

Rights through making : skills for pervasive ethics

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RIGHTS THROUGH

SKILLS FOR PERVASIVE ETHICS

MAKING

AMBRA TROTTO



Graphic design concept developed together with Aimone Bonucci and Francesco Ciardi, fuoricentrostudio.com

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RIGHTS THROUGH MAKING

Skills for Pervasive Ethics

PROEFSCHRIFT

ter verkrijging van de graad van doctor aan de
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door

Ambra Trotto

geboren te Bologna, Italië

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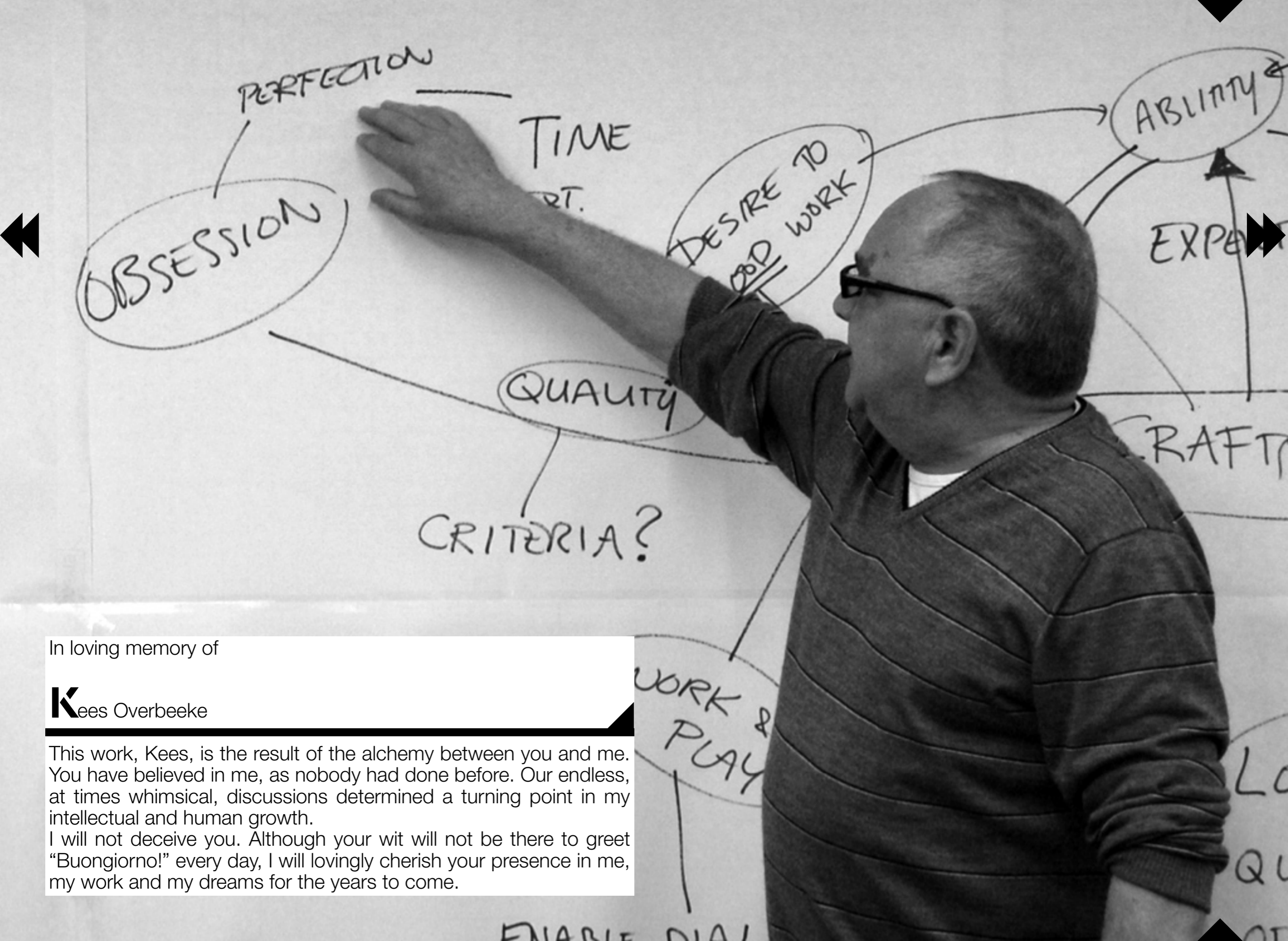
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en
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In loving memory of

Kees Overbeeke

This work, Kees, is the result of the alchemy between you and me. You have believed in me, as nobody had done before. Our endless, at times whimsical, discussions determined a turning point in my intellectual and human growth.

I will not deceive you. Although your wit will not be there to greet "Buongiorno!" every day, I will lovingly cherish your presence in me, my work and my dreams for the years to come.

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Pierre, thank you for answering this last-minute crazy call and thank you for offering such enthusiasm, complete dedication, incredible sharpness, which provided me with the last (and very needed) propelling force to face the final rush. This is just the beginning of new poetry that we will make, share and enjoy together.

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Sara, Alessia, Micaela, Giacomo e Francesco, Mariangeles e Javi, Elena e Mimì, Antonio e Amanda, Francesco, Roberta, Gianna e Romano, Franca e Sergio, Domenico e Rita, Sara e Martina, Laura e Fiorenzo, Patrizia, Valentina e Mattias, Enrico e Rita, Fabrizio e Antonella, Anna e Valerio, Fabrizio e Rossana, Federico e Filippo, Jacopo, Raffaella, Vincent, Alies e Pleun, Marina e Cor, Eliza, Eugene, Nailya e Daniel, Johan e Ianthe, Hjordis e Sigri, Sietske, Natasha e Marijn, Marten e Kiki, David e Eleas, Suzanne e Stephan.

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NOISES

Fig. 1. Detail of David Goldblatt's *Diepsloot Informal Settlement*, Johannesburg. 54th Biennale of Arts, Venice.



Behind every endeavour lies an obsession. It can be secret or outspoken, silent or loud, latent or unleashed, but indeed, there must be an obsession.

Only obsession can supply the emotional means to cope with the frustrations arising along a lingering path. Only through obsession, is there a hope to reach quality, shape details, improve, at times even innovate and move on.

The 25th of April 2011 I was in Monte Sole. This place, on the Apennines between Emilia Romagna and Tuscany, hosted one of the most brutal civil massacres that contemporary people have witnessed. In few days (29th September – 5th October 1944), 700 civilians, mostly women and children, were killed by the retreating Nazi-fascist troops and all sorts of brutalities were perpetrated against people. Among those, there was my great-grandfather Giovanni Lamberti, his second wife, Ruffina and many other people, whose relatives I know. The brother of my grandmother, Franco Lamberti, was fast and lucky enough to escape. He saved two little girls, from under the corpses of their mothers and other people, mass executed with automatic guns. My great uncle and the girls never met again, although they would have really wanted to, as it was found out later, when the history of those dramatic moments was finally dredged out and delivered to written memory.

Every 25th of April, day of the liberation from the Nazi-fascist oppression and end of the World War II in Italy, there is a memorial celebration in Monte Sole, with personalities invited to speak. In 2011, I went there to listen to Margherita Hack and Gian Carlo Caselli. Hack is a renowned scientist, astro-physics, with an incredible human power. She has always been fighting for justice. And she indeed is very passionate. Caselli is a magistrate, who dedicated a large part of his life to the war against the mafia.



Fig. 2. sign at the entrance of the city of Marzabotto, where the renowned nazi-fascist massacre took place in 1944.

His moral integrity and courage are for me a reason for deep admiration.

The place and the event of the commemoration of the Massacre of Monte Sole always induce in me a strong emotional involvement. The passion, or even, the obsessions of these speeches made some deep cords in me resonate even more. Hack, all along her speech, denouncing national issues and the fading of respect and belief in justice, grounded her statements with numerous references to the Italian fundamental law: the *Costituzione Italiana*. She reminded me how beautiful the Italian Constitution is, how dense of human understanding, pervaded by dreams and vibrant with trust in human beings, but, at the same time, extremely pragmatic. It is almost one year younger than the Universal Declaration of Human Rights (UDHR, 10th of December 1948). The people that wrote it, the *Assemblea Costituente*, were the sharpest spirits in Italy at that time. It was made law the 1st of January 1948. The Constitution is an expression of all political convictions and beliefs, which are compatible with human respect and democracy. It was an unbelievably integrative effort and a high compromise, where compromise is meant in its best connotation. All the different historic political and cultural streams were represented. The current President of the Republic Giorgio Napolitano stated that “*defining the Italian Constitution as a compromise, (prevents) to understand the components of reciprocal listening, exchange and rapprochement on the level of ideals, of recognition of common issues and sensibilities; (...) patient research of meeting points, of sharable solutions, acceptance of alternant results of voting on controversial matters and therefore of the spirit of moderation and sense of mission*”¹ (Napolitano, 2011). Its essence states the principle of a *common social responsibility*, to use Napolitano’s words.

That day at Monte Sole, reflecting on the power of the Constitution,

in such a context, vibrant of memories, gave me a striking thought. All of a sudden I clearly had in mind what my obsession has always been and still is: a *passion for justice*. It was clear since the beginning, since the years of unstable steps in a crowded kindergarten, where the first signs of a lack of empathy among children showed during playing time and made me angry and willing to make up and find common understandings. I could not stand weaker kids being overruled by stronger ones, both physically and psychologically. I could not cope with unfair reproaches from teachers. I could not accept conflicts that did not lead to a constructive agreement.

Then it went on, especially during high-school, where the first traits of a political conscience were formed: a demonstration against French nuclear tests in Mururoa, sit-ins against the violation of public school by unwise rulers, school squatting to elaborate proposals for the reform of education, and so on. Looking back at each of these actions and moments, I smile. As an adult, I now see them as sweet, not very coordinated or consistent gestures. But still, I see the value of those actions. As George Harrison said “*If you don’t know where you’re going, any road will take you there*”. To grow up, I was exploring roads, I did not know the master plan, but I was doing my part to contribute to the world’s justice, responding to my intimate, unspoken obsession.

1. “se lo si definisce compromesso (...) non si coglie quel che nella Costituente vi fu di ascolto reciproco, di scambio e avvicinamento sul piano ideale, di riconoscimento delle istanze e sensibilità comuni; quel che vi fu di paziente ricerca dei punti di incontro e di soluzioni condivisibili, di accettazione degli esiti alterni della prova del voto su materie controverse, e dunque di spirito di moderazione e di senso della missione” (Napolitano, 2011).

After the teenager furies, all this passion was mitigated by the burden of University studies and coping with life's stringent practicalities: I stopped fighting in the open field. But looking back, I realised that most of the decisions I made, were based on this underlying drive for justice. Participating, in the crowd of people empathising with the enthusiastic, wise words of Hack and Caselli in Monte Sole, asking not to forget the past and how to use the tools we have to build a human future, made me close the circle. The thin red line of justice has always run next to my choices and only in that moment I could dredge it out.

This thesis is a materialisation of this obsession. It is exactly about that.

In Monte Sole I realised the reason why a sense of justice runs in my veins together with the urge to act in order to empower it. It is due to the fact that I come from a family, from a place in which the history of such horrendous events has been kept alive and vigorous and the memory of the people that resisted has been praised, as a *memento* of what indifference can lead to and as a catalyst of a new humanism. This thesis is nothing more than a modest contribution towards the enormous enterprise that capillary spreading of ethics in society is. But I like to think that it will make somebody feel, reflect or sense slightly different points of view on how to act towards world's justice.

Fig. 3. Different perspectives

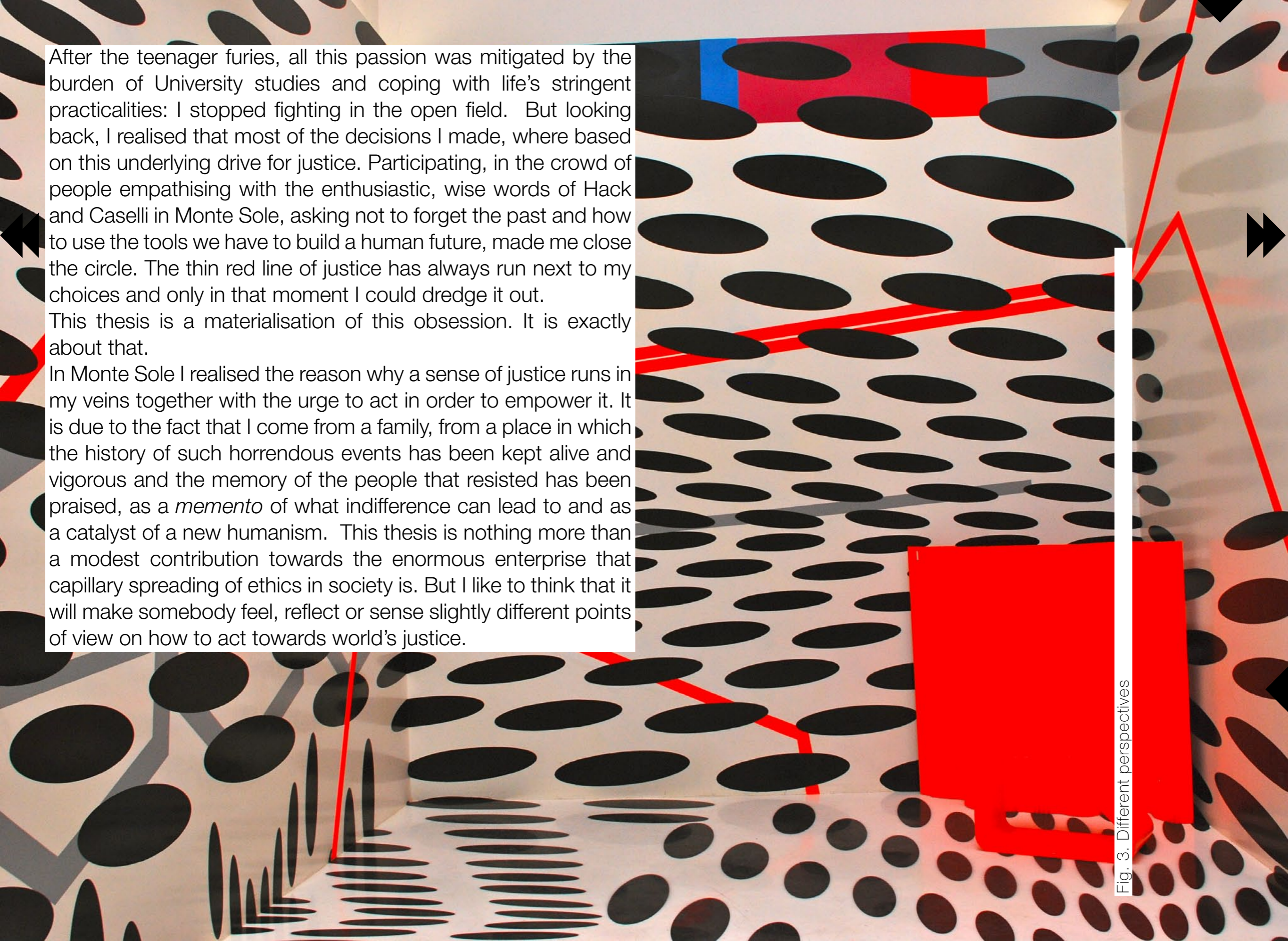


Fig. 1. Detail of the Luxembourg Pavilion at the 54th Biennale of Arts of Venice. *Le Cercle Fermé*, by Martine Feipel, Jean Bechameil. Commissioner: René Kockelkorn. Curators: Kevin Muhlen, Jo Kox. Venue: Ca' del Duca, Corte del Duca Sforza, San Marco 3052

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This thesis starts with a Manifesto, bold, passionate and ambitious. Goals are set high, as to commit to a major endeavour: how can design contribute to a new civilisation. The first version was written in 2006 in Bertinoro, Italy, where Caroline Hummels, Kees Overbeeke and I were giving a workshop on Aesthetics of Interaction for the University of Bologna.

