

"Design is always more than the sum of its parts." Paola Antonelli, Senior Curator, Department of Architecture and Design, The Museum of Modern Art, New York

interviewed by Martin Hartung

MH Paola, it seems that speaking of design and dilettantism immediately puts us in either an offensive or defensive position. On the one hand we are facing the word 'design', etymologically closely related to the Renaissance *disegno*, referring to a draft or design as a process that became a crucial creative practice in society; and on the other hand we have the term 'dilettantism', deriving from the Italian *dilettare*, meaning 'delight'. Soon after its emergence in Europe in the mid-eighteenth century, the notion of dilettantism implied a value judgment and was mostly used to describe an admirer of a subject or someone more or less superficially committed. It seems that bringing the terms 'design' and 'dilettantism' together can only lead to an evaluative confrontation, especially in thinking of design as a complex process and in thinking about the dilettante in a pejorative way – a connotation that emerged as early as the nineteenth century. There's no doubt that from today's perspective it's a thoughtprovoking topic. So, the first question I have in mind is: can a designer ever be a dilettante?

PA Well, no, and yes. Let me put it this way: it really depends on what you mean by dilettante and what you mean by design. As far as I'm concerned, design is one of the most instinctive acts that human beings can perform. If you look at design as the act of making things (people have various definitions) – as having a goal and using the means at your disposal to achieve that goal, and if that goal has some function, then it's instinctive. Still, practice makes better; it's not like snapping fingers. Our ancestors had to make spears so that they could hunt and gather, but it took them a while to get to the right spear. It's always a matter of skill, and it's a matter of perfecting the practice. Many people from other professions think that they can improvise as designers, and that's totally wrong. Many architects and artists think they can improvise as designers. Well, of course we can all *make* things, it's a very healthy practice, and anybody can try to design. But here you have to approach design with a pure mind, with humility, knowing that you're doing it for the first time, that you are not an expert. And instead, what I've noticed is that people that have training in other creative or constructive disciplines think that they can descend toward design. That's a wrong assumption. I have seen so many artists do design, and I've seen many artists do very mediocre design but not admit to their mediocrity. On the other hand, I've also seen a few artists do it really well. For instance I have great respect for how Andrea Zittel uses design; she has internalized its method. I was also very surprised when Martin Puryear did his show here at MoMA, his retrospective in 2007. He proposed to design some objects for the museum store and I was already dreading the thought of them. But in the end I was so touched, because he chose to design a very humble and thoughtful object.

MH What was it?

PA It is a pan scraper. It's still for sale at MoMA. I was very touched, because he didn't try to make a mini-sculpture, he didn't try to make an accessible, decorative piece. He really went with a pure mind to the essence of design. He probably thought: "What do I need in my life that does not work very well right now?" Maybe he thought: "Whenever I try to clean my pans, it doesn't really work, so you know what, let me do a pan scraper."

MH Do you have one?

PA No, I don't have one, because I don't scrape pans that often. You know, I'm a little bit of a New Yorker, so I order in a lot – and I have a good dishwasher. But, I thought Martin Puryear really had the right attitude with designing this object.

MH So, if you look at it from the designer's perspective, he was a dilettante.

PA Yes, and he recognized that. But he is also a great craftsman – the materiality of his sculptures is such that he obviously knows materials, and material is one of the tools of design. So he was not a veritable dilettante. He may have been a dilettante when it came to function and the process of design, but he was not a dilettante when it came to the *hands-on* aspect of design. He had a little bit of an advantage. What I find also very interesting right now is the whole hacking culture, because there is a lot of hands-on activity going on. But design is more than just making. What differentiates design from simply putting things together is that design is always more than the sum of its parts. There is an intention in it that goes beyond aesthetics and form; there is also an intention of meaning. The object is self-standing, not just a switch with a transistor. It has a personality, it has a soul that is sometimes missing from hackers' objects. It's very interesting. There are many objects that aspire to be design, but that are not yet there. Some are not yet there because of arrogance, while others are not yet there because they're missing the last step.

