Dipl.-Des. Oliver Gerstheimer

Founder and design director of the digital design & innovation agency chilli mind in Kassel in the heart of Germany.

[*www.chilli-mind.com*](www.chilli-mind.com)

Following the founding of his company in 2001 he worked intensively on a business pragmatic & methodical design process: how to create new digital services and interactive products in a meaningful and human centric way (2001-2004). This basic design research in the early phase of the digital business was awarded 2002 by the Vodafone Foundation for Research in Telecommunication (Germany).

Influenced from the long history of Systems Design at the Kassel University (since 1971) his pathway as a methodologist and system design thinker was strongly guided by the Berkeley trained Professors Dr. Helmut Krauch, Prof. Hans Dehlinger (PHD) as well by Hon. Prof. Dr.-Ing. Tom Sommerlatte, Prof. Lucius Burckhardt and Prof. Dr.-Ing. Wolfgang Jonas.

Oliver has been a passionate pathfinder and evangelist for the practice of "human centered design" and better "digital products and services for tomorrow" for over 20 years.

He gives regularly talks and publicizes papers on international platforms for design and digital transformation. Since 2002 he has taught "on site" at German and Swiss design academies and

universities for a total of 15 semesters. To that Oliver is a continuously member of the jury of the internationally renowned iF Design Award in the category Service Design and User Experience – since 2015. Together with the design team at chilli mind they have won more than 50 international design and innovation awards.

Education

- *2001 Master degree in product and systems design; University Kassel (Germany)*
- *2000 Additional study: new media – faculty visual communication; Kassel Art Academy 2001*
- *Additional multidisciplinary degree: sustainability & innovation management; University Kassel*

One more thing: Oliver loves the number 42 for a special reason and he is happy every day when he sees this powerful number again. So Long, and Thanks for All the fish.

Philipp Schütz

Philipp is a passionate design professional, creative strategist and works as UX Manager for the digital design & innovation agency chilli mind in Kassel, Germany. He creates human centered customer experiences and impactful digital products for market-leading brands and DAX companies in various industries.

He successfully realized projects in ideation & innovation, digital transformation, and service- & system design. He is experienced in design strategy, project management and consulting and has strong conceptional and methodological skills.

His thinking and working focusses on what can be left out to create real impact for the user – not on what can be added on top. This mindset has led to high quality co-created projects recognized by multiple international design awards.

He holds a master's degree in Design and researches and publishes on "Rethinking Sustainability trough Avoiding Design".

Abstract

The Telos of Design – Understanding the Whole as Radically Designable

Oliver Gerstheimer and Philipp Schütz examine the actual goal and final purpose of design - the telos of design and designing. Design = ent-werfen + ver-werfen (creating + discard), but for what and whom and why. The introduction is a position statement, combined with an outlook on what new fields of activity and challenges will arise for different types of designers. It is about a hidden potential field of the future, namely the identified goal of non-design or better the "intelligence of design avoidance". This will require a new self-awareness in practice as well as in education and the targeted revival of the design leadership capability for a more holistic and open-minded rethinking of systems. Using a variety of deliberately chosen examples from the 1970s and 1990s and from today, the urgency and necessity of the systemic intervention of design is so demonstrated in the third generation. The focus is on a new way of designing tomorrow's environmental systems that are sustainable and livable - a "design for all" means definitely a "design for all humans based on a precisely ethical".

Furthermore it is shown with which mindset and goals a re-polarization from a constructive solution designer to an effective and responsible "avoidance designer" can succeed. The basis for these are four core principles - prevent, avoid, remove and affect. Through these, a new era of social value creation and higher business value can be generated in the overall context of design.

In conclusion, the appeal to practitioners and educational institutions is: "To understand the whole as radically designable is the telos in design."

The Telos of Design – Understanding the Whole as Radically Designable

"You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete." (Sir Richard Buckminster Fuller)

The "Telos" is an ancient Greek term and stands for goal and final purpose. In the writings of Aristotle (2004), telos was referred to as goal and good distinguishing two forms of activity. Telos here includes 1) action with goals and sub-goals, as well as 2) intrinsic passion activity. It is important for Aristotle that these activities only have a meaning if they ultimately serve a final goal. The elevation of this activity is to be achieved with the drive of passion (Eros) to achieve and implement something good in the objective and problem solving precisely through directed action and activity (cf. p. 105 –107).

What is the telos, the actual task, purpose and goal of design and designing?
What is the sense and meaning of analysis, projection and synthesis in a holistic way?

Is it the good design, the good form or the decision not to do something as the best solution but for which goal? So, the question of the final purpose and the question of the good, the bad and the irrelevant to the scope of action and engagement will be a central and ethical one. The foundation of a good design is as good as its ethical goodness.

Following Jonas' (2002) idea of an expanded concept of design, we must note that synthesis is the phase that has traditionally

been the focus. He describes this type of task-oriented design: design of the first order. "In times of accelerated technological and social change and globalized economies with saturated markets, analysis and projection are of increasing interest. It is no longer trivial to answer the question: What is the problem? (analysis), and it is equally challenging to ask: What might the future environments look like in which our solutions will have to prove themselves (projection)? It becomes a design problem to define the design problem. Systems thinking and scenario design are two main components of an extended methodological approach to design" (p. 175).

