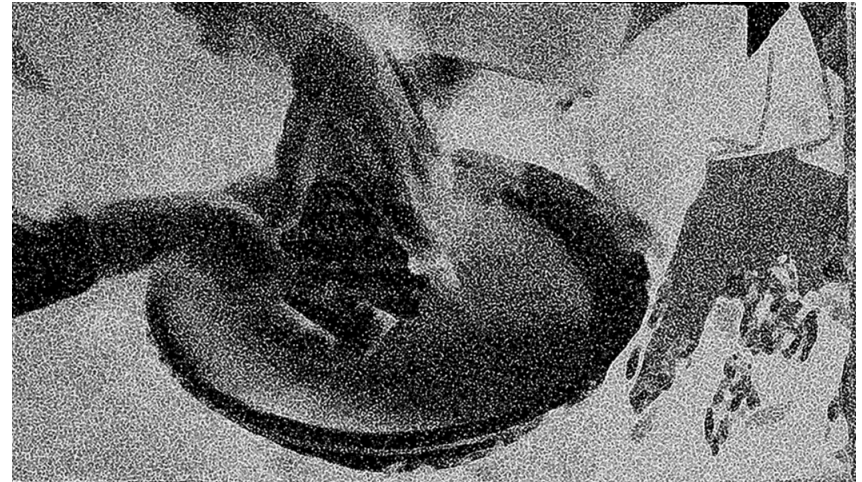


# FORGOTTEN



This is a project about the way we create and the implications of computer-mediation on craftsmanship and creativity. *Followers* explores the substitution of physical practices and artefacts with virtual creation and experiences. Original photographs and collage accompany conversations with craftspeople, artists, and designers who address the shift from analogue to digital and what it means to create and exist in virtual spaces.







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CLAYTON COLLIE  
CONSTANZA CAMILA  
EMILY SMITH  
JAMES KRAIMER  
STEFFEN KLAUE

# COLLABORATORS







artwork by ANNA JO K.

words by ELLA KRAIMER

We use programs to simulate the  
summer breeze. What is lost in the  
name of efficiency? Will we succeed  
at making touch intangible?

We exist in virtual places  
insistent on pleasing us  
as we feed and feed.  
Is our behavior programmed?  
Interaction is designed.  
And the physical medium  
fades before our eyes—

in the name of efficiency  
we stand by  
Do you see beauty  
becoming sanitized?  
Is there still space for art within  
design?

Touch screens –  
hollow hands.  
Are we humans  
or users?  
Makers or  
followers?

FOLLOWERS



## Prologue

what does it mean to be makers of intangible things?

This experimental project is a research into art and design in the age of virtual media – a creative extension of my thesis exploring how the abstraction of craft has affected the quality and artistry of visual communication. The paper also explores how automated and democratic technology is displacing the value specialization in design. The critical analysis of our current design practices outlines how digital frameworks and interfaces have corporatized and homogenized the aesthetics of graphic design on the web and asks important questions of how digital making continues to shape

the way we create, what we produce, and how the public interacts with our work. The photographic series titled *Intangible* is a response to conversations with experts. This visual narrative is an expression of virtuality and a reference to Jean Baudrillard's theories outlined in *Simulacra and Simulation*. For Baudrillard we have embarked on a journey in which everything in our world is controlled by simulation, and code, where the hyperreal governs us more than the real. He warns of a future where reality is consumed by simulacra. "By crossing into a space whose curvature

to exist in the shadows of our digital selves

is no longer that of the real, nor that of truth, the end of simulation is inaugurated by a liquidation of all referentials."<sup>1</sup> The photographs depict humans as these referentials disappearing into the shadows of our digital selves. A projector was used on naked skin to symbolically and visually represent abstraction and simulation of human touch and existence. The ambiguity among forms blends the physical and virtual on a single plane. Digitised collage and photomontage explore the forgotten potential of paper-based media. Through manipulation of the physical medium through ripping, shred-

<sup>1</sup> BAUDRILLARD, SIMULACRA AND SIMULATION p.2







# CLAYTON COLLIE

TRUTH

A CONVERSATION  
WITH CLAYTON COLLIE

*“Our digital self is  
becoming more important  
than our physical self”*

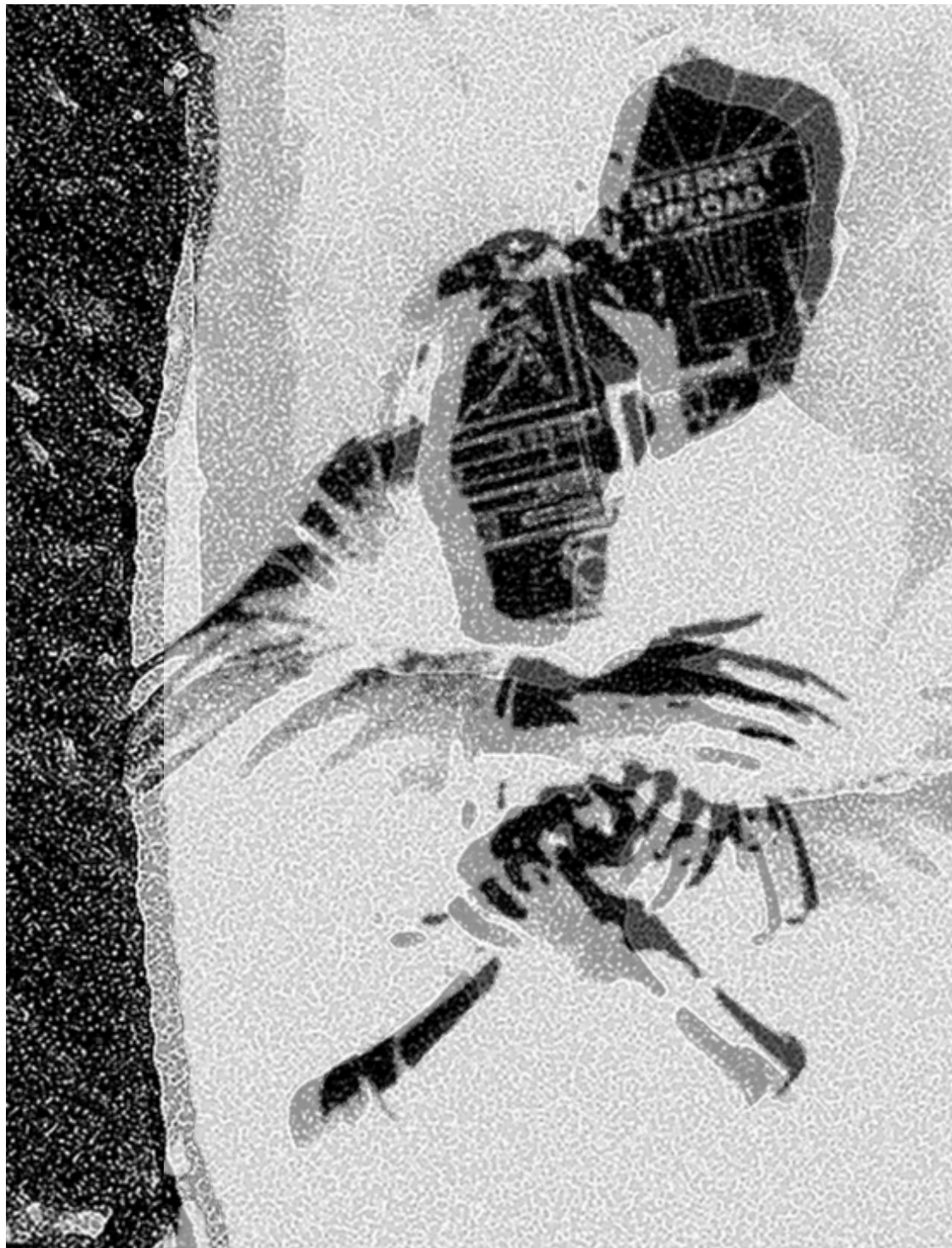
SENIOR WORDPRESS DEVELOPER

.....

Clayton Collie is the Senior WordPress Developer at Content Pilot, responsible for strategizing, developing, launching, and managing custom, high-quality law firm websites on WordPress. Collie works with a team of Project Managers, Product Managers, Client Advocates, and Developers to bring client's dreams to

the web. Clayton emphasizes readability and documentation as extremely important elements of his practice when working in his team. I spoke with Clayton on the 8th of January, 2020 on how accessibility is affecting web design standards and how the maker's mindset has changed with computer mediation.





### What is your design background?

I started coding html when I was maybe 12 years old, and that was when websites were really easy to look at the code base. You could look at the code, you could change it and refresh your browser and you could see changes instantly. So I just started teaching myself html for fun. Then I went to SMU in Dallas for University. My first year I did computer science and I got a scholarship for that. But it was very basic, similar to html which I already knew, so I ended up doing a Bachelor of Fine Arts at the same time. After the first year, I dropped computer science and did art full time. I made functional pottery – cups, bowls and plates, all on the potter's wheel. Throughout that time I was working with computers and coding, and my first job out of university was with a startup computer company building their website and mar-

keting materials – not so much the application but more the marketing side. I started working for a marketing agency building websites with Wordpress for law firms, and that's where I've been since 2015. I started building small websites that probably got under 100 users per day to websites that I'm building now which have up to 500-1,000. I'm mainly a developer, but I've done so much designing and developing that I feel I do have an eye for design as well.

How was it to move from interacting with a physical medium to developing websites online? Did your relationship to your work change as you practice shifted to digital tools and spaces?

I think initially when I stopped making ceramics full-time, I definitely missed the touch, and the satisfaction at the end of the day that you've created something physical that you can

see. But I'm in a role now where I'm a lead developer – I build projects but I also build the entire product, so I'm free to explore, I'm free to build things that my other team members will use and iterate on. In my work with ceramics, my biggest joy was the curiosity and physical movement – you're always moving your hands. My work now is different, but I'm still creating something – creating something from nothing.

What differentiates your making in the digital and physical world?

I don't think you'll ever get a 1:1 comparison with physical and digital creation. I think you're always still going to be interacting with the physical and digital world. In the world of ceramics, I like to think about functionality; cups, bowls, plates, things that you use maybe 2-3 times a day, but let's think about the hyperfunctional pieces like your toilet and

your sink, your shower tiles. Those things are still physical and need to be creative. Even though we won't ever get away from the physical world because that's where we live – the level of craftsmanship will still be there. When I build a site, I build it error-free, with structure and with thought. The same way that I would build in the physical world. The maker's mindset will still be there to build something with love and care.