In this Manifesto, we declared our belief and proposed a vision, concerning how design can change Western thinking towards pervasive ethics. By pervasive ethics I mean a social praxis aimed at justice and freedom, which pervades society in a capillary way, becoming a Universal attitude that makes people aware of their own rights, able and willing to contribute to seeing their own rights and those of all people fulfilled. I called this approach Rights through Making. The manifesto stated a mission¹, which was later applied and validated. The main lines of thoughts of the manifesto have been respected and enforced through several actions. This thesis will describe these actions, the underlying theory and the related reflection both on the approach and on the outcomes.

The Manifesto integrated the points of view of the writers, united by a common drive, in a world riddled with all sorts of social uncertainties. In the Manifesto we declared our intention of preparing and doing workshops with students of different nationalities, stimulating the integration of skilful points of view among future designers. When the Manifesto was written, there was not yet a concrete strategy on how to empower people towards pervasive ethics. The only anchor point was the Universal Declaration of Human Rights. We wanted the values contained in this document materialised, embodied in (intelligent) products or systems. Both the outcome of what we were envisioning (intelligent products or systems empowering towards the realisation of human rights) and the process of

Fig. 2. detail of Jacob Dahlgren's "The world, things, life", Swedish Pavilion, 53rd Biennale of Arts of Venice, 2009

¹. "We propose to use the power of making, conjugated with local design culture, to pave the way for a new way of communicating and a new way of thinking, i.e., "reflection-on-action, a new synthesis".

realising it (workshop) had to work towards ethics. This was all I knew at that point. Later I designed the way to do it, based on this solid and enthusiastic shared vision.

Throughout the years, the underlying theoretical framework started to acquire its own body. Only after the realisation of the first 5 workshops (out of 7 in total), was I able to explicitly structure and describe the platform of theory that was supporting my endeavour. These actions (the workshops), contributed to the formation of a body of knowledge, of which the potential strength and soundness until then had exclusively been perceived through intuition. This tacit knowledge was dredged out, reflected upon and refined, through iterations of reflection-on-action, in which the “active” parts were the individual workshops.

Thus the forming of this theoretical platform, the refinement of the research quest or design challenge and giving the workshops were overlapping in time and closely intertwined. For clarity, in this thesis I chose to position them in the following order:

- ▶ Part 1: defining the design challenge / research quest and the Rights through Making Approach;
- ▶ Part 2: illustrating the theoretical framework underlying the whole work. This theoretical framework is formed by three elements: (1) Ethics (2) Making and (3) their integration, i.e. how Making empowers towards Ethics: the core of the RtM approach.
- ▶ Part 3: describing how this theory is applied in design workshops and how the Rights through Making (RtM) approach evolved;
- ▶ Part 4: reflecting on the overall research experience and the underlying personal motivations.

Before this central body I placed an introductory part, containing acknowledgments, rights of the readers, synopsis (this chapter)

and tables of contents. After the fourth part, I positioned a part called “Annexes”, which is composed of two main sections:

- ▶ In the first section, I present the RtM workshops in detail, in regard to both the process of each RtM workshop and their evolution;
- ▶ In the second section, I illustrate the direction in which I envision the diffusion of RtM in the future, through the realisation of an Internet platform.

I now summarize the content of the central body of this thesis, parts 1, 2, 3 and 4.

PART 1 - DESIGN CHALLENGE / RESEARCH QUEST

The first part of this thesis focuses on defining the challenge that I proposed and the general actions, taken to face this challenge. In chapter “1 Skills for an ethical society: a new civilisation”, I start by defining “*pervasive ethics*” through design, of which the achievement is the goal of the present work. I envision a social transformation, towards a new civilisation, in which the *praxis*² of ethics is embedded in society. The creation of a new civilisation, starts, as stated in the Manifesto, from an attempt of embodying values expressed by the Universal Declaration of Human Rights, which is the lowest common denominator on ethics. My ambition is to approach this matter from a designerly perspective; I therefore motivate how I believe the discipline of design is able to contribute in this social transformation. I start to do so, by defining my perspective on transformation. To introduce the three actions that I consider necessary for my aim to be reached, I describe the case of an excellent craftsman: Chiara Vigo. Although she embodies all the characteristics that are necessary to transform society towards an ethical direction, I point out why I believe that craftsmanship alone, cannot be the key for pervasive ethics. It is necessary, but it has to be associated with other elements. The three actions that I state as indispensable for my toil are the following: (1) levelling the social importance of Making, with respect to Thinking; (2) educating people’s skills, not only manual skills, but also towards autonomy; (3) creating opportunities for skilful points of view to be integrated, so that the skill of empathy is trained as well. People making together,

combining their own sensitivities, experiences and values form the third action to contribute to the revolution towards universal ethics.

I later introduce my approach, Rights through Making (RtM), describing point by point how it intervenes on these three elements. The approach will be later documented by means of examples in part 3. Yet before this, I expand on the theoretical background.

Fig. 3. Detail of the Para-Pavilion designed by Monika Sosnowska for the 54th Biennale of Arts of Venice, 2011.

². Where the word “praxis” is explicitly chosen instead of the more common “practice”, because it is the Greek word for “making”.

PART 2 – THEORETICAL BACKGROUND

This part presents the theoretical background on which this thesis is based.

The first chapter of the second part (*1 Towards Universal Human Rights*) summarizes the historical and social foundations of the Universal Declaration of Human Rights, going through the three steps of consolidation of Human Rights in history: naturalisation, generalisation and internationalisation. This chapter explains why it was chosen to adopt the UN charter as the authority on ethics and as a tool to empower people towards the respect of Human Rights.

The second chapter (*2 Making*), together with the third chapter (*3 Ethics through Making*), constitutes the theoretical core of this thesis. In the second chapter (*2 Making*) I face (2.2) “*The phenomenology of Making*”. I take a phenomenological perspective, where experience, the naive contact with the world, is inherently meaningful: acting in the world and perceiving/conceiving transformations is what we (humans) do. Starting from the preferred interface with which people operate transformations, i.e., the hand, I describe how the evolution of (fine) manipulation permitted our species to evolve the ability to abstract thinking. The designerly way towards transformation is sketching (two- and three-dimensional), as a way to embody knowledge. It is a way to make sense of the world and to make new sense of the world, directing our human intentionality towards what we (humans) can transform. Another fundamental aspect in Making is culture. The unbreakable link between Making and places is therefore illustrated. Every artefact is

permeated with cultural elements and values: the way artefacts appear, behave and function, reflects the presence of their designers and of the environment in which they are brought into functioning. These values give body to an artefact, tell its story and attribute a personality to it.

The third chapter (*3 Ethics through Making*) presents the main proposition I aim to demonstrate with this research: there are three reasons why I believe that *Making* and especially *Making together* are praxis that lead to the realisation of pervasive ethics. The three reasons are: (1) a phenomenological argument, which implies that a shared Making process empowers towards a constructive integration of points of view; (2) limitation of expressivity imposed by language; (3) historical grounding, i.e. showing that in history, the periods in which Thinking and Making were considered of the same importance, were actually enlightened periods for humanity. On this grounding, the RtM approach is rooted and proposes a way for design to actively and consciously contribute to pervasive ethics, both in the action of design and in its outcomes. In the next part, the theory is applied through workshops.

Fig. 4. Detail of Patrick Mimran, “After: l’immagine del cielo come paesaggio mentale”, Venice, 2011

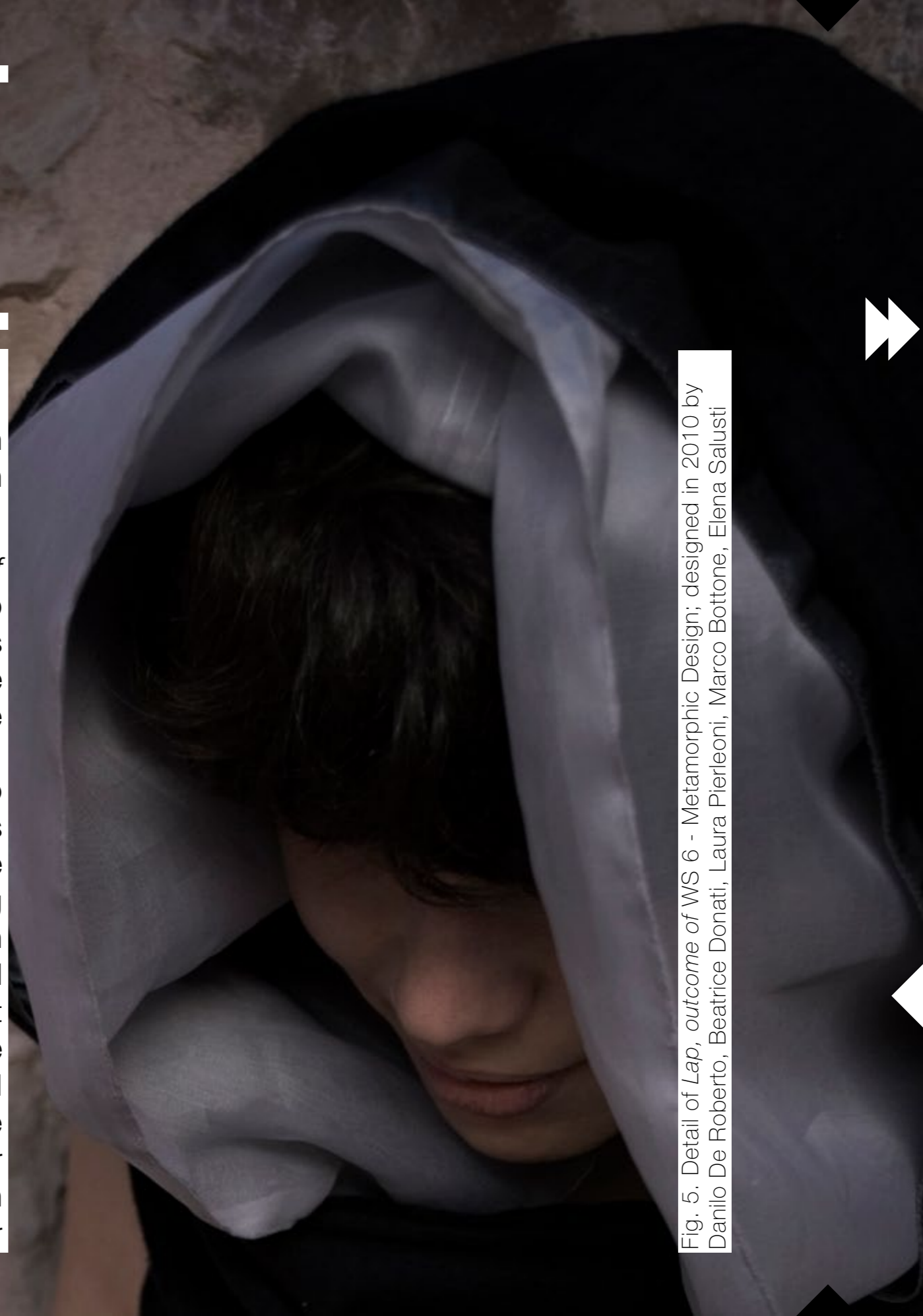
PART 3 – THEORY'S EVALUATION THROUGH WORKSHOPS AND RTM APPROACH DEVELOPMENT

In this part, I describe 3 of the 8 workshops I organized and taught, applying the RtM approach: WS 8 - Designing for Points of View, WS 5 – Urban Lights and WS 7 – Online Collaborative Design Space. These workshops materialised the theory illustrated in the first part and formed the enabling tool of such theory.

In Chapter 1, I describe the workshop “*1 Designing for Points of View, a meta-workshop*”. Although this was the last workshop that was done, I start this part by illustrating it, because its findings were the key to enrich and soundly consolidate the initial propositions of the Manifesto, and therefore ground the RtM approach.

I designed the workshop WS 8 - Designing for Points of View, to tackle the difficulty of conceptualising through making. Students had found it very hard to actually *make together*. Defeating the habit of relying upon linear Cartesian processes, where Thinking is prior to Making, is a main challenge within my endeavour, which was only partly achieved by means of the workshops described in the second part of this thesis. I therefore designed a refinement of the RtM approach in which students were induced to translate their skills into a design, integrating different points of view and trusting intuition. This did lead to the expected enrichment of the designing phase: because students had to actually transfer their skilful points of view into a design, they were forced to act within a concrete, first person perspective. This steered them clear

Fig. 5. Detail of Lap, outcome of WS 6 - Metamorphic Design; designed in 2010 by Danilo De Roberto, Beatrice Donati, Laura Pierleoni, Marco Bottone, Elena Salusti



from the cloud of abstraction they were used to move about in, where a concept was defined through the discussion of a given assignment.

In the chapter “2 *RtM workshops’ overview*”, I give a general overview of all 8 workshops, with factsheets, and I present the workshops’ outcomes. The detailed description of all these workshops, how they were prepared and how they evolved in time, can be found in “*Annexes*”.

In chapter “3 *WS 5 – Urban Lights*” I explain, step by step, how this particular workshop was first prepared and then taught/realised. Concerning its preparation, I report on how the location was chosen; how contributors were involved and for what purpose; how the assignment of the workshop was designed, in concord with the location, the institutions and the contributors participating; I explain what creative techniques, together with the other lecturers, I provided the students with; I report on how the schedule was defined and what was the logic of this preparation. Concerning conducting the workshop, I report on how students were chosen and teams were made. How the inspirational material was proposed to the students and how they worked with the creative techniques that they were supplied with. Then I describe the focal phase of conceptualising by making, when students built low-fidelity experienceable prototypes and designed concepts.

I conclude this chapter with the description of the model of the first 6 workshops, grounded on the experience matured during these years of research. I highlight two critical aspects that remained un-tackled. The first relates to the core activity of these workshops: conceptualising through making. This step has never worked as I had thought. Strategies to make it possible had to be designed and this is why WS 8 – Designing for Points of View was later made. The second critical aspect has to do with the “universality” in space and time of this approach. Workshops

are spot activities, reserved for few students, few contributors, few people and have a limited visibility. If the aim is a massive change in societal praxis and thinking, the impact of workshops is not sufficient. This is why the Internet Platform was conceived. In chapter “4 *Internet Platform: collaborative design space*” I face this aspect. Contributing with design to pervasive ethics is my aim. I work towards the formation and spreading of new skills, which can create a new praxis, based on respect of Human Rights. On the basis of this new praxis, a new way of Thinking can then rise. Short multicultural workshops are a good attempt to test the approach, its effectiveness and its results. But in order to really have an impact on society, the approach needs to be communicated, disseminated, and used by as many people as possible. This part faces the issue of disseminating the RtM approach. At the moment of writing this thesis, the project is spread through an Internet showcase. It contains a description of the workshops’ outcomes and of the people and partners participating. Its design process is illustrated in “*Annexes*”. Within this Internet Showcase, I additionally envisioned a section as a collaborative design space that will be a sort of permanent online RtM workshop. This section is not yet realised. In this section, designers will be able to contribute, respecting the underlying theory of RtM. They will contribute in a constructive, additive way – through Making – to realise a shared design assignment. In this chapter I describe an online trial workshop that gave me elements of motivation to plan such further developments.

PART 4 – MAKE TOMORROW

In this part, I reflect on what I learned in facing the design challenge / research quest. The evaluation of the outcomes of the different experiences I did, shapes new directions, and shows the dynamic character of the RtM approach.

The main two actions arising from this reflection are the following: (1) the necessity of implementing in the “traditional” RtM workshops, the technique developed during the workshop “designing for points of view” to foster the integration of skilful points of view in a design process; (2) and the realisation of the “*Collaborative Design Space*”, finding ways to create a permanent online space, embodying the RtM approach, where designers can actually integrate their skilful points of view.

Afterward, I define several points of improvement of the RtM approach, such as adding sources for competencies on human rights and societal issues, introducing working sessions together with craftsmen/local *saper fare*³ and refining the approach allowing more iterations of reflection-on-action on interim mock-ups, to strengthen the integration between conceptualising and Making. This work aims at creating an approach that empowers pervasive ethics through design. This thesis ends with an example of a design, realised by a student within one of my workshops, which reconnects to my personal motivation and is a shining example of the effectiveness of the RtM approach. It provides points of reflections for the discipline of design. Yet, it is a temporary research conclusion, which still has many open ends and fascinating opportunities for further explorations.

Now, without further ado, let the travel towards pervasive ethics through design start.

