

## Design Futures in a Wider Context: Historical Reflections, Potential Directions, and Challenges Ahead

*A reflexive foundation to scope the field of Design Futures, presenting its roots in selected bibliography and past practices, from Philips High Design to tomorrow*

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**Abstract:** The main motivation at the heart of the paper is to contextualize Design Futures from various viewpoints, while presenting references of various nature. The purpose of the paper is namely to ground Design Futures in an historical and intellectual framework, starting from High Design, the past approach in use at Philips Design between 1991 and 2011. From there, the paper will move forward to more recent publications and engage in an ideal dialog with selected practice-based references. In this paper, the foundation for Design Futures, is High Design. High Design was the approach, the process, and the proposition by Philips Design in the decades 1991-2011. From this starting point, the paper will address the relationship between designers and the future; the connection between designers and visions of the future; and methodological challenge. This paper will address five general questions related to the philosophical nature, the methodological substance, and the operational praxis of Design Futures, with reference to different instances. These questions emerged from practice. By means of them, this paper will scope goals, ambitions, and boundaries of Design Futures, connecting High Design, its past ancestor, with future developments, e.g. AI. Answers to these five questions will be provided in the form of conclusions of this paper. This paper is based on reflexivity and literary review, with critical viewpoints as developed in professional and educational practice combined with theoretical considerations. Further empirical research might be designed and executed to develop new insights on the topics at hand. The relevance of this paper lies in the necessity to systematically provide systematic perspective and structure to an increasingly expanding field, e.g. from corporate design to speculative design, from constructivist co-creation to AI-based anticipations.

**Practical Implications:** This paper offers an in-depth reflection on a field in dynamic evolution and in fast business development, therefore a valuable reference point in establishing historical coherence and future consistency to such multidisciplinary and complex field.

**Keywords:** Design Futures; Futures Research; Foresight; Strategic Design; SSH (Social Sciences and Humanities)



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## 1. Introduction

One might assert that this paper falls into the Emerald abstract category of “General Review”, namely: *This category covers those papers which provide an overview or historical examination of some concept, technique, or phenomena.* The purpose is to generically introduce and specifically ground Design Futures in historical and intellectual terms.

The generic phenomenon is namely the systematic and structured tension towards strategic elaboration by designers. Such phenomenon is investigated, be it in the form of corporate and consulting work, as well as in speculative reflexivity and theoretical reflections. The concept at hand is the anticipation of people’s social values, cultural trends, and lifestyle preferences. Such anticipation is based on socio-cultural projection of both societal macro movements and regional micro aesthetics. This goal is pursued through techniques based on a multidisciplinary mix of Design Research, qualitative research, participatory research, and foresight.

At historical level, a genealogy of Design Futures will be presented, from its Strategic Design roots, starting from High Design, the approach in use at Philips Design between 1991 and 2011. The intent of such review of High Design might be considered equivalent to the review of the “Hawaii 2000” project performed by Prof. Jim Dator and his team in 1999. This turned out to be a steppingstone towards Experiential Futures (Garduño & Gaziulusoy, 2021). From High Design, the paper will move forward to more recent ideas and engage in an ideal dialog with selected practice-based references.

In synthesis, main motivation at the heart of the paper is to contextualize Design Futures from various viewpoints, while presenting references of various nature. The relevance of such review lies in the necessity to systematically provide systematic perspective and structure to an increasingly expanding field, e.g. from corporate design to speculative design, from constructivist co-creation to AI-based anticipations. The form of this paper will be ultimately descriptive as the intent is to offer a landscape across several occurrences, from concrete projects to educational packages. In said overview, the author posits that the value proposition of the paper lies, where relevance stems from synthesis between historical assets and future possibilities in the field of its study.

## 2. Framework: Theoretical Notes for Design Futures

The purpose of this paragraph, however limited to sketching a framework, is threefold, namely:

- mentioning the relationship between designers and the future;
- reflecting on the connection between designers and the creation of political visions of the future;
- presenting the methodological challenge to perform explorations of possible and preferable futures.

Industrial, urban, and digital designers have enjoyed the privilege of anticipating futures since their inception as specific professionals. This based on earlier narratives pertaining to architecture, applied arts, and craftsmanship.

### 2.1. Designers and the Anticipation of the Future

The future might be anticipated:

- by means of research, according to the notion of “pragmatic projection”, investigating what could be designed, or
- by pursuing a vision and aiming at creating a self-fulfilling prophecy, taking therefore an active posture in designing what should be designed and delivered (Reeves et al., 2016).

This mindset is not new. On the contrary. At the level of practice, the anonymous engineers that built water systems in ancient times had to count on the anticipatory calculation of water flows (Flusser, 2010). The unidentified craftsmen who built cathedrals over generations and decades had to count on their ability to envision an overall outcome, which they would not live long enough to experience first-hand. Meanwhile, architects and artists established the cultural notion of authorship, by signing their works as well as theoretical elaborations and conceptualizations, in the form of programs, essays, and memoirs, along the lines of art history and of Vasari’s biographies. This notion of authorship, within a grey space between multidisciplinary team practice and personal branding, is one of the factors that call designers to act like politically aware and socially responsible future-makers.