How is web design technology built to enable users to integrate original and individual concepts and brand identities? How far can users push the boundaries of templates?

Wordpress.com and Squarespace are very closely aligned. These work with templates and there are only so many options that users have. The open-source initiative Wordpress.org – which is how I build websites – allows people

to build basically anything that they want because they have access to all of the source code. So splitting those apart is a fairly important distinction. When we talk about Wordpress.com and Squarespace, these platforms have built a framework with a no-code solution. I think when working with these you're really doing a balancing act between your structure and your usability, which is basically the html; how elements stack and how things are nested with all of your design elements like videos and images, the typography, the colors. I do think that Squarespace and Wordpress.com can be limiting on the creative possibilities that one has. That doesn't mean that you can't make a great video and imbed that, but yes – I would definitely say that it does limit your ability to change code and make your website any way that you want. With Wordpress.org I think have much more freedom

space because you can use any coding language, any design language, basically anything that's available to you on the internet.

I'm curious with all of the knowledge that's now accessible on the internet, there are tools that make design easy, that allow anybody to create a website,. Yet there's still a degree of expertise necessary. Like you're saying, having the ability to program does allow one to have more freedom in creating the website that's unique. How do you see this developing in the future? Do you see web development tools changing to allow for more freedom for the user with no coding abilities?

Yes, there are two instances where I see this happening. One is within the Wordpress space and that is the editor feature. It's basically a block-based page builder, where you take very small elements and break



them down, so when you look at a whole page you might have a paragraph, an image, and a list item. So within the block-editor, you have these small components that you can layer and stack and build together. So yes, I think that's bringing the whole construction of the web forward. The other tool that I've been watching is Webflow, which is probably the most robust tool that I've encountered. You get an enterprise solution code-wise, but you also get a drag-and-drop, what you see is what you get, builder application. Really it still comes down to how much time it takes to build these underlying frameworks that allow other people to sit on top of. I don't think that's ever going to go away. But the longer these products have been out there, the more time they are able to iterate on their frameworks and see how the millions of users have used their tool. Maybe 80% of them do just the very basic stuff, but

maybe another 10-20% do try to push the limits, and we have to build that into our frameworks. So, I think it really takes time. If you think about Microsoft Word, or Windows, those programs have taken decades to build and get right, but now they are very robust. So, I do think we are making progress. There is definitely going to be a DIY version for the majority of lay people, but there's also going to be the straight-code version for enterprise and people that want exactly what they code to be rendered how they want it to appear on the page.

How do you balance function and usability with unconventional design and how can we leave space for beauty in the way that we develop this technology?

I think it is a very difficult thing to balance because when you're developing something you have to take into account: all different

“I think the more digital we become, the harder it will be to say with certainty, what is real and what is not.”

genders, races, age groups, all different physical abilities; blind, deaf, disabled – and those are just the users. That doesn't even encompass the device, the size of your browser, the speed of your internet connection. So a lot of those factors are why we develop standards, and why I think you're seeing a homogenization among the majority of websites. Because we know those are what work. For me I like this, because I focus a lot of my coding on accessibility. This means browsing a website using just a keyboard or with assisted devices, so having it be standardized is, I think a fairly good practice. But as far as design and beauty, I still think you can achieve parts of that with color contrast, weight, and typography. Some of my favorite websites are more minimalist designs, but there are still a lot of great design elements within that. I think you can achieve more unconventional design in-print

because you're restricting the medium in which you're viewing it. You're saying, "This is the magazine. It's 12 by 14". It's 300 dpi. It's high gloss." You're controlling so many variables. With web design we can't control that. We're building it for the widest amount of people. I think that hinders us from breaking free of that mould.

#### Do you see enough diversity in Web design today?

If you go looking for it, yes. There is the indie web where you can find individual creators out there that I follow. Mainly in the CSS - cascading style sheets – I think we are starting to see people pushing boundaries. We still see some of the more basic building blocks repeated a lot like the placement of the logo and the header, the main masthead and the content, because people are trying to present content that you can read and you can digest. If you check

out different awards like the webby awards or the AAA awards, you can really find some pretty progressive designs out there but then it's hard to know what it looks like on a desktop monitor, what it looks like on a mobile device. I think there are still people out there that are pushing the boundaries and making art, but I think the trends we are seeing speak to the purpose of these website and what they are trying to accomplish. You wouldn't expect an alternative website from your insurance company. You visit their site to have a question answered, not necessarily to have an emotive experience. You don't want a whole lot of design to get in the way of that information. I think there is a balance. I try to tell my clients, and my designers, and strategists, "What's the purpose of this website, or this single page?" If you click on a search icon in the header, what do you expect to get from that interac-

tion? A search bar. So why would you put other conflicting information on that same plane, or in the same weight? It's really a visual cue that you can do away with and it will make everything just that much more user-friendly and engaging. That's more the call-to-action and the marketing side; what is the purpose of that page, what is the end goal for your visitor? So there is the side of the web that's about conversion, and purpose, but I still think there is undiluted art and design out there if you go looking for it.

#### Can you offer some insight on the evolution of web design visually?

I definitely think that it was more creative in the early 2000s. If you think about myspace, you would see crazy elements flying across the page, or you could change icons to be a unicorn, or music playing as you load a page. That really was kind of the wild-west of



“If you’re a follower, you have to be discerning. If you’re a creator, you have to be committed to circulating truth all the time.”

web design. Whatever you wanted to design, it was there, it was available. Now that the amount of people coming online, I think that has really caused a need for standardization. Like we talked about, there are so many factors that you have to take into account to build these web pages that we might have lost some of that individuality. We were talking about accessibility, and one of big things is color contrast. Back in the 2000s you might see a black background with a lime green text, where now that would be deemed illegible. Now the standard is higher. I think some of these standards are good, to bring the majority of visitors along, but I definitely agree with what I think you’re seeing, that creativity and individuality is coming down.

Do you think the role of design is being suppressed by the need for mass accessibility and marketing? Do you think there will still be

enough creative opportunities for designers in the future as technology develops and as these standards become more rigid?

I think we’re seeing a lot of designers gravitate towards visual mediums like Instagram or Dribbble. But even then, these programs are still incredibly restrictive, sometimes to a simple square. So it’s really up to the designer to make their work stand out within that square. I do think that these tools make it a lot easier to get their ideas out there in a visual way versus translating their designs into a coded being. In my world, the end goal is the coded product. So in the end, the source of truth will be the code not the design. I think what a lot of agencies have a problem with is they see code at the bottom – like the widget that you have produced – where design sits on top, and strategy sits on top of that. So, as a developer, it’s hard to bring our idea and our sensibilities inline or if not

above design, to say, “Hey, this design isn’t working for this screen size or this user. We need to adjust.” I think designers really do want to hold on to that vision. I think some of the better agencies are starting to adapt a more cyclical and back-and-forth process between designer and developer. That is going to bring out a better product, and may not be the exact way it was designed or approved, but it remains true to the idea.

I’m finishing my degree in design, but we’re talking about tools that help people with no prior knowledge of design produce their own websites or logos comparable to the work a professional designer and for a much better price. As somebody who’s creating this democratic technology, do you think there are implications on the quality of visual content made by amateurs? Do you think there is still a place for the specialized designer today?

I think there is definitely a place for higher design and craftsmanship in any industry today. To answer your question – yes it’s still important to have visual design training. It’s so important to train the ‘eye’, to work better with white space, and contrast, and weight, but also to receive technical training in some applications, like the entire Adobe suite. Those are pretty complex. I totally hear what you’re saying where your life’s pursuit or profession, is being one; democratized, but also devalued. And that’s happening in the coding space as well. There are over 50,000 open source plugins on the Wordpress.org repository that anybody can download and use. The refrain of a lot of people that start working with Wordpress is, “Just go find a plugin and it’ll fix your problem,” and that’s good and bad. It’s great that novice people can get going very quickly but also, we don’t acknowledge the person on

the other end who built that plugin which was made with time and love and craftsmanship. So I do think there is room for high-end work and profitable work. I see that too with ceramics. You can go to Target and buy a plate for \$5,00, but you can also spend \$150 on a hand-made plate. It’s really up to the consumer to make that choice and be educated on knowing the difference.

When I was doing my research for my thesis, I learned that the aesthetic consciousness of the general population is rising with our daily engagement with personal branding on social media. Do you believe this higher sense of aesthetics might translate into our ability to create better websites without design training? Do you see that reflected in the standard quality of websites made by amateurs?

I think it will be an evolution. For people that are non-technical, you’ll start

with whatever you can find in that moment – like Squarespace or Wordpress. After you build up a reputation you can invest in the second phase of your career or personal brand, and that might be when to bring on a custom developer to help bring out your vision. Especially during this past year with Covid, I’ve thought about this a lot. Our digital self is becoming almost more important than our physical self. If you don’t have a good place to mount your camera, if you don’t have a working microphone, if you don’t have a presence online – people will notice that. I think what you just spoke about with branding, if you see a brand when you go to a website – you know if it’s high quality or not within the first five seconds, and that conveys a huge amount of trust. I think personal branding and then company branding is going to be huge. Now and forever.



When you speak of the digital self becoming more important than the physical self, what do think are the implications – what exactly is being lost?

I think we're seeing it with Donald Trump – we're losing truth. Maybe it's not losing truth, but it's devaluing what the truth is. If you're a follower you've got to be discerning and if you're a creator you have to stay committed to circulating true messages all the time, to keep that trust with your viewership. I think we are seeing that you can easily lose hold of the truth in a heartbeat. Look at all of the stuff going on in the US with the capitol. People don't even call it lies anymore – we have alternate truths. It's all a euphemism for a lie. So, I definitely think the more digital we become, the harder it will be to say with certainty "What is real and what is not?"

How do you see the future

of web design developing, or the tools and technology used to construct virtual spaces? What message would you impart to people contributing to online content?

A message to framework developers – people developing technology so that others don't have to – is to keep pushing yourself to be inclusive, but also leaving your platform open enough for people to add on their own spin. We're in the 'software is a service' world now, where there's major platforms like Salesforce or Webflow, or even Squarespace, and really those are just foundational blocks for other people to build their own add-ons. So, think of your product as "how can I build something rigid but flexible in certain places?" That's where web-development is going. There's always going to be a place for niche, home-grown, home-spun, craftsman type work, but the large majority of it

will be consumer. Bringing all the people of the world online is going to lift a lot of our world out of poverty, to provide access to so much information and – I hate to say it – truth. If they're in Myanmar, or North Korea, getting those people informed on what's going on in the world, is really going to raise those people up. I think the world will become more balanced as more people get online and we start wrestling the question of "what is truth?" and 'How do we curtail social media platforms to maintain this truth?' I think we'll see a lot of people leaving social media platforms for their own websites; taking control of content ownership. I've been talking with friends about this Web 3.0 revolution where we become owners of all of our data. Where we become owner's of our digital self, whether it's with a social token, kind of like bit-coin or ethereum – something that's a unique identifier for your unique

digital self. For that to own all of my data, but also to allow other digital entities to have a piece of that and for me to get compensated for allowing them access to it. I think a lot of it is going to boil down to ownership, and how we can regulate who has access to your digital self.