Fig.6. “Ttéia” an installation by the Brazilian artist Lygia Pape, at the 53rd Venice Biennale

³. “knowing how to make things”, craftsmanship

RIGHTS RESERVED



Fig. 1. Detail of Fernand Leger and Paul Elouard's "Liberté"

RIGHTS OF THE READER

This is a thesis on how the power of Making can empower towards pervasive ethics. I will talk about Human Rights, and we trust the authority of the Universal Declaration of Human Rights for that. But, for you, brave Reader of this thesis, I feel obliged to mention your specific, inalienable rights, borrowing them from Pennac's "Comme un Roman".

The way this thesis is made, empowers towards these rights from a designerly perspective: you, as a Reader, can make your own path, the way it resonates the most with you and your sensitivity. By following your intuition, trusting your skills, make of it what your senses inspire you to and build your meaning from the way you interact with it. This way of exploring this thesis is consistent with its approach. The medium amplifies the message. This is consistent with the phenomenological stance taken in this thesis: because you can interact with it, it engages you in making sense of its content.

Being a new support, less familiar than a book, you as a Reader will need some time and exercise to master the skill of browsing and navigating through it, looking for interactive contents and enjoy the visual feast. For instance, you will find no page numbers and the structure is not linear, as a book is. I believe that overcoming the slavery from linearity is worth some effort. It will take some patience to understand how to navigate around and acquire the haptic sensitivity to browse these immaterial pages.

You can always find where you are within the overall structure by means of an index that appears in the display, by swiping the

Le droit de ne pas lire.
Le droit de sauter des pages.
Le droit de ne pas finir un livre.
Le droit de relire.
Le droit de lire n'importe quoi.
Le droit au bovarysme (maladie textuellement transmissible)
Le droit de lire n'importe où.
Le droit de grappiller.
Le droit de lire à haute voix.
Le droit de nous taire¹. ████████████████████

triangle you see on the lower right side of every page. It is a skill I am asking you to learn to master. As every skill, it requires dedication, but it also offers pleasurable rewards. The reward, I hope, is an experience that better conveys the poetry of the message, its complexity and its multi-layered nature. Please be patient and bear with me.

¹. "The right to not read. The right to skip pages. The right to not finish a book. The right to reread. The right to read anything. The right to "Bovary-ism," a textually-transmitted disease. The right to read anywhere. The right to sample and steal. The right to read out-loud. The right to remain silent."
Daniel Pennac (1992) Comme un Roman. Editions Gallimard/Folio, Paris.

A note on “the World”

When I write about the world, I mean the world I know, the world I am in, the world in which I act. I do not have the ambition to speak about a “World”, in its objective essence.

I am aware that there are other perspectives than mine, as relevant as the one I take. Yet, as a human being and as a designer, I can argue about what I can directly act upon, what I experience and therefore know. My conception/perception of the world starts from a European perspective, tempered by globalisation, enriched with many layers of meaning, deriving from my personal experience (as “*Obsession*” shows), my skills, my cultural background, myself being a migrant, having a child, and hundreds of other “phenomena” that make me the person and the designer I am.

A note on the “I” form.

After thorough reflections, I decided to write this thesis in an “I” form. The choice was made to explicitly phrase what my contribution to design research has been. This thesis starts with my “obsession”. It is based on my beliefs and my values. It applies these beliefs and it documents how I took action to proof (or disproof) them, by means of design evidences.

The un-ignorable drawback is that the “I” does not emphasize the collective nature of this work. This thesis is in fact an integration of contributions, interpreted and phrased through the filter of my own (in)sensitivity and with the strength and limitations of my expressive abilities. These contributions come from those who have supported me and worked along in creating the Rights through Making approach, in particular my promoters, Kees Overbeeke and Caroline Hummels, and the research group that I am honoured to belong to: Designing Quality in Interaction. These people have not only contributed to the construction of

meaning of this thesis, but also offered their skills and time to actively give the workshops and coach the students involved in the project, together with me.

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СТЭФИЛИАМ

MANIFESTO

MANIFESTO

This is the manifesto written in 2006 as a starting point of the Rights through Making research project.

Scenario

The lack of solutions for the complexities of the modern world, such as environmental issues, cultural clashes, ideological warfare and the breakdown of cultures indicates that we might have touched upon the limits of the rationally and positively driven practice of the Western world. Words and communication often overshadow actions and deeds, instead of jointly working towards a solution. We plea for integrating knowledge and skills, i.e., the cognitive skills of the designer as well as his/her perceptual-motor, emotional and social skills.

We believe that design thinking, where action and thinking are combined, could take the lead in developing a new approach to these global problems. Sharing the “language of making” might break down the barriers between people, ideologies and communities, while, at the same time, preserving diversity. We see the proposed project as a first step towards this ambitious program.

Aim

We propose to use the power of making, conjugated with local design culture, to pave the way for a new way of communicating and a new way of thinking, i.e., “reflection-on-action, a new synthesis”.

Fig. 1. Detail of Ma Han's "Today's landscape-Fan No.22", exhibited at the 54th Biennale of Arts of Venice, 2011.

Short Term Perspective

The project proposed in this document focuses on eliciting and raising awareness. This sharing activity leads to the construction of a design network between individual designers, design research institutes, governmental and non-governmental institutions, educational institutions and (design) companies.

Our approach starts with workshops to be held around the world, in places where there is a focus on challenging political, social or scientific situations. During these workshops, designers from the participating countries design products or systems (communication, services, business, education) that empower, entice and seduce people to reach the ideals contained in the Universal Declaration of Human Rights, through *το καλόν* (*to kalon*), i.e., a synthesis of beauty and good. With the use of such products, we aspire to promote the respect of human rights, as part of the everyday life of multicultural societies. We base these workshops on the Universal Declaration of Human Rights, for we believe in the authority of this agreement on basic rights and values amongst different countries and cultures all over the world.

Furthermore, we believe that the designing of products and systems should take advantage of the newest technologies available to mankind and of their integration with the locally available “making” skills and techniques – saper fare – respecting, therefore enriching, habitats and cultures.

Long Term Perspective

By applying this approach, the long-term aim is to achieve a fundamental change in thought processes, communication and action. To support this, we will build an international community, which will work in synergy with the Eindhoven University of Technology (TU/e) and the University of Florence. The task of

this Community is to establish a strong base for elaborating and spreading the new thinking through action. Companies and institutions will financially support the project.

Bertinoro, November 2006

Kees Overbeeke
Caroline Hummels
Ambra Trotto

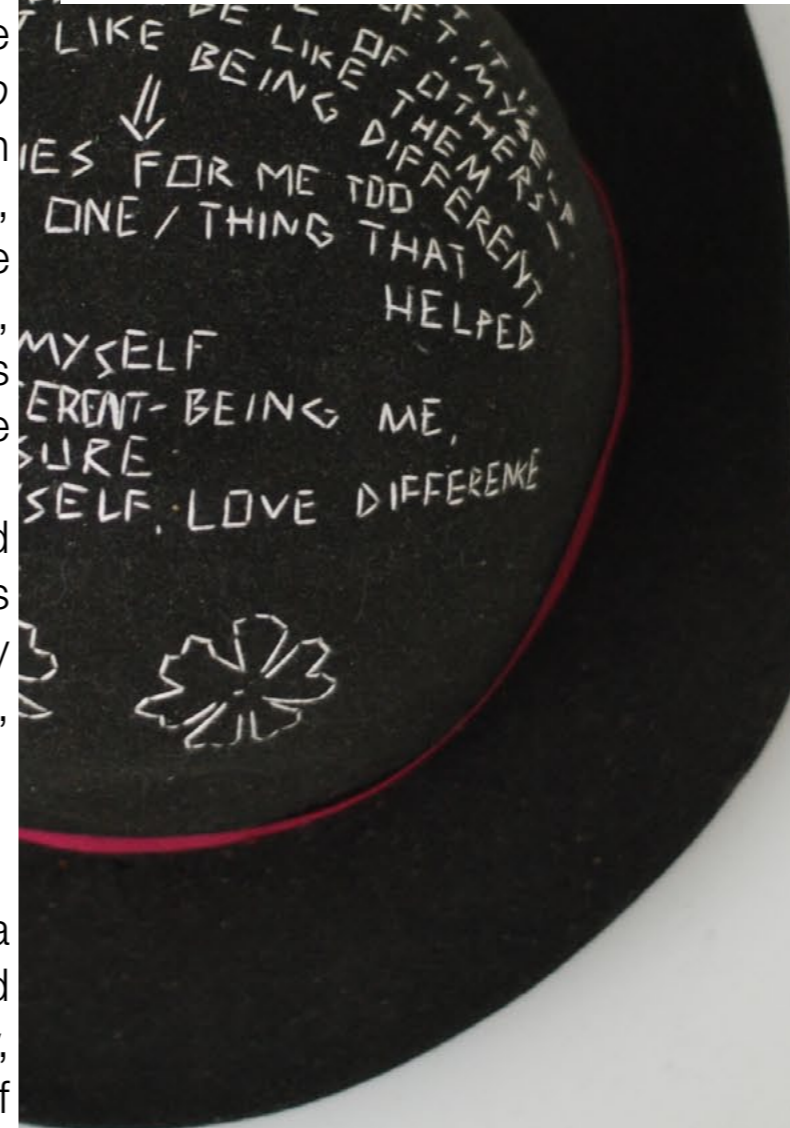


Fig. 2. Detail of Anila Rubiku's "Other countries, other citizenships", Albanian Pavilion of the 54th Biennale of Arts of Venice, 2011

PART 1

DESIGN
CHALLENGE /
RESEARCH QUEST

PART 1 - DESIGN CHALLENGE / RESEARCH QUEST

1 SKILLS FOR AN ETHICAL SOCIETY: A NEW CIVILISATION

- 1.1 Design in pervasive ethics
- 1.2 The demiurgos' loneliness
- 1.3 The praxis for pervasive ethics

2 THE RIGHTS THROUGH MAKING APPROACH AS A PRAXIS FOR PERVASIVE ETHICS

- 2.1 The balancing of Making and Thinking in RtM
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NEW CLIMATE SCENARIO FOR AN ANTICIPATED WORLD




Fig. 1. Projections on a mutating horizon.





1. SKILLS FOR AN ETHICAL SOCIETY: A NEW CIVILISATION



- 1.1 Design in pervasive ethics
 - The lowest common denominator of ethics: the UDHR
 - The on-going revolution and the role of design
 - 1.2 The demiurgos' loneliness
 - 1.3 The praxis for pervasive ethics
 - The balancing of Making and Thinking
 - Educating skills
 - Integrating skilful points of view
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1.1 DESIGN IN PERVERSIVE ETHICS

We, human beings, are nowadays often lost in complexity. We tend to face it in a modernistic and Cartesian way, i.e., by trying to control it and by simplifying it. I believe that complexity is better handled by trusting intuition, playing with the elements of resistance and accepting to float in ambiguity. But our culture does not provide the skills to do it this way. The tendency is to fragment complexity in simpler bits, so that it can be digested and people are reassured. This too often drifts towards simplification, banality, and at times even towards infantilisation. Huxley, in *“Brave new World”* (1932), described a drug, *soma*, which had exactly this reassuring, simplifying effect. Thanks to this drug taken by everybody, a society of inept, tranquil men was built, where inept is meant in the literal sense of *“having or showing no skill”* (definition by the Oxford American Dictionary). In this science-fictional society, dangerously evocative of our contemporary one, people were controllable, kept in a state of dependence. They were neither autonomous, nor empathic, but dumb and numb. We live in a society in which *media* have an immense power, where positive law is too often not handled by institutions and governments, but written by deontologically incorrect opinion-makers (i.e., the Murdochs of our world). In extreme, but alas near cases, owners of media have even prominent positions in governments, creating shameful situations of conflicts of interests, producing dramatic consequences for the country they rule. This creates the conditions for the shadow of nihilism to meander, under the postiche shine of a simplified and smiling society. Ethics is not a protagonist of cultural *praxis*, but more of a

“The human rights revolution is by definition ongoing”.
Lynn Hunt, *Inventing Human Rights* (2007, p. 29)

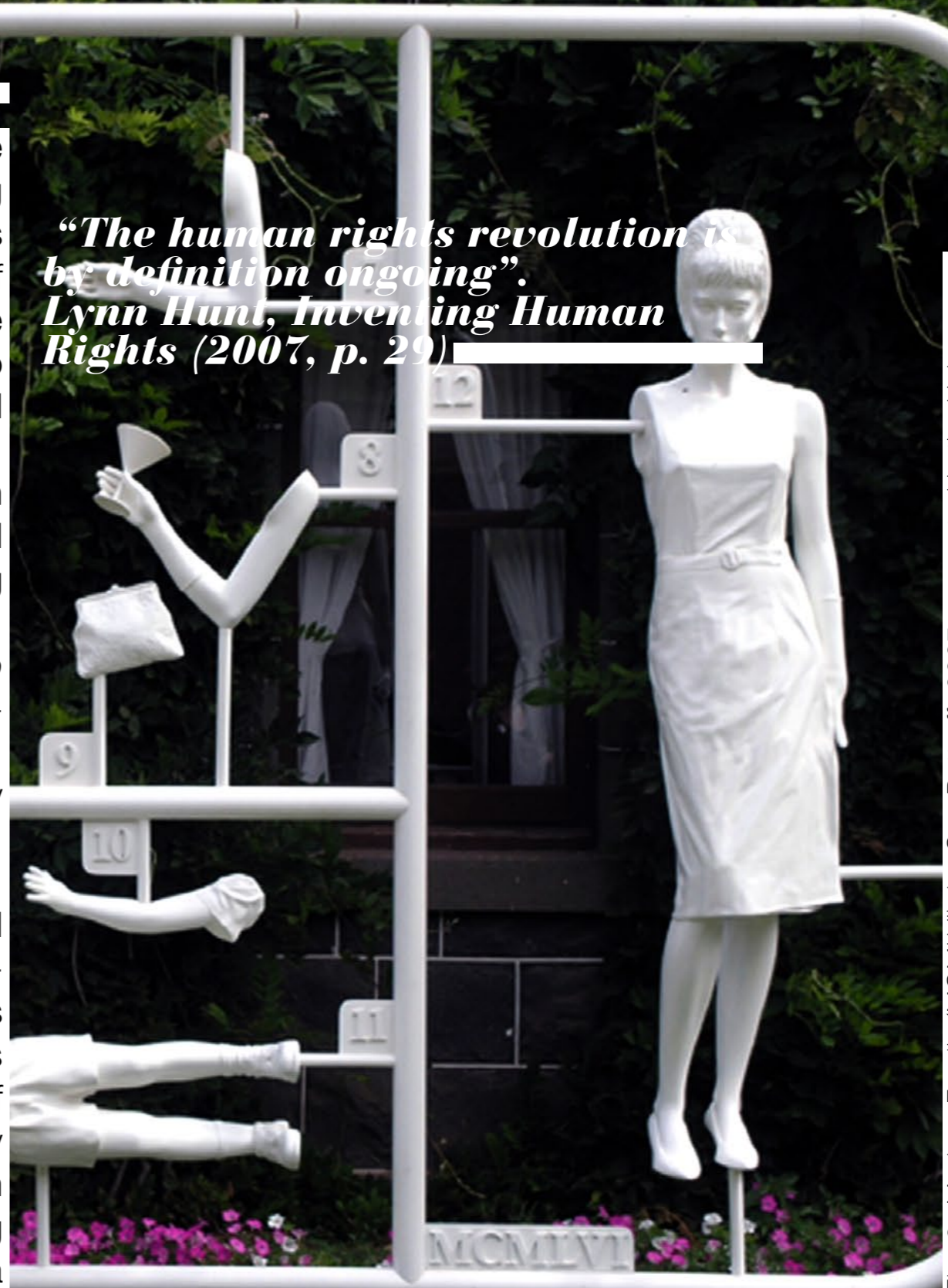


Fig. 2. Modern Family (MCMXLVI), by Guy Bottroff; 2007, presented in the Helena Lempriere awards at Werribee Mansion, Victoria Melbourne, 2008.

ghost character. This happens because the abstracted, polished and reassuring world that we think we have constructed and we think we live in is very different from the world we actually live in. Words and imagery, detached from concrete reality, create a schizoid feeling, inducing inappropriate, unsocial or destructive behaviours (e.g. “*greed is good*”).