These apparently unrelated processes led to the emergence as the designer as holder of a signature, or a brand, in contemporary commercial terms. Either by delivering iconic or unbranded material objects or immaterial signs within their contemporary societies, or by partaking to the media discourses of their time, designers established themselves as active

actors within their cultures (Julier, 2000). It is in culture, as streamed through medias or expressed within conventions, that human futures are being dynamically formed. And cultures are intrinsically political, as they establish those norms and principles governing the distribution of symbolic power and material wealth.

## 2.2. *Designers and the Politics of Envisioning the Future*

It is also intuitively evident how design plays a political role in envisioning and visualizing futures, as in the case of Disneyland and similar. The clash between questions about the future *versus* present preconceptions about the futures is mostly visible in future-themed World's Fairs and theme parks like Disney's Tomorrowland (Lukas, 2017). There, in such hyperreal environments (Eco, 1986), the function of design in envisioning (probable) futures is self-evident and self-fulfilling. On the other hand, "design" might also be described and positioned as one of the methods to move beyond the capitalist systems of organizing economy and society (Wizinsky, 2022). The notion that "design" is a political act is not new, having been constantly discussed and reframed, maturing into self-aware sense of responsibility and, in recent years, radicalism (Fry, 2011). The ideological tradition that politically connects "design" to a given idea of the future, be it socialism, like William Morris, or communism, like the Moscow-based VKhUTEMAS school, or a comprehensive, experimental program towards preferable futures, like in the Bauhaus, is established in design history (Helvert, 2016). This is not a limited phenomenon to the political left wing, as Futurismo in Italy demonstrated in the first half of the 1900's, however based on values to be critically reviewed. Critical inquiry and politically savvy practice increasingly lead to adversarial design as a participatory process (DiSalvo, 2012). A common goal of contemporary designers who see themselves as politically engaged future-makers is the delivery of social innovation solutions to enable a more democratic context for people to live (Ehn et al., 2014). Over time, this visionary aspect of design has shifted from the leadership of exceptional individuals to a facilitation role of cultural mediators and social innovators, crafting new capacities and shifting established frameworks and geographies (Yalavich & Adams, 2014).

## 2.3. *Designers and the Methodological Challenges of Anticipating the Future*

This complexity as above described exists in parallel with the constant redesigning of grammars of creative edge and teamwork practice, with design emerging as a research capability. The "future" might be posited as an external occurrence, or whatever will happen in another time and -possibly- in another place. At the same time, the "future" might be conceptualized as an active force, with agency (Maze, 2020). On one hand, various proprietary design methodologies, e.g. speculative design (Dunne & Raby, 2013) have been established in the last decades at a theoretical and bibliographic levels, e.g. in the architectural domain (Colletti, 2013; Fraser, 2013). On the other hand, social sciences have adopted in the last decades several practices with strong affinity with the work of designers and creative talents, e.g. visual anthropology (Banks & Ruby, 2011) or visual sociology (Harper, 2012). Such convergence might even appear inevitable considering the constructivist turn in social sciences, from mirroring reality in research findings to world-making by research processes, as advocated by Gergen (2015), for the purpose of reframing research as future forming (Gergen, 2015). In line with this, future-forming with an impact might be identified as the main ambition of Design Futures.

## 3. Reflexive Questions Towards Design Futures

As based on the above framework, and as partially tested during the Faculty Development Program 2023 at the World University of Design, India, this paper will address six general questions related to the philosophical nature, the methodological substance, and the operational praxis of Design Futures, with reference to different instances, namely:

- Society: what is the social function of Design Futures?
- Culture: what is the relationship between Design Futures and culture?
- Sustainability: what is the function of Design Futures in terms of ESG's?
- Vision: what is the connection between (brand) vision and Design Futures?
- Strategy: what are relationships between Design Futures and strategy
- Methodology: how can designers anticipate the future?

These questions emerged first and foremost from practice; however, they also sufficiently respond to the dilemmas posed by the implicit capability of designers to anticipate the future, both politically and methodologically. It can therefore be posited that the above short list of questions constructively resonates with the theoretical notes of this paper.

### *3.1. Ways of Working: An Operational Note for This Paper*

The main methodological focus of this paper is High Design, as presented in the paragraph 4, below. Given its reflexive nature, the paper has been conceived from a core of sources, both academic and applied, as existing and adopted in past projects by the author. Sources were accessed digitally or -preferably- in original editions or in personal archives, when stored with limited circulation or unavailability for public consultation. In terms of operational ways of working, the approach is both bibliographic and reflexive. The content is edited to be relevant both at the level of scientific peer review and applied publications, as well as at the level of educational courses or seminars. All in all, the paper is methodologically informed by back-tracing (George & Bennett, 2005), combining documental examination of sources with reflexive insights. From an operational viewpoint, the following steps were repeatedly performed:

- Bibliographic review of academic sources, both historical and contemporary;
- Editorial review of trade magazine sources and applied research books;
- Documental review of professional sources, e.g. undistributed reports and publications;
- Inclusion of selected expert interviews granted by key experts of High Design.