VISUAL  
EXPERIENCE



# CONSTANZA CAMILA

THE BIRTH OF  
AN IDEA

A CONVERSATION  
WITH CONSTANZA CAMILA

*“I try to move away from  
function to create new  
experiences.”*

CONCEPTUAL TEXTILE ARTIST

Constanza Camila is a conceptual textile artist with Chilean German roots. She was trained as a designer at the Art Academy in Burg Gebichenstein and did her masters in Fine Arts. Currently she works in her studio in Munich Germany where she continues to create conceptual woven pieces and introduces new

mediums such as resin. She is studying philosophy at Ludwig Maximilian University working towards her doctorate. Her work incorporates ancient weaving processes with digital fabrication. I spoke with her on the 5th of January, 2020 on what it means to be a craftsperson in the virtual age.



What influenced your journey to becoming a crafts-person?

When I was very young I wanted to work in fashion – not necessarily the fashion industry but fashion in the sense of a dream. My biggest influence during this time was Martin Margiela. He was the first artist who really spoke to me. When I did my first internships, I realized more about the industry and wasn't sure anymore if it was right for me. When I worked for designers, I always felt that there was an exclusivity to design – the designer's bubble. There is a second bubble where craftspeople fall into – the people who make the patterns, and the tailors – the people who do the real work, or the heavy lifting. I always felt much more connected to the craftspeople than to the designers. I felt that the people who do the handcrafted labor were the real creators. I also was very passionate

about learning processes, and how production companies work. Even when I was studying this was my main point of interest; how is something created, what is the background, what is the production process behind making it, and what is the technique? I was always interested in deconstructing processes in small steps.

Can you provide some background on your education?

I went to Burg Gebichenstein, near Leipzig in Halle. The university is over 100 years old, and is in tradition to the Bauhaus movement. Bauhaus was established in 1912-14 in Weimar but when the Nazi regime forced them to close down because there were too many free-thinking. Many of the Bauhaus teachers left Germany, but many went to Burg Gebichenstein – especially the textile department had some Bauhaus visionaries. That's why this



university still has a strong connection to the crafts. It was a very traditional education. In Burg Gebichenstein, the disciplines of art and design were completely separated. I think it evolved this way because many of the professors and curricula are very old-fashioned and traditional. What was really good about my education was the clear focus on the crafts, which provided me with a very deep insight into the field.

**Do you identify as an artist, a designer, or both – and is the distinction important to you?**

I think there are still so many universities, teachers, designers, and makers who need an explicit wall between the two disciplines. I don't think this is necessary. I would say you have two sides; part A and part B, but in between you have big connections which bridge the two. I feel that I am part of this "in between". I don't

feel that I am 100% artist or 100% designer, and I see value in this. You can work or use the tools of both disciplines. In design you have different aims and different focuses, which rely more on function and aesthetics, where art asks different questions. But, of course you can use thinking tools from design and translate them into art. I also appreciate that there are questions in art which can also apply to design. I don't see this concrete separation. These disciplines have two different focuses, but they certainly overlap and can learn from one another.

**In the work you do, the tools and the techniques are ancient. What does that mean to you to uphold these practices? For designers today, the tools we use are digital. Our creation becomes structured along technological frameworks. I'd love to hear about the intimacy and the importance of the process and tools you engage**

**with.**

I do both – I work with ancient looms but I also work with industrial looms and producers. I have a relationship with a producer in Italy which I've been working with since mid-2019. I also create my textiles with a computer. I can do a technical drawing on photoshop or illustrator and translate it into a weaving program. This is the complete digital part of my work. But the reason I wanted to work with old, or ancient looms, was to make hand-made textiles all by myself. When you work with your hands, or with a hand-loom, you are in the moment completely free to decide what you want to do. It's not planned, not overthought, one works truly in the moment – like an impulse. This is something that you can't do with a digital or industrial process. The industrial or digital technique involves much more planning. You have to program what you want to weave, so you real-

ly need to have your plan in mind. Then you send your design out and the producer will weave it. The process of weaving with a producer takes weeks. If you want to try a different design out or make adjustments, it takes a lot of time. When you're weaving with a hand-loom, the pro- is obviously that you are free to decide what you want to do right now. Engaging with hand-weaving helps you to understand how the weaving process, how the specific construction works, and it also helps you to understand the industrial loom. The first step in learning how to weave is learning how to work with a hand-loom. When you understand the process, you can move on to the more complex looms. It's always good to have this space to understand what you are doing to really fulfill your knowledge about weaving.

**When you weave something by hand, or on the hand-loom, how does that com-**

“Everything is in a changing process. Everything needs to be changed all the time.”

pare to when you design on photoshop and have it woven industrially? Do you feel more connected to your hand-woven or industrially woven work?

The connection goes always through the moment. When I'm sitting at a loom and weaving, it's the beauty in the moment you're sharing with the tool – in a way, you're creating something together with the tool. With an industrial machine, it's the same but you have to be there in the moment of creation. If I am present in the moment that the machine is weaving my textile, it's an amazing moment – it's fascinating. You and the machine are becoming accomplices. Together you are creating something. It's like the machine is giving birth to your textile. If I'm not there to witness this, and the textile arrives weeks later, I also appreciate it, but not nearly as much as when I am there to witness this birth of my idea – when the yarn is con-

necting to each other, and a textile slowly appears. Of course, with the hand-loom it's much easier to be part of this creation because you have to be there. For me, there isn't a huge difference in my connection to hand-woven or industrially woven work, it's more about how I can share this moment with the machine, or with the tool. Emotionally, I am very connected to both.

I am curious how you continue to teach yourself new processes and new materials. How is your learning continuing today and who assists you in this learning?

I think to keep learning has always been important to me. I never feel like I'm done with learning, I always feel like there is so much more to learn. Which is what probably inspired me to study philosophy on the side of my making. I am so interested in techniques, that I feel like a collector of these processes and skills.



I love how techniques are connected to places, and special people. So for me, if I want to learn a new technique, I have to go to these places to meet these people – wherever it is. For me, it's worth it to go there whether it's Japan, or Chile, or America. I can learn techniques from books, I can even learn from youtube videos but it will never be the same than to interact with somebody. To have an exchange, is the most important thing in learning. There are things somebody would never include in a book – some things someone would never share on youtube to the camera. When you are present for the making, you realize all the minutiae of how the creator acts in each moment. The little things, – the implicit knowledge – is the most important for me to achieve a higher level of understanding. Of course I would love to train with a weaving master or to learn techniques from real people. But since Covid, this

isn't possible. So I really appreciate the possibilities of youtube and digital communications.

*What is it like to possess this skill – this knowledge – that is so uncommon today? Where does your work and practise lie in the context of the industrial and commercial world we live in today?*

I think because I have this background and this knowledge, I can appreciate and be grateful when people are interested in hand-made work. When textiles are hand-woven, hand-dyed and the plants are cultivated on a small scale – the work becomes treasure. But I don't think this is the only way to work. I think it's good that we have the technology to develop new processes. It is valuable to know both. If one becomes too focussed on traditional practices, where is the development? I really appreciate when a master in Senegal or Okinawa, is really

passionate about making textiles by hand, translating traditional or ancient technique into the now. I can't criticize this. But it is just as important to translate these practices into the future with the tools and technology we have today. You need the knowledge from the past and the vision for the future. It's always about finding a balance. For my work with resin, I made the textile by hand with silver wire and horse hair. For me, it was equally as important to introduce the resin. To have a certain technological development is very valuable, because I want my work to go beyond crafts, bringing new energy into my projects. I've been to so many textile exhibitions over the last year, and it seems like textiles are becoming chic and trendy. But the textile art pieces I encountered were boring and predictable. I saw a lot of people creating graphics or paintings and asked a textile developer to translate their painting

onto textiles – that's it. For me, that's not very inspiring, I thought, "Where are the people that really go deep into textile knowledge and don't want to use it superficially? Where are the people that really transcend the borders?" That's why it's important for me – as a textile artist – to employ the knowledge of ancient looms while working with modern weaving practices to transcend these borders of technology. If there wouldn't have been artists or designers and a machine would solely create a textile for you, I don't think that machines will be able to challenge or surpass these borders – their own limitations. You will always need a person to push these limits. Without this, we won't arrive at new knowledge, we won't have new visions, we will stay in the same old thing.

*It's interesting that you speak of the potential for stagnancy when we don't challenge the limits of the*

medium or tools we use. In the world of digital design, we seem to have figured out what “works” and what people are comfortable with and nobody wants to challenging the standards. I agree with you that this mindset leads to superficial making.

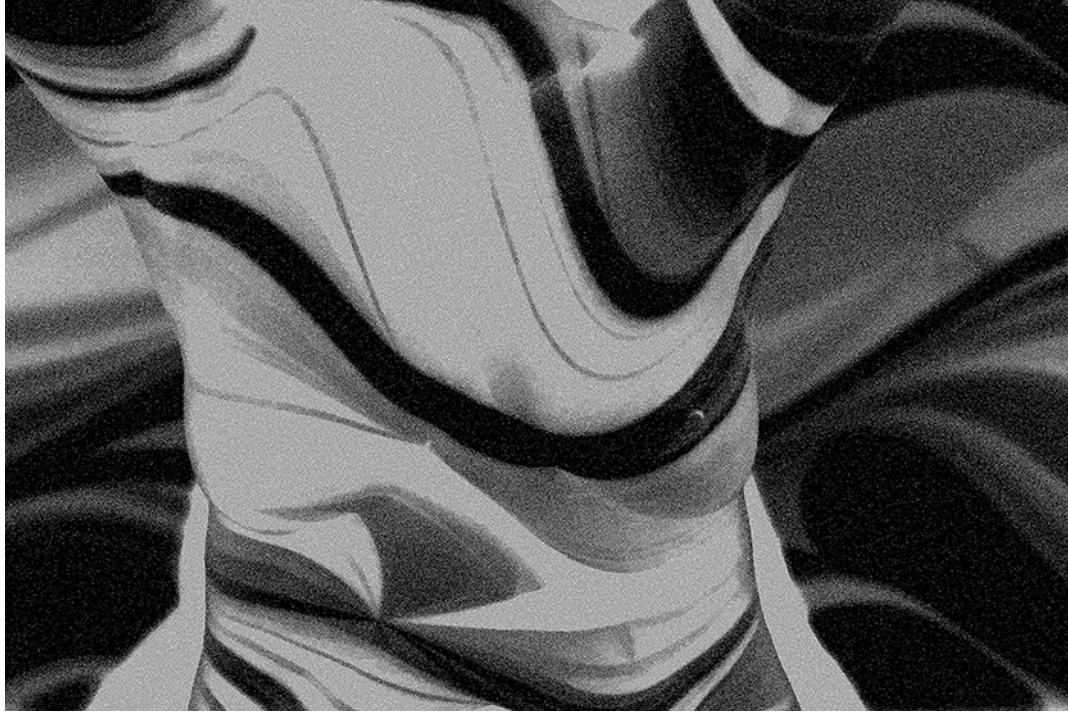
In your textile works, do you have to think about function, or is it pure conceptual art? If function does play a role, how do you balance function and beauty?