It is new in Europe to having to envision a future in which living standards of our children will be lower than the ones of our generation.

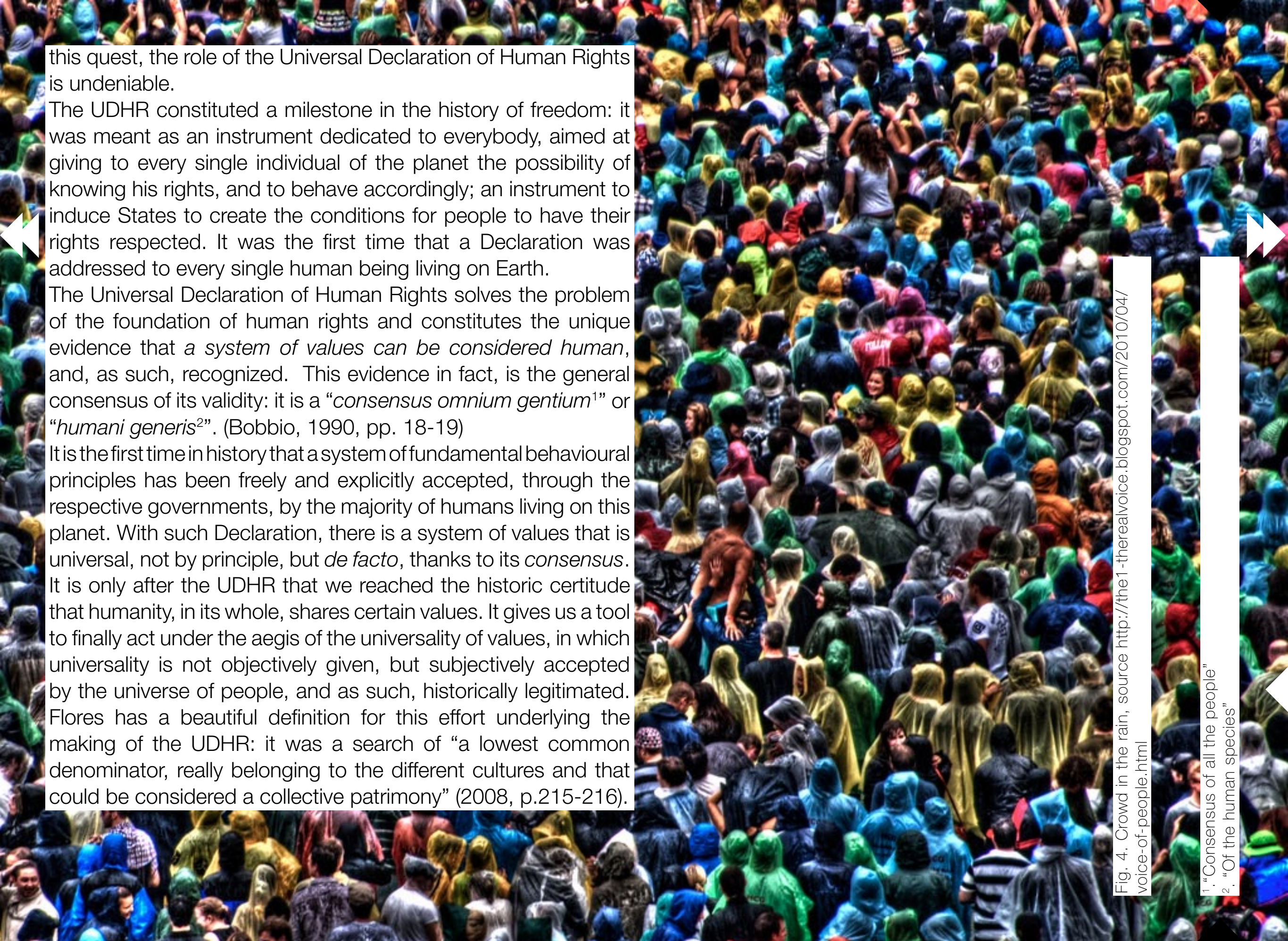
There is a need, I stated in the initial manifesto, to get back to fundamental values. There is a need of creating new meaning. Being an architect and designer, I believe that a way to do it, is through Making.

With this work, I have taken this path, in the direction of *what design can do* for what I call *pervasive ethics*: a social *praxis* aimed at justice and freedom, which pervades society in a capillary way, becoming a Universal attitude that makes people aware of their own rights, able and willing to contribute to see their own rights and those of the entire humanity fulfilled.

Defining what I mean by ethics is then a founding matter, which I have to face before moving towards how design can contribute to ethics and to its pervasion.

The lowest common denominator of ethics: the Universal Declaration of Human Rights (UDHR)

When the philosopher and intellectual Norberto Bobbio was questioned by an interviewer if he saw signs that could influence positively the future of humanity, he answered affirmatively. There was, according to him, a trend that could make people optimistic, and this sign was the increasing relevance that was attributed to the debate on human rights all around the world, in all sorts of institutional environments (Bobbio, 1990, pp. 45). In



this quest, the role of the Universal Declaration of Human Rights is undeniable.

The UDHR constituted a milestone in the history of freedom: it was meant as an instrument dedicated to everybody, aimed at giving to every single individual of the planet the possibility of knowing his rights, and to behave accordingly; an instrument to induce States to create the conditions for people to have their rights respected. It was the first time that a Declaration was addressed to every single human being living on Earth.

The Universal Declaration of Human Rights solves the problem of the foundation of human rights and constitutes the unique evidence that *a system of values can be considered human*, and, as such, recognized. This evidence in fact, is the general consensus of its validity: it is a “*consensus omnium gentium*”¹ or “*humani generis*”². (Bobbio, 1990, pp. 18-19)

It is the first time in history that a system of fundamental behavioural principles has been freely and explicitly accepted, through the respective governments, by the majority of humans living on this planet. With such Declaration, there is a system of values that is universal, not by principle, but *de facto*, thanks to its *consensus*. It is only after the UDHR that we reached the historic certitude that humanity, in its whole, shares certain values. It gives us a tool to finally act under the aegis of the universality of values, in which universality is not objectively given, but subjectively accepted by the universe of people, and as such, historically legitimated. Flores has a beautiful definition for this effort underlying the making of the UDHR: it was a search of “a lowest common denominator, really belonging to the different cultures and that could be considered a collective patrimony” (2008, p.215-216).

Fig. 4. Crowd in the rain, source <http://the1-therealvoice.blogspot.com/2010/04/voice-of-people.html>

¹. “Consensus of all the people”

². “Of the human species”

The on-going revolution and the role of design

Both Hunt (2007) and Flores (2008) see the issue of human rights as an on-going revolution. Flores points out that this revolution must be done from two directions: the top-down action must place human rights at the centre of political programs and of strategies of international cooperation; the bottom-up action has to make of them a pivot of a cultural shift, similar to the one developed in the middle of the 18th century and in the middle of the 20th century (2008, p. 324). Design can directly and immediately contribute to the second component of this revolution. Its role lies in provoking and boosting a cultural shift, based on a new (ethical) sensitivity, grounded on the embodiment of human rights. Design can play a fundamental role in the creation of a social *praxis* aimed at justice and freedom, i.e., pervasive ethics, being design aimed at *transformation*. Let me then define what I mean by transformation: I see transformation not just as something A becoming something B as a result of a (manufacturing) process. This is what I would call a conversion. Transformation also refers to the consequences that this something B has, once placed in the world. Transformation thus has consequences on whom is using the design outcome (be it product, system or service): (1) individuals, and their sum, i.e., (2) society. Then I look at transformation from a (3) designerly perspective.

The individual perspective (1) refers to the personal consequences that this item B has on us and on our life, as we experience it. The social perspective (2) is clearly related to the practical consequences that a produced item has on society, on the intertwinement of individuals. From a designerly perspective (3), transformation is explainable in terms of how intentionality has been funnelled into the design result and it is about meaning; in fact it relates to the possibilities for meaning to emanate, which have been conceived/perceived in the design and will flourish,

mutate and be enriched by experiencing it. Transformation also implies uncertainty and ambiguity. A transformation in design cannot be controlled, because it involves people, their emotions, their history, their abilities, their peculiarities. Transformation deals with complexity. Transformation demands *skills*. It is by means of these skills, that pervasive ethics can be achieved.

I now first expand on how I believe it is possible that skills contribute to pervasive ethics. These elements might lead to think that the direction I want to take is towards craftsmanship. I believe it is more complex than that. To explain why, I want to tell a story.

1.2 THE DEMIURGOS' LONELINESS

In spring 2011, I met a very special craftsman. Her name is Chiara Vigo. She is a powerful woman. She is the last *Maestro del Bisso* (byssus Master) and she exercises her magic in the South of the land of Sardinia: Sant'Antioco. She is one of the legacies of the nuragic civilisation, whose mysterious traces – stone constructions called “*nuraghi*”³– we still stumble upon on the rocky land, among myrtle and cane apples, olive trees and junipers.

Chiara Vigo is a powerful woman: she is one of the last people on the planet able to weave byssus. Byssus is a silk that she collects, the last Sunday of May, diving in the sea and asking it to a noble pen shell (*pinna nobilis*), which produces it to protect itself from predators. She collects this silk, without hurting the shell and spins it in golden and copper thread. It is the same thread that built the legend of King Solomon, who would shine in his golden garments, when showing himself to his people. To make these golden embroideries, 300 hours of oxidation in a lemon-based solution are needed, with a break of the oxidation by means of water, every two hours. The life of a *Maestro del Bisso* requires extreme dedication and follows strict rules: every morning waking up at three o' clock, going to the sea, praying for peace in the world, praying for people, for how they are and not for what she expects them to be. Her life is symbiotic with the force of Sea. Her human power derives from the awareness of this symbiosis and of the skill that she masters. What she weaves is nobody's property. Byssus cannot be sold, only be given to be used, but still, it remains a human heritage. Sinister anecdotes

“The human rights revolution is by definition ongoing”.
Lynn Hunt, Inventing Human Rights (p. 29)

Fig.5. Sinngebung. (Baby Pegasus, source <http://www.flickr.com/photos/to-bie2/188464108/>)

³.The nuragic civilization takes its name from the most characteristic building typology, i.e. the nuraghe. It flourished in Sardinia between the 18th and the 2nd century BC.

warn how breaking this rule has had dangerous consequences. She lives with people's alms and she is available to spread her knowledge to anybody showing interest.

She is an exemplary craftsman, as in *δημιουργός* (*demiurgos*) or *homo faber*, figures that I will describe later on in the third chapter of the second part of this thesis (*Demiurgos vs. cheirotechnes* and “*The social role of making: from demiurgos to homo faber*”). The first recognizable element to identify her as such, is the obsession. To dedicate one's life to such toil is more like responding to a life-long vocation rather than performing a job. The second element that characterizes her as a *demiurgos* is her material consciousness, to use Sennett's expression (2008). Through her masterly, unique skills, she transforms the matter and spins golden and copper impalpable thread, as shiny as metal and as soft as the finest silk. She produces the sort of metamorphosis that the Greek referred to as *ποιεῖν* (*poiein*), which includes a component of surprise as a consequence of the act of creation, of making. A third element that makes of her a *demiurgos*, is the fact that her concept of time is different from the middle Western man, for her work and its quality are more important than time. She is detached from the acknowledged dynamics of contemporary Western society, of which our concept of time sets the pace. She does not want to constitute an association nor a company. She is just a person, with her unique skills, living on alms because her oath as a master prevents her to engage in activities, which include a financial management. She has numbers of international recognitions, decorations and credits. She is for instance a knight of the Italian Republic. She is invited all over the world to give lectures on the philosophy or crafts and she attracts a lot of visitors to her town. Yet, although bringing international guests to visit her workshop and gasp at her works is what representative of the local administration regularly do,

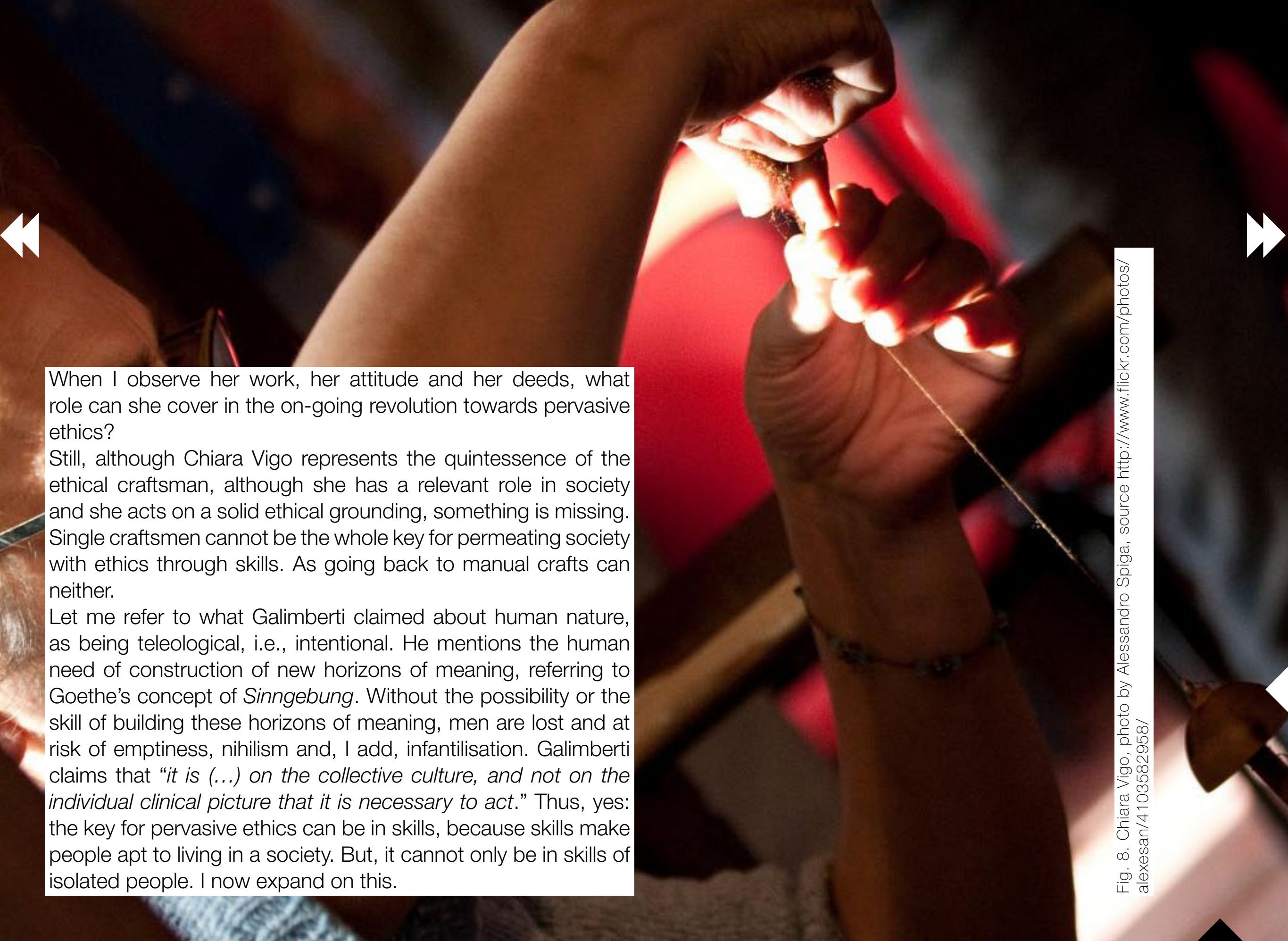


Fig. 6. Pinna Nobilis, source <http://www.flickr.com/photos/riccarducci/821024506/>

the local administration does not recognize her a position, nor supports her financially, because she does not have any acknowledged legal role. This paradoxical *impasse* exemplifies the low social role that Making has in our Western society nowadays. Juridical abstractions step on the concreteness of values and skills, preventing her to have the deserved role in her community and in society.