Featured interviews, performed in collaboration with Filiberto Amati, MBA, should be considered as expert contributions, designed with a rationalized questionnaire as a line of dialog, recorded and presented as informative reporting pieces in clips on LinkedIn, and then reported in journalistic style on a generalist online platform.

One might not speak of the following steps in the context of preparing this paper:

- Findings from a new or original research project on Design Futures;
- Empirical experiments or formal procedures, e.g. structured surveys;
- Coded interview transcripts according to the analytical principles of Grounded Theory;
- Systematic scanning of existing generic databases.

Instead, a mix will be presented, including:

- Historical sources, both in terms of text and in terms of projects or programs;
- New reflections on such past sources, where new connections might emerge;
- Contemporary sources, as a means of commenting or consolidating insights.

Additionally, it is due mentioning that the opportunity to review and edit earlier notes in the form of this paper has arisen, first and foremost, from the Faculty Development Program designed and delivered in the academic year 2022/2023 at World University of Design, Sopalt, India, involving 45 qualified professionals from various academies, from Business Management to Architecture, from Communication to Fashion. On that occasion, selected theoretical and methodological foundations of Design Futures were introduced, discussed, and reframed in the Indian context. This led to dialog and participation by faculty members, in the form of team presentations and individual writing. Therefore, this was an ideal context to rethink Design Futures both in the perspective of its history or legacy, grounded in international design excellence, and its futures, grounded in diversity and inclusion through participation and valorization in emerging regions, like India and other BRICS and associated countries. The emergence of India, Asia, and the Middle East as new engines of human futures is not explicitly presented in this paper; however, it is fully factored and the author reserves to include these geopolitical, economic, and demographic dynamics into next steps in the development of Design Futures.

## 4. High Design: Methodological Notes for Design Futures

The historical foundation for Design Futures, as conceptualized in this paper, is High Design. High Design will be reviewed and tested both in philological sense, reflecting on past practices, as well as in methodological sense, to be operationalized in the future.

### 4.1. Definitions of High Design

High Design was the approach, the process, and the proposition by Philips Design in the two decades between 1991 and 2011, under the leadership of Dr. Stefano Marzano: *“The answer to High Complexity may be sought in what I call ‘High Design’. By ‘High Design’, I mean an integrated process incorporating all the skills on which design has historically itself, plus all the new design-related skills we need to be able to respond to the complexity and challenges of the present and anticipate those of the future. The High Design process is one which continuously adopts more advanced cultural and technical criteria. It is based on the fusion and interaction of high-level skills. Certainly, calls for the collaboration of designers, psychologists, ergonomists, sociologists, philosophers and anthropologists have been made in the past...”* (Marzano, 1991, reprinted in: Marzano, 1998, p.16).

To synthesize a concise definition of High Design, it is possible to refer to the following: *“High Design is a human-focused, research based, design management process for repeatable business success. High Design integrates the input from socio-cultural disciplines and people research, and then makes that information and insight the starting point of every design project”* (Bevolo et al., 2011).

As based on the conclusions of a Grounded Theory dedicated project (Bevolo, 2016), High Design can be specified as a postmodern design process helps to envision preferable futures thanks to the articulation and performance of the following co-existing recurrences:

- by positioning “Design” as intellectual partner in a multidisciplinary platform;
- by leveraging “Design practices” as multidisciplinary integrators;
- by enabling the generation of visual representations of the future;
- by delivering structural moments of communication that convert in leadership;
- by including para-scientific, analytical, repeatable tools;
- by enabling the facilitation of workshops for collective visual generation;
- being specified as externally oriented, with a strong participatory approach;
- by enabling generative flexibility and scalability over time;
- by developing along lines of progressive stakeholder inclusion;
- by adopting teamwork as key operational modality.

Flagships of High Design have been a number of visionary projects about the future of people-driven innovative products and solutions, from TV’s (*“Television at the crossroads”*, 1991) to cities (*city.people.light*, 1996 and 2006), to the 1995 milestone *“Vision of the Future”* (Lambourne et al., 1997) with 60 concepts for future development over 5 years. A strong sustainability ethos -thanks also to the personal drive of internal leaders like Dr. Simona Rocchi, then Senior Research Director of Design for Innovation and Sustainability at Philips Design- enabled the creation and delivery of important humanitarian projects in Latin America, and India (Rocchi & Kusume, 2011), addressing the urgent needs and the life-critical priorities of underprivileged segments of citizens. Reflexive depth and insightful articulation led to systematically exploring the fuzzy front of innovation and co-creation (Rameckers & Un, 2005) and to redefining the role and value of design for both business and society (Brand & Rocchi, 2010).

In parallel, several highly profiled collaborations or consulting practices with premium industry leaders, from Levi’s to Nike, from Nivea to Renault, and high-end brands like Alessi, Cappellini, or Leolux. As project partners and contributors, star designers of international fame were regularly invited, from Andrea Branzi to Alessandro Mendini, to the involvement as experts and opinion leaders of star architects like Sir Richard Rogers, Robert Venturi, Denise Scott Brown, Odile Decq

or Samir Bantal. High Design enabled Philips Design to establish a profile of thought leadership about the future, between visionary conceiving and market performance. On this foundation, exploratory and anticipatory projects were designed, facilitated, and executed, from major Design Research programs (Aarts & Marzano, 2003), to implementation into strategy, innovation, and branding. Leveraging events, press relations, and valorization was an integral part of the execution of High Design, from public events for all to the classrooms of academia.