Well, I’m educated as a designer, so these terms function and beauty thoughts are always there. I can’t ignore them. Mostly when I’m working with processes of art and design, I try to remove myself from function. Function is something which is built from knowledge, or experiences – but the thing is, when all of our experiences are just determined by function everything becomes fixed. There is little space to create something new. Function, in

a way, is very limited. That’s why I try to remove my work from function to create new experiences. I do try to think “What can this be, how will people use this?”, but I also try to express myself. I know it’s very hard sometimes because people need specific categories to place things in, but I see very limited thinking only in function. Beauty – is completely different because beauty has a very wide spectrum of existence. You say in German “Schönheit liegt im Auge des Betrachters” (*beauty lies in the eye of the beholder*). I can find beauty in a material, in a special moment, in a special light. I have been thinking so much the last months on beauty, while I was reading Adorno’s aesthetical theories in my philosophy classes. Adorno says ‘real development of something new lies not in the harmonic things, but always in the dysharmic things.’

“Adorno’s theory on aesthetics says that ‘real development of something new lies not in the harmonic, but always in the dysharmic.’”





INTAGIBLE  
28 DEC, 2020





DANCE AND DESIGN

A CONVERSATION  
WITH EMILY SMITH

*“[...] beauty becomes  
somewhat sanitized in the  
name of legibility.”*

# EMILY SMITH

DANCER, DESIGNER AND EDUCATOR

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Emily is Professor and Head of Communication Design at UE University of Applied Sciences Europe, in Berlin. She directs a research-driven design curriculum focused on experimentation, collaboration, and cultural diversity. She also lectures and teaches in design, fine art, curatorial, anthropology and

architecture contexts around the world. She is co-artistic director of the Fikra Graphic Design Biennial 01; the first graphic design biennial in the Middle East. Other exhibition projects engage with documentary arts, cultural phenomena, and educational structures. I spoke with Emily on the 12th of January, 2020.





How did you first become involved with the discipline, of design and how did your career evolve into design education?

I came to design quite late. I worked in the music business as a dancer, choreographer and dance teacher until my mid-twenties. I didn't start working in design until then. That was doing design for music promotion, and I was somewhat self-taught. I took a couple of classes at a local university to learn the programs and I had a powerful desire to understand typography – that's what got me started. Typography in general was a good fit for me, because I'm not an illustrator, or a photographer in the classic sense. Typography was exciting for me because it was something that you could control but also experiment with. I already had a bachelor's degree but studying again made sense. I was accepted to a university in Los Angeles California that had a good reputation

for being applied and rigorous – but not as theoretical and experimental as I think I had wished. The program was set up in an interesting way because rather than splitting things by medium, it split them more into questions of time-based media. This is what I was interested in because it allowed me to still be a dancer and a choreographer as well. I wasn't so interested in identity systems or corporate stuff. I didn't want to do commercial work. I wanted to get as far away from advertising as I could. After I graduated I had fallen in love with a German and decided rather than staying in LA or going to New York, like everybody else I came to Berlin, and I applied really confidently to all of the best design agencies thinking, I got a callback from a mid-sized agency that did a lot of corporate branding and identity systems, packaging and marketing. So I ended up doing exactly what I didn't study. I stayed there for quite a while and learned

an immense amount. It was a remarkable agency community. I think there is really where I learned the complexity of projects and we had a lot of space to work creatively. Alongside that I was still choreographing and dancing and doing a lot of performances in Berlin. My colleague who left the agency before me started her own company and got a big contract to do the design for the natural history museum and she asked me if I would join her. That's how I became involved in exhibition design the late 2000s (2006-2014). We worked with programmers, media designers, architects but also paleontologists and mathematicians, as well as anthropologists, artists, and engineers. From there, I decided to remove myself from design and was interested in being there for the conception and the more conceptual research side. I got my masters in visual anthropology which allowed me to develop more critical skills and other methodol-

ogies and tools to uncover more complex questions around the role of design. At that time I made my living teaching at the former BTK.

[Can you tell me more about your Visual Anthropology studies and what insight it provided to your understanding in design?](#)

Visual anthropology is the study of humanity and culture. But rather than writing about it, it is the visualization of it. Anthropology is a long-term embedded research process to understand the nuance of the way things work. Classically it's the systems, structures, and rituals. You might think about it in terms of tribes and you could do an ethnographic study on our University to try to understand the dynamics and relationships. So it's a very nuanced and complex understanding of culture and I think much of that is embedded in design, and in customs and behaviors. Designers tend to do this on

and then it plays out across time into an entire score. My background is also in improvisation. Choreography is very controlled and improvisation is also controlled but it tends to be more open ended. Those two brackets are also how I think about design. Design can be really controlled but I'm really interested in the way design can also be set up by a system of rules and then within that, one can improvise.

If I move that thinking into the digital realm the first thing I think of is the number of motion projects I've art directed. I worked with a programmer years ago trying to come up with a coded score that can generate live motion for a large event. It had to have certain parameters that limit it, but it also could move into different emotional states. To me they were almost dancerly – a duet between two elements moving together. My language had to be translated into programming and coding language. The stuff we creat-

ed was pretty phenomenal. At any moment of the three day event, we could throw in new numbers and new movement would be generated automatically. I think a lot of the stuff in generative design is definitely related.

I did a piece when I was in university where I took stock-market data that changes in nano-seconds, and I connected them to graphic shapes, so the changing numbers would automatically create certain movements on my screen. The idea of this odd project that I did years ago was that I would have a screen saver that essentially would follow and visualize my stock portfolio. The idea was to use movement and graphic abstraction to visualize something that's completely not associated. If my stocks are going up then my bubbles move rapidly and get bigger and bigger. When the stock market falls, everything collapses and it becomes a choreography in a way.



“Functionality has become about speed [...] I’d like to think that we’re going to find a space where we can have slow-design, or slow-interaction.”

the internet or with a questionnaire, but we don’t always take the time to deeply understand the context and the inner workings or the environment that we work in – yet, through design, we are shaping that same culture. Visual anthropology is traditionally a film and photography genre– you might see photographs or documentaries about a group or a community, or culture. I became more interested in the exhibition genre. Design, in and of itself, is something that uses a lot of these methods. Design thinking uses these methods to try to understand the way culture ticks, so that we can sell stuff back to it. What if we use design instead to hold up a mirror?

What it was like to move from dance to design then further into digital design? What did dance impart to you that translated into your design practice and what was it like to move from the very physical creativity in dance to the more computer

mediated practices in digital design?

Historically I put my dance in my past and I felt like these things were not so connected, until around six or eight years ago I started to understand that I thought about design like a dancer; that compositions expand and then contract – they lift and they fall. There was an aesthetic language that helped me understand the aesthetics of design – in dance this is in body language. Dance is deeply physical – part of it is at least. Part of that embodied knowledge drives a lot of the way I talk about and teach design. Secondly, for me, the choreographic is very designerly. It is coming up with a set of constraints or a set of scores, or a set of gestures, that repeat – or that develop into some kind of system that can be played out. Choreographically you have a movement or a phrase that becomes a more complex phrase, you can involve other people,

You spoke of the controlled set-up of design and then the possibility to improvise within those constraints. Do you feel like you see enough improvisation in design today or would you agree that design has become overly controlled?

I think sometimes improvisation is invisible. I like to think when designers or students are making things in the moment and following their gut, and their instincts, they are in some ways improvising. Later on you become analytical and you sift through it. I think there might be an argument to be made that there is improvisation in all design, we just might not see it in the refined outcome. Although I think a lot of designers skip that phase – the ideation, the iteration, and the prototyping. I think sometimes people skip this and go straight to what they may have already seen. So I agree with you there. I also agree with you in that things have become so streamlined

that we already have an assumption that if something is going to be an app for a startup, we can look at all of the design for startup apps and we just repeat what we know works. I think that is absolutely true. I think that when you try to break out of that mould by experimenting, you run into a whole lot of resistance. In the digital realm, I think most of the resistance is that the users need to understand it. If it's something radically outside of their comfort zone, it's going to be hard to achieve good usability. There is a lot of time and effort that goes into digital development as well and user-testing, so the users themselves are somewhat wearing blinders. I think improvisation in an analogue context is easier to define. Once a design needs to be produced in the digital realm, the constraints become more imposing. Can we code improvisation into the mainframe? Can we create apps that have an element of agency where the user can

mess around with things, or rearrange elements? Studio Moniker does a lot of really great participatory stuff. And that opens up the world of participation, and co-creation, and user-driven generative design. But I think it's hard to come by, and I understand why. It's political as well. There is a social component to this because once we just replicate what we already know, it doesn't leave a whole lot of room for marginalized experiences, or knowledge. There's a really good argument that improvisation is about working in tight spaces; something that mostly black, jazz musicians did really well – and they were doing it within the context of a 'tight space'. There's something about the constrained freedom of improvisation that allows those who are usually not accounted for in the mainstream to excel.

As graphic design moves online, or onto digital interfaces and devices, we have

to think so much more about functionality, usability, and what user's are comfortable with already. How do you think this is affecting the aesthetics of design, and do you think there is still room for design that challenges expectations?