Chiara Vigo has a unique skill and she has the internal peace and the righteous strength of a person that is conscious of her abilities. Her living goes through her skills, and the ethical dimension of what she does is so intertwined with her production that she literally embodies the ideal of ethics through skills. She educates people's skills and she reflects on them with whom is interested in them. There is a skilful vocation, which imposes an ethical framework, for the noble skill to be applied. This craftsman uses her skills to cater for ethics.

Fig. 7. Chiara Vigo, photo by Alessandro Spiga, source <http://www.flickr.com/photos/alexesan/4102824417/>



When I observe her work, her attitude and her deeds, what role can she cover in the on-going revolution towards pervasive ethics?

Still, although Chiara Vigo represents the quintessence of the ethical craftsman, although she has a relevant role in society and she acts on a solid ethical grounding, something is missing. Single craftsmen cannot be the whole key for permeating society with ethics through skills. As going back to manual crafts can neither.

Let me refer to what Galimberti claimed about human nature, as being teleological, i.e., intentional. He mentions the human need of construction of new horizons of meaning, referring to Goethe's concept of *Sinngebung*. Without the possibility or the skill of building these horizons of meaning, men are lost and at risk of emptiness, nihilism and, I add, infantilisation. Galimberti claims that "*it is (...) on the collective culture, and not on the individual clinical picture that it is necessary to act.*" Thus, yes: the key for pervasive ethics can be in skills, because skills make people apt to living in a society. But, it cannot only be in skills of isolated people. I now expand on this.

1.3 THE PRAXIS FOR PERVASIVE ETHICS

My toil is to reflect on how to boost an on-going revolution, through design, therefore made with actions, led by the vision of pervasive ethics. My endeavour is to structure a *praxis*, which can prepare the ground for pervasive ethics to bloom. In order to do this, I believe that several actions have to be taken. They concern (1) the balancing of the social role of Making and Thinking, (2) the fact that skills have to be acquired and spread to create a new *praxis* in the context of pervasive ethics and (3) the fact that skills have to be integrated among people. I now explain what I mean with these three elements and then I explain how, the approach that I developed, RtM, contributes to them.

The balancing of Making and Thinking

(1) I am convinced that the social role of Making has to change, and has to be balanced with the social role of Thinking. Metaphysical abstractions produced by thinkers are necessary for civilisation to consolidate, but are not the only ingredient necessary to progress. Let me reflect on the Enlightenment, for instance, which is the moment in human history, which expresses human progress in the best possible way. Craftsmanship (*saper fare* or the *Kultur*, as Mendelssohn writes about in his definition of Enlightenment) (Mendelssohn, 1784) was highly considered at that time. I will bring more arguments to show this in the section “*Sharing the Language of Making*” (part 2, chapter 3). For now, I consider it enough to emphasise that the *Encyclopédie* of Diderot (1772), not welcomed by the power lobbies, was revolutionary because it sanctioned the social importance of Making and of Makers,

We need to cultivate “our real mission (...): to think with our hands. We have to reflect again. No longer by reflecting merely upon reflection, but by reflecting upon what we create through our hands. Reflection on action is what matters. It is the body that shapes the way we think, and not the other way around. Work created with the hands gives birth to new idea. New meaning springs from what we have made and have been able to seize, to grab, to grip, to grasp, to handle, to touch, to feel, to sense with our hands.”

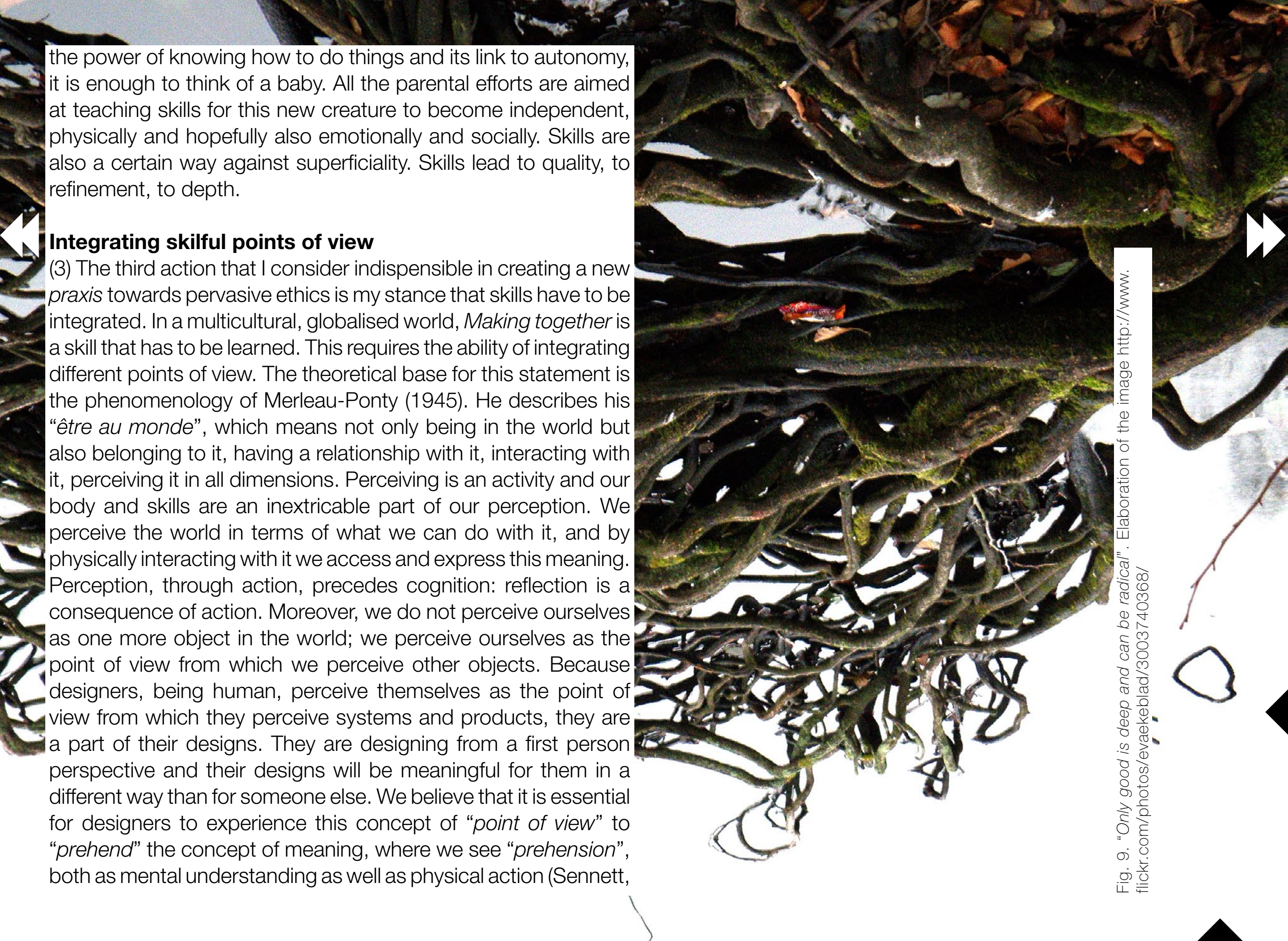
(Kint & Overbeeke, in Trotto et al. 2009, p.12)

rather than of those who could not even dress themselves alone, the Aristocrats. The Enlightenment was the period in which Thinking and Making were working together at the same level of dignity and it was a period of human progress. It was the period in which the concept of honour was changing. It became more and more linked to virtue: *“all citizens were honourable if they were virtuous. (...) Honour had to do with actions, not with birth”* (Hunt, 2007, p. 143), and consequently was a value that all men could have, notwithstanding their social position. It was besides also the historical period in which Human Rights, as we consider them today, were “invented”. On the basis of skills, new ways of thinking were proposed, designed and consolidated in an ethical direction. It worked at that time, will it work again? Why not trying? It can be a great source of inspiration, not a reason alone to do it, but indeed it can help to design model.

Educating skills

(2) The second action is a corollary of the first. (New) skills have to be acquired by people and spread in society in a capillary way. It is necessary to educate new skills: it is not just about the physical skills of (fine) manipulation, but also about social and emotional skills. Hunt, talking about skills, mentions autonomy and empathy as key skills for human rights to prosper and approach universality and she claims that these skills can be *learned*: *“Autonomy and empathy are cultural practices, not just ideas, and they are therefore quite literally embodied, that is, they have physical as well as emotional dimensions”* (Hunt, 2007, p. 29). A civilisation is based on manual skills, as history shows. When, in the 18th century, the spotlight of history narrowed its focus on the individual, autonomy and auto-determination became key values for the human being. Skills serve men towards becoming autonomous and deciding for their own destiny. To understand

“It is indeed my opinion now that evil is never “radical”, that is only extreme, and that it possesses neither depth nor any demonic dimension. It can overgrow and lay waste on the whole world because it spreads like a fungus on the surface. It is “thought-defying”, (...) because thought tries to reach some depth, to go to the roots, and the moment it concerns itself with evil, it is frustrated because there is nothing. That is its “banality”. Only good is deep and can be radical”.
Hanna Arendt



the power of knowing how to do things and its link to autonomy, it is enough to think of a baby. All the parental efforts are aimed at teaching skills for this new creature to become independent, physically and hopefully also emotionally and socially. Skills are also a certain way against superficiality. Skills lead to quality, to refinement, to depth.

Integrating skilful points of view

(3) The third action that I consider indispensable in creating a new *praxis* towards pervasive ethics is my stance that skills have to be integrated. In a multicultural, globalised world, *Making together* is a skill that has to be learned. This requires the ability of integrating different points of view. The theoretical base for this statement is the phenomenology of Merleau-Ponty (1945). He describes his “*être au monde*”, which means not only being in the world but also belonging to it, having a relationship with it, interacting with it, perceiving it in all dimensions. Perceiving is an activity and our body and skills are an inextricable part of our perception. We perceive the world in terms of what we can do with it, and by physically interacting with it we access and express this meaning. Perception, through action, precedes cognition: reflection is a consequence of action. Moreover, we do not perceive ourselves as one more object in the world; we perceive ourselves as the point of view from which we perceive other objects. Because designers, being human, perceive themselves as the point of view from which they perceive systems and products, they are a part of their designs. They are designing from a first person perspective and their designs will be meaningful for them in a different way than for someone else. We believe that it is essential for designers to experience this concept of “*point of view*” to “*prehend*” the concept of meaning, where we see “*prehension*”, both as mental understanding as well as physical action (Sennett,

Fig. 9. “Only good is deep and can be radical”. Elaboration of the image <http://www.flickr.com/photos/evaekblad/3003740368/>

2008, p.154). To emphasise “*prehension*” of their point of view, designers should design, starting from their skills. I believe that integrating different points of view of different designers concurs to achieve a result that is an additive, rich product; by rich I mean a product, which embodies different perspectives, responds to disparate sensitivities and makes rich, multifaceted and deep meanings emanate.

In the next chapter I illustrate how these three actions are faced through the RtM approach.



Fig. 10. Detail of Anila Rubiku's "Other countries, other citizenships", Albanian Pavilion of the 54th Biennale of Arts of Venice, 2011

Fig. 1. *Byou*, outcome of WS 3 - Bionic Wearables, designed by Gilles van Wanrooij, Jeroen Witjes, Joran Damsteegt, Barbara Schächter, Sara Spolverini, Matteo Gioli.

PERMANENTLY
ADAPTING
TO THE
ENVIRONMENT



2. THE RIGHTS THROUGH MAKING APPROACH AS A PRAXIS FOR PERVASIVE ETHICS



2.1 Horizon and approach

The balancing of Making and Thinking in RtM

Educating skills in RtM

Integrating skilful points of view in RtM




2.1 HORIZON AND APPROACH

With the reflections of the previous chapter as grounding, I designed the Rights through Making (RtM) design approach. In this thesis the research through design approach was used. I aimed at “*gaining knowledge through the process of designing, building and testing highly experiential prototypes*” (Frens, 2006, p.183), in which the highly experienceable prototypes were, in my case, workshops. The way I searched, shaped and defined this approach was in fact through workshops, as announced in the Manifesto. I did not do the designs directly myself (although I was, for instance, part of the design team for the *Internet Site Showcase*). I designed and used workshops as tools to articulate, refine and validate the approach.

This chapter aims at describing how the actions presented in the previous chapter, i.e., (1) The balancing of Making and Thinking, (2) Educating skills and (3) Integrating skilful points of view, have been performed during the research process, by performing a series of activities.



Fig. 2. The project *Sound Experience*, a result of WS 6 - Metamorphic Fashion



The social role of Making in RtM

(1) To promote a new culture in which Thinking and Making are equally important, the Rights through Making approach educates towards a design culture in which Making precedes Thinking: RtM envisions designers, first of all, as Makers.

To actuate and validate this belief, I have realised a series of multi-cultural workshops, which I describe later in this thesis. These workshops have been the primary tool to develop and tune the RtM approach. During these workshops I have provided creative techniques and infrastructure in order to nurture a solid platform for “conceptualising by Making” to happen. Being convinced that there is a primacy of meaning, part of experience, created by Making (and therefore transforming), I supported the making of experienceable prototypes as a means to design. Building experienceable prototypes helps in gathering the values of the designer(s) and of places. It can condensate and literally materialise cultural and social values. It elicits embodiment, allowing reflection on action.

Educating skills in RtM

(2) In the section of the previous chapter “*Educating skills*”, I mentioned the fact that a civilisation is always based on manual skills, as history shows. My aim is to cater for pervasive ethics; therefore creating new shared values. On the base of new, shared values, a new civilisation will flourish. How to do it? The mendelssohnian equation “*Bildung = Kultur + Aufklärung*” is at hand to answer this question. The German philosopher Mendelssohn elaborated this equation in his definition of Enlightenment, posted in 1784 to the *Berlinische Monatsschrift*. *Bildung* stands for both education and culture/civilisation (in the sense of “*formation of [human] values, and [...] behaviour by which one steers one’s course in social relations*”, Sennett, 2008, p. 90); *Kultur* refers – let it be noticed – to the practical realm of things done and not done, i.e., *saper fare*; and *Aufklärung* is the use of free reason. The way to create human values is thus to sum, on one hand, skills and on the other the use of Kantian free reason, i.e., the practice of autonomy.

For this purpose I have been teaching and supporting the formation of new skills. With the RtM approach I encouraged and explored the development and use of all sorts of manual abilities, from traditional to high-tech. During the RtM workshops, students have learned several programming languages (such as Max/MSP, html, Flash or Adobe Première), they have learned to deal with different platforms (such as Arduino), they have learned to sew, to embroider with embroidering machines, to use overlockers, to choose fabrics, to appreciate material qualities, to use rapid prototyping machineries (SLS, FDM, laser cutters) and to use wood machineries, just to mention few of them.

On the other hand, the RtM approach also trained the cultural practice of autonomy and empathy. The educational system underlying RtM is a competency-based system described by



Fig. 4. “Autonomy is built by means of developing one’s own skills and one’s own learning path, during learning-through-doing cycles.”

Hummels (Hummels and Vinke, 2009). Competency-centred learning is experiential (learn by doing), exemplary (learn from specific situations), context-related (learn within a variety of contexts), reflective (in, on and for action) and it is self-directed, because it is the learner who creates meaning, which can lead to competency development. In this framework, students have the right of learning to learn and teachers play the role of facilitators. As facilitators, teachers provide a platform for students to form their ability of taking responsibility, reflecting on experience and evaluating themselves. *Autonomy* is built by means of developing one's own skills and one's own learning path, during learning-through-doing cycles. It respects therefore individual sensitivity, boosting one's own proclivities towards transformations.



Fig. 5. Students working during WS 5 - Urban Lights, in Eindhoven.