#### 4.2. Intellectual and Historical Roots of High Design

Intellectual roots of High Design might be related to the ideas shaping the late 1980's programs of the Domus Academy in Milan, where Marzano was directly committed to experimental education. Before establishing High Design, Marzano, a veteran of Philips, held the position of VP of Corporate Design at Whirlpool, in Cassinetta, Italy, with an educational extracurricular role at Domus Academy of Milan, an educational institution that might be considered an offspring of this educational institute and of the Italian "Design District" model (Verganti, 2009). High Design might be seen as an effort to inject corporate planning with the "vernacular of the everyday" (*elaborated from a conversation with H. Mommaas, Ph.D. Promotor, Tilburg University, e-mail communication, 10/07/2012*). This by means of integrating humanities at the very heart of the design process and by elevating the design process at strategic levels in the organizational charts. Academically, in those years Philips Design as an entity and its teams and individuals contributed to the design and startup phase of academic programs, e.g. at the Technical University of Eindhoven or at the THINK School of Creative Leadership, in Amsterdam, and collaborations with Politecnico di Milano School of Design, and more leading institutes in the world. In general terms, High Design stimulated theoretical reflections on taxonomies and integration of different streams of knowledge, from semiotics to sociology, within foresight.

It is important to never underestimate the mission-critical impact of personal biographies and professional trajectories at the heart of theoretical or methodological development. This was demonstrated in Jose Ramos' groundbreaking analysis of the emergence of critical futures ((Ramos, 2003). Ramos reviewed critical futures in view of the unique existential path of Prof. Slaughter, who elaborated his biography into a scientific approach to foresight (Slaughter, 2004). High Design too was enriched by specific knowledge-intense relationships. These included Francesco Morace and ConceptFutureLab in Milan. Morace's methodological thought leadership was instrumental to the foundation of *Strategic Futures*, the Philips Design consulting proposition led by Josephine Green in the late 1990s. Consultant to Strategic Futures included Professor Ronald Inghart and Dr. Christian Welzel with their World Values Survey Association at the University of Michigan; Dr. Peter Bishop, founder of the Master in Foresight at the University of Houston, Texas; Dr. Riel Miller, then UNESCO Chair of Futures Literacy in Paris, and Lidewij Edelkoort, whose consulting contribution was key to jumpstart aesthetic trends. Visual Trends were to be then internalized within Philips Design by means of *CultureScan*, a proprietary method to anticipate cultural change and aesthetic trends (Vissers, 2005). It is worth recalling how internalization of processes and talents was key to High Design, as opposite to the current trends in organizational employment.

#### 4.3. High Design as a Repeatable Process

For practical applications, High Design was operationally structured in five, very simple, theoretically repeatable, and commercially communicable phases (adapted from: Bevolo, 2016, pp. 106-107):

- Initiation, entailing project intake, contract drafting, and team set up;
- Analysis, including Foresight, Futures Research, Qualitative Research, Social Sciences and Humanities: where human sciences would generate their integrated contribution in the form of qualitative research, to gain insights and define socio-cultural values and aesthetic preferences with a scope of 2 to 10 – 25 years, depending on the project or the program. Here, key coding tool at an analytical level is a matrix, creating correlations between socio-cultural drivers or trends (horizontal axis) with industry parameters (vertical axis);
- Concept Creation, where the combined effect of research findings and creative talent would generate hypothesis, ideas, visions, sketches. Here, the aforementioned matrix is leveraged as a generative tool, to enable creative ideas to directly stem and be operationally mapped on the very same graphic structure where trends were analytically generated;
- Execution, where concepts would be translated into viable prototypes, propositions, and products, feasible in terms of realization and sustainable in terms of commercialization (e.g., ratio costs versus expected profits). Here, the

relevance of prototyping should be highlighted, as the creation of maquettes or working prototypes or demonstrators was key to testing at the level of early adopters, specialized press, public opinion, key stakeholders, and media;

- Evaluation, entailing ISO quality protocols and learning feedback loops.

At a reflexive level, key constituents of High Design appeared the following:

- A fluctuation across phases, whereby analyzing and concepting share the same matrix tools and the highly interdependence across disciplines and professional competences;
- A drive to stretch cultural fit in terms of teamwork and ethos of solutions, whereby the cosmogonies, epistemologies, and everyday practices of different and diverse stakeholders might be duly factored in the final findings and propositions;
- A clear commitment to qualitative research, applied research, and field research, with participatory ethos and with co-creation as a methodological reference;
- The lean ability at an organizational level, to streamline visionary future concepts into business pipelines, enabling the conversion of socio-cultural trends as materialized in said concepts, within design roadmaps of market-winning propositions, e.g. Wake Up Light by Philips Lighting (Simonse, 2017), based on a design research exploration by Clive van Heerden and Jack Mama;
- A fundamental optimism in aiming at identifying and enabling preferable futures, whereby technological roadmaps, and the interpretation thereof in terms of people's preferences played a key role at personal, societal, and environmental sustainability levels;
- An optimal inclusion of social scientists and trend analysts in each project team, whereby sociologists, psychologists, and foresight consultants played a shared leadership role with designers, beyond any formal division of tasks and diversity of educational backgrounds, for the purpose of multidisciplinary mutual enrichment.

