new plants and trees were planted. The most important feature was a small artificial lake with its own flora and fauna and a bridge arching across it. This micro-world in the middle of the urban environment had to make the encounter with nature real.

In this sense, the role of the bridge is the most revealing since it no longer has the function of connecting hard-to-reach places but merely creates an illusion of connection. The person crossing the bridge is not getting from one point to another, instead they realize a moment of recreational time outside the average workdays. The inhabitants quickly recognised this and it became a favorite photo-spot for people and newlyweds.

### III. “Let the music play” station

<sup>6</sup> It is important to note that the park was named after a lime tree circus planted in the memory of Elizabeth, Austrian empress and Hungarian queen. Better known as queen Sissi, she is highly regarded in Hungary and Transylvania, her memory is preserved in numerous films and monuments. The city since long is planning to erect a statue to her memory.

Fig.5.  
Bandstand in Erzsébet park.



In the park there is a pavilion known as the “Mushroom” which in civic times was the place of the wind orchestra. The city administration is trying to revive this tradition which is made possible by the existence of many wind music groups in neighboring villages. Tradition is overwritten however, and the temporary nature of it is revealed by the row of seats set in front of the “Mushroom”. The pavilion music was originally entertainment for the citizens out on a walk. The pre-set seats draw attention to the meaning of listening to music and thus it obtains an importance beyond its tradition.

#### IV. “The moment of poetry” station

Fig.6. Yellow rose arbor.



The yellow rose bushes in the picture and the plaque in between are the realization of a curious idea. On the plaque there is a quotation from Jókai Mór’s book *Yellow Rose*. Jókai Mór is one of the most important representatives of the Hungarian national romantic literature and his works still enjoy great popularity. The design projects this work into the space of the city as the effectuation of civic sentimentalism and visual sentimentality.

**V. “The connoisseur of historical tradition” station**



*Fig.7. Hussar statue in the playground*

Traditionalist movements, and among them the hussar movement to preserve the tradition of the 1948 hussars, are greatly appreciated in Sepsiszentgyörgy. On prominent festivals, especially the 15th March, there are hussar processions, and in recent years there have been hussar recruitments in surrounding villages with the participation of high-ranking officials and politicians.

The preservation of tradition and the popularity of this movement could be the reasons why an equestrian hussar statue was erected in the park, however, the choice of location questions the seriousness of the act since the statue is in front of a playground. With this placement there is an uncertainty surrounding the work of art because for the simple viewer it is not immediately clear whether the statue is part of the playground or not. On the one hand it seems to blend with the playground equipment, but, on the other hand, it cannot be used for playing, and it cannot be climbed. This uncertainty lingers and discredits the seriousness of the intent of preserving tradition.

**VI. “Under the virtual cover of national idea” station**

The civic culture formed and strengthened in the nineteenth century is not merely a lifestyle but also the carrier of nationalist ideas. It was the time in which cultural identity was defined

*Fig.8. Hotel Bodoc.*





<sup>7</sup> See also. *Sásdi Ferenc. Magyarország kultúrája a hosszú 19. század első felében.*

<http://korok.webnode.hu/products/sasdi-tamas-magyarorszag-kulturaja-a-hosszu-19-szazad-első-feleben-1790-1849-1/>  
(Megtekintve: 2016-02-07)

<sup>8</sup> *In this era the national-historically influenced painting discovers events of Hungarian history as subjects for artwork. Imposing artworks are made in this period like the Feszty-panorama painting, painted by Feszty Árpád which can be viewed as the predecessor of the Transylvanian-panorama done by Polish and Hungarian painters*

linguistically and the nation was thought as the total inhabitants living on Hungarian territory.<sup>7</sup>

The Transylvania panorama-painting painted in 1897, which depicts the battle of Nagyszeben on 11th March 1849, represents an era that was gradually becoming aware of its own national self.<sup>8</sup> A reduced reproduction of this painting is exhibited on one of Sepsiszentgyörgy's squares in front of the now ruined Hotel Bodok. This hotel is the most impressive realization of the socialist urban renewal project. To complete the hotel, builders needed to tear down a significant civil structure, the Bogdan-house, which stood where the reproduction painting now stands.

The sight of this iconic solidity perhaps expresses most accurately the contradictory nature of the effort that is trying to renew a civic nature in a city that is ruled by mutually exclusive traditions. The reproduction is intended to hide a manifestation of the past—that which stands significantly taller than the idealism attempting to hide it and thus does not disappear from view.

This relation has been modified somewhat in recent years as is shown in the next picture.

The reproduction remained as a sort of an exhibition where, at the time of this picture, the new and old buildings of the city are both visible. The hotel was covered with an enormous veil which shows a tree composed of pictures of the city on its branches. Meanwhile the



Fig. 9. Statue of St. George the Dragon Slayer.

renovation of the main square has begun, and as a first step a reproduction of the statue of St. George, made by the siblings Márton and György, was installed. The original of which can be found in Hradcsing yard in Prague, and was made in 1373. We have to note that though this statue represents the legend of the city's defender it is not otherwise linked to the history of the city.

## CONCLUSIONS

The walk of the civilian stops here, upon reaching the multitude of veils, pictures, and reproductions that ought to serve as a reminder of his own self. On the path he walked he encountered manifestations of different significations which prescribe a certain modality of space usage. The civilian defined by the sites is mostly one of the nineteenth century. The sites I chose—the number of which can be increased—symbolically show these traits. The characteristics that these places try to reflect are: art-loving, hiker, music lover, sentimental, traditional, and historically knowledgeable. It is testament to the force of these places that they can express the civic identity of a city partially obscured by its own history.