The hedonistic goal of creative minds - the passion and joy and pleasure of solving design tasks - requires a corrective to a strong, newly learned as well as practiced and consolidated overriding objective and ethical as well as sustainable attitude in the design profession. The superordinate objective meant here happens before the actual task fulfillment, it is to be seen as attitude, ductus and ethos. It is the eros, the passion of designing for the good – the systemically better and the absolutely to be avoided, which is to be consolidated.
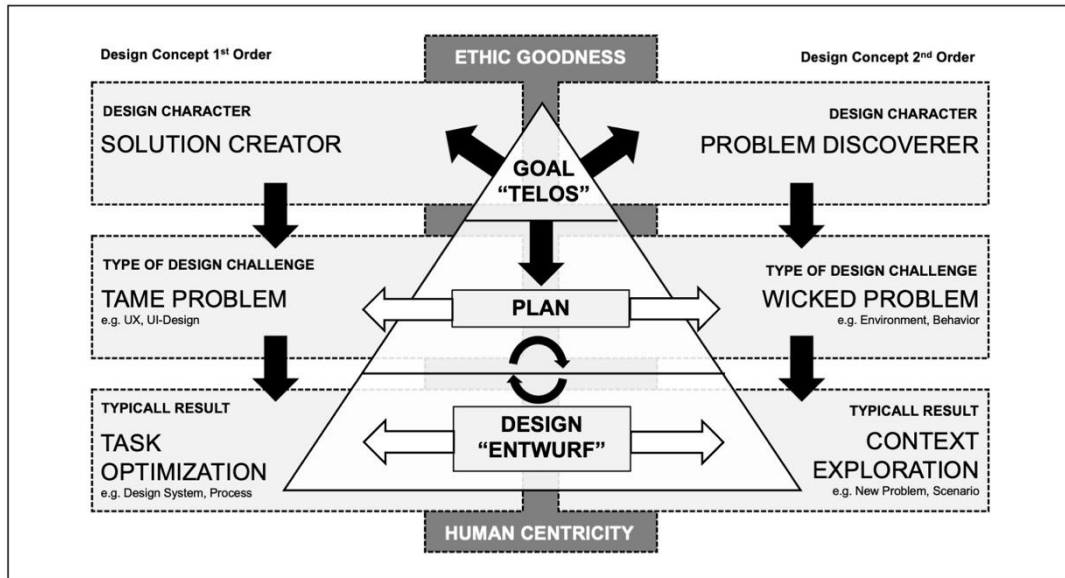
Figure 1: Influencing variables and interrelationships in goal setting, planning and the designing of design projects – with reference to Jonas (2002) and Rittel (1972 & 1992)

Social ethics and human centricity are the basis for good and socially acceptable design.

The telos and attitude are above the planning and doings in design.

Design is done by people it is a creative as well as a systemic act. Therefore, we distinguish here between two very different design types and characters if a challenge is to be mastered. The predominantly known type is the classic Designer a "Solution Creator". This one masters his craft and is classically booked on known design challenges in everyday life. The "Problem Discoverer" as a designing character is a systemic thinking type who is trained to constructively work on complex contexts and to design new open questions or undefined problems.

Good planning is about the precise definition and identification of the problem classification? Is the problem as a task already fallen from the sky and existent? Or is the central task to explore the problem and the right question in the first place? This open approach refers to Jonas and is called an extended 2nd Order

Design System (cf. Jonas, 2002, p.175-178). Depending on whether, in the sense of Rittel´s definition, "tame and wicked problems" are to be worked on, completely different results are to be expected in the design and in the "discovery", which are never standardized but unique (cf. Rittel, 1992, p. 42 – 54). Especially with the challenges of "wicked problems", it requires the open-ended "Context Exploration", i.e. the systematic and active search for the problem or the actual question. Whereas on the side of the tame "Task Optimization" the usual design results are shaped via a co-creative process.

The new market pull – same same, but different design(ers)

"Every design decision is ethical." (Mark Wigley)

Designers who earn money and create value with their profession today are called industrial, product, communication, CX, UX, UI, Usability, HMI, HC, IX, VR, AR, XR, media, system, Web3 or whatever designers. So the prefix-name is the goal and the program and the specific result. All of these "disciplinary design athletes" are trying hard doing this in an extremely careful, methodical, co-created and user-centered way, it seems. With new remote co-working capabilities, large companies are integrating legions of designers in the form of agile and distributed collaboration. Co-creation and multidisciplinary development teams are trending - compensation of e.g. UX Designers has skyrocketed and the integration as a nomadic or remote freelancer from home offices or an camper off road is becoming established as a new culture of distributed teaming and co-creation. Designers are a successful and in-demand product in the digital transformation and education market like never before.