In synthesis, High Design as a repeatable process made foresight actionable by plugging them to brand design and to innovation (Andrews & Bevolo, 2004). This included seminal reflexivity on the role of design within the three different horizons of innovation, from continuity to disruption or from short term to longest term (Kyffin & Gardien, 2009), with a high degree of focus on impact and implementation (VV.AA., 2008).

## 5. Discussion on High Design: Past Practice and Bibliographic Examples of Its Evolution

Philips established a design and communication specialist center since 1920 (VV.AA., 2005) and its corporate history is rich of both charisma (Yran, 1980) and brand identity building (Heskett, 1989). From the first 1991 paper by Stefano Marzano on the emergence of sustainability concerns and imperatives (Marzano, 2007), to the universal review of Marzano's legacy in one volume of extraordinary size and weight (VV.AA., 2005), Philips Design systematically collected, elaborated, expanded its collective experience in books, peer reviewed papers, articles, white papers published by Philips itself, and all other possible forms of distribution of accumulated knowledge. After the end of Marzano's legacy as CEO and Chief Creative Director, in 2011, at least two monographic Ph.D. thesis were successfully promoted, systematically framing processes, references, and scientific validity of High Design from its general approach viewpoint (Gardien, 2015) and from the viewpoint of its application to Urban Futures (Bevolo, 2016). These streams of co-eval publications, conference contributions, and the academic extensions of High Design offer a thesaurus of historical materials to perform an archeological and philological study of how High Design envisioned and -to some extent- "made" the future happen, or not, from time to time.

High Design was primarily a design approach rooted in a High-Tech business context with a corporate function, however externalized as service unit. This might lead to legitimate suspicions by outsiders concerning commercial interests as its drivers, however perhaps not optimally informed and generically formulated (Candy, 2010). The proof of the pudding about the intellectual and theoretical robustness of High Design might be found in the personal histories of past Philips executives, turned independent authors. Beyond its own encapsulated history, High Design inspired its future within a

thesaurus of selected titles published by Philips Design managerial and intellectual leaders, after their commitment to Philips was terminated:

- In 2022, Eric Quint, formerly VP at Philips Design with a strong portfolio of non-Philips external clients, then Chief Design Officer at 3M, US, published with scholars Gerda Gemser and Giulia Calabretta, their *“Design Leadership Ignited”*, based on solid independent, academic research involving more than 40 design leaders worldwide, delivering a reference title in organizational design;
- In 2019, Satyendra Pakhale, one of the pioneers of Strategic Design at Philips Design in the 1990’s, published his design monography *“Culture of Creation”*, with contributions by Paola Antonelli, Juhani Pallasmaa, Giulio Cappellini, and more;
- In 2020, Jan-Erik Baars, formerly studio manager at Philips Design Vienna, published his *“Leading by Design”*, sharing his experience both as professionals and as educator at the Lucerne University of Applied Sciences and Arts, Switzerland, on the business value of design and the ways to manage it, organizationally;
- In 2013, Yasu Kusume, formerly VP Brand Design at Philips Design, then in leadership positions at Electrolux of Sweden and IKEA of Sweden, published with Neil Gridley, formerly team member at Philips Design, then independent consultant, published their *“Brand Romance. Using the Power of High Design to build a lifelong relationship with your audience”*, directly referring to and reporting on their experience with High Design from the viewpoint of internal management and branding, followed in 206 by his independent *“Designology”*, further elaborating on creative direction techniques for repeatable success, by design;
- The author of this paper published in 2011, *“Premium by Design”*, with leading statistic scientist and marketing researchers, Howard Moskowitz, Ph.D. and Alex Goffman, Ph.D. what started as a Philips Design project on the application of High Design on the mass luxury categories and industries, followed in 2014, by *“Create the Livable City”*, with digital entrepreneur and lighting designer, Tapio Rosenius of Lighting Design Collective and SKANDAL Technologies.

It seems remarkable that, from this selection, High Design was directly featured in three books where the approach was interpreted and applied to the future of luxury, brands, and cities. This seemingly confirmed the versatility and elasticity of the approach. Lastly, except for urban futures, most publications addressed managerial, organizational, and cultural (Bevolo, 2022b) aspects of design, either High Design directly or beyond. The organizational sophistication of High Design might be retrospectively proved by this stream of publications on how design works at the level of companies and teams.

## 6. Critical Reflections on Past Practices, Towards the Future of Design Futures

### 6.1. Recent reflections from past protagonists of High Design

Design Futures has the ambition to extend High Design into its future, beyond its roots and along lines of renewal where past achievements are re-contextualized into present challenges. In this view, a recent interview granted by Stefano Marzano (Bevolo, 2022a) highlights some critical *turns* required to migrate from High Design to the next phase in Design Futures, including:

- The “dystopian turn”, or the need to rethink the notion of “preferable futures”, by including potentially dystopian scenarios in the output of design explorations of the future, with particular concern for bio ethics, Artificial Intelligence, and digital developments with deep societal impact;
- The “political turn”, or the need to further incorporate in the Design Futures projects of tomorrow, political, philosophical, and religious considerations, in order to factor the impact of the real world at macro scale on our everyday life, now and ahead in time;
- The “post-Anthropocene turn”, or the need to move beyond anthropocentrism and human centered design, to incorporate the planet and life in general among the key stakeholders of Design Futures.