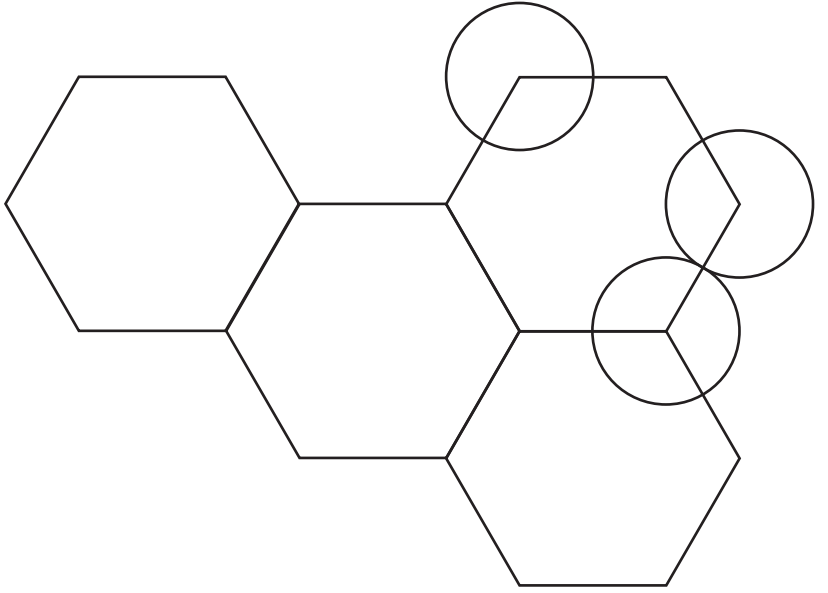
The interpretation of the renewal cannot stop here however. In the short descriptions of the pictures I tried to suggest that this effort cannot prevail on its own. The image of the city is much too fragmented, contradictory, and the effort itself is rushed, even pushy. A good question is what term should we use to describe this effort? Is it a redesign, or more a remake, like the remaking of an old work?

I believe that where veils, pictures, and reproductions are present the use of the word simulacrum is well-founded. The concept of simulacrum, which is an invention of Jean Baudrillard, refers to a conglomerate of significances that stands in place of the old, that are trying to bring back the old in a context when the original is no longer achievable (Baudrillard 2012). The original here would be the civic nature that needs to be imported from time and inserted within the city so it can gain a new identity.<sup>9</sup> Thus the process of creating a new image for the city is not about urban development but about a turn back in time. But this turn back cannot be wholly effective because the remnants of socialist realist architecture and the hallmarks of forced modernization are unavoidably there to deal with. Since the civic nature is not a continuous tradition, these instances taken through time and inserted in various places might seem overdone, partial or even comical. Perhaps it would be best to treat the ideas of the bourgeoisie as a tradition to be preserved instead of a possibility of revival. It is fruitless to seek for the real subject of the public sphere, the citizen, if the spatial conditions of this public sphere are only there as a simulacrum. Perhaps, instead of ineffectually trying to conceal the legacy of communism, we should try to think in a wider perspective which would ensure that both traditions find their place. Not that the workings of such a perspective are easily managed. This is the reason why post-socialist cities are interesting subjects for this type of research. They force us to ask these questions and look for answers.

<sup>9</sup> *The possibility of continuity in the Hungarian bourgeoisie and the effects of the civilian nature are discussed in the essay collection entitled “The Hungarian citizen”. (A magyar polgár 2016)*

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# ***AUTHENTIC VS. FAKE***

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***Bea Correa***

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***ABSTRACT***

*Despite all efforts to eradicate counterfeit goods, we receive thousands of e-mails every day advertising anything from luxury label replicas to phony life-saving medicines. Every city has a crowded black market. And “Fake” is not merely limited to B-grade products: how many times have you seen a beautiful woman and wondered which parts were authentic? “Fake” has become one of the defining keywords of the current age, according to Mindwhatyouwear founder, Bea Correa.*

*#fake, #counterfeit, #trade mark, #knock off, #Louis Vuitton, #Galeria Pagé*  
***doi:10.21096/diseagno\_2016\_1-2bc***

My name is Bea Correa, I am a Brazilian-born designer living in Amsterdam. I studied law at the University of São Paulo (Brazil) and graphic design at the Gerrit Rietveld Academy (Holland).

At the Rietveld, while my colleagues were making books, magazines and posters, I was more interested in printing my texts on panties and shirts. I founded my label Mindwhatyouwear in 2001 when I realized that fashion was a very powerful communication medium. Fashion walks in the streets, a book does not. In my webshop I sell reflections on the smaller and larger issues of modern life. There are people who publish their thoughts in books. I “publish” my ideas on clothes instead.

The other reason I founded Mindwhatyouwear was because I got tired of label dictatorship forcing us to advertise its logos in our frontpage clothes and pay for it.

I felt that my mission was to liberate those poor label slaves. Mindwhatyouwear believes in the power of design to change the world with dailysmall revolutions. And you don’t need a lot to provoke them. One word on a shirt is enough.