Overall, it can be stated that the future economy and especially the digital transformation will require many new, well-trained designers in the next decade. In large companies, thanks to consulting firms, the "Business value of design" has been discovered as a driver of digital transformation and is gaining strategic importance at the C-level (Sheppard, 2018). The demand for skilled designers as a workbench for companies on the one hand and systemically thinking designers on the other hand is currently high and will continue to increase strongly in the next decade.

Type A: "Solution Creator" – task-oriented design character: one is a professional designer who is creative and specialized in tools and basic design craft of clear task-oriented optimization and typically supports low and medium complex tame development processes as an agile workbench and agile method researcher, i.e. a designer who creates design systems, user interfaces or user experiences for e.g. online services. Typical Impact: Optimized corporate products, services and systems, communication or hybrid user interfaces. This designer designs the tangible and visible interactions.

Type B: "Problem Discoverer" – exploration-oriented design character: one is a professional designer skilled in exploring, questioning, and creating or re-polarization radically new fields, technologies, running-systems, and behaviors on an open-minded strategic level. He embarks on the meandering and thought-intensive journey of discovering the problem and detecting the right question. Finding and designing the actual problem and quantifying the interrelationships is his valuable design impact. He specializes in solving highly complex and at the beginning unknown and wicked problems on a large scale with logical

thinking and systematic design guidance. This designer is more capable of designing and identifying the invisible connections, breakthrough solutions or workarounds, business models, semiotic system context, behavioral structures that are completely future and solution oriented.

Both of this outlined designer characters - type A or B - are obligated to design good or outstanding products or results in your job areas. But conversely, aren't they equally obligated to not design bad things for people? In the future, the question will no longer be how to design a product, but whether to design it at all, and how to avoid entire product-service systems with more holistic approaches to thinking and planning?

This is how Bauer (2022) summed it up with a critical look at the impact of design: "Design changes the world - mostly for the worse: In recent decades, design has become the tool of a raging global capitalism. The call for criticism in and through design, for thinking, politically acting designers fizzles out in individual actions, naive appeals and tinkering. What's wrong with design and critique?"

Monteiro (2019) takes this idea of responsibility and personal mission of the design to a far more radical point – "design is a political act." He wrote in his book Ruined by Design: "We designed the guns that kills school children. We designed shitty interfaces to protect our private information. We designed the religions that pitted us against one another. (…) We have designed the world to behave exactly as it´s behaving right now. The world is on it´s ruin and it´s happening by design" (p. 10).

Design is a resource for shaping our future. We therefore need much more "Type B – Problem Discoverer" and good trained responsible systems design thinkers. That is the demand on future-oriented educational academies. The renaissance of the

true telos, the repolarization of design forces to the right goal and the right question, and thus the forcing of avoidance in design, describes a mindset and attitude of designers that critically questions whether the solution to a design problem must necessarily end in a product.

So it would be enjoyable and fruitful if in 5 years we were talking about the following design prefixes: "Problem Design, Avoiding Design, Purpose Design, Re-polarization Design, Change Design, Savings Design, Patina Design, Content Reduction Design, Product Prevention Design, Digital Integrity Design, Material Savings Design, Behavior Change Design, Communication Halving Design, Gender Design, Doubling Value Design, Sustainability Design, Karma Design, Lifecycle Extension Design, Happymaker Design, Anti-War Design, No Waste Design, Cruel Prevention Design, Diversity Design, Organisation Design, Eco Design, Good Mood Design, Product Lifecycle Design, Planet Engagement Design, Invisible Design, Complexity Reduction Design, Factor10 Design, Anti-Capitalism Design, etc."

Designer are the new cognitive thinking athletes for "hidden undefined problems"

"A designer knows he has achieved perfection not when there is nothing left to add, but when there is nothing left to take away." (Antoine de Saint-Exupery)

Rams (2021) put it in a nutshell: „Design can only be as good as are the design¬ers themselves. For this reason, one key to the quality of how our environment is designed is well-founded and forward-looking education and training for the young protagonists of the discipline" (p.13). Aicher (1991) focus the point of view for

the designer and the reason for intensive rethinking and the mission of discovering: "We design because we are searching, not because we know" (p.60). The process of asking, searching, looking around, reflectively doubting and comparing, but also identifying patterns and exploring the task means approaching the problem-solving discomfort with thinking and questioning. This is the actual designing, based on mental models and argumentative weighing of the pros and cons, alternative solutions and variants are generated.

Design is cognitive and mental thinking athletics and does not need amateurs when it comes to solving complex tasks. The systematic doubt and thus the directive of objectification is the most important aspect for a leading role of designers in the identification and solution of problems. "Therefore, in the future, design will be more of a strategic mindset, economic problem solving, and business model than primarily an aesthetic design or entertainment tool." (Raedeker, 2020).

All planners and designers intend to intervene in the expected course of events by premeditated action. All of them want to avoid mistakes caused by ignorance and spontaneity. They want to think first, then act. Design is the creation of a plan based on alternative explorations. Since designing has an intention, a purpose, a goal, it is decisively based on thinking. The thinking of the planner and designer is a process of argumentation. The focus constantly changes between small components and the overall problem. The thinking of the planner and designer is only slightly ordered, there is no clear separation between the activities of problem definition, synthesis and evaluation (cf. Rittel, 1992, p. 135 – 139).