I am optimistic, because I think the technology and the user-behavior is changing so rapidly that something's got to give. I think digital natives have a flexibility in their toolkit that perhaps older generations don't have. When you say functionality, in classic design, it's about legibility. We saw all these designers in the eighties and nineties that were breaking that rule. It caused a massive paradigm shift, and I think that is definitely in the works within the digital realm. I think it's being done by small startups and in art schools, and art contexts. And I think it will slowly start to affect the mainstream. In design, it's always been that way; the mainstream design does



one thing and then the crazy people on the outside challenge it and shift the paradigm. I think that functionality has become about speed. It's about comfort and convenience, and perhaps I'd like to think that we're going to find a space where we can have slow-design, or slow-interaction; that somehow will force us to think before we click things.

After the attack on the Capitol in Washington D.C. all my friends and family are saying, "We have to get off Whatsapp and get on Signal." There's a real call for it. And I'm thinking, "But changing an app is so hard!" Everyone has to learn how a new interface works, from parents and grandparents. I think there is a core desire in human behavior to stay with the known, and I think that's part of the problem. We give up a lot in order to remain in spaces that are functional.

What do you wish to see more of in design today?

I wish designers were more present. We rush through every phase and every moment. Even when we are taking our time, we're stressed about the goal of where we're trying to get to. I wish designers in general, if we were more present, there would be more community – there would be more collectivity – there would be more space for change. That's true to me in when I'm teaching, true to my practice, with my peers – we're always under deadline and that doesn't allow us to deeply investigate what it is that we are doing as designers, and what it is that design could do.

How do you balance function and beauty in your design work?

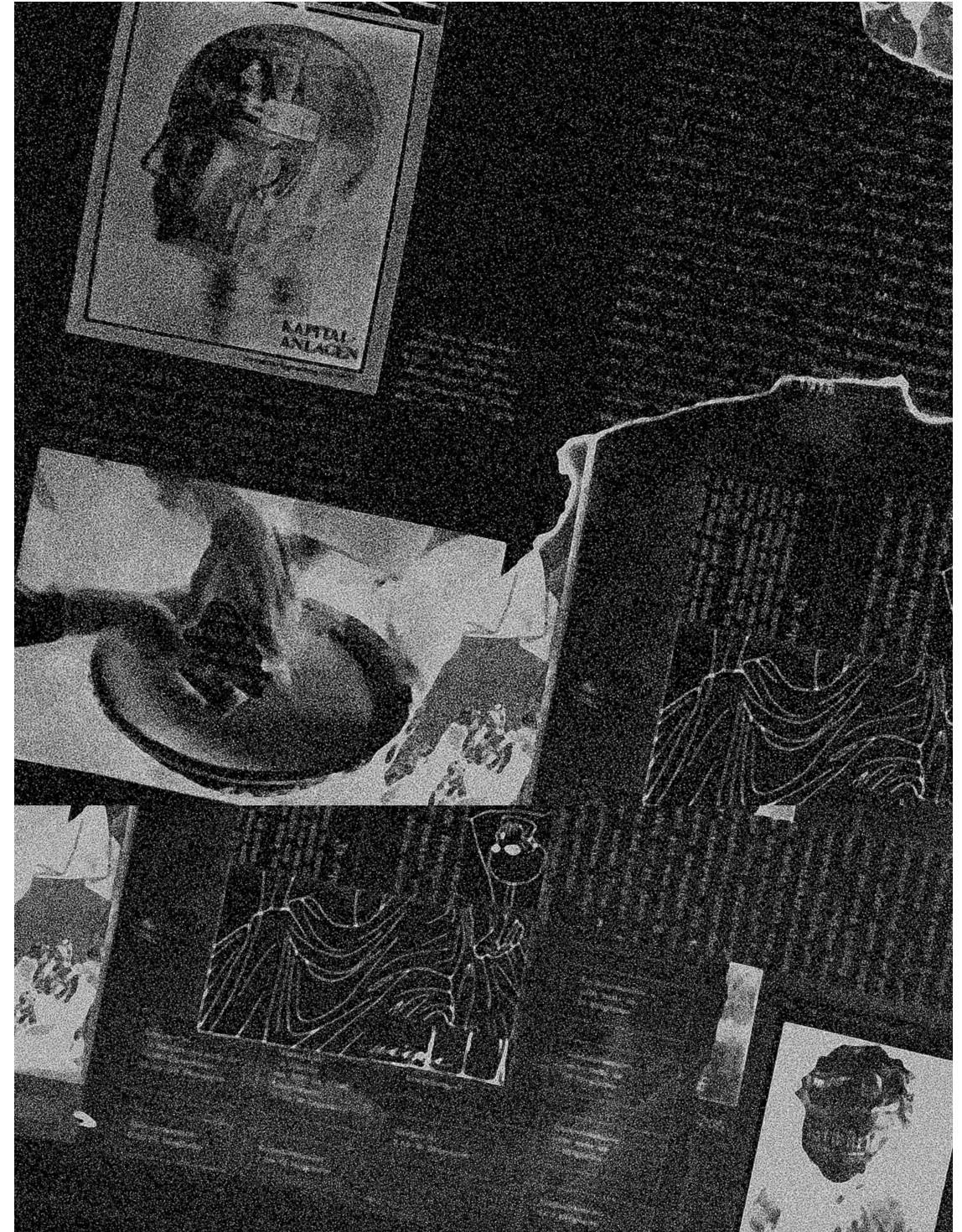
I'm making a publication with students right now. It's sixteen pages and I think the students are more worried about it looking really beautiful. But they also want it to be really readable and the beauty becomes somewhat

“I think there is a core desire in human behavior to stay with the known, and I think that's part of the problem.”



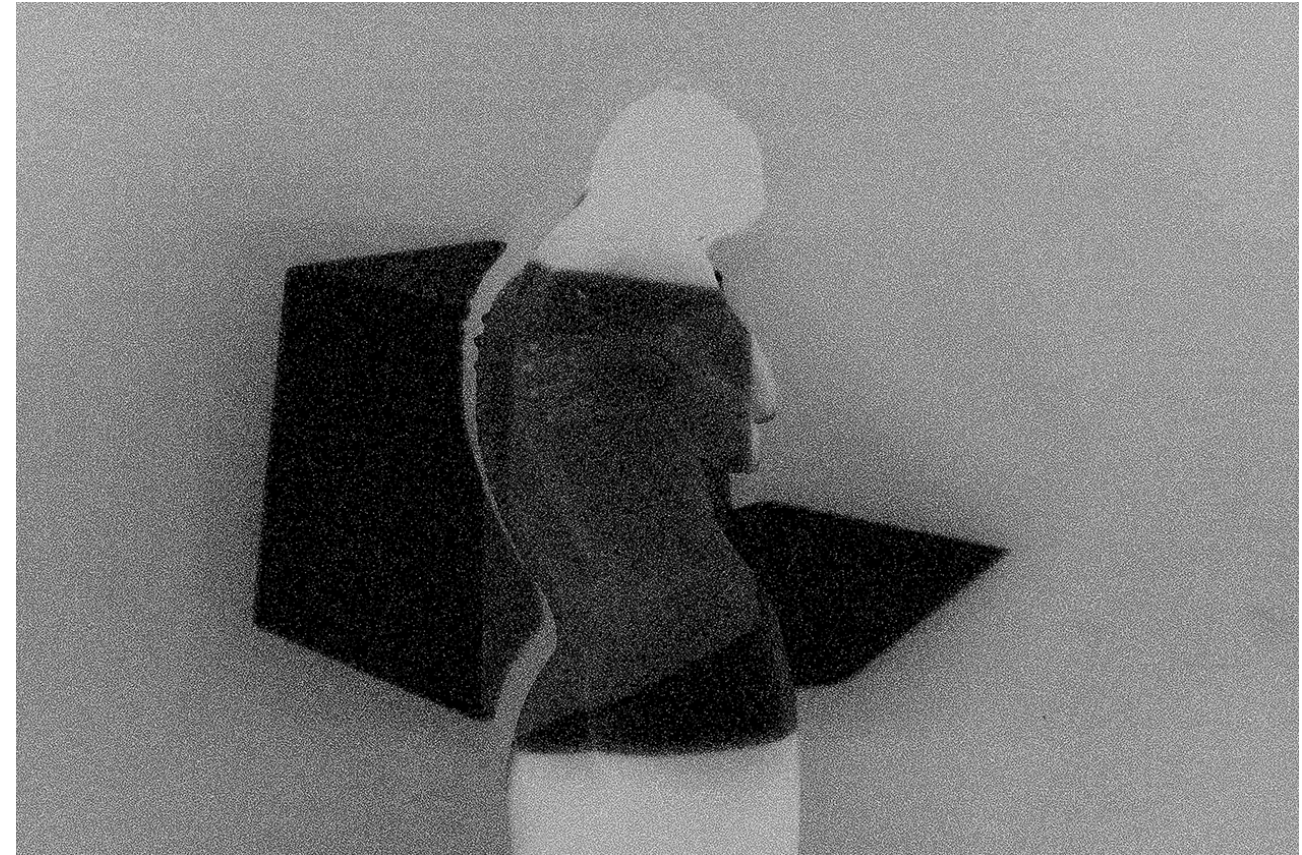
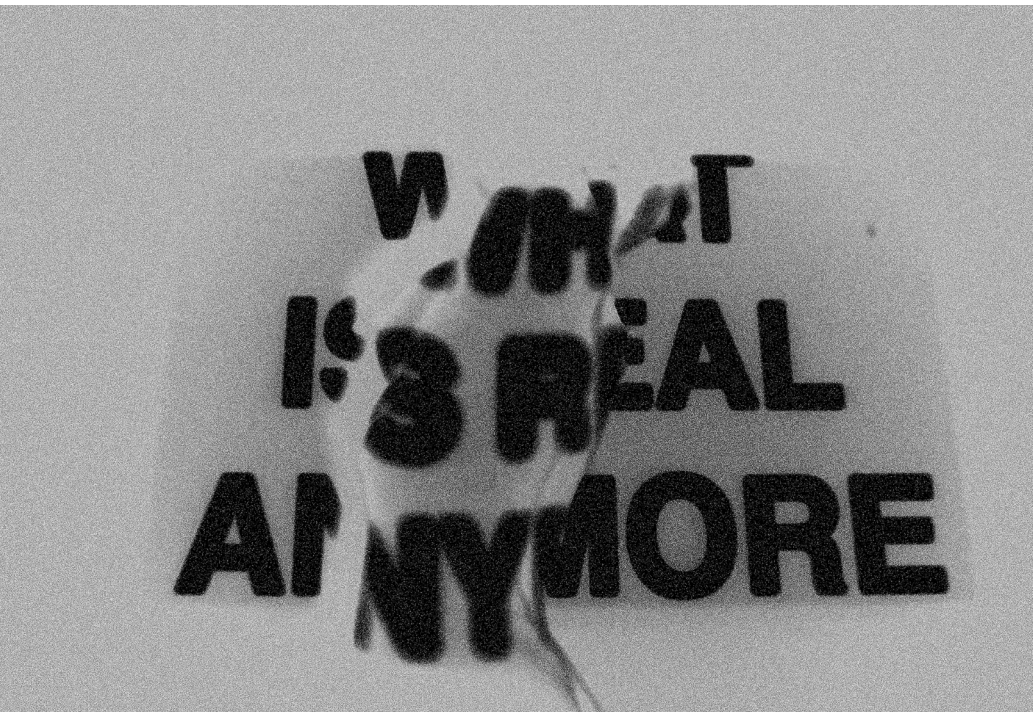
sanitized in the name of legibility. I'm trying to carefully, pedagogically, push them to see that sometimes illegibility can be beautiful. Maybe the same thinking could be applied to functionality. I do think that function alone can be beautiful. Something that functions really well can slide under your skin and make you go "Wow...". But what about the idea that functionality can also be rethought as being bumpier than we're used to – and that is where the beauty comes from. Or rather than separating, can we make the interface push concepts of functionality and beauty closer together? This makes me think about exhibition design, because it is critical that an exhibition functions well. I need to know how to get from point A to point B. I need the wall labels to read correctly. I need the interactive element. It's important that that exhibition functions well, but it's also really important to tap into visitor's emotional and sensorial layer, and that