*Fig.1. They all love you shirt, 2010, Mindwhatyouwear*



*Fig.2. No Bombs bag, 2006, Mindwhatyouwear*



Fig.3. Sex and the City advertisement

Fig.4. The Devil wears Prada book cover

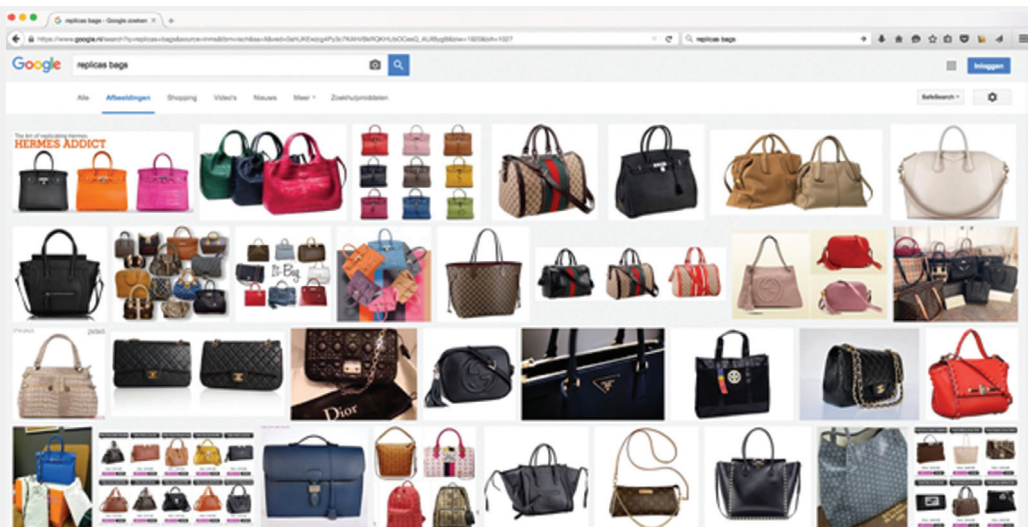


When I started my FAKEWEAR collection, many people asked me what the idea behind it was. It was initially a guerrilla action against the fashion victim rules. I was watching “Sex and the City” and reading “The Devil wears Prada”. I heard about waiting lists to buy a designer bag and girls being judged because they were wearing shoes from last season’s collection. Not “this season’s” shoes.

My FAKEWEAR collection was also a reflection of the reality I saw: technology was making copying much easier and the authentic versus fake dilemma was becoming very present in our modern lives. Selling counterfeit goods seemed to be illegal, but I could buy them easily on the black market. Actually, I didn’t even need to go to the black market anymore. I was receiving hundreds of spams advertising knock-offs in my mailbox everyday.

Fig.5. Replica designer bags advertisement found on the web

It was Christmas time and I went to Brazil to visit my family. I met the new silicone breasts of my friend and I got jealous, they were much better than my real ones.







*Fig.6.  
My girlfriend's  
new boobs*



*Fig.7. Galeria Pagé, photo by  
Guilherme Toussaint*

*Fig.8. Galeria Pagé, photo by  
Carol Leslie*

*Fig.9. Galeria Pagé, photo by  
Cristiano Penteadó*







I went for a walk in downtown São Paulo looking for local design. But mostly what I found was copycat products. I ended my trip at Galeria Pagé, a famous counterfeit goods shopping center. It was my first time there and I was very curious. Apart from the fact that almost everything they were selling there was fake, it seemed to me a very normal shopping center. I saw many respectable ladies and gentlemen walking in the galleries. I also saw a policeman, protecting the crowd from pickpockets.







*Fig.10. My aunt's authentic Louis Vuitton bag*

*Fig.11. FAKEWEAR bag, Mindwhatyouwear*

In the evening I went for a family dinner and witnessed a discussion between my cousin and her son. He criticized her for buying a Louis Vuitton bag for one thousand dollars. On another family occasion I noticed that both my aunt and her maid were wearing the same Louis Vuitton bag. One was authentic and the other was not.

Then I decided I had to have one as well.

I made my first personal FAKEWEAR bag. I bought a knock-off Louis Vuitton bag at the Galeria Pagé in which I boldly screen-printed the word FAKE to emphasize its "fakeness".

I sold it immediately. All my friends and friends of friends wanted to have one. What surprised me was that many of them already had an authentic Louis Vuitton bag. Well, not all of them. One confessed to me later that her authentic bag actually was fake.

Back in Holland, I put them up for sale on my web-shop. Due to my training as a lawyer was very aware of the legal implications of selling counterfeit products in my site. But according to my artistic way of thinking, I was not selling counterfeits anymore since I was authenticating them as FAKE. I had changed their status, transfiguring the copy into a new original.

Very soon I started to get e-mails and phone-calls from all over the world. People were interested in buying one because they loved the concept.



Fig.12. Mail from a potential buyer, Mindwhatyouwear archive

**Date:** April 19, 2006 5:17:05 AM CEST  
**To:** info@mindwhatyouwear.com  
**Subject:** Fake bags

I adore the concept behind these bags...I've felt the same way for so long about the way we replicate as a society.

What I was wondering though, is how you do sell the bags? There isn't a place on the website for selling them, so do you rely on selling them locally as you source the "original" fake locally?

Just curious, I might like to add one to my collection and bring your message to Canada.

**Cheers,**  
**katie**

Because they were going to a party.

Fig.13. Mail from a potential buyer, Mindwhatyouwear archive

hello bea!  
thanks thats great!

It would be awesome if You could send it as fast as possible. I would love to have it on sunday on a big party where all the girls have the real LV bags and all these kind of things. So it would make me so happy to have the fake one then!

I really love it! I love the hole minwhatyouwhere homepage! Think its great.

Thanks Yvonne.