The urgency to inspire and facilitate effective transitions to sustainable futures demand co-creation through storytelling and inclusion by participation (Garduño & Gaziulusoy, 2021). Such urgency to look at the bigger picture was confirmed by Eric Quint, in a recent interview, as the starting point to design with “the bigger picture” in mind, when organizing the design function as a leadership feature in business organizations.

The need to promote an organizational climate of creativity across companies as the next phase beyond Design Thinking was then highlighted in recent interviews by Pernilla Johannsson, formerly Senior Director Philips Design in Singapore, then Chief Design Officer of Electrolux, Sweden, currently design leader at Volvo, Sweden and by Kitty Suidman, formerly leader of Visual Trends Analysis at Philips Design Hong Kong, then at Motorola in Chicago, then at Y Studios in San Francisco, currently combining the leadership functions in CMF (Colors, Materials and Finishing) and Product Sustainability at Sonos, US (Bevolo, 2021b).

The inevitable impact on design practices of Artificial Intelligence, Virtual Reality and digital innovations in general, was highlighted in equivalent interviews by Claudia Lieshout, Principal Design Research, Philips Design (Bevolo, 2021c) and by emerging design leader, with a qualified experience in India, Hugo Pilate who adopted Fortnite as a design research tool and looks at the metaverse as the next arena where possible futures might be increasingly explored and co-designed with users.

The actual progression of new tools, like ChatGPT, in terms of colonizing the futures discourse of designers and foresight experts, feels impressive when compared to a peer reviewed assessment of the then impact of Machine Learning and Artificial Intelligence specifically on Design Futures, as performed three years before the writing of this paper (Bevolo & Amati, 2020). On the other hand, coeval research to that paper (Dean & Loy, 2020), clearly indicated how digital futures already enable generative product design by computational studios. In this context, radical paradigm change might be more urgent than forecasting in continuity. High Design proved a valuable approach, to achieve such leapfrogging where technology is but one of the drivers, and people’s futures are always central in terms of socio-cultural projections.

### *6.2. From High Design Towards Design Futures: Contemporary Reflections by Thought Leaders and Authors*

It is no surprise that the context and scenery for Design Futures remarkably evolved from the conditions where High Design established a necessary connection between foresight and design. Since 2011, when Marzano terminated his CEO role at Philips Design, a great quantity and quality of methodologies between foresight and design was developed by academics and practitioners, with the following emerging qualities, combining elements, tools, and frameworks (Cora et al., 2023), with particular focus on:

- Increasing awareness of the critical role of designers in determining personal, societal, and planetary impact with their choices and with their delivery (Lima, 2023);
- Increasing awareness of the need for designers to rethink their ethical and moral role related to digital technologies by articulating authority through their decisions and deliverables from a viewpoint of Moral Design Strategy (Wernaart, 2022)
- Increasing awareness of the complexity of VUCA and the increasing impossibility to treat the future in terms of continuity, road mapping, or extrapolation (Cora’ et al., 2023);
- Increasing awareness of the necessity to shift the focus of “design” from the ivory towers of corporations and brands to the cities, the streets and the people, in a movement towards the democratization of participatory design for community development (Manzini, 2015) and of migration of priorities and vocabularies from the Global North (Escobar, 2018), e.g. from western-centered scenarios to Afrofuturism (Hoffman, 2022);
- Increasing awareness of how personal biographies and life journeys are a key influence in the creation of approaches to study the future and to make the future, by design, with the opportunity to bring into the equation the views, history, and personalities of minorities by means of radical Diversity & Inclusion steps (Bethune, 2022);

- Departure from the consolidated XX Century conglomerate formats of corporations and business entities, towards digital platforms (Chen et al., 2022), requiring new forms of organizational analysis (Bratton, 2015) and design, therefore demanding the ability to rethink the nature of business relationships where foresight and design projects are concretely feasible.

The span of High Design, from everyday products to rethinking cities, seems peculiarly relevant in terms of flexibility and applicability of the approach, in the future. Particularly from the urban futures viewpoint, challenges require the synthesis between material innovation of built artefacts and objects, with socio-cultural relevance and -again- integration through participation (Cooper & Dunn, 2021). Even more mission-critical, the power to inspire and to go beyond conventions and inertia is required to mobilize talent and create consensus around potential solutions. Without these characteristics, any attempt at visioning or conceiving or future-forming will be exposed to the risk of remaining a sterile exercise of sometimes brilliant intellectual nature but ultimately without impact.