MH What would be an example of this?

PA Of hacking?

MH Of something that is 'not yet there'?

PA There is a revolutionary magazine called **Make**, and on its website you can find *recipes* for great DIY objects. They recently presented a 'robotic espresso machine' that is indeed very mechanical, the naked digital and physical mechanisms. I don't mean that there needs to be a shell for everything, but there needs to be at least an intellectual shell.

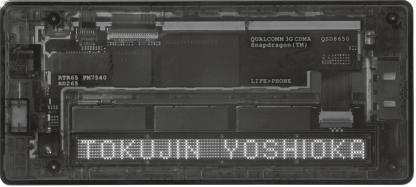
MH From a perspective of *good design*, if we define it as something that immediately reveals its function, that tells you, 'You can do this and that with me, I'm here for this and that purpose' – one could say an old-fashioned way of describing *good design* – if we apply this definition to this particular object,

the object would fail, as it doesn't immediately show me what I can do with it, what it is made for. Could this mean 'it's not yet there'?

PA There is a refusal of form in this object that is very similar to the refusal of *design* in the Google website, as if to say: 'We're not interested in embellishing.' But that last step, what I mean by 'it's not yet there', is not embellishment, it is really synthesis. I don't believe anymore in the *form follows function* dictum, because an iPad or an iPhone will not tell you what they are for and how you should use them until you turn them on. There needs to be a path of discovery, but still there is a synthesis in design that you don't see. The coffee-maker featured in Make that I mentioned is still just the sum of its parts.

MH As an aesthetic object?

PA Not only aesthetics. It's more than aesthetics, it is concept and meaning. I'm trying to think of what could be a good example of something that is a whole but not necessarily embellished. There is a telephone named **X-Ray** by Tokujin Yoshioka. If you look at this phone you can see all the inner workings of it. The inner workings are on display but hidden behind a layer of red plastic. You have here the whole symbolism of an iPhone, but you see the guts. It is a differ-



Tokujin Yoshioka. X-RAY. 2010. Mobile ahone for KDDI iida. © TOKUJIN YOSHIOKA INC.

ent kind of synthesis: the last step - it's very simple, but it's very important, too.

MH Doesn't it remind you of a design by Dieter Rams?

You know...

MH You don't always want to refer to the past?

PA There have been some true giants in the history of design, but we keep on going back to them! People ask me, 'Who are the Charles and Ray Eames of video games?' 'Who is the Dieter Rams of ...?' Let's move on, you know what I'm saying? Let's move on.

MH We cannot forget the past.

PA No, we cannot, but we're using it too much.

MH In the museum especially?

PA No, in the world in general. There is more awareness of design, but people only use past examples. I'm very happy when people even mention Jony Ive. Or Tokujin Yoshioka, he is a real giant of design, and he is alive, working now.

MH Wouldn't they tell you themselves that they are inspired? Everybody has heroes.

PA Absolutely. For example, Jony Ive says he is inspired by Dieter Rams. It's just that I really want the world to understand design, and in order to do so, I have to help people move beyond stereotypes.

MH You once said in an interview about curating exhibitions that here at MoMA people rather stumble into your exhibitions, that they mostly come here for Picasso and Matisse. It seems there is nothing wrong in teaching them about Rams, not that I want to over-emphasize him.

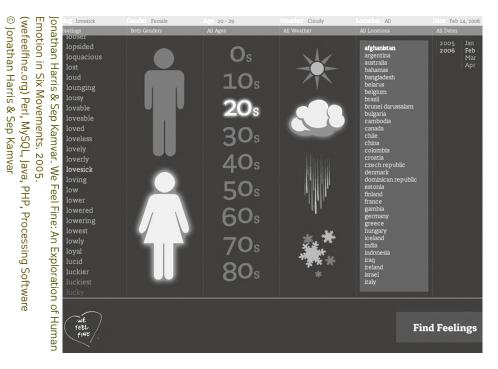
PA There is nothing wrong in teaching them about Rams, if you want to teach them history; history unveils itself all the way to the present, but only if visitors have a few hours. People are mostly in the museum for a limited amount of time. If I only give them past examples, they will not get to the present. Instead I'm focusing on trying to explain what it is that they have in front of them. That's all. We're always standing on the shoulders of giants. Always. But if we always had to start from scratch to tell the story of something, we would be overwhelmed, it would be so difficult. Also, if you use Dieter Rams as a comparison, you cut off so many objects done today that are completely different. So much has happened between Rams and now: the digital revolution, post-modernism, post-structuralism, September 11, hip hop...