Integrating skilful points of view in RtM

(3) Next to autonomy, the other skill that Hunt refers to, as being at the base of the on-going revolution towards Human Rights, is *empathy*. Empathy was faced in a tangential way in the first seven RtM workshops (first 7 out of 8). At first I did not act directly on empathy, but created the conditions for empathy to arise. As I will explain later on, in most of these workshops I asked the students, for instance, to live together and completely share a week of their life. This was a way to build a relationship that went beyond the merely professional one and could trigger empathy. The other element that “provoked” empathy, was the Choreography of Interaction, a creative technique, which I used in most of the first 7 workshops. The Choreography of Interaction requires student to move and express values with their bodies. This encourages them to overtake the usual proxemics, reaching each others’ private spaces. I made empathy come massively into play in the meta-workshop WS 8 - Designing for points of view (described in part 3, chapter 1). It appeared that in the first 7 workshops the phase of “*conceptualising through Making*” was critical. Participants tended to first think and then make, following traditional patterns, instead of making together and then reflecting on what they had made in iterative cycles of reflection-on-action. The integration of these two activities had to be supported by an *ad hoc* technique. I understood that the only way to integrate different points of view in a constructive process had to start from individual skills: both in the sense of (manual) abilities and in the sense of their related sensitivities. One had to ask oneself the question: “*how can I make you feel what I feel*”. This meant grasping the experience and trying to transfer meaning from oneself to others, through skills. I found out that the skilful integration of points of view was *the way* to avoid metaphysical abstraction. This required that people

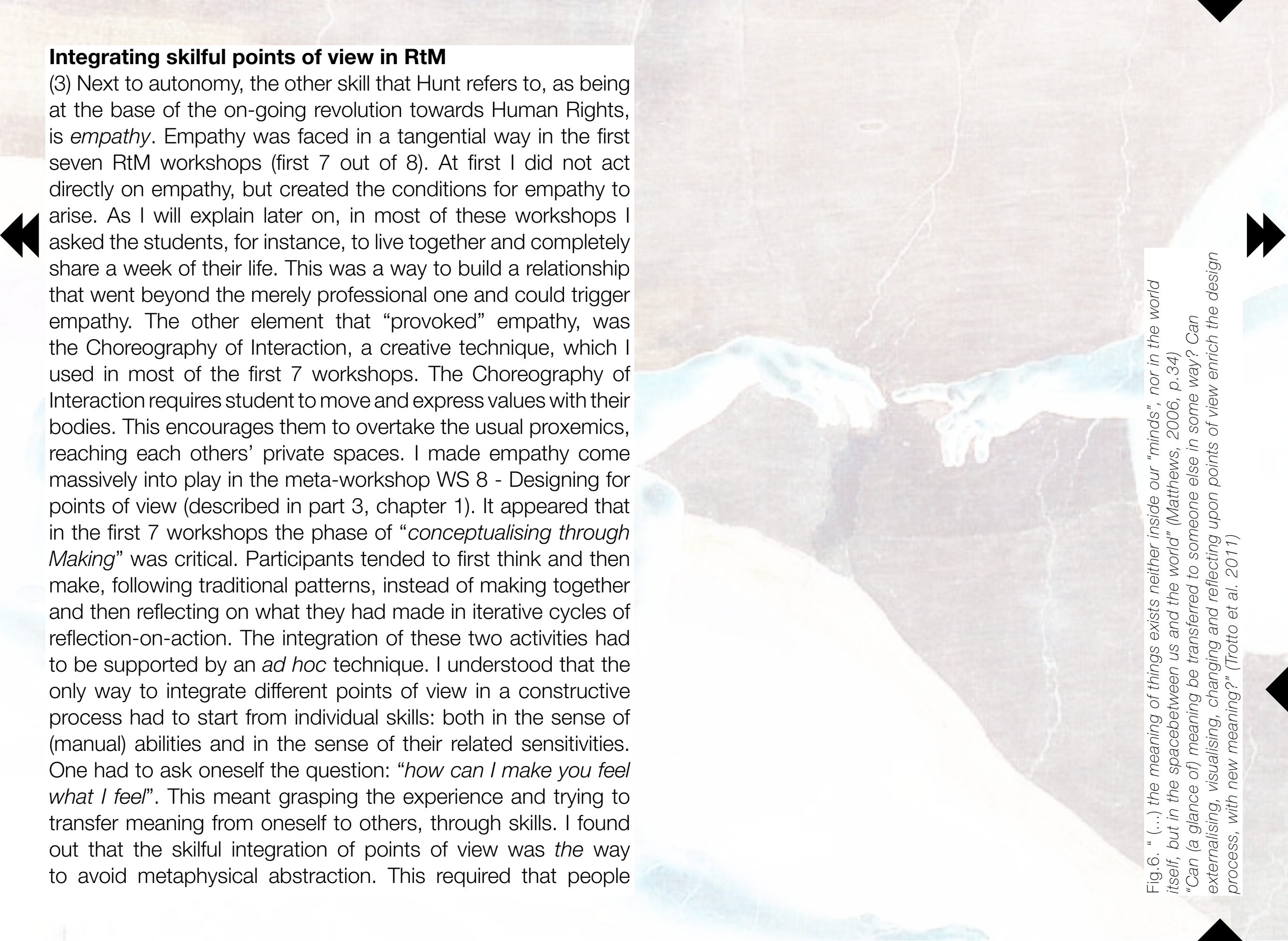


Fig.6. “ (...) the meaning of things exists neither inside our “minds”, nor in the world itself, but in the spacebetween us and the world” (Matthews, 2006, p.34)
“Can (a glance of) meaning be transferred to someone else in some way? Can externalising, visualising, changing and reflecting upon points of view enrich the design process, with new meaning?” (Trotto et al. 2011)

participating engaged themselves actively and intimately into the design phase. This personal engagement, which demanded the use of personal skills, experiences and feelings as ingredients for a design, elicited respect from the other people participating in the process.

Since designing is almost always a collective effort, this skilful integration of points of view, is the key, if properly spread in the design practice, for the desired shift of thinking towards pervasive ethics.

In the next part I will articulate on the theoretical background of this thesis, to prepare the *terroir* to explain the workshops that I have done and the related findings. Three chapters form the theoretical background. The first introduces the ethical question and presents a brief history of human rights. The second chapter is about Making, its physicality and its phenomenology. The third chapter faces the integration of ethics and Making.

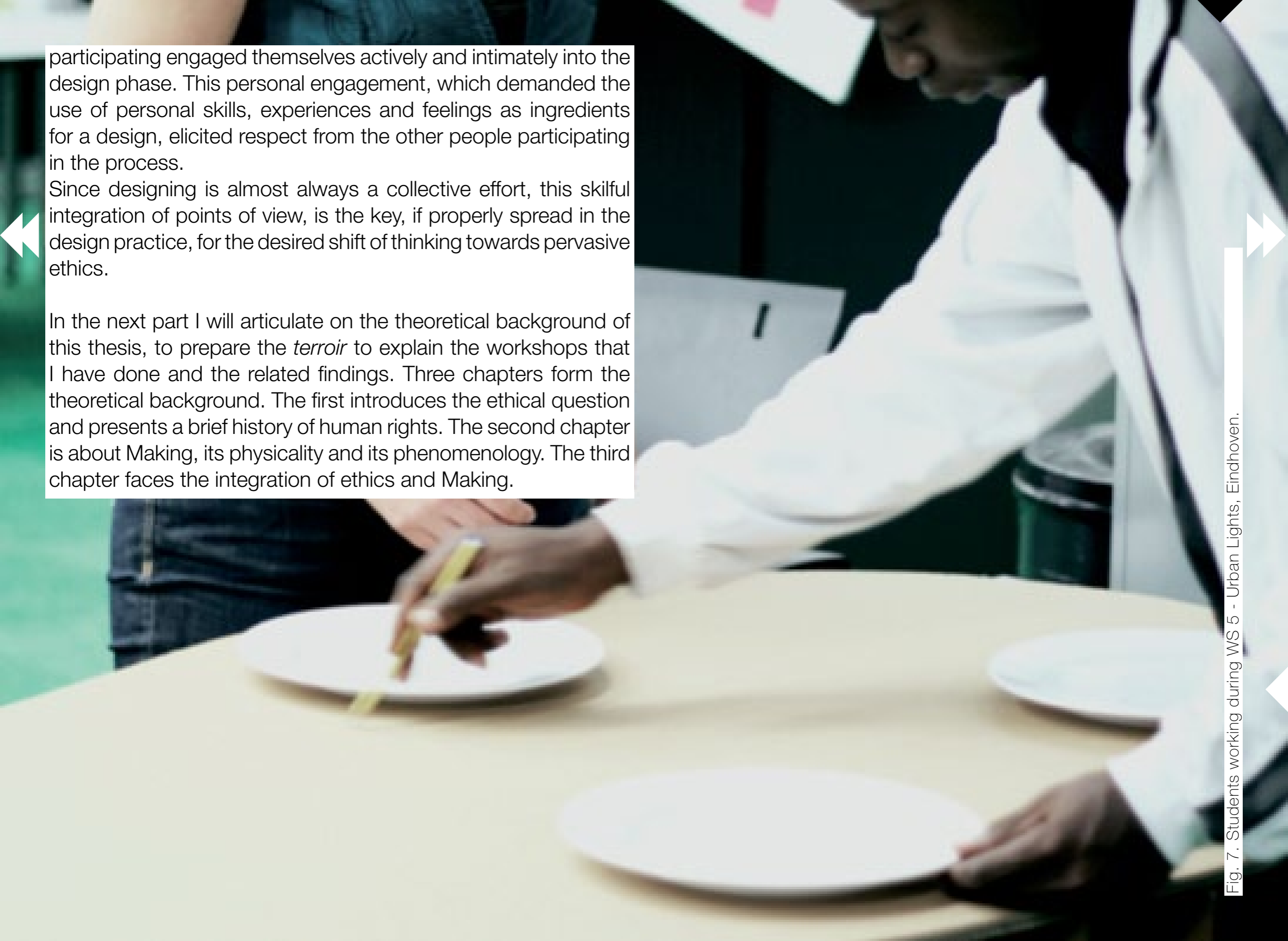


Fig. 7 . Students working during WS 5 - Urban Lights, Eindhoven.

PART 2

THEORETICAL BACKGROUND



PART 2 - THEORETICAL BACKGROUND

1. TOWARDS UNIVERSAL HUMAN RIGHTS

- 1.1 Horizon and approach
- 1.2. What should I do?
- 1.3. The evolution of Human Rights
- 1.4 Where is culture in UDHR
- 1.5 Conclusion: UDHR and culture

2. MAKING

- 2.1 Horizon and approach
- 2.2 The phenomenology of Making
- 2.3 Making and places – saper fare
- 2.4 Conclusion: the crisis of Making

3. ETHICS THROUGH MAKING

- 3.1 Horizon and approach
- 3.2 The craftsman and the social role of Making
- 3.3 Sharing the language of Making
- 3.4 Conclusion: the foundation of RtM



Fig. 1. An image of "Track and Field" by Jennifer Allora and Guillermo Calzadilla, at the United States of America Pavilion of the 54th Biennale of Venice.



TRACK AND FIELD
TRACK AND FIELD
TRACK AND FIELD

1. TOWARDS UNIVERSAL HUMAN RIGHTS



1.1 Horizon and approach

1.2 What should I do?

1.3. The evolution of Human Rights

Natural Law – the phase of positivization

Natural Rights – the phase of generalisation

Human Rights: the phase of internationalisation

1.4 Where is culture in UDHR?

The cultural issue in Design

1.5 Conclusion: UDHR and culture





1.1 HORIZON AND APPROACH

An ethical approach to design today is imperative. Design that does not take into account the social and environmental responsibilities for the transformation that it creates cannot be accepted (one even wonders if this is actually design). There is a need for a new humanism, in which the value of respect becomes primary. The Universal Declaration of Human Rights is an international authority in this field. By integrating the values that the Declaration expresses into the design of systems, products and services, we are able to steer the societal/cultural transformation towards responsibility, i.e., ethics.

To explain why I start from this foundation, i.e., from the Universal Declaration of Human Rights, I introduce the history of its genesis.

In this chapter, I first face the theme of the ethical questions “what should I do” in relation with the management of free will and connected (social) responsibility (1.2 *What should I do*). Man is a teleological (i.e., intentional) being, generally acting according to intentions projected in the future aimed at giving sense to the world (Goethe’s *Sinngebung*). The main goal of human beings is the search for a better life, with the opportunities and limitations given by their social context, which is where ethics comes about. In the following paragraphs I give an overview of the evolution of Human Rights in human history (1.3 *The Evolution of Human Rights*). I show the evolution starting by defining the concept of natural law, which develops into Natural Rights, during the Enlightenment and evolves into Human Rights with the post second World War UN Universal Declaration of Human Rights.

“We have developed speed but have shut ourselves in. Machinery has left us in want. Our knowledge has made us cynical, our cleverness, hard and unkind. We think too much and feel too little. More than machinery we need humanity. More than cleverness we need kindness and gentleness. Without these qualities, life will be violent and all will be lost... The aeroplane and radio have brought us closer. These inventions cry out for the goodness in man, cry out for universal brotherhood, for the unity of us all.”
(Charlie Chaplin, the Great Dictator, 1940. Final speech of the Jewish barber that is mistaken to be Hynkel, the Great Dictator)

This approach follows Peces-Barba Martínez, who, in his “*Derecho positivo de los derechos humanos*” (1987), sketches the human rights’ evolution in: positivisation, generalisation and internationalisation. Politicization is related to the period in which “*the strife of certain groups to have their morally justified expectations*

Fig. 2. Detail of the South Korean Pavilion, *The Love is gone but the Scar will heal*, by Lee Yongbaek. Commissioner: Yun Chea Gab. Venue: Pavilion at Giardini, 54th Biennale of Arts of Venice.

← acknowledged, takes the shape of a positive law” (Nergelius, 2006, p.63). Generalisation is the second phase in which Human Rights take a legal shape, and it is when “social groups other than the one who primarily supported the legal acknowledgement of given rights, justify the legal protection of the rights by means of their own morally justified expectation” (Nergelius, 2006, p.63). Internationalisation occurs when “the process of generalisation goes as far as to justify the reception of the rights in international charters” (Nergelius, 2006, p.63). These three phases can also be seen as phases of a process towards Universalism (Bobbio, 1990, p.21), i.e., the undisputed recognition of Human Rights by all men in the world. In section “1.4 Where is culture in UDHR?” I face the role of culture in this strive for Universalism.

“Mi rendo tuttavia conto che, considerata la generale indifferenza e la diffusa falsità in cui viviamo, il nostro programma nasce e dovrà crescere nella dimensione dell’utopia. Ad ogni modo ho pensato di risolvere ogni incertezza nell’azione, incominciando a lavorare. Il futuro ci dirà se l’utopia è destinata a rimanere tale o se non sia possibile trasformarla, anche parzialmente, in realtà.¹”

(Dino Cavina, 1967) ██████████

“(…) se l’uomo, come dice Goethe, è un essere volto alla costruzione di senso (Sinnegebung), nel deserto dell’insensatezza che l’atmosfera nichilista del nostro tempo diffonde, il disagio non è più psicologico, né esistenziale, ma culturale. E allora è sulla cultura collettiva e non sulla sofferenza individuale che bisogna agire (…)²”

(Galimberti, 2007, p.12) ██████████

“The etymology of Design goes back to the Latin de + signare, making something, distinguishing it with a sign, giving it significance, designating its relation to other things, owners, users, or gods. Based on this original meaning, one could say: design is making sense (of things).”

(Krippendorff, 1989, p.2) ██████████

1. “I am however aware that, given the general indifference and the widespread falsity in which we live, our program was born and will grow in a utopic dimension. Nevertheless, I thought I would resolve any uncertainty through action, by beginning to work. The future will tell whether the utopia is bound to remain as such or whether it is possible to transform it, even partially, into reality.”

2. “(…) if Man, as Goethe says, is a being dedicated to the construction of meaning (Sinnegebung), in the desert of nonsense that the nihilist attitude of our times diffuses, the illness is not psychological, nor existential, but cultural. It is therefore on the collective culture, and not on the individual clinical picture that it is necessary to act.”

1.2 WHAT SHOULD I DO?

This is maybe one of the most recurrent questions that humans and societies ask themselves. It is not only about magniloquent themes, such as abortion, bioethics and preservation of the environment. It is about choosing. Little, unremarkable things. Everyday. Hundreds of times a day.

It is indeed a very pressing matter, in everyone's life. The more our life is connected, intertwined in a community and in a society, the more influential and relevant this question becomes for the society's *equilibrium*.