### 6.3. Challenges Ahead of Design Futures

Reflections on the suitability of design methodologies to effectively anticipate towards futures and for the purpose of strategizing have been formalized in the last two decades (Montuori, 2003), reaching a tipping point of popularity in the mid 2000's, with the emergence of the notion of Design Thinking. Three critical aspects of Design Futures might be articulated as its challenges:

- The relationship of Design Futures with (declining) Design Thinking;
- The methodological necessity of workshop formats for Design Futures;
- The methodological necessity of matrix tools to govern Design Futures;
- The methodological necessity to include prototyping in Design Futures;
- The strategic role of communication and valorization for Design Futures.

#### 6.3.1. On the Future of Design Thinking

Design Thinking has been a specific paradigm, which emerged from the diffused design practices (Verganti et al., 2021) in the mid 2000's decade. At a theoretical level, Marzano recently remarked how High Design is an antecedent, if not one of the inspirators, of the notion of Design Thinking (Bevolo, 2022b). From its inception, Design Thinking has expanded into business consulting, education, and a wide range of domains well beyond design itself. However, since then, the dilution of Design Thinking as a concept must be critically factored. Recently, the business crisis at IDEO, resulting in one third staff dismissal and closure of studios worldwide (Wilson, 2023), marked the perceived end of Design Thinking as a transformational force in advanced economies. At the time of writing this paper, this expression has acquired generic status without any political or critical impact, but generic human-centeredness. The lack of specific design knowledge and experience by consultants and by educators who superficially engage represents an increasing weakness, if not a threat, for the Design Thinking. This dilution trend pertains both to what Design Thinking is and to how it works. At the opposite of such opportunistic dilution, one of the best manifestations to be experienced at Dutch Design Week, 2022, in Eindhoven, is the self-published collection of brilliant essays by the graduating students of the Critical Inquiry Lab at the Design Academy Eindhoven (VV.AA., 2022). In intellectual independence and with political courage, these young graduates existentially demonstrated the potential impact of design at its best, beyond generic Design Thinking, in its emancipatory drive and its critical edge.

#### 6.3.2. Methodological Notes: The Workshop Format

At a methodological level, the workshop format, either in presence or remote and virtual, might be expected to retain its generative power across multidisciplinary stakeholders, as piloted and experimented in follow up formats with different specifications than standard High Design programs. Workshop formats have been established as effective methods of co-creative explorations and co-design (Jungk & Muellert, 1987, 1996). Through the Covid-19 crisis, digital tools like Miro' enabled the workshop format to be transitioned to remote modality, yet with high productive output, if efficiently moderated and inspirationally facilitated (Brand & Mink, 2022). Additionally, the necessity to keep communication central in the Research-through-Design process, with the aim to be systematically inclusive towards multiple stakeholders should

be pursued (Ollenburg, 2019).

### *6.3.3. Methodological Notes: The Matrix Tool*

At the level of tools, it must be reaffirmed of how the adoption of matrixes will enable the correlation of socio-cultural drivers with industry parameters (Bevolo, 2017). This specific tool is equivalent to the metrics in use at innovation programs like DARPA in the US (Bevolo, 2023). Of particular interest, the design of sectorial matrix (Bevolo & Amati, 2023) will combine the necessary granularity with the possibility to compare said sectors at a later stage, e.g. by overlapping each matrix with the others. Even more key, if not mission critical, a matrix can be used to pre-code qualitative research and analyze empirical research within the protocols of social sciences, to then be converted into the generative engine of design workshops. Additionally, a matrix might be used for historical back-tracing of how existing manifestations might be mapped within future trends, providing an additional flexibility, whereby future projections can be connected to the past. (Bevolo & Stiphout, 2020). Lastly, the adoption of a matrix system will provide a counterbalancing factor to mitigate the impact of personal charisma by thought or practice leaders, when they perform in “genius forecasting” modality (Bevolo, 2023). These peculiar qualities of unique elasticity and versatility embody the synthesis of distant disciplines, which are required to converge within Design Futures projects.

### *6.3.4. Methodological Notes: on Prototyping*

The relevance of prototyping and testing with audiences, by means of public circulation of ideas. Prototyping might be also seen to counterbalance the impact of AI on futures research, where testing with wider audiences will require human judgment, whereas trend scanning might be increasingly automated. In such landscape of automation, the discerning ability of designers to interpret the feedback loops from testing and prototyping will be key (Bevolo & Amati, 2020).

### *6.3.5. Strategic Note: The Mission-Critical Relevance of Communication*

A constant presence in the cultural discourses, both in terms of scientific publications (peer reviewed papers, PhD theses, collaborations with academic institutions) and in terms of trade publications (articles, books, media relations), including popular press and daily newspapers, is key to the engagement in participatory dialogs with decision-makers, design specialists and citizens. At a communication level, it must be recalled how Philips Design was the only design center within a corporate portfolio with an own media team of up to 5 full time equivalent staff members. This was a testimony of the commitment to reaching out to all audiences, from thought leaders to the layman, to share visions, ideas, and opinions as an active actor in contemporary cultural discourses.

The above pointers are among the most relevant, although not the sole triggers for change, that will determine the directions, developments, and methodologies of Design Futures. Given the urgent need to connect and systematically organize methods and insights across critical thinking, social sciences, humanities, futures studies, and design, there might be a major opportunity for multicultural dialogue. This is a major theoretical and methodological challenge for Design Futures.