MH Stefan Sagmeister recently stated that good design can make people happy. He aims to create work that *delights*.

PA I agree but once again, it depends on the designer. It's so hard to generalize. You're lucky in life if you get to do what you like, and if what you do gives you and others delight. I can imagine that there might be some designers and engineers at General Electric working on CAT scan machines, who want to use delight to relieve the anxiety of patients.

MH Considering the fact that it's rare for an amateur to be taken very seriously, wouldn't something that is only pleasing at the very least point to dilettantism?

PA Not necessarily. I'm immediately thinking of some toys, the Tamagotchi, for example. There are some websites, like **We Feel Fine**, a gorgeous website that is only about letting you know how other people are feeling. It's beautifully designed, it's very moving. It's only about contemplating how people feel around the world. This is the opposite of dilettantism.



MH Is it like Twitter?

PA No, it is not like Twitter, it is a beautifully designed experience. The website looks for feelings, for the root *feel*- all over the Internet, and creates graphics from it. *Feeling* people might be writing a blog, tweeting, or posting updates on Facebook. It's about feelings, about curiosity, and still it's the opposite of dilettantism. Jonathan Harris and Sep Kamvar, the artists that designed the website, are considered to be two of the most sophisticated programmers alive. Quality trumps everything. If you decide that you want to make an object that enables people to scratch their armpits, that's fine, as long as you design it in a sublime way. When people ask me about good design, I reply that honestly the ultimate

litmus test is: if this object were not in the world, would it be a pity? Is it a good addition to the world? The We Feel Fine website is fantastic. You can even change the view to a matrix, you can see people who feel inspired, and you can sort by gender, age, geographic location, and so on.

MH It's like a colorful dictionary of types of feelings, showing whatever exists. It's good to see that there are not only curves for the economy, but for emotions that are maybe equally unpredictable, at least for the majority of people.

PA The whole field of visualization design is so interesting. The same designers did a project for the MoMA exhibition **Design and the Elastic Mind**, which is now in the collection. It is called 'I Want You to Want Me'. It's about online dating services and seeing how people found each other. There is so much.

MH *Autorendesign*, literally translated as 'author design', was one of the first things I thought about when I learned about the **Neuwerk** focus on *design and dilettantism*. The term *autorendesign* came into being in the 1980s and is meant as a distinction with respect to functional design. The term *author* points to the artist-designer, the designer as a star. In that sense autorendesign is closely related to labels and the market, lately especially the art market.

PA In English-speaking countries I don't think that they call it autorendesign. Also, I believe that every design has an author. Here they call it *design art* or *art design*. It was an auction at Phillips that first described it that way. I think it's controversial and interesting. There are two galleries in particular that I have great respect for: one is Galerie Kreo in Paris, which has been in this market for a long time, and the other one is Libby Sellers in London, relatively new. Galleries like these really help designers to come up with new ideas and experiment with new materials and techniques. These are designers that also do products that have a wider distribution. They are helped by the galleries to test something new. Of course it will cost more money, because it's experimental, and maybe also because it will not be produced in a serial way. Those galleries are really important. In the past, let's say, fifteen years, however – it's gotten better because of the financial crisis – there were a lot of galleries that were producing design that was, in my opinion, very lazy. The designers were doing decorative pieces to be sold to bored art collectors. It was almost non-committal. It was almost like a snack for art collectors. That was a low moment. But of course, it's not all like that. There are some galleries that are really instrumental in helping some artists, or in my case some designers, to blossom and really find their ideas. You cannot put them all together. But there was a difficult moment, I would say, in the early part of the twenty-first century, late twentieth century.