-----Ursprüngliche Nachricht-----

**Von:** Bea Correa [mailto:bea@mindwhatyouwear.com]

**Gesendet:** Sonntag, 17. September 2006 20:33

Because they were confused.

Fig.14. Mail from a potential buyer, Mindwhatyouwear archive

**Date:** July 13, 2005 10:28:18 PM CEST  
**To:** info@mindwhatyouwear.com  
**Subject:** QUESTION FROM AN INTERESTED FUTURE CUSTOMER

To Whom it May Concern:

I have never ordered from your company. I would like to know if your products ACTUALLY SAY "Fake" or if it's just for us to know. (I believe it's just for the customers to know they are not authentic).

Also, what are the prices in US dollars?

Thank you,



Fig.15. Press, Mindwhatyouwear archive

Fig.16. Press, Mindwhatyouwear archive

I also had many e-mails from men wanting to order a bag for their girlfriends. And many journalists wanting to publish articles about them. I found my bags on blogs and discussions everywhere, and sometimes in languages I couldn't understand.

The bags were making people reflect on what and why they were consuming. No longer being ashamed because they could not afford the new trend. The paradox was that my fake bag was setting a new trend for honesty. Sometimes though, the fake bag was censored. Like on a TV magazine programme in Belgium. At first they wanted to show the bag. But then I got this weird e-mail in which they asked me if I had an authorization to "copy" bags.



**Fakewear: How phony becomes tony**

CHUVANNESS By Cecile Van Straten  
The Philippine STAR 02/22/2006



Just so we're clear about it, fake bugs me. I'm not in favor of fake designer goods, fake boobs, fake people, and most especially, as an LV fan, fake Louis Vuittons. That bugs the hell out of me.

But this one I like.

Brazilian-born artist Bea Correa has come up with a line where she literally printed the word "FAKE" over counterfeit Louis Vuitton pouchettes.

As someone allergic to fake goods, I am strangely attracted to this purse as an art object, though I wish I could have it in a Speedy 35 since the pochette cannot hold my houseful of stuff.

## Mind What You Wear

Instead of trying pass that knock-off for the real thing, isn't it time to embrace the truth?

Dutch design boutique [Mind What You Wear](#) calls a fake a fake with this new series of [brilliant bags](#). Founder Bea Correa's perspective extends beyond the simple hand bag:

Despite all efforts to eradicate counterfeits goods, we receive thousands of e-mails every day advertising anything from luxury label replicas to phony life-saving medicines. Every city has a crowded black market. And 'Fake' is not merely limited to b-grade products: how many times have you seen a beautiful woman and wondered which parts were authentic? 'Fake' has become one of the defining keywords of the current age, and Mind What You Wear is embracing the trend.



by [Josh Rubin](#) [Email This](#) [Link](#)

Fig.17. Press, Mindwhatyouwear archive

Fig.18. Mail from TV magazine programme, Mindwhatyouwear archive

**Subject: Autorisation**

**Date:** February 16, 2006 9:22:07 AM CET

**To:** Correa Bea

Hi Bea,

I have a question which to us seems very important:  
Have you asked permission to "copy" bags of a well-known label or is FAKWEAR a deposited label with all the autorisation of producing fake bags?

The thing is that a lawer told us that if the other labels are not aware of your work, they might pursue us for making an "ad" to by "imitation" of their product.

I hope you understand what I mean.

Please let me know,

Best,



*Fig.19. Boy selling and wearing fake Diesel shirt in Turkey, Mindwhatyouwear archive*





I also received very serious proposals to export my products on a large scale. I consulted lawyers who told me it was impossible, because even if I was authenticating my bag as fake, every flower printed on it was protected as a Louis Vuitton trademark. It had to remain an art project. Not that I was safe. I could receive a letter from the lawyers from LV any day.

It aroused my curiosity in everything regarding patents and trademarks. It is not important who creates something but who registers it first. And it is about having money to register it, because that is expensive. The 'Cupuaçu case' is a good example: There is a fruit that grows in the rainforest and is traditionally used in South America to make juice, ice cream, jam, cake and chocolate. A Japanese company started to produce those goods and registered the name CUPUAÇU as a trademark. Now this Japanese firm is threatening Brazilian companies with lawsuits who use the name Cupuaçu in their label.

Another interesting case where the defenders of trademarks are the bad guys is the decision of the Brazilian government to break AIDS drug patents and produce copycat versions in order to lower its price. In this context, copying should be seen less as a crime and more as an attempt at sharing welfare.

Three years later, I got the dreaded letter from Louis Vuitton's Malletier law firm. I was ordered to stop selling the bags immediately or they would start a lawsuit against me. They also contacted my internet provider who threatened to block my site if I did not delete the pages. I was able to convince them that my goal was not selling counterfeits and making a profit on the goodwill of Louis Vuitton but rather promoting a discussion and hoping to bring more understanding about the issue. Since then I have been prohibited from selling the bags. But fortunately I was granted the right to exhibit the bags as well as publish the pictures as a "piece of art".



*Fig.20. Fair Use: Information Piracy and Creative Commons in Contemporary Art and Design exhibition, Columbia College, Chicago, USA, 2010*



# Voor nep hoeft je je nu niet meer te schamen

## Expositie in Amsterdam over alles wat 'fake' is

» Neptassen, nepwimpers, nepborsten: we worden omringd door 'fake'.

» In Amsterdam is een expositie aan het fenomeen gewijd. Is nep wel zo erg?