is in the texture, in the craftsmanship. It's in the typography, in the materials, and the proportions of things. It's in finding a color that enters an architectural space that somehow compliments all the other elements. It can be so intuitive and if you get it right, you can make something truly beautiful – and functional. It tinges the experience of every passer-by in a certain light, shaping the way they feel the space. If you have an exhibition that's just trying to be pretty – and I say pretty because pretty is sort of condescending – then it's missing something. It's not trusting or honoring the audience.





INTAGIBLE  
28 DEC, 2020



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28 DEC, 2020

ZEROS AND ONES

# STEFFEN KLAUE

A CONVERSATION WITH

*“As designers we  
shouldn’t limit  
ourselves to screens.”*

INTERACTION DESIGNER AND EDUCATOR

Steffen Klaue is a Berlin based interactive designer, creative coder, and visual artist. He has worked for non profits as well open source and open hardware projects. Steffen has also been involved in a number of audio and visual art exhibitions. Over the past ten years, he has been teaching students in Berlin,

Bremen, Halle (Saale), Milan, Venice, Lisbon, Zürich and Beirut at various art schools. I spoke with Steffen on the 9th of January, 2020 on the role of function in digital design and how interfaces and digital frameworks shape our making. I asked him to share his story and expand on what his teaching methodology.





How you were introduced to design, how your career evolve to where you are today?

I started as somebody who took pictures. I took up to ten roles a week sometimes photographing for the Wednesday local newspaper. I really enjoy taking a topic and exploring it through photographs. I had a group of friends who were all interested in learning a very early version of photoshop. In the beginning, we came from computers, from gaming, to creating our own projects. Then we developed the idea to start a company together, filming trashy parties in the Hartz and Saxony Anhalt. We made our first website for a trailer company and very quickly we started to work for institutions like the Bauhaus, and became part of a nice political tool to show where there were investments in millions in urban areas. This was a map which helped visualize where there is planned destruction,

and where new buildings coming up, as well as how close these developments were to you. It intended to educate people on where their taxes were going. This was a European wide project. The idea and the exhibition in 2010 solidified my interests. We worked on this project for seven years. But I started to think, "How can I go on with this?" I continued to study interaction design and I quickly discovered my passion for coding. For me, it's one of the most practical things to not just to imagine how a design might work, but to actually try it out. So I was trying to learn most of the languages on the market to prototype my ideas. But a lot of my design approaches don't only exist in the digital world. I've always been interested to go back to the physical world where there is a possibility to create physical prototypes, or even products.

I have an installation which runs 28 km along the sea, which has been running

for over two years, sending 2,000 data points per second – how a wave is formed in this moment. You can recreate these wave patterns on land because we’ve collected a very extensive data set. This is something you have the freedom to do as a designer if you know how to code.

I’ve benefitted from these tendencies by learning how to create real prototypes, mostly from open source ideas. Most good ideas today are not just visible in products, but they are set up in a manner so that I can reproduce these myself. This has been helping me substantially in the way that I design stuff. It doesn’t really matter if this is an interactive theatre play or if this is a kid’s website – the tools I’m using are used by so many millions – developed by so many more millions. So, I think open-source helped me a lot to learn and evolve in this field.

What advice would you have

for people who want to be creative in web design but are limited by their inability to code?

First of all, coding is really just an extended language. I have many friends who see coding as a language just like learning spanish. There are infinite coding possibilities today. I have friends who are linguists who like to extend their knowledge through explorations into coding, but – I guess – there still is a boundary. It’s a boundary to learn a new language, to learn a new structure of thinking too. It’s not just using the same mechanics as talking. It’s a lot more organized thinking. If this is a boundary for you, I wouldn’t necessarily propose to learn it. Create networks. Create circles of real enthusiasts, who are thinking in the same manner. In the end it’s about collaboration. And I think there is more than square-space today. You have the possibility to build websites within ready-made frame-

works, but lately the web is becoming pretty boxed-in. And, I’m not sure I agree with this idea, to have everything so separated. But, generally, there are approaches without using any code to create really heavy systems which millions of people can access and use in a moment. And these systems will also change. I know that there is also the possibility in systems we use like Figma, where you can connect AI to a wireframe and create a website from it. So, there are tools developing for designers where you can start with a wireframe. Wireframes are just like sketches on a piece of paper. Most design processes start with sketching, so there will definitely be tools in the future where you can create something interactive out of something physical. You can take a picture and the technology will translate all the boxes and titles as interactive or not active elements. Let’s see what the future holds. I guess the tools for designers might

become more evolved in the sense of writing even less code, while achieving similar results, but you’re right – it will always be limited. There will always be boundaries.

As the tools evolve for designers and become more simplified, do you have any concerns with creative processes becoming too automatic? We also have developments in machine-learning and automation – do you see these developments infringing on some of the capacities of designers?

I would say advances in machine-learning are a little scary for everyone. The scary thing is that you will achieve a result where there is no sign of process. So, it’s not that the result is unprovable. There is a possibility of finding errors, even without any evidence of a process, and one can reduce these errors. If we don’t know how these machine’s run, or don’t understand how a result is calculated, this



can be dangerous. We program machines which think in zeros and ones. To instill AI into processes, I think till now, yes it is far from transparent but at the same time there is such an advantage to just think of all the mechanisms made possible. This machine can perform trillions of operations which a human brain and eye would take lifetimes to create. The tendency in the technology to reduce or even to expand information processing in this manner, it's unstoppable and it's already being implemented. When you go onto youtube and see all of the related content – this is created by machine intelligence. If this feature wouldn't be there, I think a lot of people would get bored with youtube. I think as a designer, you don't need to do a full implementation of a prototype yourself. If I have an idea, I would create a team, or join an existing team and collaborate with them. Digital technology is made in group work. I think teaming

up as a designer is just as interesting, and can help us not to get lost.

I've been hearing a lot of statements along the lines of "If we know what works, why would we change our approach?" With the laws of interaction design and usability in web design are there any limitations in this thinking?

I don't think we need to limit this just to the web. I think you could say that a lot of the digital services evolved in similar ways; for simplicity. When I open an application on my mac or I open an application on my Windows computer, or on a website, it might look all kind of the same. In the end, the makers of these digital tools try to simplify, simplify, simplify. I guess it's built mostly on form follows function. The information has to be prioritised in digital design. But, I see this too – there is a lot of copying but not just copying of good intentions

“A lot of design studios in today's world may not choose to have a rich and graphical website because they know the value of google's ranking.”

or ideas. The Apple landing page is one of the most copied templates for designers. Most of the design process should lead to a unique idea of how to implement it. If it's using templates, because it's the most feasible – great, but each project should also figure out unique functions based on their unique aims. To have the flexibility to work within a boxed framework, in a set-up which others might also use, I think it is valuable because it is quick and simple to implement. Most functions are determined by users already like, scrolling, swiping, zooming, tapping. All of these are interactions which are already learned. I would say it depends on the reason you are designing, and for whom you're designing. I don't think design should be dependent on the way that you implement, it's more for whom you implement.

With these interactions like scrolling, and swiping, and the other we engage with

digital design, how has graphic design changed from the analogue to the digital?

There is this definitive change with scrolling. Even interaction design is changing and the devices we use have implications on the design. There will be interactions which might be not conceived of yet at this time. There is new technology available on the iPhone where you can scan a room and it produces a three-dimensional space. Imagine interacting in three-dimensions. We can expect new interactions appearing on our devices, and they will certainly change the way that we need to design in the future. Right now digital design is not so simple to create. We are designing for screens which are increasingly small. We also have to think about responsive design – people might choose to flip their phone horizontal and vertical, and sometimes design is more aligned with

the format itself in these moments. We are designing for standard MacBooks and phone screens, but then we also have to think about mega-displays in cockpits for example, and a designer has to know what to do with 8,000 pixels. This takes a lot of iterations and development to make good projects for these digital services. But in the future, whether it's in a car, or on my fridge, or on my watch, the complexity of interaction are absolutely going to be extended.

How do you see this fast life cycle of technology influencing the role of the designer today and the need for specialization? With new tools and programs constantly being released, do you think there are too many expectations on designers – are we being spread out too thin?

The way we live today compared to how humanity lived a hundred years ago is so much more complex. The working field of a designer

has not just become more diverse, but I do know people who still specialize – people who just work with typography all day. It's still possible, but yes, I would agree that in digital design which wants to spread information needs to think of so many implementations. You need to design for digital, for social media, etc. And to keep track of this industry, it would be helpful to maintain an interest in learning more skills, more tools, and more implementations. But as I mentioned before, we are not alone on this planet, so wherever you look you can find help in this. We can connect so easily with people which have these skills, and can work together. Digital communication will continue to extend this interdisciplinarity and create new opportunities for collaboration which wouldn't have been possible before.

Do you think that within digital design, the value of function and like you said before simplicity is diminishing



“When millions of people use these services, to make something completely radical needs some training.”