MH Was it difficult to do shows at that time? Or was it even easier because you could more easily estimate the worth of something?

PA Whether it's art, design, or performance – doesn't matter – if you have a clear idea of what you want to do, then the show is not difficult. At that time I was doing shows for instance about how people work, called **Workspheres**, or about design and safety and comfort, called **Safe: Design Takes on Risk**. The field of design is so huge that there is room for everybody. And even in **Safe I** had some pieces that came from galleries, and I'm quite sure also for **Design and the Elastic Mind**, but I had a thesis that was in my mind, so I could pick and choose the objects that I thought were really important.

MH Do you think there are more designers now than let's say twenty years ago?

PA I don't know, I wouldn't be able to tell you with certainty. I know that there are more professional design avenues, i.e. interface design, interaction design, and web design. I think there are more designers, because there are more fields of action, but I don't know the figures exactly.

MH At the beginning you said that in order to talk about design and dilettan-

tism you would first have to know what is meant by both terms. You explained what you mean by design. How do you define dilettantism?

PA It's really hard for me to say. I guess dilettantism means not having studied or practiced, or really apprenticed in something.

MH I agree, it's been appropriately explained as something that has to do with a devoted amateur. And it's not only to be seen negatively.

PA Of course not.

MH I think that's the good side about the term: it can be opened. I also think about it in conjunction with communication, the information overdose that we're facing for longer now. For me the recent **Talk to Me** exhibition at MoMA was an actual example of how design is involved in information pluralism, and I wondered whether we can even differentiate between dilettantism and professionalism beyond market values today.

PA Of course there can also be dilettantism in the sense that maybe the product will be great because the person is a genius, but the person might not be trained in design per se. You wouldn't want to be operated on by a dilettante surgeon. Certainly it's less dangerous to have a dilettante designer, but of course it depends what this person is working on.

MH That's true. Better to know how experienced this person is before you have to deal with the consequences.

PA Right, you know, before the curtain falls on your head.

MH To me it's interesting that dilettantism hasn't always been negatively connoted. Only since the beginning of the nineteenth century has the sensitive and playful dilettante been described in opposition to an educated bourgeoisie. In the late eighteenth century the nobility even used the word 'dilettante' to express their modesty. Like the psychologist and anthropologist Mihaly Csikszentmihaly indicated, it nowadays seems that the value of accomplishment has exceeded the value of experience. The concept of professionalism as opposed to the amateur didn't come up until later.

PA I assume that with the Industrial Revolution, electricity, electronics, economics, marketing, etc., the world has progressively gotten more complex, also in terms of production, dissemination, and separation; specialization has become important. In terms of design and dilettantism, it's really important for a designer to have training. I studied architecture. In Italy at that time you studied architecture and then sometimes you became an architect, sometimes an interior designer, graphic designer, or industrial designer. I did all my classes in architecture, but then I also had Achille Castiglioni and Marco Zanuso as teachers. Castiglioni used to say that the reason why Italian design was so great was because there were no design schools. You would have to learn in the architectural school. There is the famous 'from the spoon to the city' slogan, and that was really how Italian schools functioned at that time. Now it's much more subdivided, but still a good design education starts with the idea of goals and means, in a philosophical way, with an attitude toward process, and then can be applied to various platforms. Still, it's not art. It's not the same thing. What I have noticed is that the design schools that seem to work really well are the ones that are able to maintain an architectural or engineering discipline and then enable students to take leaps of freedom. One of the best design schools in the world is the Royal College of Art in London, especially the Design Interactions program, where students are encouraged to look at the Imperial College nearby, in particular the work of the scientists there, and can also absorb things together with their art school, product design, or architecture colleagues. Campuses where there is not only art, but where there are also other disciplines, are the best turf for design.