Door **OLGA VAN DITZHUIJZEN**  
AMSTERDAM. Dit is misschien wel het bekendste voorbeeld van namaak: 'For how long do you have to keep faking your orgasm in your partner?' Het staat op de muur van tentoonstellingsruimte 'Platform 21' in Amsterdam. 'Tja dat hoort er ook bij', zegt Dewi Pinatih, een van de samenstellers van de expositie *Something... fake*. Platform 21 heeft met de verandering 'fake' een inventarisatie gemaakt van alle nep die ons in de wereld omringt. En dat is een hoop: nepvies, nepboort, nepwimpers, nep-zakjes en in het strafschopgebied, nep-eilanden in Dubai, nep-nostalgische woortjes en natuurlijk nepsheren in een nep-spikerbroek.

Wat precies 'fake' is en wat niet, is niet eens altijd duidelijk. Kun je bijvoorbeeld schoenen van het diermoderak Gucci, die duidelijk 'genuïpeerd' zijn op een ontwerp van Gucci, nog wel namaak noemen? En is 'fake' eigenlijk altijd wel zo slecht?

Ik vond de silhouetboorten van mijn vriendenlines een stuk mooier dan mijn eigen, natuurlijke', zei ontwerper **Bea Correa** onlangs in een door het platform georganiseerd symposium over nep-producten. De Braziliaanse Correa was verbaasd dat de namaakversies van designspullen in haar thuisland Brazilië niet zo graag afreken vonden als de originele, dure versie. Had haar moeder een peperdure, originele 'limited edition' handtas, kwam de werkster een paar dagen later met een exacte kopie op de proppen. Wat voor waarde heeft een 'echte' tas van Louis Vuitton eigenlijk?

Correa kwam op het idee om neptassen te verkopen. Louis Vuitton-ontwerpen met in koeienletters het woord 'fake' over de volle breedte. De op die manier exclusief 'fake' gemaakte tassen bleken niet aan te slepen. Nep heeft kennelijk helemaal niet iets te zijn om je voor te schamen.

Natuurlijk zijn er slachtoffers van namaakspullen, zoals de ontwerpers met een aangestaand copyright. Maar de grote schaal waarop 'fake' artikelen worden aangeboden, zorgt er ook voor dat mooi ontwerpen tassen voor een groot publiek beschikbaar zijn. 'Ik heb ook een namaak-Gucci-tas', verklaart Pinatih. 'En die kost nog steeds 200 euro. Ik vind hem hartstikke mooi. Een echte had ik nooit kunnen betalen.'

Terwijl buiten de muren van de ex-



Echte nep-Louis Vuitontassen, tot kunstobject gemaakt door de Braziliaanse ontwerper **Bea Correa**. Beeld Platform 21

positievanite juist de hang naar 'echte' en 'ambachtelijke' producten toeneemt, wordt binnen een kopieje met de werkelijkheid genomen. De wanden zijn behangen met kitscherige tropische zonsopgangen, als achtergrond voor de veelal uitgrintende beelden waarop kunstenaars hun spel met echte en namaak spelen.

'We hadden natuurlijk ook echte materialen of foto's kunnen opvangen, maar het jatten via Google paste wel bij het thema', zegt Pinatih. Fotografe **Kim Boske** liet zich inspireren door zeventiende eeuwse stillevens. Die waren ook hartstikke nep: een schilderij van tien verschillende bloemen in een vaas, die nooit allemaal op

hetzelfde moment in bloei hadden kunnen staan. Boske fotografeerde bloemen op verschillende momenten, en plakte met fotoshop de afbeeldingen zo op elkaar dat het samen een boeket werd. De onrealistische lichtinval verrast dat de foto nooit 'echt' gemaakt had kunnen worden.

De Belgische kunstenaar **Stefaan Dheedene** probeerde de kwestie echt-namaak om te keren. Hij kocht een Billy-boekenkast bij IKEA en maakte een kopie - maar dan van echt hout. Het houten exemplaar verkocht hij weer in de originele doos en bracht deze terug bij de klantenservice, met het idee dat een nieuwe klant nu een echt houten Billy in huis heeft.

'Fake is het tegenovergestelde van authentiek. Maar wat is er nu nog authentiek?' zegt Pinatih. Ze wijst op de trend van nep-echte zijdebloemen, en woningen die in nostalgische stijl werden opgetrokken: 'Het is allemaal splinternieuw. Dat het namaak is, wordt niet verhaald.' Het toppunt is de vlogsgevoerde 'fake' missie **Amanda Lepore**: 'The Number One Transsexual in the World'. Lepore heeft zoveel cosmetische operaties ondergaan dat niemand meer weet of het extreem grootlippege idool uit het New-Yorkse nachtleven nu ooit als man of als vrouw geboren werd. Pinatih: 'Doordat alles op deze expositie zo bij elkaar staat, zie je opeens de kitsche ervan, hoe banaal het is.'

Tentoonstelling 'Something... fake', t/m 27/10 in: Platform 21, Prinses Irenelaan 19, Amsterdam. Open do t/m zo 12:00 tot 18:00u. Zie ook [www.platform21.nl](http://www.platform21.nl) of [pluki: sms code 89626](tel:020-689626) naar 7585.

### Valse Kunst

• Ook de Belgische kunstenaar **Magritte** had een fascinatie voor echt en onecht. Hij schilderde omstreeks 1928 een pijp en schreef erbij: 'Ceci n'est pas une pipe' - het was immers geen pijp, redeneerde hij, maar de afbeelding van een pijp.