In order to prepare the exploration of the socio-technical influencing factors in a design-relevant way, a system model is necessary for a careful planning and thinking procedure. The

system model is an abstraction and simplification of the reality or future idea and provides generic subsystem levels and parameters, which is indispensable for the professional investigation and solution generation of complex contexts (cf. Sommerlatte, 2002, pp. 253-273). The four parameters – user, place, process and time – define contexts and support the systematic exploration of bold problem and potential fields to be identified. Especially in the analysis, projection and synthesis of typical open "wicked problems" according to Rittel (cf. Gerstheimer & Lupp, 2004, p. 1409 – 1415).

Sattler (2013) reminds the relevance of this kind of interpretative thinking and the insightful derivation in his article Quo Vadis Design: "Design is an outstanding activity of human intelligence, and it also involves the most difficult task of seeing exactly what is missing or of seeing something that is there, but which no one has already discovered" (p. 83).

Design is shared visual thinking. The prompt manifestation of ideas through a fast and first version of "Ugly Sketching" enables a new dimension of rapid perceptual exchange of ideas and thoughts, as well as visual mapping with others for an interpretive process of co-creation (Gerstheimer, 2019, TEDx). Good and brilliant thinking in design needs bold and massive sketching to reflect itself and generate a flow of alternative solutions or new questions.

Baumgartner (2021) brings to this the important metaphor of the Thinking Hands: "If we connect the conceptual duo of the Thinking Hand with the activity of the designer, then the radical mental effort inherent in the creative process consists essentially in producing actions or results that were previously unthinkable and that free man from his determinacy and contribute to the

improvement of human living conditions, but also have an enlightening effect" (pp. 139 –140).

The iF Design Foundation (2021) has summarized its core statements on the status quo of design education as follows:

- *"The practice of design has changed rapidly. Today, it means being able to discern connections thanks to communication and to communicate solutions.Aufzählung 2*
- *Design is the link between people and society. It starts with the needs of individuals and gives them values that fit their culture and outlook.*
- *Design used to be a repair business. It´s becoming a reframing business.*
- *Studies and graduation, technology and society changes extremely dynamically. That´s why designers need to be trained as thinkers" (Böninger, et al. p. 74).*

Re-Designing a new design – avoiding design

"You are responsible for what you put into the world. And you are responsible for the effects those things have upon the world." **(Victor Papanek)**

The master-quote of Dieter Rams (2021) "less, but better" teaches us that we must get away from the unculture of su¬perfluit, of waste, of cheapness in the literal sense, and in the metaphorical sense. "It means that we need more things that really do and really achieve what users hope they will: easing, expanding, intensifying our lives. In fact, in my opinion indifference towards people and their lived realities is the only sin that a designer can commit" (p. 13).

"What we choose to design and more importantly, what we choose not to design and, even more importantly, who we exclude from

the design process – these are all political acts." (Monteiro, 2019, p.11). To that, but already Burckhardt (1970) described the core challenge as follows. Design only has a function for the improvement of our environment insofar as it returns to its actual meaning: "Design = Entwurf, nicht Gestalt (Design = creation, not form). What is to be designed is not primarily the device in its artefact shape and form, but its possible use, its usability in as many ways as possible, its non-usability for chicanery and regression" (pp. 31 – 32). Jonas (2002) describes this important insight as the extended understanding of design and its processes as an interface between artifact (object) and context, between inner and outer system. The field of tension of these systems to be designed contains cultural, social, political and technical-scientific components, which lead to solutions due to the complex problems of systems thinking and scenario design (cf. p. 172 – 175).
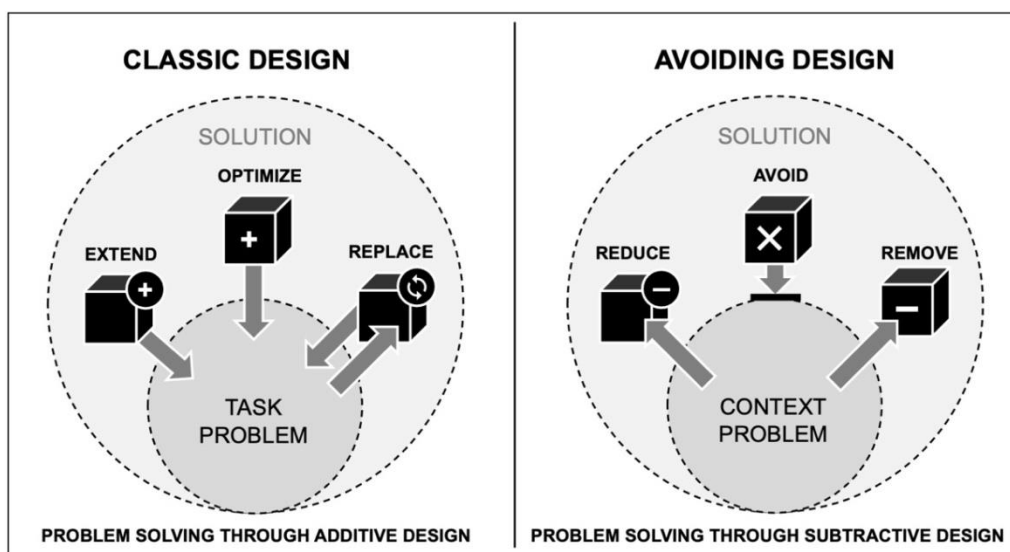