In human evolution, as soon as urgent practical issues were solved through skills, space for speculation was created. "What should I do" is one of the philosophical questions that man started to ask himself as soon as the secret of fire was unveiled and man's hands could start carving wood, stone and making tools. This question is about ethics, about *free will*. The ways human beings tried to answer this question constitutes the history of freedom and, therefore, the evolution of their sense of *responsibility*.

Collodi faces the theme of free will and responsibility - together with its historical ups and downs, its individualistic drifts, and its social repercussions - by telling the story of the life of his most famous character: *Pinocchio* (Collodi, 1883). *Pinocchio* is a naughty puppet, carved in wood by his dad with the best of intentions, who becomes a real kid by the spell of the *Fata Turchina*, the Turquoise Fairy. By turning him into a human, she gives him a soul, which is: she endows him with free will. He can choose between what is good and what is not, in the context of a society that plays a role in influencing his choices. Choosing for the evil would gradually suffocate his soul, until he is transformed



Fig. 3. Pinocchio by Luigi Orru, source <http://www.flickr.com/photos/luigi-oss/2481451096>

in non-human again. He degenerates to the puppet status: a situation in which others decide for him and impose their will on him. He cannot move by himself (therefore he is not able to independently make sense of the world) and he cannot have a normal life, with its dreams, ambitions and passions.

Though “*Pinocchio*” presents post-romantic and risorgimental morals, it is a sample of ethical questioning within the social conditioning; it is about reaching awareness of the consequences of one’s choices, both from an individual and from a social point of view.

Hunt (2007) in “*Inventing Human Rights*” explains a feedback system between the ethical sensitivity of people and the cultural production of a time. One of her arguments treats the increase of epistolary novels during the course of the 18th century. She observes the effect that this production has on people. The impact on society of the diffusion of epistolary novels, she claims, definitely contributed to an increase in awareness of “the other” (human being), a massive rise in empathy. The realisation that other people have your same feelings, joys and sorrows, creates the cultural grounding for the recognition of the basic concept of equality of men. At that time, it prepared the grounding for Human Rights to be discovered (Hunt, 2007).

The brightest moments in human history have produced milestones in the evolution of freedom. Kant, in his definition of Enlightenment, praises the *overcoming of the state of minority*, through the exercise of reason, intellect and doubt, against dogmatic thinking and acting. Minority is meant in the literal sense of “being minor” and as such, being in need of (adults’) tutoring. This tutoring can be of several natures, such as moral, social, behavioural, sentimental, and it interferes with the

exercise of doubt and free will. The paternalistic maintenance of people in a state of minority, in this Kantian sense (i.e., infantilisation), limits the full development of individual’s personality and, as such it profoundly obstructs the realisation of fundamental human rights.

Kant’s definition of Enlightenment appeared in 1784 in a call for definitions (*Was ist Aufklärung?*) launched by the *Berlinische Monatsschrift* (Kant, 1784). Kant believes in an inborn ethical grid of values, by which every man knows what is righteous and how to behave accordingly. Because man can choose, because he is aware of his free will - man is free - his choice of not doing the good is highly condemnable. It is a categorical imperative: because you are free, you have to behave as a free man and you must act morally (*Kritik der praktischen Vernunft*, 1788). We, human beings, are the judges and the accused at the same time.

“*Handle so, daß die Maxime deines Willens jederzeit zugleich als Prinzip einer allgemeinen Gesetzgebung gelten könne.*”³ (Kant, 1788)

The Kantian categorical imperative resonates with the belief that I stated as a starting point of this chapter: an ethical approach to design is necessary.

In this light, I follow up with a brief introduction on the history of Human Rights.

1.3 THE EVOLUTION OF HUMAN RIGHTS

Natural Law – the phase of positivisation

The Hammurabi Code, the cylinder of Cyrus and the Magna Carta Libertatum

The code of Hammurabi (~.1750 BC) is the first structured collection of laws, which contains behavioural norms for the sovereigns, based on principles of justice. Yet it was a law established by the king, and, as such, of divine derivation, whose application was motivated by the social or political role of people, rather than on the intrinsic value of the individuals. (Flores, 2008, p.14)

The cylinder of Cyrus is a later example of Babylonian tradition (539 BC), which sanctioned in a written form, liberty and freedom of religious practice. While some claim it as an actual step towards human rights, others just read it as a common operation aimed at finding political consensus: Cyrus, king of Persia, conquered Babylon and seduced its inhabitants by granting them freedom of belief and by forbidding slavery, to reinforce their sense of freedom and dignity⁴. Apparently in Babylon, but not only there, it was customary to pacify people this way, every time somebody seized power.

“positivisation occurs when the strife of certain groups to have their morally justified expectations acknowledged, takes the shape of a positive law”
(Nergelius, 2006)

Fig. 4. Detail of the Hammurabi Code, source <http://www.flickr.com/photos/scruch/4245370037/>

⁴. Direct link to article 4: No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all their forms; and to article 18 Everyone has the right to freedom of thought, conscience and religion; this right includes freedom to change his religion or belief, and freedom, either alone or in community with others and in public or private, to manifest his religion or belief in teaching, practice, worship and observance.

The non-written laws of the gods

According to the modern⁶ interpretation, Sophocles' Antigone (441-2 BC), sister of Polinices and Eteocles, who killed each other in a duel, is said to oppose a universal ethical principle to the positive, i.e., human-made, law imposed by Creon. Because one of her brothers is considered a traitor, Creon forbids his burial. Antigone buries him anyway, in the name of a natural law, which grants the dead to be honoured with the ritual of a respectful burial. The Encyclopaedia Britannica defines natural law, in relation with positive law, in philosophy, as follows: "a system of right or justice held to be common to all humans and derived from nature rather than from the rules of society, or positive law". The concept of natural law was formulated in the Classic Greek era. Aristotle summarized the spirit of his times and argued about it in the Nichomachean Ethics, written in his Athens period (335 to 323 BC). He praises the existence of some laws that are basic and fundamental to human nature and are unveiled by human reason without reference to specific legislative enactments or judicial decisions.

Stoic philosophers came to a more systematic formulation of natural law: they believed that the fundamental moral principles that underlie all the legal systems of different nations were reducible to the dictates of natural law. This Stoic philosophy, adopted by personalities of very different social classes, flourished and survived at least two centuries after Christ, inherited by the Romans. Cicero, in matter of politics and ethics, supported the Stoic philosophy and stated: "there in fact a true law (...) which is in accordance with nature, applies to all men, and is unchangeable and eternal" (Cicero, De Republica). He "successfully argued before a Roman court that one of the laws of Rome was unlawful, being contrary to natural law, creating a legal precedent that held throughout the western world for two thousand years" (Donald, 2010).

**Κρέων
καὶ δῆτ' ἐτόλμας τούσδ' ὑπερβαίνειν
νόμους;**

**Ἀντιγόνη
οὐ γάρ τί μοι Ζεὺς ἦν ὁ κηρύξας
τάδε,
οὐδ' ἢ ξύνοικος τῶν κάτω θεῶν Δίκη
τοιούσδ' ἐν ἀνθρώποισιν ὤρισεν
νόμους.
οὐδὲ σθένειν τοσοῦτον ὥομην τὰ σὰ
κηρύγμαθ', ὥστ' ἄγραπτα κάσφαλῃ
θεῶν
νόμιμα δύνασθαι θνητὸν ὄνθ'
ὑπερδραμεῖν.
οὐ γάρ τι νῦν γε κάχθές, ἀλλ' αἰεὶ
ποτε
ζῆ ταῦτα, κούδεις οἶδεν ἐξ ὄτου
φάνη.⁵
(Sophocles, Antigone, 441~ BC)**

⁵. CREON: And yet you dared to break those very laws?

ANTIGONE: Yes. Zeus did not announce those laws to me / And Justice living with the gods below / sent no such laws for men. I did not think / anything which you proclaimed strong enough / to let a mortal override the gods / and their unwritten and unchanging laws. / They're not just for today or yesterday, /but exist forever, and no one knows / where they first appeared.

⁶. In ancient time, Antigone's behavior was interpreted more as representative of a family moral, it was seen as "pietas", rather than the application of a universal moral.

The transition from pagan gods to the Christian God

It is with the Byzantine emperor Justinian, in his *Institutiones Iustiniani sive Elementa* (AD 533), that the origin of the *ius naturalis* (natural law) is attributed to the Christian God. The *ius naturalis* derives from and is founded on God; it is universal and eternal, as the divine justice is; it has an ethical content, according to the Christian ethics and has a rational nature, because, being dictated by God, it is *summa ratio* (supreme reason) (Pizzorni, 2000).

Saint Augustin (IV – V century) claims that natural law is something that God instilled in us, according to his will. From here on, until the Enlightenment, the Christian-theological essence of natural law is the recognized view.

Magna Carta Libertatum

Notwithstanding the limitations imposed by a feudal juridical context, the *Magna Carta Libertatum* (June 15th, 1215) has been recognized as an important step in the conquest of human rights.

The reasons that led to its writing did not stem only from a moral aspiration, but, as it often happens, it was grounded in an economical situation in which a re-dimensioning of the power spheres was necessary. The English barons were exhausted by the tributes that King John Lackland was imposing on them, to finance his war against the French, in order to first protect and later re-conquer the Plantagenet's' territories. Fundamentally, the *Magna Carta* was a document to limit the power of the king and grant privileges to a group of people⁷, i.e., the Barons:

- ▶ by requiring him to ask for permission from the “*commune consilium regni*” if he wanted to apply new tributes;
- ▶ by granting to everybody the right to have a trial before being imprisoned (article 39: *habeas corpus integrum*);

- ▶ by imposing a proportionality between crime and punishment (article 20);
- ▶ by instituting a committee of twenty-five barons, who declare war to the king and involve all their vassals, in case the king would not apply what the Charta sanctioned (article 61);
- ▶ by granting the integrity and liberty of the Church (article 1).

With its *dictat* “*habeas corpus*”, it aimed to grant the respect of natural law. It means “(*it is commanded that*) you have the body” and it is a writ or a legal action, through which a person can seek relief from unlawful detention⁷, or the relief of another person⁸ (in case of torture or degrading treatments), even in front of a body of positive law, which is human-made, conditioned by history, and subject to continuous change.

This Chart and the later Bills, mentioned the fact that its statements had to be followed *ad perpetuum* in the national body of laws. And this, incredibly, happened: still nowadays, all the Commonwealth countries have traces of its content in their laws. The *habeas corpus* spread its influences all around the world.

The importance of this document's approach, as we will see further on, is measured by the impact that it had on later British declarations, but also on the American and the French declarations. It basically constitutes the main reason why today we have a declaration of rights and we do not have a declaration of duties. I face this issue in the following paragraphs.

⁷.The great Writ, habeas corpus ad subjiciendum, protects the defendant against his custodian, which naturally leads to article 9: No one shall be subjected to arbitrary arrest, detention or exile;

⁸.This leads directly to Article 5 of the UDHR: No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment.

Humanism, Renaissance and Reformation

Between the 12th century and the birth of the Modern State in the late 15th century, the relationship between right and politics shapes. Especially in Italy, the Communes of Tuscany and Lombardia, just become independent republics, formalised their governing and judicial systems into written constitutions. It was a way to legitimate their autonomy towards the Empire and it constitutes the base of a civic ideology, which origins can be traced in the republican virtues of ancient Rome. Marsilio from Padova defined the civic assembly as the source of law, the guidance of the government, limiting also the sovereign's power. Law is produced by the social body, i.e., the citizen's assembly. Law protects and links every individual that belongs to society (Flores, 2008, pp. 27-29).

The concept of *ius naturalis* had been deepened by religious right during the 13th century, when it started to recognize a sphere of rights based on a natural moral law. This thinking evolved until the Konstanz council in 1415, when the Church started to discuss the papal authority and its universalistic essence. This happened because religious and temporal powers were still intertwined and it was becoming politically paradoxical to trust one major authority for religious matters and, at the same time, act towards the on-going process of fragmentation of states, communes and regions. This process led to the Reformation. The way this movement philosophically grounded the strive for freedom of religion, was through the recognition of individuality. The emphasis on the single person, endowed with bigger autonomy and responsibility, supports a process of consolidating individualism. This process was also traceable in other fields, such as literature, sciences and arts. Man is becoming the centre of the Universe, substituting God in this role. (Flores, 2008, p.30).



Fig. 5. Detail of the Allegory of the Good Government, Ambrogio Lorenzetti, Sala dei Nove of the Palazzo Pubblico in Siena. "Law protects and links every individual that belongs to society, as Ambrogio Lorenzetti admirably symbolized, picturing people that "join" each-other holding in their hands the double ribbon which forms the rope of justice" (Flores, 2008, p.29)

The English Bills of Rights (1689)

The Petition of Rights (1628) was produced by the Parliament and is a major English constitutional document, which sets out specific liberties of certain groups that the king is prohibited from infringing. The *casus belli* was analogous to the *Magna Carta*: in this case it was Charles I to vex the people with tributes to sponsor his war against Spain. This document reinforces what was already mentioned in the *Magna Carta*, adding the right to property⁹ (no arbitrary interference with property is allowed).

Another document of reinforcement of the *Magna Carta* is the procedure for the issuing of writs of *habeas corpus*, codified by the *Habeas Corpus Act* 1679, following judicial rulings which had restricted the effectiveness of the writ. In that same year John Locke was writing his very influential text “*Second treatise on Civil Governing*”. Locke determines a new step in the prior discussion concerning iusnaturalistic and contractualistic theories.

The Bill of Rights, Act Declaring the Rights and Liberties of the Subject and Settling the Succession of the Crown, was emanated in 1689 and it is still valid nowadays. It expresses certain basic rights for (at the time) all English, Irish and Scottish, and it reflects the thoughts of Locke.

Locke considers natural law as compelling, also after the formation of a social contract between governed and governors. “(...) *All individuals, independently of their social or cultural conditions, have the perfect liberty and the un-controlled enjoyment of natural rights and privileges, in a way that is equal for every men*” and the same is for people, “*among which there cannot be a superiority of one above others*”(Flores, 2008, 41). Governments have to protect the rights of the individuals, because this is the reason why people have formed a society and contractually instituted the state. If the governments are not able to respond to this task or to violate natural rights, the contract between governments and people immediately dissolves.

According to Locke the concept of “property” expresses the essence of natural right. It in fact includes the property of one’s own life, freedom and, of course, capital (Flores, 2008, pp. 41-45).

The influence of Locke is nowadays still revolutionary and the rights expressed in the *Habeas Corpus Act* continue to apply today, not only in England, but in each of the jurisdictions of the Commonwealth as well. People, embodied in the parliament, were granted immutable civil and political rights through the act. Without a written Constitution, the Bill of Rights represented for more than three centuries the main document in the domain of human rights.

⁹.The right to own property is sanctioned in article 17 of the UDHR: 1. Everyone has the right to own property alone as well as in association with others. 2. No one shall be arbitrarily deprived of his property.

Natural Rights – the phase of generalisation

The Enlightenment and its Declarations

Hamlet, as an archetype of the modern man, embodies the questioning of an individual that projects the consequences of his actions both at a societal and a personal level. He wonders whether it is right to give in to compromise or to accept the calls of life, by choosing to act and, therefore, taking responsibilities. In Greek and Roman times, politics, i.e., the art of managing the πόλις (*polis*) first and the *civitas* later, was strictly intertwined with ethics in an organic model of what I call in this dissertation “*pervasive ethics*”. The city, i.e., society, had to be ruled and lived in by people that were able to keep passions aside and exercise virtue. Ethics and social management worked in synergy: none of the two could exist without the other. At this time, the primary function of law was to forbid, to impose duties to people, to *vetare et jubere*¹⁰, as Cicero phrased it. Until the Enlightenment actions have been morally evaluated for the impact they would have on society, and not from the individual perspective (Bobbio, 1990, 54-55). The individual was a vassal, a burgher or a subject: only after the 18th century, the individual started to be considered and addressed as such, or as a human being or as a citizen, endowed with both rights and duties.