## **7. Conclusions: Answers Towards the Future of Design Futures**

To conclude this paper, a bridge between the historical achievements of High Design and both the ambitions and the necessity of Design Futures, is proposed. For this, it is necessary to address the six questions set at its opening, namely:

### *7.1. Society: What Is the Social Function of Design Futures?*

The social ambition of Design Futures lies in visually connecting, actionably prototyping, and giving coherence and consistency by verbal articulation to societal urgencies and cultural priorities. This by connecting distant disciplines, from political sciences to philosophy, from theoretical studies to applied practices. It seems imperative to identify, scope, and analyze wicked problems with critical impact on our everyday life. Design Futures will envision, sketch, and prototype solutions together with stakeholders, both human and non-human, from wild nature to manmade environments.

### ***7.2. Culture: What Is the Relationship Between Design Futures and Culture?***

Design Futures will engage with cultural discourses as a communicative necessity, to give inspiration and get feedback to ideas and hypotheses, while achieving impact in media and public opinion. At a local and regional level, Design Futures will engage with cultural diversity, by means of inclusive practices and decolonizing principles of respect and dialogue. At an organizational level, Design Futures will address enterprises as cultural entities with organic integrity, with stakeholders, staff, and the environment at the center of its focus.

### ***7.3. Sustainability: What Is the Function of Design Futures in Terms of ESG's?***

Design Futures advocate the adoption of Environmental, Social and Governance principles at the heart of projects and programs. This by aiming at leveraging the current interests by business and financial communities in these issues in the financial and business communities. The ambition is to facilitate, inspire, and instigate radical solutions to address the root causes of climate change, social inequality, and unfair treatment of any given minority, within or outside the boundaries of formal organizations and social networks.

### ***7.4. Vision: What Is the Connection Between (Brand) Vision and Design Futures?***

High Design has been instrumental to the visualization, anticipation, and formation of a future-driven brand vision within corporate and commercial contexts, from Philips to Levis, Nike, and more. Design Futures will orchestrate, facilitate and lead multidisciplinary processes, reporting to C-suite. Design Future will aim at not being insular within a specific corporate silo, e.g. marketing, as its potential and power in terms of anticipatory and generative capacities exceeds the tactic objectives of sales and the market constrains of quarterly reports.

### ***7.5. Strategy: What Are Relationships Between Design Futures and Strategy?***

As a natural extension of Strategic Design, Design Futures aims at contributing to the formulation of strategy with qualitative, participatory, and visual assets and methods. Design Futures will span from foresight to co-creation, rooting business into society. It will adopt a deeper, perspective than individual competencies do. This will be even more urgent in the light of the emerging awareness that the strategy formation processes within organizations. There, foresight is naturally positioned as contributor.

### ***7.6. Methodology: How Can Designers Anticipate the Future?***

By adopting participatory methods, workshop formats, and matrix tools to govern exploratory processes, designers are in the unique position to establish critical trajectories from theories to communities and from visions to new everyday realities. From operational viewpoint, Design Futures should contribute to addressing complex social phenomena with dynamics involving praxis, practices, and practitioners (Jarzabkowski et al., 2007). As a synthesis, at the crossroads of SSH (Social Sciences and Humanities) and design studies, multidisciplinary and hybrid methodologies provide direct support and validation to the ambition of designers to study the future (Smith et al, 2016). Embracing key movements of democratization and de-colonization, along with personal biographies and individual ambitions, will enable recognition of new viewpoints and worldviews. Of course, additional methods, tools and theories exist and will be designed for the purpose of participatory research and design explorations, hence multidisciplinary diversity and multicultural inclusion will remain key in a constant renewal of what Design Futures stands for and does. Education will be key, in enabling Design Futures to serve humankind to address the major challenges ahead (Bevolo, 2021). Therefore, a shift in focus from industry to education should follow for Design Futures, as it has happened with Design Thinking.

Ultimately, interdisciplinary dialogue at both epistemological and operational levels, enables the convergence between creative practice and scientific rigor, which ultimately represents a foundation for Design Futures.

Through tomorrow's complexities, Design Futures aims at resonating with the notions of radical optimism and life-centered design by the author of milestone books like "Massive Change" (Mau, 2004) and "MAU24" (Mau, 2020), Bruce Mau (Bevolo, 2021a), and with the vertical vision of a new Renaissance by Julio Mario Ottino, Guggenheim Fellow and founder and former co-director, Northwestern University's Institute on Complex Systems, and Mau himself (Ottino & Mau, 2022). The adoption of an active mindset, of a post-disciplinary posture, and of a sense of urgency rooted in the awareness of the pressing problems and challenges that humankind is facing, from climate change to migration, should then be converted into thinking through design, beyond what is by now, conventional Design Thinking. From there, the present reflections will need to be further developed, from personal ambitions to strategies, futures literacy, and actual

consistency and coherence at theoretical level. In general terms, Design Futures must therefore offer a safe yet honest space of critical synthesis. Even more urgently, Design Futures must offer a critical space of conceptual experimentation for the development, testing, prototyping, presenting, and discussing of ideas to address VUCA challenges at personal, social, and planetary levels. This concurrently developing a robust understanding of the risks created by AI and digital technologies.

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