Figure 2: Comparison of typical classical design principles and the avoidance design approach (cf. Schütz et al. 2021)

How Avoiding Design is applied

"Designing any product without reference to its sociological, psychological, or ecological environments is no longer possible or acceptable" (Papanek,1985, p. 188). Avoiding Design must always

be used when negative effects on the environments would be expected as a result of the solution to be designed, or when a comparable solution already exists that makes the new design superfluous.

In doing so, Avoiding Design draws on the Sustainable Development Goals (SDG's) defined by the United Nations. Paragraph 28 of the 2030 Agenda states, "We (countries) commit to fundamentally change the way our society produces and consumes goods and services." SDG 12.5 goes on to say, "significantly reduce waste generation by 2030 through prevention, reduction, recycling and reuse" (United Nations, 2015).

"The four core principles of Avoiding Design:

1. *prevent* = *prevent, contracept, keep away - prevent the occurrence*

2. *avoid* = *avoid, circumvent, evade - create new, various alternatives*

3. *remove* = *remove, take away, abolish, eliminate - undo something*

4. *affect* = *influence, change - change the user behavior (Schütz, et al., 2021, p. 463)*

By looking at the entire production apparatus and all processes, designers will help to think out the existing product portfolio and align the company in the changing competitive environment. They will play a role when it comes to eliminating products that have a negative impact and and identifying new potential solutions. In this way, production processes can be optimized and costs reduced. Undoing design opens up new opportunities for sustainable design, especially for system transformation and service designers. Considering the entire product life cycle and

taking into account all the economic, social and environmental factors, it can be an advantage to undo certain things or to prevent new ones from becoming reality in the first place.

become reality. Non-design becomes a decisive competitive advantage. To achieve this, designers must establish methods and tools to prevent these products before they are created. After all, the most sustainable product is the one that doesn't need to be made" (cf. Schütz, et al. 2021, pp. 462 - 466).

Designing by Occam`s Knife

Burckhardt (1970) exemplarily asks the question of sense related to the telos – the very own product task – of the then newly introduced ticket vending machines for streetcars:

- *Wouldn't one want to do without all this design as a user?*
- *Is the rummaging for change in the pockets or today the booking via mobile phone and app a desired and manifest user need?*
- *Wouldn't a municipal operator also like to save the mess with the settlements of micro payments - but also the costs of the vending machine material, the connection and installation costs of the craftsmen, the service maintenance and thus also the assignment to designers to "order a snazzy vending machine box with good function and buzzing sound" - or even today to develop an app for it.*
- *Wouldn't it be possible to find other future-oriented jobs for the parking ticket from the public order office?*

This is precisely the idea Burckhardt put forward more than 50 years ago, calling for us to question the actual task and purpose of design. Wouldn't we like to do without this kind of design? "Wouldn't it be the very best thing to avoid fare?" Because of this error in thinking, millions of ticket machines and millions and

millions of hours of human time have been misdesigned and misdirected worldwide since the 1970s. This is how I avoid design and design value and utility. (Burckhardt,1970, p.31f)

Flusser argues that in other words: "There can be little doubt that things are less and less of interest. (...) The morality of things - creating, possessing, and preserving things - is giving way to a new kind of morality: the acquisition of pleasure, experience, possession, and knowledge - in short, of information. (Flusser, 2002, p.186)

Designing by Patina

Why design something new at all if the old works. Who decides what is old and worthy of redesign? What is the reason of the new? Can't the new be born out of the old? Aren't the stories of the existing and the habit with the old the better new? Patina gives permission and security to leave the patterns of well-trodden and practiced paths of use or behavior. (Dorley, S.; Wittlow, S. (2021) p.203). We keep forgetting how time-consuming it is for the human mind to adjust to and relearn new things, contexts and situations as well as actions and patterns. Design parameters like the well-trodden path, the pattern of habit, the beloved flow are designs that have a high potential not to be renewed. The new here is a rearranging from the old, the homage to these structures. In the digital, the content can be better, the presentation more noble, but practiced systems are sustainable and good design is the appreciation of the existing and the test of necessity.

Tanizaki Junichiro, in his book "In Praise of the Shadow," writes about the aesthetics of age patina and the homage and value of the hand-used, the hand-glossed as follows: "In the West, people use silver and steel and nickel for cutlery, among other things, and polish it to make it as sparkly as possible, but we have an aversion

to such sparkly objects. (...) On the contrary, one is happy when the surface shine disappears and they turn black with age. (...) While Westerners radically seek to uncover and remove dirt, East Asians carefully preserve it and aestheticize it as it is. (...) and when we live in such buildings, in the midst of such equipment, our hearts are soothed and our nerves are calmed in a strange way." (Junichiro, 1999/1933, p.20 ff).