### space for beauty?

The way a lot of digital design works is based on a layer system; a box is placed on top of another box, there is white-space and there are drop shadows. This construction is so simple so that people can understand it, even when it's wrong. I do see this as a danger – absolutely. If I would answer this question clearly as a designer, I would combine much more information which I see separated in today's world – or in today's digital services. So, yes – simplicity in the sense of implementation has an effect of bad design but on the other hand it has the possibility to make designing so much quicker if it's well implemented. We might ask, what does good implementation mean? It means, for certain, visually appealing and not just functional. Design that is purely functional, we might see in Windows. This isn't something I want to use in everyday life. When so many millions of people

people have learned what a marker looks like on google maps, to make something completely radical needs some training. Every new design in interactivity means that the users need to learn it. This is why people tend to copy already-learned interactions.

Do you think users today want to see more unconventional design, or do they want simplicity and don't necessarily want to be challenged?

The heavy network we are using made up of so many millions of miles of cables, still has it's limits. There is also a new tendency that to be ranked highly on google's search engine, you need a very fast speed ranking. So one might reduce design decisions in kilobites, or pixels of color, or pixels of gray shades to reduce the speed of being connected. It's not just the designer that's losing space for creativity within the layout, but also due to

the fact that there are limitations on network connectivity. So weirdly enough, a lot of design studios in today's world might not choose to have a full, rich and graphical website, because they know the value of google's ranking.

As a design educator what message do you convey to your students entering the field today?

One of the strongest things I always keep with me, throughout all of my design work, is that all designs should end up in testing. What I focus on a lot in my digital design project course, is to bring everybody to test their ideas with the class. It's always good to have my own intentions with my idea but it's better to get feedback from people that will really use it in the end. I think most of the designs that we make are for people who might think differently than ourselves. They might have different backgrounds,

know less or even more than we do. Most of the design students I teach have an absolute interest in asking, “Do you want to try it out?”. On the other hand, I really love physical computing, and as a designer the future won’t only rely on screens. As designers, we should be asking ourselves, “What is my scope?” “Am I able to implement something in a physical space?” As designers we shouldn’t limit ourselves to screens, just like in the past, we didn’t limit ourselves to poster design. Designers always should try to establish new ways to share information or experiences.







INTAGIBLE

28 DEC, 2020





# JAMES KRAIMER

RESISTANCE

A CONVERSATION  
WITH JAMES KRAIMER

*“The pendulum is swinging the other way as people see what is being lost. I think there will always be resistance.”*

DIRECTOR OF DESIGN AT CROWN EQUIPMENT

James Kraimer is the director of design for EMEA & China at Crown Gabelstapler GmbH. He is currently applying his design leadership expertise to create innovative solutions for next generation supply chain and logistics. His key focus is on creating new business value for manual and autonomous vehi-

cles, as well as web-based products and services. He has worked as an industrial designer since 1989 in the United States and Germany. I spoke with James on the 4th of January, 2020 on how design has changed over his career and what is gained and lost with digital making.





What influenced your journey to becoming a designer?

Well I didn't know what design was, probably until my brother Bill started doing design when I was in high-school. He was around four or five years older – but I knew what art was. I never really thought about becoming an artist. When I was in ninth grade, he was a freshman in college and he introduced me to design. From my earliest years, I was playing in the sandbox, I was always drawing. I always liked to make things. So in hindsight, I was doing design all along – I just didn't know that it was an actual career.

To provide some context, what time was this?

I was born 1966, so I was in the sandbox around 1972-4 and I went to highschool probably in 1981. So that was pre-digital for sure. We just got cable TV – that was a big thing. I spent a lot of time making art in high-

school but I did other things aswell. My first foray to the digital world was when my mom bought an Apple computer in 1984, right when that big commercial came out with the East-german woman raising a hammer. That replaced the typewriter, so we'd sit there and my mom would type, and I took art classes – not typing – so I didn't know how to type. She would type all my papers till late at night. After that, we had a computer so I could type my own stuff and then correct it. Anyway, I went to college at University of Notredame and took one design course in my first year. It turned out that that was my favorite course. I had an inkling and wanted to see if I would like design. My brother Joe was studying industrial design. My brother Bill did a dual major in industrial and graphic design. And then after that I had a decision to make; I knew it might not necessarily be the highest paying of jobs, but it was certainly the most fun that I



could imagine myself doing.

Today, with all the technology and automation, I am forced to ask myself the question of whether education is still necessary. What did your design education impart to you, and was your education necessary for you to become the designer you are today?

Well, in short, I think it is necessary. It's hard to pinpoint exactly what it is. Let's say I went for four years and you learn about yourself. You're challenged in many ways, with deadlines, with new things you've never done. But, in the same way, you're challenged in the real world too. Everyday, I'm challenged and you have to learn how to come up with solutions.

Was your education more skill-based, or was it a way of thinking or seeing that you acquired?

Well, for my non-design

courses it was more knowledge. For design, it was problem solving, and learning the design process, – the development of an idea, research, asking questions, coming up with concepts; making things. I would say, my teacher was pretty hands-on. He owned a business making boats; paddle boats where instead of a blade, they used jet propulsion shooting water through a tube in the back. It was his own design that he patented. He was a small business man – maybe not great at form-development – but he knew how to make things. For me that was an influence because later, and still today, I'm working at a company where we make things. My first corporate job was for Clark Equipment. I went straight from school to working as a designer in Chicago and then for a company in Germany where I could use what I learned.

You said that in your education you learned how to

build a concept. How does that come into play in your work in industrial design? Is a concept still necessary to sell a product, and what does that look like for a forklift truck, or other industrial products?

Well for a Forklift, you need all kinds of ideas. Ideas are a little more abstract. You describe what an idea is in your head and you try to communicate it. And a concept can just be talking about it. Designers use skills that a lot of other people aren't well versed in. Anybody can have an idea but a designer is practiced in taking an idea and sketching it up – they learn formal processes how to vet the idea, to ask the right questions, how to make it, how to engineer it, whether there's a market for it. But then to sketch it out and build it; design, build, test. – That's the classic design process. When you evaluate your first mock-up, you can say, "that is what I thought it would be, but

actually now that I see it, I would change this, this and this. Do this a couple iterations and have people test it to get feedback. This process is something that we aren't born knowing. You have to learn it.

Do you identify as an artist, designer, or both, and is the distinction important to you?

I'm a designer. I decided a long time ago that I didn't have the right mindset to be an artist.

What differentiates the two?

I'm not sure. I never considered being a fine artist. In college, I knew I would be a designer. I made a lot of art in highschool. I certainly knew how to make art, but I never felt like I was creating anything 'new'. I was just drawing stuff that I saw. Maybe it was too daunting to create stuff and hope that somebody is going to buy it.

I like what you're saying



about design and novelty; that design is about creating something new, where art which might be more about representing what you see or experience.

Well, that was how I saw it growing up. I didn't know that I could become a great artist, but I knew I could become a good designer. You know, the distinction for me is that design – and this is something that I read somewhere, but I identify with it – art is creating something for yourself, and design is creating something for somebody else. Designers create things for a client, or for a company, and there's a lot of people involved. It's not just me creating my work in my studio. You're really part of a big team; to design it, to market it, to sell it.

And would you say, design is about solutions?

Yes definitely. I always wanted to feel that the designs that I made were useful to

the world; to the people that use it. If design is good, then it enriches that person's life. I know that I do that for the people who work in warehouses.

Can you describe the shift from analogue to digital creation? How have the tools you use shaped or changed the way you create and what you produce, and how does efficiency play into the design process?

Part of my job early on was doing graphic design for packaging for different companies. I suppose in an ideal sense; in the olden days, you did have quite a bit of hand-drawing, sketching. That part is still valuable. But the production side, I think today, is way better. Back then, you spent so much time doing production of graphics. You'd have whole departments who just did production graphics – production is just making press type, mixing your own chemicals. We had a machine that

“The tools change, and will continue to change, but in the end it's about a human interaction.”

would enlarge the images. To get film developed was expensive, and then you would wait a week, and get your photos back and you'd see that half of them didn't really turn out well. Today, you just hit print, and it's at the printer. Or, I could make a digital file and send it all around the world. I think today, there are so many advantages. In terms of efficiency, what I think is a lost art, is that people still should be able to come to paper. And you shouldn't be limited to the tools and frameworks that the software provides. It's so important for designers to start with paper, and to just draw anything that has nothing to do with the format that's already given. Start there. If every designer would start there, at the beginning of a project, – maybe it's just doing ten thumbnail sketches that takes you an hour – that, already, is maybe enough to help you think of something different, maybe original. Then you can get to work. And, I say one hour,

or ten sketches, but it could be back and forth across months of development.

With the designers that work with you, or maybe the younger designers within your professional sphere, do you notice that engagement slowly disappearing – of sketching, brainstorming, and drawing?

Well, everyone sketches on Wacom tablets these days. I don't see it as an issue for the people that work for me, because I am a proponent of sketching – and I specifically ask for sketching. They just know what I expect. Also, at the beginning of the design process, I find it very important to get the language of form right early on – the three-dimensional shape. Sometimes my assignments are: we understand the overall dimensions of length, width, height, key features, but for the next week let's just focus on achieving a beautiful form – nothing else. I don't care what the

CAD file is. Let's just set that aside and let's create the most beautiful form that we can come up with. – There's a time and a place for that. We take one week, 40 hours, and that's all we do; come up with beautiful shapes. That helps designers say it's not just about meeting a deadline. Within the course of a project, we have time to think, "Is it beautiful?," because in the end that's what most people see within the first two seconds. If it looks good, it must be good.

That leads me to an interesting question about the tradeoff between use and beauty and craftsmanship and efficiency. How do you balance these elements in your work or how would you advise other younger designers to manage demands for function and efficiency over beauty and quality?

Well, I don't know if there is a tradeoff. I think that to make something beautiful doesn't necessarily cost more.

Would you say it costs more time?

It doesn't necessarily cost more time. It requires focus. It requires a consciousness – a goal. To develop a vehicle, like a forklift or a car, it takes let's say three years to develop it. In three years there's enough time to get a good looking concept. It's enough time to come up with a beautiful product that is somewhat timeless. All the cost is not in the concept, it's in the engineering and development of the product. Sometimes there's a tradeoff between cost and quality – not always, but often. Quality does cost money. Better materials may cost more. In terms of user experience, the user may have a better experience with something that costs less, or that was faster to develop. It's all up to the quality of the designer or the creator's idea.

How would you assess the ethos of design today, in terms of use and beauty?



Are you satisfied with the standard of design meeting that balance of use and beauty or do you see a standard that is focussed on efficiency and function over novelty and beauty?