MH How about Design Thinking?

PA Design Thinking is not design. Design Thinking is to design what the scientific method is to science. It's like a modeling of the way a designer might work, but it does not substitute for design. It's very interesting, because many corporations right now hire Design Thinking consultants. Design Thinking was cast in stone by IDEO, a revolutionary company that started out as an engineering company in Palo Alto and then became the champion of an integrated design approach. In the early 1990s, they were training corporations to help them understand their need for design. That's how Design Thinking came into being. IDEO still does it in a professional and good way, in a very useful manner. But there are so many consultants of Design Thinking that have popped up, that basically come to your corporation with a lot of Post-it notes - because the Post-it note on the wall is the emblem of Design Thinking – and make you think that you are getting design, but in reality all you get is a skeleton. The basic idea behind Design Thinking is that designers design using prototypes and scenarios. It teaches other people, corporations, businesses to think in terms of scenarios and prototypes. A designer starts with the idea, moves on to a model – a volumetric or conceptual object that does not function yet – and then to the prototype, which already carries the imprint, the way the function of the object will work. It's a real test, a real reality check. Design Thinking applied to business models is about testing and prototyping. But it's not design.

MH Today there are a lot of prototype projects that never make it to production.

PA I know, it's much easier now to produce a prototype than it was before, for instance with 3D printing and computer modeling. It used to be that if you wanted to do a prototype of, for example, a working model of a plastic chair, you had to make the investment in the mold, which easily went for something like \$50,000, so you had to think about it a lot, and the product basically was already in production. Now instead you can make a composite mold and use

resin at room temperature, it's much easier. There is a lot of prototyping going on. I see design right now as going back to an attitude where there is much more interconnection with other disciplines. Still, there needs to be at least a sense of what the goals are, which should be more than just making something function. Design is still about function, but it is not only about old-fashioned function. Again: functional design can enable people to scratch their armpits. It's all about the goal, and it's not only physical, but it's also digital, and emotional. That's why I said, 'Let's not talk about Dieter Rams'. We really need to expand the idea of design today and take it away from products, chairs, and cars, and make people realize that there is a whole world inside our screens, our phones, and our minds that is the real universe where designers will work in the future.

This interview took place on April 9, 2012 at The Museum of Modern Art, New York.

Paola Antonelli versteht Design als instinktives Handeln mit konkreter Absicht, das geprägt ist von Fähigkeit und Übung. Viele meinen zwar als Designer improvisieren zu können, meistens sind das Künstler, Architekten und andere Kreative, aber nur wenige sind erfolgreich mit diesem Vorgehen.

Zur Ergänzung nachfolgend in deutscher Übersetzung eine Zusammenfassung des Interviews zwischen Martin Hartung und der leitenden Kuratorin der Abteilung Architektur und Design am Museum of Modern Art, New York, Paola Antonelli.

Das Gespräch beginnt mit der Feststellung, dass die Gegenüberstellung von Design und Dilettantismus eigentlich unweigerlich dazu führen muss, dass man sich entweder in eine Angriffs- noch in eine Verteidigungsposition versetzt fühlt. Die etymologische Herleitung beider Begriffe zeigt, dass Design von ,disegnoʻ und damit vom ,Entwurf' abgeleitet wird, während ,Dilettantismus' auf ,dilettare' und damit auf Freude und Vergnügen zurückgeht. Als der Begriff Dilettantismus im 18. Jahrhundert in Europa aufkam, galt er als Ausdruck von Wertschätzung und beschrieb den Dilettanten als einen Bewunderer und Liebhaber einer Sache. Führt man die beiden Begriffe heute zusammen, ergibt sich eine Konfrontation. Design wird als Ausdruck eines komplexen Prozesses verstanden, während Dilettantismus seit dem 19. Jahrhundert auch abwertend verwendet wird. Diese Konfrontation führt zu der Frage, ob ein Designer überhaupt ein Dilettant sein kann.