This glimpse into the almost 100-year-old culture of 1930s Japan seems time-honored today, but the principle of aesthetics and the reversal of polarity in relation to the duration of use is impressively up-to-date. Patina sends its regards, is the motto here.

We throw things away too quickly. Too quickly we fall for the quick new solution, too quickly we can't stand to stay with the old existing, be it in decisions or in the lure of the new. Here we need the systematic confrontation with this powerful content knowledge about the human being and his habits and his limitations in perception and retentiveness. Here lies great potential to shape radical new behaviors in a sustainable way.

Designing by waste and avoidance

Braungart (1994) already showed in his research and investigations at the beginning of the 90s how necessary an improved design of a new economic system is. His central starting points for the design are the avoidance and reduction but also the waste as a pattern for the search for solutions and for the radical conversion to circular processes:

1. *Thus Braungart proclaims the pleasurable process of opening an outer packaging and throwing it away somewhere arbitrarily as normal territorial behavior of man. The thinking error in it is alone that the packing is not completely compostable and nutritious, so a throwing away after gusto*

would be a blessing for nature. Thus, through normal throw-away behavior, an easy return of nutrients to the highly eroded soil would be feasible. For this purpose he recommends to take nature as a design model and shows that nature is purposefully wasted in e.g. own processes of "flowering time" for the ripening of fruit and seeds. He calls on the principle of waste to be used as a design for smart product systems.

2. *In another case it is about the principle of avoidance: in the example he points out a typical "primitive, industrial manufacturing product - namely the production of a new fashionable shoe, partly leather sneaker, in which in the leather tanning process industrial chromium (VI) salts from the 95% country of origin South Africa are used and in the sole PVC plastics. The chromium treatment and PVC sole makes the shoe hazardous waste and the chromium(VI) is also carcinogenic to the workers in the manufacturing process. As a result of this industrial production and further development, the waste incineration had to adapt to the toxic "chromium(VI) and PVC conditions, so that, for example, the hydrochloric acid caused by the incineration of the PVC shoe sole has to be neutralized by flue gas purification plants. As early as 1994, Braungart called for the following: "In the future, we will need intelligent products that are both cheap and chic, but also environmentally friendly" (pp. 46 – 47).*

3. *The dimension is again underpinned here below with current figures for the shoe market in 2021. This is about the relevance of the avoidance and reduction of toxic or contaminated ingredients, as well as a need for radical improvement and design of the overall sneaker-lifecycle-system: "Sold pairs of sneakers in 2021 - worldwide: 1.4 billion, this corresponds approx. a doubling to the year 2012.*

The producing industries generated a turnover of approx. 70 billion dollars with it. In Germany alone, over 380 million pairs of shoes are thrown away each year, almost five pairs per person" (Tagesschau, 2021)

4. *Braungart cites another example: When buying a TV set, the buyer becomes the owner of over 4300 individual chemicals and is responsible for them. "From our point of view, it is unfair and unmarketable to push about 18 g of mercury, about 30 g of cadmium," about 60 to 70 g of antomine and about 15 - 18 g of other excess metals into the hand of someone who asks for the clearly delineated service "television" and leave him alone with it" (Braungart, 1994, p. 48).*

The goal must be to prevent environmental problems from arising in the first place. Product and system optimization in the digital as well as in the analog - from the idea to the process to the return - takes on the essential role here, since some product and manufacturing overall systems must be regarded today as actual environmental pollution. Basically, it can be stated that waste is generally harmful and its disposal is very expensive. Prof. Schmid-Bleek (1994) also puts it in monetary terms: "In general, we can now reckon that disposal is between 3 and 5 times more expensive than the creation of the good. This simply means that we spend more on the waste than on the service received." (S. 17)

Designing the right things with the right people

Aral Balkal and Laura Kalbag (2015) have formulated the attitude and idea of design and the objective of what design can or must really achieve in their project of the "Ethical Design Manifesto" and refer to Shoshana Zuboff, who aptly describes the dimension

and the rossroads between capitalist surveillance and the good faith of positive design.

"The products of Surveillance Capitalism – term by Shoshana Zuboff (2018) – are our new everyday things: our phones, our fitness trackers, our baby monitors, our fridges, our cars… We've built a world where our everyday things track our every move, profile us, and exploit those profiles for monetary gain. A world with a wholly privatised public sphere. A world of malls, not parks. A corporatocracy, not a democracy. This is a design problem. At its core, what we have is the wholesale failure of ethics in design. To tackle the source of the problem, we must design alternative everyday things that respect our human rights as a core tenet" (Balkal, 2015).