I think good design is out there – in every product segment. Whether that’s magazines, industrial equipment, great design is definitely out there; everywhere you look – if you look for it. But – the fact is, I don’t know the numbers, but I’ll make up some to create a picture. Half the people in our world don’t know the difference between good design and bad design or great design. They don’t know because they maybe never learned about it, or perhaps they don’t care. Just like, not everyone knows what good music is, they just listen to the top 50 radio hits. Of the people that do appreciate good design, sometimes good design really does cost more, sometimes it really just is priced to be a cost differentiator. Then

we have a pretty large portion of the population that actively choose to spend more, or find good design. And then there’s a very small percentage of people that might just not care. Then might know exactly what they want and where to get it, and aren’t debating on a budget or quality. So I think, there’s designers who go to school to learn how to make great products. There are good designers who simply do great work, no matter where they’re at. There are certainly some designers that could do great work, but maybe the companies they work for aren’t asking for it – there asking for other things, that might have to work extra hard to change the culture, which is possible, but not easy.

Do you think that digitalization affected the quality of design, or do you think it detracted from it in any way?

I think great designers are going to be great no matter

where, and when, – no matter what tools. Now, what I think might have changed is that digitalization brings the general public more access to more kinds of things.

We’re entering a time where physical practices and experiences are being replaced by virtual ones. What does this mean to you, and what does it mean for the future of your work?

Well a year ago, before COVID I would have said “nothing can be as good as the real thing,” but sometimes the real thing isn’t even possible. A lot has changed just in this past year. But I think there’s a lot of work being done in this field that is powerful. You’ve got virtual reality, sensory simulation with sense and smell and haptics, but it’s still all virtual. Sometimes it feels like a game. That you can enter a new world – but I don’t know that we’re there yet. Today, there’s still a need to experience the real thing. There’s

probably even a backlash that’s been going on for decades – back to the authentic. The pendulum is swinging the other way a little bit as people see what is being lost. I think there will always be a little bit of resistance.

How do you think automation is affecting the necessity for expertise in design? Do you think expertise will be as valuable in the future, or will be taken over by machines?

I would say automation, certainly for industrial design, has cut out some jobs for sure – like model-making. Now, we make everything in a 3D CAD file, and have it 3D printed. We used to have five model-makers at crown twenty years ago – now we have two in New Bremen, and don’t have any here in Munich. And it’s probably one more model-maker than we really need. So, making things is a lot easier today with virtual modelling and 3D printers. But CAD is some-

“Humans visit a website, read a magazine, use a product. If those humans have a good experience – we have done our job.”

thing that is more important than ever. Today, the idea that the industrial designer is someone who just does industrial design is something that is a past concept. The designer is someone who does lots of things today. A designer at Crown does industrial design, ergonomics, interaction design, graphic design. We still have specialties, but when everything is so interwoven you have digital interfaces and digital interaction on everything. Design is very multi-disciplined today.

Do you see value in a more generalized capacity of designers today or would you agree that designers today may be spread too thin across different areas?

Some of the consulting firms in the past would have multiple specialties, comprising a team of ten different disciplines – in house. But you can't really do that anymore, and we have moved away from that model. Begin a

project, technology changes so fast, you can never have the right people. Do you need a sound designer – an user interface designer – someone that specializes in the automotive industry? Do you need a robotics specialist? By the time you have the right people on-staff, the world has moved on. So, what we've done is, we have generalists who can do a little bit of everything – to be the visionary or the architect of the whole concept, to manage the project. And then you need people on-call that you can pull in to build a project team. This is the new world with remote work, which probably just got accelerated with Covid 19. You need people who are generalists, as well as people who are specialized.

How do you come up with an idea and what does the development look like?

The idea in my world really is about solving problems that our customers have. And my



customers are people who work in warehouses for Amazon, or Aldi, or BMW. Basically any company that has to move something from A to B. My work is really about solving their problems – and we do a lot of research and site-visits to detect where there is a need for a solution. Either you have new ideas, or sometimes the problems change in the world. Our customer's problems often have to do with labor. Automation changes things as it becomes more readily available. E-commerce is changing the whole supply chain. My job is to understand those problems and in-short to solve their problems.

So the best ideas are the ones that addresses a problem in the most efficient way?

Sure, good ideas or good design has to be visible. The customer has to not only see a beautiful product or industrial vehicle, but they drive them, test them, see how it

feels, if one's faster or slower, if they think it might break more quickly.

For a company that specializes in quality and form in their industrial products, you also ask for a higher comparative price than other providers. How do you justify this price?

I would say value. The definition of value is something you would pay money for. It comes down to solving problems. Does it take care of a problem that I have? Does it help my operators feel better? Does it make them happier? Do they complain less? If you have 500 people that complain less, that's worth something. If you have 500 people that work 1% faster, that's worth something. If I have a product that doesn't break down – as much – that's worth something. That's what we would say is value. We're not afraid to say "it's very possible we cost more because we have more value;

the products last longer, the user-experience is better, we have better technology, parts that are made in our factory which are tested to a higher level of certainty. We believe our customer's long-term cost of ownership is lower. Back to design, part of having a quality brand is it has to be the whole package. Our website should look good, the people should be trustworthy, everything that constitutes the image and the brand should be consistent. You are not just selling a product; your selling a culture that's been developed and refined over generations. The design of this culture is just as much part of the user-experience.

What do you wish to see more of in design today, and what message would you share with young designers to bring value into the world of design?

I think you should believe that your work is valuable. It's very difficult for one person to change the world. Most

people won't ever change the world like Steve Jobs or Elon Musk. For the other 99%, if we can just make the world microscopically better by doing good work in our part of the world – if every designer did that – we'd have a pretty good world built on beautiful and functional design. Having expectations to change the lives of 8 billion people is unrealistic. It's enough to change the world around you. To know that the people who interact with your work, had a great experience and saw great design. To me that's a mindset. The tools change, and will continue to change, but in the end it's about a human interaction. Humans will visit a website, read a magazine, use a product. If those humans have a good experience – we have done our job.









## *Epilogue*

Where does the ancient fit within modernity?

If design is a mirror that reflects the essence of our time, what does our making say about who we are? Experts speak of function and speed eliminating trust in our viewership. When we design for the mainstream, for accessibility, are depth and originality being cut out? How can we leave room for beauty to succeed? Can we create in ways that still challenge our comfort and expectations? Will we allow google's ranking to determine our creativity? Is there still space for art within design? To all the makers of media, I challenge you to step out of line. To push the boundaries of your medium — to leave the reader thinking —

perhaps, even with uncertainty. We shall not let function triumph over beauty. Our hollow hands can come alive once again. Do not let go of your humanity. We need more human interaction, more human error, more unpredictability. Where does the ancient fit within modernity? Can we revive the lost craft? Are we humans or users? Makers or followers? The power to change lies at your fingertips.

FIN

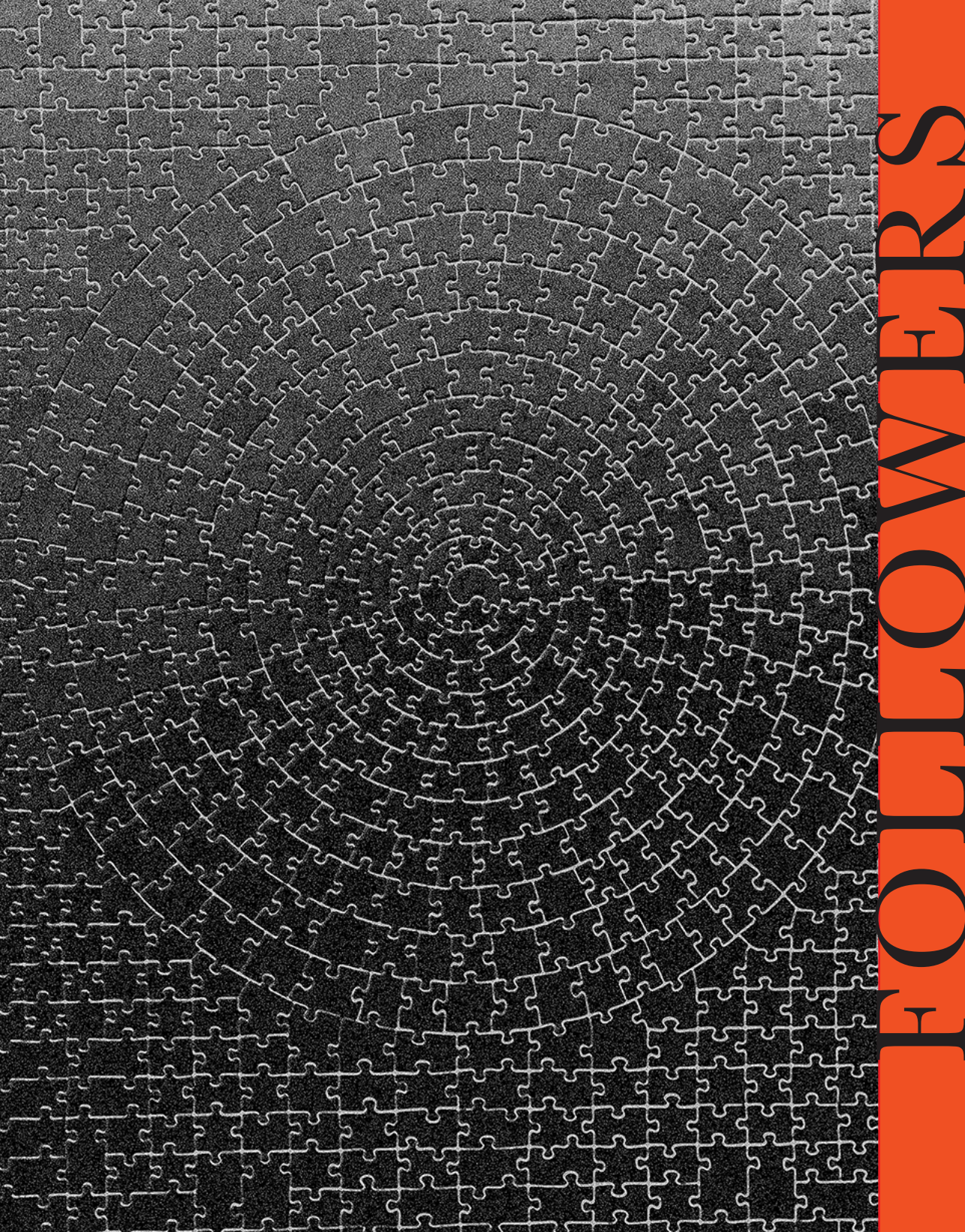
BY ELLA KRAIMER



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