Dieser Spagat kann jedoch nur funktionieren, wenn man sich seiner eigenen Unfähigkeit als Designer bewusst wird und mit klarem Verstand an die Sache herangeht. Als gelungene Beispiele nennt Antonelli die Arbeiten von Andrea Zittel und Martin Puryear. Puryear ist Bildhauer mit großer Materialerfahrung und hat für den MoMA-Shop einen Pfannenkratzer entwickelt, der wirklich gut gestaltet ist. Seine Materialerfahrung und seine Bereitschaft zum *Handanlegen* hat sein Unwissen über den Funktionsbegriff und den Designprozess wettgemacht – ein Beleg für die These, dass Design mehr ist, als die Summe seiner Teile. Es geht immer auch um Intention, die über Ästhetik und Form hinausreicht. Es geht um die Intention von Bedeutung. Ein erfolgreiches Objekt steht am Ende für sich selbst. Vieles erreicht diese Ebene nicht. Als Beispiel führt sie einige Objekte aus dem Magazin Make an, das auf *hacking* von Design auf der Basis von Do-it-yourself beruht: Ein gemusterter Betontisch erweckt den Eindruck eines fast kompletten Objektes ebenso wie eine robotergesteuerte Espressomaschine. Beide sind aber eben nur fast komplett. Die Espressomaschine z.B. zeigt ihre komplette Mechanik. Nicht, dass es immer einer Hülle bedürfe, aber eben einer intellektuellen Hülle. Es geht nicht ums bloße Verschönen, vielmehr um eine Synthese.

Auf die Frage nach der traditionellen Definition von gutem Design, die besagt, dass ein Objekt dann gut gestaltet ist, wenn es seine Funktion unmittelbar verrät, entgegnet Antonelli, dass die Ära von *form follows function* vorbei sei. Software und Digitalisierung haben dazu geführt, dass den Objekten ihre Funktion nicht mehr angesehen werden kann. Bestes Beispiel hierfür sei das iPhone, das, so lange es ausgeschaltet ist, nichts über seine Funktion oder Verwendung verrät. Ein gutes Produkt für sie sei aber das X-Ray von Tokujin Yoshioka. Dabei handelt es sich um ein Mobiltelefon, das zwar die Formensprache des iPhones aufgreift, aber durch eine transparente rote Plastikhülle die inneren Bestandteile erkennen lässt.

In diesem Zusammenhang angesprochen auf Dieter Rams, entgegnet Antonelli, dass es Zeit sei, nicht mehr so stark in die Vergangenheit zu blicken. Um Design wirklich verstehen zu können, muss gelernt werden, über die Stereotypen hinaus zu blicken. Als Museumskuratorin kann sie sich nicht damit aufhalten, den Besuchern, die eben nicht mehrere Stunden im Museum verbringen, die Geschichte des Designs zu erläutern. Vielmehr sieht sie es als ihre Aufgabe, dem Besucher das näher zu bringen, was er konkret vor sich sieht.

Als Stefan Sagmeister ins Spiel gebracht wird, der der Meinung ist, dass gutes Design Menschen glücklich machen kann und er deshalb seine Aufgabe darin sieht, Freude und Vergnügen zu bereiten, stimmt dem Paola Antonelli grundsätzlich zu, warnt aber vor Verallgemeinerung und weißt darauf hin, dass sich jeder glücklich schätzen könne, der so arbeiten darf, dass das aber nicht jedem vergönnt sei.

Auf die Frage, ob der Drang, gefallen zu wollen, nicht auf Dilettantismus hinweisen würde, reagiert Antonelli mit einem konkreten Projekt: We Fell Fine. Dabei handelt es sich um eine Website, die es ermöglicht, die Gefühle anderer Menschen zu sehen. Diese Seite ist nicht nur emotional wirksam, sondern auch ausgesprochen gut gestaltet. Sie schlägt eine erweiterte Definition für gutes Design vor: Gut ist ein Design dann, wenn es schade wäre, würde dieses Objekt nicht existieren. Im Falle dieser Website wäre es ihrer Meinung nach so. Die neue Vielfalt an etablierten Arbeitsfeldern im Design, wie z.B. Visuelles Design, Interaction Design oder auch Autorendesign, wo der Designer selbst zum Klienten und damit fast zum Künstler wird, haben das Feld erweitert und ermöglichen eine Vielzahl guter Designausstellungen.