- *"Design, don't decorate - design without ethics is decoration. (…)*
- *Be diverse, not ethnographic - design without diversity is imperialism. (…)*
- *Design the organization, the product will follow - Ethical design is holistic or it is nothing.*
- *Ethical design is not what ethical designers do, it is the system of values and processes that is at the core of an ethical organization. It begins with the design of the organization itself.*
- *Design your organizations so that your core values are respect for human rights, respect for human endeavor, and respect for the human experience" (Balkal & Kalbag 2015).*

This very point should give us designers pause for thought when we see that young designers today prefer to work for the Big Data companies or even be bought out by them as an exit strategy. Far too many graduates in this world design anything, the main thing is to get the customer data for moneymaking.

What is needed here is a new generation of professors and lecturers who will bring this topic into the design academies as a relevance and not still fall for the good faith that a bit of aesthetics and digital UX-design jewelry will do the trick. It needs exactly this profound teaching of ethics in design to be able to shape an independent future proactively for people and sustainably for the environment.

Design and designing has a final (re)purpose

"We become what we behold. We shape our tools and then our tools shape us." (Marshall McLuhan)

Designers are always confronted with new and usually future goals and objectives, whether they are set by themselves or given by others. The goal for designers to design something needs a cause, e.g. an uneasiness and a doubt as a drive for an action - thus a purpose. This drive or trigger to fulfill the purpose is understood as the final goal or final cause. Final in this sense means purposeful, goal-oriented, or goal-directed. The path taken to reach the goal is the actual achievement and it is here that quality is achieved and conceived. With the choice of the action and the previously defined goal orientation, the designer himself becomes the originator and principle of the action as well as of all results. The same applies to groups, e.g. teams of designers or teams of problem solvers.

The goal, the telos, is radical systemic improvement through maximum avoidance of negatives. Thoughtful development creates the finished goal via action, i.e., designing and discarding (ent-werfen und ver-werfen). A goal can be reasonable or unreasonable. It can be positively sustainable or short-sighted and pernicious. But here lies the true depth and breadth of the narrative design, between arbitrariness and values, between

novelty and patina, between positive resource conservation or arbitrary consumption and selfish waste.

We live in a time when we humans are creating ever greater problems for our environment through the production of artificially created things. It is not enough to meet these challenges only with new more sustainable design products. The number of things with a negative impact on our nature must be reduced overall. In addition, the resource of design must be used more responsibly. What is the value of design if it is only about formal aesthetic details instead of enabling real sustainability?

Avoiding Design is a principle that shows concrete solutions for a more sustainable use of our resources. It describes the possibilities for discarding, preventing and undoing products and challenges us to rethink the design process.

„Do, or do not. There is no try." (Yoda – The Empire Strikes Back)

And just one more thing – thinking aloud:
"Please dear young social media design blogger, stop publishing such superficial and light fare on modern design method gossip. Avoid the repetition. Engage with the authors and the ideas of the 1st order and go into the depth of pragmatic and athletic critical thinking – the design discipline No 1. Be critical, yes please train the "Advocatus Diaboli" – and please don't just be excited that with some UXUI skinning or low complex Design-Systems you're already praised in corporate organisations out there. System design thinking and avoiding design attitude is like tea ceremony or Japanese sword fighting you do it all your life to get good. Start now. There are so many good thoughts and approaches already out and they need to be in the collective memory of serious improvers and planet engagers. Design is relevant and always seeking for brilliant new problem discovering. Design can create

much more impact if the club of critical thinkers grow. But it takes respect for planning and designing at its whole. It takes a true attitude toward ethics. Make an effort and focus on the vital design values that can create decisive impact for a better life on this planet. Read Buckminster Fuller`s – "Operating Manual for Spaceship Earth and understand Douglas Adams "Hitchhiker´s Guide to the Galaxy. So long, and Thanks for All the Fish. FIN.42.

References

Aicher, O. (1991). Die Welt als Entwurf, Einführung von W.J.Stock, Berlin (p. 60)

Aristoteles (2004). Die Nikomachische Ethik; Aus dem Griechischen von Olof Gigon, München, dtv 2004; 1094 a, pp.1-3.

Balkal, A. (2015). Blog: The Ethical Design Manifesto. URL. https://www.thersa.org/blog/2015/11/the-ethical-design-manifesto (Last access: 24.07.2022).

Balkal, A.; Kalbag L. and the ind.ie. project (2015). Etical design Manifesto. URL. https://ind.ie/ethical-design/ (Last access: 26.07.2022).

Bauer, Birgit (2022). Alles Kritik – alles Design – FH Dornbirn. URL https://de.slideshare.net/birgitbauer/vortrag-dornbirn-220514 (Last access: 28.06.2022).

Baumgartner, E. (2021). The Thinking Hand refuses to only deliver solutions for business models in: (Ed) Böninger, C.; Schmidhuber S.; Frenkler, F. (2021). Designing Design Education – Whitebook of the Future of Design Education. iF Design Foundation, avedition, Stuttgart, pp. 132 – 143.

Braungart, M. (1994). Ein Wirtschaftssystem für „intelligent Produkte" anstatt einer High-Tech-Abfallwirtschaft; in: Hockerts, K. et al. (Editors). Kreislaufwirtschaft statt Abfallwirtschaft, Universitätsverlag Ulm, pp. 45 – 54.