• 'Er is maar één Museum Valse Kunst in de wereld en dat staat dus in Zuidwest Drenthe', meldt dit museum in Vriedder op de website. De collectie: een nep-Rietveldstapel, nep-Mona Lisa en nep-Rodin. Maak een virtuele wandeling op [www.museumsvalsekunst.nl](http://www.museumsvalsekunst.nl) of [pluki: sms code 62664](tel:0934-616161) naar 7585

• Platform 21 vormt de aanloop voor een museum op de Amsterdamse Zuidas, een nieuw 'hart' vol kantoren aan de A10.



Fig.21. *Something Fake Exhibition*, Platform 21, Amsterdam, The Netherlands, 2006



*Fig.22. Fair Use: Information Piracy and Creative Commons in Contemporary Art and Design exhibition, Columbia College, Chicago, USA, 2010*





# Editors

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**Heni Fiáth** is a PhD student in Design Culture Studies at Moholy-Nagy University of Art and Design (MOME) in Budapest. After graduating as an industrial design engineer in 2006 from Budapest University of Technology and Economics (BUTE) and as an art and design theoretician in 2010 from MOME, she started to work both as an engineer and a theoretician. She was a co-founder of FabLab Budapest and is a freelancer designer helping start-ups with design, prototyping, and production. She lectures on design theory, visual communication, culture of objects, and history of graphic design at BUTE, Budapest Metropolitan University, Visart Art Academy, and MOME. She is going to spend her next semester at Katholieke Universiteit Leuven with a Campus Mundi scholarship and focus mainly on her PhD research on the democratization of design.

**Zsolt Gyenge** has been Assistant Professor at the Institute for Theoretical Studies of the Moholy-Nagy University of Art and Design (Budapest, Hungary) since 2007, where he teaches courses in film theory, film history and visual communication theory. His fields of research include interpretation theories (phenomenology, hermeneutics), experimental films and video art. He is member of the NECS Workgroup Cinema and Contemporary Visual Arts and of the international research project Space-ing Otherness, Cultural Images of Space, Contact Zones in Contemporary Hungarian and Romanian Film and Literature. He is also active as freelance film critic.

**Márton Szentpéteri** is an intellectual historian and design critic, with a PhD in Literary Studies (2005), habilitation in Design Theory (2013). Between 1993 and 2002, he studied literary studies, linguistics, aesthetics, philosophy and history at the Eötvös Loránd University (Budapest), Istituto Universitario Orientale (Naples), and the Central European University (Budapest). He was a Junior Research Fellow at the Hungarian Academy of Sciences (2005–2009), a Mellon Fellow at the Netherlands Institute of Advanced Study for the Humanities and Social Sciences (2006–2007), and a Marie Curie Intra-European Fellow at the University of Oxford (2010–2011). Dr. Szentpéteri has been a tenured associate professor at the Moholy-Nagy University of Art and Design Budapest since 2008. He leads the new PhD in Design Culture Studies program of the university. His main interests lie in early modern intellectual and cultural history, and modern design culture.

# Authors of this issue

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*Megan E. Blissick, Belinda T. Orzada: The Effects of Design Protection Legislation on Manufacturer Motivation*

**Megan E. Blissick** is a MS Fashion and Apparel Studies Student at the University of Delaware, USA. Megan's research has focused on the multifaceted issues surrounding the global fashion industry, and centers on the focus and discussion surrounding sustainable fashion practices. This paper will be Megan's first publication.

**Belinda T. Orzada, Ph.D** is Professor of Apparel Design in the Department of Fashion and Apparel Studies at the University of Delaware. An award winning apparel design scholar and educator, her creative scholarship contributes to the ongoing conversation regarding sustainable fashion. Her publication record is interdisciplinary within the textiles and apparel field, with publications in *Clothing and Textiles Research Journal*, *Fashion Practice*, and the *Journal of Fashion Design, Technology, and Education*, among others.

*Amanda Queiroz Campos, Luiz Salomão Ribas Gomez: Fast Fashion and Globalization: Study of Florianópolis' Sister Store of the Spanish Fast-Fashion Retail Chain Zara*

**Amanda Queiroz Campos** is a candidate of a bi-national PhD in the field of Design at Universidade Federal de Santa Catarina (Brazil) and Bergische Universität Wuppertal (Germany). She holds a Bachelor degree in Fashion—with emphasis in Fashion Design—from Universidade do Estado de Santa Catarina (2010), and in Graphic Design from Universidade Federal de Santa Catarina (2012). She holds a Masters in Design and Graphic Expression from Universidade Federal de Santa Catarina (2013) for which she wrote a dissertation entitled "The myth as an increment of product in the fashion brand management". Her fields of study are: fashion trends, fashion design, branding and graphic design.

**Luiz Salomão Ribas Gomez** holds a Bachelor Degree in Industrial Design from Pontifícia Universidade Católica do Paraná (1990), a Masters Degree in Production Engineering from Universidade Federal de Santa Catarina (2000) and Doctoral Degree in Production Engineering from Universidade Federal de Santa Catarina (2004), validated as PhD by Universidade da Beira Interior (2012). He is currently an

associate professor at Universidade Federal de Santa Catarina, which coordinates the Laboratory for the Orientation of the Organizational Genesis - LOGO. In 2009 he conducted a Post-Doctoral research project at UNIDCOM - IADE in Lisbon on the topic 'Brand DNA'. He has experience in Industrial Design, focusing on Product Design, mostly working on the following subjects: graphic design, methodology, branding, strategy and branding.