Nach der Klärung des Designbegriffs und der Übereinkunft beider, dass ein Dilettant jemand sei, der weder etwas studiert noch gelernt hat, sich der Aufgabe aber dennoch hingebungsvoll widmet, geht es um die Negativkonnotation des Begriffes im 19. Jahrhundert. Dies basiere auf der Gegenüberstellung eines spielerischen Dilettanten zum gebildeten Bürger.

Dieses Konzept der Professionalisierung entwickelt sich, so Antonelli, mit der Industriellen Revolution und der damit einhergehenden komplexer werdenden Welt. Sie plädiert für die Notwendigkeit einer guten Designausbildung, um dieser Komplexität Herr werden zu können. Sie selbst hat in Italien Architektur studiert, in einer Zeit, in der es noch keine Designausbildung gab. Das Studium war ganzheitlich und erst nach dem Abschluss wurde man Architekt, Innenarchitekt, Grafik- oder Industriedesigner. Italienische Designschulen folgten dem Prinzip ,vom Löffel zur Stadt' und bildeten damit die Grundlage des berühmten italienischen Designs. Es ging dabei um die Haltung dem Gestaltungsprozess gegenüber. Dieser ist multi- und transdisziplinär und sollte so auch gelehrt werden.

Design Thinking wird thematisiert, ein Begriff, der 1991 von der Design- und Innovationsagentur IDEO in den USA entwickelt wurde und inzwischen auch in Deutschland am Hasso Plattner Institute of Design in Potsdam vermittelt wird. Antonelli macht deutlich, dass es sich für sie bei Design Thinking nicht um Design handelt und stellt zwischen Design Thinking und Design den gleichen Bezug wie zwischen wissenschaftlicher Methode und Wissenschaft her. Es handle sich um einen Prozess, der gelehrt wird und von Designberatern in die Unternehmen getragen wird. Mittlerweile taucht eine Vielzahl solcher Berater mit ihren typischen Post-It-Zetteln auf, die den Firmen suggerieren, sie hätten jetzt Design. Stattdessen haben sie jedoch nur ein Designskelett. Design Thinking beruht auf der Arbeitsweise der Gestalter, die sich mit Hilfe von Modellen, Prototypen und Szenarien an das Ergebnis herantasten. Diese Vorgehensweise, in Szenarien und Prototypen zu denken, wird den Unternehmen vermittelt. Das Ergebnis ist aber eben nicht Gestaltung. Beim Hinweis, dass es heute so viele Prototypen gibt, die es nie in die Produktion schaffen werden, führt Paola Antonelli diese Entwicklung auf das 3D-Drucken zurück. Benötigte man früher hohe Investitionskosten, um einen Prototypen zu bauen, geht das heute mit relativ wenig Aufwand. Während also damals noch lange und intensiv über das Objekt nachgedacht wurde, bevor es gebaut wurde, wird diese Phase heut meist abgekürzt.

Antonelli beobachtet eine Rückbesinnung im Design auf die Zusammenarbeit mit anderen Disziplinen. Das Ziel, mit dem gestaltet werden soll, darf dabei aber nicht auf der Strecke bleiben. Die Funktion als Ziel ist dabei nicht mehr im herkömmlichen Sinne als bloßes Funktionieren zu verstehen. Vielmehr kann das Ziel auch digital oder emotional sein. Die Vorstellung von Gestaltung muss sich erweitern, weg von den Produkten, hin zu der Tatsache, dass in unseren Bildschirmen, Telefonen und Köpfen das reale Universum steckt und damit das Arbeitsfeld zukünftiger Gestalter.