Burckhardt, L. (1970). In Design? Umwelt wird in Frage gestellt (IDZ 1). Herausgeber: Der Themenkreis im IDZ Berlin, Internationales Design Zentrum Berlin. e.V. (IDZ); pp. 30 - 32.

Dorley, S.; Wittlow, S. (2021). Make Space: How to Set the Stage for Creative Collaboration, Wiley

Epley, N.; Kumar, A. (2019). How to Design an Ethical Organization; in the May–June 2019 issue (pp.144 – 150) of Harvard Business Review. URL. https://hbr.org/archive-toc/BR1903 (Last access: 29.07.2022).

Flusser, Vilém (2002). Medienkultur, Frankfurt, Fischer.

Gerstheimer, O. (2019). TEDx-Talk: Ugly Sketching – how good „Denk-Hand-Werk" makes you happy. URL. https://www.ted.com/talks/oliver_gerstheimer_ugly_sketching_ how_good_denk_hand_werk_makes_you_happy (Last access: 29.07.2022).

Gerstheimer, O., Lupp, C. (2004): Needs versus technology – the challenge to design third-generation mobile applications; in: Mobility and Markets: Emerging Outlines of M-Commerce, Dholakia, R. R. Dholakia, N. (Eds.); Journal of Business Research, Volume 57, Issue 12, 12/2004, pp. 1409 – 1415, Elsevier, Boston.

Jonas, W. (2002): Systemtheorie und Designpraxis; in: Sommerlatte, T. (Hrsg.), Angewandte Systemforschung. Ein interdisziplinärer Ansatz, Gabler, Wiesbaden, pp. 172 – 188.

Junichirio, T. (1990). Lob des Schatten – Entwurf einer japanischen Ästhetik (1933), Manesse Verlag.

Monteiro, M. (2019). *Ruined by Design: How Designers Destroyed the World, and What We Can Do to Fix it*; Mule Design, Fresno.

Papanek, V., (1985). *Design for the Real World*, London: Thames & Hudson Verlag.

Raedeker, J., (2020). *The Future of Design: Thesen von Jochen Rädeker*, Page Magazin. URL. https://page-online.de/branche-karriere/the-future-of-design-thesen-von-jochen-raedeker/ (Last access: 16.07.2022).

Rams, D. (2021). *There must be an extended ethics of design*; in: Böninger, C.; Schmidhuber S.; Frenkler, F. (2021): *Designing Design Education – Whitebook of the Future of Design Education*. iF Design Foundation, avedition, Stuttgart, pp. 12-16.

Rittel, H. W. (1992): *Planen, Entwerfen, Design. Ausgewählte Schriften zu Theorie und Methodik*; Kohlhammer, Stuttgart – and: Rittel, H.; Webber, M. (1972): *Dilemmas in a General Theory of Planning*; Institute of Urban and Regional Development, University of California, Berkeley, Working Paper No. 194.

Sattler, W. (2013). *Quo Vadis Design*; in: iF Industrie Forum Design e.V. – Quo Vadis Design – 4 Thesen, Hannover. URL. https://assets.ctfassets.net/wagyyacppgzz/wLhQQfJGT4aSPRLDt Yxxr/48a3bc69e272b664422c94d9715a0038/141114_iF_Design_ Foundation_Quo_vadis_design.pdf (Last access: 12.07.2022).

Schmidt-Bleek, F. (1994) *Attribute einer zukunftssicheren Wirtschaft* in: Hockerts, K. et al. (Ed.). In: Hockerts, K. et al.

(Editors). Kreislaufwirtschaft statt Abfallwirtschaft, Universitätsverlag Ulm, pp. 15 – 32.

Sheppard, B.; Kouyoumjian G.; Sarrazin, H.; Dore, F. (2018). The business value of design; McKinsey report (2018).
URL: https://www.mckinsey.com/business-functions/mckinsey-design/our-insights/the-business-value-of-design (Last access: 25.07.2022).

Schütz, P., Gerstheimer, 0., Englisch P. (2021). Nachhaltigkeit: Avoiding Design; (pp. 461 – 474). In: Stelzer R. & Krzywinski J. (Ed.); EEE2021 — Entwerfen Entwickeln Erleben in Produktentwicklung und Design, TUDpress, Dresden.

Sommerlatte, T. (2002): Unbundling von Systemen, in: Sommerlatte, T. (Ed.), Angewandte Systemforschung: Ein interdisziplinärer Ansatz, Gabler, Wiesbaden, pp. 253–272.

Tagesschau (02.11.2021). Fast Fashion – Die Sneakerjagd. URL. https://www.tagesschau.de/investigativ/ndr/sneakerjagd-101.html (Last access: 18.07.2022).

United Nations (2015): Sustainable Development Goals. URL. https://sdgs.un.org/topics/sustainable-consumption-and-production (Last access: 20.07.2022).

Zuboff, S. (2019). The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power, Public Affairs, New York.