*Massimo Menichinelli: A Framework for Understanding the Possible Intersections of Design with Open, P2P, Diffuse, Distributed and Decentralized Systems*

**Massimo Menichinelli** is a designer and researcher who has worked with open and collaborative projects and the systems that enable them since 2005. He has lectured about Open Design and Digital Fabrication at Aalto University (Helsinki, Finland), SUPSI (Lugano, Switzerland), and Fab Academy (Opentot and WeMake, Milan, Italy). He also worked as a Director at Make In Italy Italian Fablab & Makers Foundation CDB where he researched and facilitated Fab Labs and Makers in Italy. He is currently a doctoral candidate at Media Lab Helsinki (Aalto University) and project manager in the H2020 project MAKE-IT at Fab Lab Barcelona (IAAC).

*Deanna Herst, Michelle Kasprzak: On "Open" Authorship: The Afterlife of a Design*

**Deanna Herst** is a senior lecturer and course director of the Open Design program at Willem de Kooning Academy, Academy of applied Sciences Rotterdam (NL) and associate researcher/PhD researcher at the Research Center 'Creating 010', Rotterdam University of Applied Sciences. She graduated as an art historian (MA, Utrecht University) and her academic interest lies within the field of art, technology and media theory. She has been working as a curator, writer, concept developer and educator for several international cultural organizations and art schools. She is currently working a dissertation on authorship in open and participatory design within the context of art and design education. By questioning authorship, the objective of her research is to define methods for open and participatory design and to identify participatory aesthetics.

**Michelle Kasprzak** is a Canadian curator and writer. Most recently, Michelle wrote an essay on failed futurism to be published in the next edition of HOLO magazine, and she curated No Limit, a show of new work by UBERMORGEN at the Kasseler Kunstverein. Michelle has also held a range of curatorial roles at organizations such as V2\_ Institute for Unstable Media, the Dutch Electronic Art Festival (DEAF), and New Media Scotland. Michelle is currently pursuing her doctorate in the

Faculty of Engineering at the University of Porto, as well as teaching on the Open Design Minor programme at Willem de Kooning Academy. She was trained as an artist, with an MA from Université du Québec à Montréal and a BFA from Ryerson University (Toronto).

*Dr. Robert Phillips, Dr. Matt Dexter, Professor Sharon Baurley, Professor Paul Atkinson: Standard Deviation — Standardization and Quality Control in the Mash-up Era*

**Dr. Robert Phillips** is a product designer and senior tutor on the Design Products Course at the Royal College of Art. His main interests reside in user interactions and responding to participant observations. During his PhD he investigated the relationship between open design and citizen science, resulting methodologies, and beekeeping technologies. His focus is on social design and user centered interventions. He has worked in numerous design domains from mass manufacturing, material development, user engagement to ethnographic research. He creates user-orientated solutions and generates design workshops intent on educating and using design approaches for commercial and academic situations.

**Dr. Matt Dexter** is a designer and researcher based in Sheffield, England. He is the designer for Good Care Days, whilst also running the consultancy OpenUp Design. Matt has experience of creating people-led experiences in healthcare services, medical products and the Pharmaceutical industry. His main interests lie in enabling participatory design, and developing compelling user experiences through this process in product and service design. His PhD investigated how open design could enable participation in the creation of medical devices for people who would normally be barred due to their medical condition. His work spans product and service design, both in the public and private sector—specializing in playful creativity for serious situations and outcomes.

**Professor Sharon Baurley** studied Textile Design at Winchester School of Art; her undergraduate work was awarded the Josef Otten Award for Technical Innovation and the Ideacomo Award for Printing and Dyeing from the Japanese Fashion Foundation. She then went on to do a PhD in Textile Design at RCA, where she developed three-dimensional textile materials for clothing by transferring processes from engineering to design. Work from this project is in the Materials Collection at the Science Museum, London. After graduating in 1997, she took up a research and teaching post at Central Saint Martins College of Art & Design (CSM). She was then awarded an AHRC-funded research fellowship, also at CSM, where she focused on the integration of electronic textiles into clothing for social digital applications in partnership with Vodafone and HP Labs, as well as a visiting

research fellowship at Liverpool School of Art. In 2010, she took up the position of Head of Design in the School of Engineering & Design at Brunel University London. Sharon has also lectured at Musashino Art University, Tokyo, and Nagoya University of Arts, Nagoya, Japan, the Architectural Association, London, and Kingston University. Sharon has consulted for Courtaulds Textiles, London; Gianni Versace, Milan; Marks & Spencer, London; Unilever, UK; Design Intelligence, UK, and Mantero, Italy.

**Professor Paul Atkinson** is an industrial designer, design historian and educator. He is Professor of Design and Design History at Sheffield Hallam University and has published articles in a number of international design journals. His work addresses the relationship between technology and society, and the relationship between amateur and professional design activity. He has authored two books on the design history of computers (*Computer, Reaktion 2010, and Delete: A design history of computer vapourware*, Bloomsbury 2013), and contributed a number of chapters to edited books. He has also written about the future of the design profession and examined the future impact of emerging technologies on the nature of design through practice-based research into Post Industrial Manufacturing and Open Design.

*Gábor Pfisztner: Photography — Remaking Life, the Universe, and Everything*

**Gábor Pfisztner** has been working as an art critique, and guest lecturer at MOME Media Institute, as well as in the Institute of Visual Arts at Budapest Metropolitan University. In the spring semester of 2014 he lectured at the Institute of Art History at ELTE. He was the co-founder of *offtopost.hu*, a website on photography critique. His focus of interest is photography as a cultural phenomenon, and one of the most important mediums in contemporary art, as well as the philosophy of technique and technology. He has contributed articles and essays to *Balkon, Fotóművészet, Octogon, Atrium, Új Művészet, Műértő* and *Imago*. He is also author and editor of books and exhibition catalogues (Martin Munkácsi: *Think while you shoot*, and *Photographed by Vilmos Zsigmond*, two exhibitions at Ludwig Museum Budapest) and other book projects.

*Adela Muntean: The Algorithmic Turn in the Found Footage Filmmaking: The Digital Remake*

**Adela Muntean** is the new media coordinator and curator for new forms of documentary and interactive storytelling at Astra Film Festival (AFF). She is also a transmedia director and researcher developing creative concepts that fall within the documentary genre. Her current projects deal with immersive media: VR, 360 photography and

video, dome projections and the implementation of tactile interfaces in order to create experiential works. She is interested in methods associated with moving image documentary practices which merge with new media hybrid arts and explore the intersection of art, anthropology, serious video games and the possibilities made available by the internet: database narratives, webcams, Google Street View, archives, etc. The main criterion of her works is to engage with the real in creative ways. In 2014 her works were presented in Netherlands within the framework of Live Performers Meeting festival (LPM); in France during the Sophia Digital Art Festival and in Italy, Milano during “La Repubblica delle Idee 2014” event. In 2015 she won the Digital Visions project first prize organized by GéoCulture Limousin (France). In the same year as part of Bucharest International Experimental Film Festival (BIEFF) she led the conceptual/art direction part of an Architecture Film Workshop. Her on-going project is devoted to the changing role of the moving image and classical cinema in the digital age. She has been awarded a Master’s Degree graded excellent and the professional qualification of Media Designer at Moholy-Nagy University of Art and Design Budapest, Hungary (2015). She completed her BA studies in cinematography, photography and media at the Sapien-tia Hungarian University of Transylvania, Faculty of Sciences and Arts, Cluj Napoca, Romania (2011).

*Dr. Christopher Brisbin: “I hate cheap knock-offs!”: Morphogenetic Transformations of the Chinese “Culture of the Copy”*

**Dr. Christopher Brisbin** teaches design studio and history and theory in Architecture and Interior Architecture. He is currently the History & Theory Studies Coordinator in Architecture. Brisbin’s research spans several areas, including contemporary space/image relations and questions of criticality in design practice today. His current research explores the cultural interchange between China and the West, specifically focusing on how to better understand Chinese middle-class consumption and the cultural role of authorship, originality, and Copyright in China. He is currently co-editing a book on critique/criticism/criticality in Art, Architecture and Design entitled *The Routledge Companion to Criticality in Art, Architecture and Design* to be published in 2017.

*Giuseppe Resta: Models and Re-elaborations in Late Nineteenth Century Architecture: The Great Tower for London Competition*

**Giuseppe Resta, M. Arch. (Politecnico di Bari), Ph.D.** student in the “Architecture: Innovation and Heritage” program at Università degli studi Roma TRE (Rome, Italy). Assistant at Politecnico di Bari, Department of Architecture and Civil Engineering (Bari, Italy). Resta is a licensed Architect and Artwort Magazine editor. His pub-



lished work has appeared in several architectural magazines (e.g., *STUDIO magazine*, *Lunch journal*). His research interests include: The Balkans; space and power relationship; contemporary mixed-use buildings and their figurative quality in the city. He was awarded 3rd prize in the International Concept and Design Competition in Architecture “Start Metronapoli” for the Montesanto metro station (2012, Napoli). Exhibitions: “last but not least” (2012, Gioia del Colle); “forme alla deriva” at MICROBA art gallery (2014, Bari).

*Dr. Dénes Tamás: A “Reinvented” City*

**Dénes Tamás, PhD** teaches media ethics, argumentation techniques, editing techniques and information society at the Sapientia Hungarian University of Transylvania, faculty of Technological and Social Sciences, department of Communication Sciences. He received his bachelor’s degree in philosophy at the Babes-Bolyai University in Cluj Napoca, and his PhD in literary sciences at the University of Szeged. He researches the different aspects of information society and publishes writings on different topics of professional ethics in Hungarian and English. He is a member of the WebSemiotics and Online Communication Research Group “Szemeisztosz” founded at the Sapientia. His University textbook entitled *Ethics in the world of communication* was published in 2011 by Status of Miercurea Ciuc.

*Bea Correa: Authentic vs. Fake*

**Bea Correa** is originally from Brazil and has been living in Holland since 1992. She studied law at University of São Paulo (Brazil) and graphic design at Gerrit Rietveld Academy (Holland). After graduating from Gerrit Rietveld Academy, she worked as a designer for five years at *Mediamatic Foundation*. Mediamatic organizes exhibitions, presentations, workshops and other activities in the field of contemporary art, design and new media. She is the founder and creative director of *Mindwhatyouwear* which is a designer’s platform and experimental web shop, which aims, in a creative and playful way, to bring awareness about what and how we consume. Mindwhatyouwear is also very interested in researching fashion as communication medium.

She co-organized the *SALE event* for four years. SALE was the first green and fair-trade fair in Amsterdam. It was a place where independent designers could meet each other and the public, showing and selling their work; but it was also an invitation to reflect on the impact of their choices on the environment and encouraged researching better ways of production.