This change of point of view has its roots in the Christian tradition. This tradition states that all men are equal because they are all creatures of God and should live their lives and organize their society on the basis of rules and precepts imposed by God. The philosophical doctrine that turned the individual into the starting point for constructing a moral and juridical doctrine called *Iusnaturalism*. It can be considered as the secularization of the Christian ethics. *Iusnaturalism*, on the base of the Roman law, wants to determine a warranty of natural rights that have to be respected notwithstanding any positive system. This stream of

***“ To be, or not to be, that is the question:
Whether ’tis nobler in the mind to suffer
The slings and arrows of outrageous fortune,
Or to take arms against a sea of troubles,
And, by opposing, end them”
(Hamlet, Shakespeare, 1600~)***

“(generalisation occurs when) social groups other than the one who primarily supported the legal acknowledgement of given rights, justify the legal protection of the rights by means of their own morally justified expectation” (Nergelius, 2006)

thought has the merit of starting a very important discussion that led to a rebalancing between governing and governed, and had in the 18th century its major expression. Rousseau, in his *Emile* (1762) and in his *Social Contract* (1763) proposed the ideal of a righteous contract between people and State, which would guarantee the respect of civil rights (Gaudiano, 2000).

So that a final and definitive rebalancing between governors and governed could take place, there was a need of a Copernican revolution in philosophy, i.e., as a drastic change of point of view (Bobbio, 1990, p.56). Kant accomplished it. The philosophical questions, that up to that moment had been “what is an object? What is a concept? What is something?” (the ontological question), changed. Kant suggested wondering, “what does an object, a concept, something has to have, so that I can understand it, read it, make sense out of it?”. The starting point is not the world, or society. The starting point is “I”, who contemplates the world, as a subject, endowed with senses and intellect (Ferraris, 2009). Hunt (2007) individuates in literature an important role in creating a social *terroir*, able to absorb and digest this change in point of view. The diffusion of novels and especially epistolary novels, stimulated and educated the sensibility of people towards empathy and thus realisation that other people feel what I, as a subject, feel. During the 18th century, she claims, the skills of autonomy and empathy were educated, preparing the base for a new praxis, in which the individual, with his emotions, needs, psychology and abilities, was at the centre. If Kant provided the philosophical grounding and Hunt a psychological one, for what Flores called “*the culture of rights*” (2008, p. 47), it was Cesare Beccaria to supply its judicial foundation. *Dei Delitti e delle Pene*¹¹ (1764), his world renowned, multi-published and multi-translated pamphlet, is a “*systematic critique of the administration of the juridical system, prevailing in the middle of the 18th century*”

(Flores, 2008, p. 50). According to a utilitarian and rational vision, the aim of law is to grant liberty and security of most people possible. Power has to respond to a common interest, in the search of a “*public happiness*” (Flores, 2008, p.51). Confirming Hunt’s idea on the diffusion of the feeling of empathy at that time, Beccaria questioned the role of punishment for who commits crimes. The aim of a punishment is to prevent further crimes and this aim can be reached not if the punishment is cruel, but if it is infallible. The gravity of a punishment has to be calculated based on the damage done to society, applied by judges on the base of proportions established by legislators. Beccaria attempted to separate the crime and its punishment from the idea of sin. Flores claims that Beccaria’s work was one of the most meaningful actions during the Enlightenment of transforming the political and social reality and translate those ideas, values and principles into concrete reforms, “*against the conservatism of aristocracy and the obscurantism of a church, which ideological and moral primacy was seriously under discussion*” (Flores, 2008, p. 53).

The tremendous change of perspective operated contemporarily in different levels of society, prepared a *culture of rights* and triggered not only the American and the French revolution, with their Declarations of Rights, but also the later birth of psychologies and sociologies. This change of perspective, determines the passage

from *vassal to citizen*, from duties to rights, which, from Kant on, were operated through the Declarations of Rights. The Declarations of Rights had thus to cater for natural rights, which had already been defined by Grotius in 1625, when he proposed a list of rights applicable to the whole of humanity and conceivable separately from God's will. According to Grotius, natural rights are at the origin of civic rights.

The American Declaration of Independence (1776) and the American States' Declarations of Rights

In the second half of the 18th century, two very different visions of the relationship state-citizen were enforced in Europe: one pro *iusnaturalism* (bottom-up) and one against (top-down). The Anglo-Saxon structure envisioned a State that would grant individual rights to the citizens, by means of the Parliament, but left, at the same time, a certain margin of liberty that makes the individual interests compatible with the general interest (bottom-up system). For instance, the right to individual private property was first sanctioned in an English bill, in the 17th century¹². The Reformation supported the creation of this situation, which appeared completely consolidated in the 17th century. The Middle Ages were characterised by absolute power of the feudal system and of the Church. The protestant church gradually dismantled the temporal power of the Roman Church and the close intertwinement between religious power and state power. In the other countries of Europe – France in the Age of the Absolutism is the best example – the individual juridical sphere originates from a concession of the State and from a king with divine origins (top-down system). This system was inherent to the essence of absolutistic regimes of the 17th and 18th century (Jellinek, 1895, p.63).

Cross-pollination between these two systems, i.e., bottom-

up and top-down, happened thanks to the American Declaration of Independence and the consecutive States' declarations of Rights (e.g. Virginia 1778).

Observing from a historian's perspective, it is possible to see that the English declarations were statements and reinforcements of freedoms that had been denied before: the right of freedom of belief in fact originates from the imposition of a specific religion or the right of freedom of press emerges after a period in which censure had weighed on society.

The same goes for the American Declarations (the various States Conventions, the Virginia Declaration of Rights and the Declaration of independence, for instance), which are based on the English ones. The American Declaration of Independence, edited in 1776, primarily by Thomas Jefferson, clearly is a legacy of the English bills written less than a century before.

It starts by stating the fundamental natural rights: *life, freedom* (granted through possession of) *property*; pursuit of *happiness* and *security*. These rights were assimilated by the French Declaration, a few years later.

This American Declaration aims not only at defining certain principles of state organization, but also at drawing a clear line between State and individual. *The individual is a juridical subject not only by means of the State, but also by his per se nature*. This is why he possesses intangible and inalienable rights. This is the remarkable

¹². According to Locke, property, including property of life and property of liberty, is an original right, a pre-state right; the State was a union whose constitution aimed to grant this natural right, which later became a civil right. (Jellinek, 1895, p.34)

difference, from the English Declarations. This is exactly the point that shows a clear influence on the American Declarations of the thinkers of the Enlightenment.

By reading the American Declaration of Independence, one wonders why the previous writs and laws, are recognized as a statement of rights and freedom. Before the Enlightenment, in fact, limitation –by law– of the power of the crown coincided with the rights of the people. People had rights as a consequence of a decision of limiting the exercise of power over them. After the Enlightenment, people had rights because, as individuals and as citizen they were endowed with rights (Bobbio, 1990, pp. 55-56). As I stated in the previous paragraphs, there was a change from the government/power/society's point of view, to the individual's.

Déclaration des Droits de l'Homme et du Citoyen¹³ (1789)

The French Declaration's structure and its content show a clear referral to the American example. But it is also deeply rooted in the Enlightenment thinking. The fundamental natural rights are: *liberty, property, security and resistance to oppression*. A relevant role is played by the affirmation of being equal before the law (art. 4, 6, 13). This element is absent in the American Declaration, because it did not need to mark a rupture towards a past of Absolutism, as it was in France. The same goes for the resistance to oppression, non relevant in an American context, but a burning topic, at that time, in France.

Lafayette, who knew the American situation very well, suggested, at the *États Généraux*¹⁴, to elaborate a declaration of rights together with the French Constitution. Why a declaration of rights and not a declaration of duties? This is one of the elements that shows a clear influence of the American and, consequently, English Bills on the *Déclaration des Droits de l'homme et du*

citoyen. The Bills were born as a limitation of the power of the King/State, in defence of the vassal/individual's natural rights, represented by the Parliament. The fact that there were duties, was a given, but rights, on the contrary, had to be explicitly stated and tools to protect them had to be created. The French declaration descended directly from this structure. Its more progressive contributors won over the conservatives, who wanted to mention duties as well.

The influences of the Enlightenment on the *Déclaration* are also undeniable. This is evidenced, for instance, by Rousseau in his *Du contrat social: ou principes du droit politique*¹⁵ (Rousseau, 1762). The aim of this social contract was "*trouver une forme d'association qui défende et protège de toute la force commune la personne et les biens de chaque associé et par laquelle chacun s'unissant à tous n'obéisse pourtant qu'à lui-même et reste aussi libre qu'auparavant*"¹⁶. (Book I, chapter 6). The *Déclaration* is therefore a natural consequence of this statement and embodies, by means of rights, the new role that thinkers of the Enlightenment attributed to the individual. According to Kant, as already mentioned, the individual was in fact free, endowed with reason and obliged to use it to escape the sense of minority and to comply his innate moral law. On the other hand, the *Déclaration* does not comply with Rousseau's Contract, where it states the necessity of complete alienation of one's own

¹³. "Declaration of the Man and Citizen's Rights"

¹⁴. "General States", a representative corporation of the three powers: aristocracy, clergy and the others (grouped as Third State).

¹⁵. "The Social Contract: or on principles of political right"

¹⁶. "to find a form of association, which defends and protects, with all the common force, the person and the goods of each associate and by which each one, connecting himself to this association, obeys only to himself and remains as free as before".

right, to live within a social order. According to Rousseau, even private property had to be submitted to the *arbitrium* of the State (Jellinek, 1895, p.7). The legacy of the American Declaration won over Rousseau's convictions, as far as the right to property was concerned. In the *Déclaration*, as a matter of fact, the right of property is mentioned among the fundamental rights.

Lafayette proposed a draft of the *Déclaration* to be discussed in the *États Généraux*. It was not a personal idea of Lafayette: this proposal was an answer to a pressing matter, raised by several statements contained in several *Cahiers des Doléances*. These documents collected the necessities and grievances of different social classes in the French regions. They constituted a precious tool to base both the *Déclaration* and the Republican Constitution. Specifically, in the *Cahiers* of Nemours there was a request of creating a declaration of rights, constituted of 30 articles.

Because its writing had to be approved by the three States – Aristocracy, Clergy and Third State¹⁷– the *Déclaration* suffered from a heavier necessity of compromising, compared to its New World predecessor. An evident example is the right of freedom of religion: present in the American Declaration, asserted by Rousseau, but absent in the French *Déclaration*.

The Second State (the Clergy) firmly imposed its will to maintain traditions and the Church's privileges. What the opponents obtained in the end was the liberty of religious opinion, within the limits fixed by law. The right to freedom of cult, and the equality of non-Catholic confessions with the catholic were eventually not mentioned in the *Déclaration*.

The fact that France adopted the American contents and approach of the Declaration of Independence, and adapted them to its socio-political context, resulted in the idea of the Modern State. In the Modern State every individual has a granted

judicial sphere and at the foundation of public institutions lies the concept that every person has value, even in front of the maximal powers of the State (Jellinek, 1895, pp. 58-59).

Human Rights: the phase of internationalisation *The Universal Declaration of Human Rights (1948)*

After the moments of glory of Human Rights of the 18th century, the path for having these rights recognized as Universal was still very long. From the French Revolution to the 20th century the evolution was not at all linear. There were moments of regression and despair. The main triggers for a leap forward in the direction of universalism of rights were represented by the two world conflicts on the one hand and the break of totalitarian systems on the other.

In 1945, national leaders from all over the world met in San Francisco to constitute the United Nations. In the preamble of the institution's Charter, they included an important reference to human rights, inspired by the South African leader Field-Marshal Smuts. This reference was followed up by six more references to human rights and fundamental freedoms throughout the United Nations Charter's operative provisions. This Charter sanctioned the establishment of the Commission on Human Rights, one of the very few bodies to draw its authority directly from the Charter of the United Nations.

Why did this happen? At the end of Second World War, people and governments from around the world were ready for a great leap forward in the acknowledgment and respect of human rights. When representatives of the four major powers (China, Great Britain, former Soviet Union and United States) gathered in 1944 at Dumbarton Oaks, in Georgetown, Washington DC, two world wars had been fought in less than three decades, and unimaginable barbarities had been inflicted all over the world, in the name of absurd ideologies. An atomic bomb was about to be released, as evidence of the amount of destructive power humankind could unleash in targeting, not only individuals, but also entire countries.

It was a deep conviction of these four leaders that a different path had to be paved for nations and peoples of the world to live together. During that meeting, a predecessor of the more renowned Yalta Conference, the establishment of the United Nations was defined.

In April 1946, Eleanor Roosevelt, widow of President Franklin Roosevelt of the United States, was appointed to chair a provisional team of 9 components, whose aim was to suggest the new Commission that should develop an international bill of human rights, as soon as possible. Later in the year, again chaired by Eleanor Roosevelt, a new Commission of Human Rights, constituted of 18 members, was appointed. The Commission met for the first time in January 1947 and considered several critical issues.

They decided to work on a declaration, rather than a treaty. The difference is that a declaration is politically and morally highly significant and meaningful. It is not legally binding as a treaty is, in international law, but it has a stronger authority. It is not compelling: it is inspirational. Another relevant decision that was soon taken was the nature of rights it would contain: both civil and political and also economic and social rights.

“(Internalization occurs when) the process of generalisation goes as far as to justify the reception of the rights in international charters”.
(Nergelius, 2006)

“We the peoples of the United Nations (are) determined (...) to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small”.
(The Universal Declaration of Human Rights, 1948)

Those choices of the Commission have greatly influenced the human rights development since then, including actions at national levels.

The mission of the declaration was to be usable for common people: a means of education and awareness. It therefore needed to be relatively short, enthusiastic and effective. Being a declaration, it could behave freely from legislative technicalities and connotations. Its main scope was to state what role nations should have in enforcing human rights in their territory. Being a declaration, it thus avoided problems and complications that had to be addressed when having to write up a binding treaty. This decision of separating the legal covenant from the initial declaration was in the end fortunate. The two covenants¹⁸ that followed, aimed at determining each state's obligations, were not ready until 1966, while the Declaration was endorsed in December 1948.

The Commission called it Universal Declaration of Human Rights (UDHR). The emphasis of the name stresses two points differently from its predecessors: *universalism* and the applications to *humans* (and not to citizens). It meant to set a standard of rights for all individuals everywhere, beyond borders – without distinction of sex, race, political beliefs, juridical status, social position, whether members of a minority or of a majority.

The General Assembly endorsed the text of the UDHR without amendment, on the of 10 December 1948. 48 votes in favour, no votes against, and 8 abstentions (Byelorussia, former Czechoslovakia, Poland, Ukraine, former Soviet Union, former Yugoslavia, South Africa and Saudi Arabia).

At the 1993 World Conference on Human Rights in Vienna, over 150 countries once again re-affirmed their commitment to the Universal Declaration of Human Rights expressed in the Vienna Declaration and Program of Action (Bailey, 2010).



Fig 6. Detail of wall painting at the Danish Pavilion of the 54th Biennale of Arts of Venice.

¹⁸. The International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights

The three phases towards universalism of the declarations of rights

Universalism is a slow conquest. I have observed how declarations normally originated from philosophical theories and how conflicts catalysed their enforcement. The first phase of the history of Declarations has to be found in the works of philosophers. Stoics already defined a universal society of rational men – the wise man is not a citizen of a specific country, but of the world. With modern jusnaturalism, the idea arose that Man has rights, that neither the State nor Man himself can deny. The father of this idea is John Locke, who affirmed that the true state of Man is not his civil state, but his natural state, in which all men are free and equal. He claimed that civil state is an artificial creation that has the goal to grant more ample application of natural equality and freedom. In the first article of the UDHR, a reference to the natural state is still present: “*all men are born equal and free*”. Being philosophical theories, the first declarations of human rights were expressions of individual thinking, in the sense that they had a limited effect.

The second phase towards Universalism, i.e., generalisation, took place when these thoughts became grounding for writing laws. This happened with the American Declarations and with the French. The State was not absolute anymore: it was limited. The affirmation of rights was not just a noble need, but also the starting point for the institution of a proper system of rights. The second phase started when there was this passage between the rights that are thought of and the rights that are actuated. These rights were thus recognized by the state. But their validity was still restrained within its borders. With the Universal Declaration of Human Rights, the third phase started, in which the statement of rights is both universal and positive (in the sense of judicially imposed and effectively protected). The addressees of the UDHR are not citizens, but all men.

To conclude, Human Rights were initially conceived as universal and natural, they developed as positive and particular and eventually are now finding their full actuation as positive and universal rights. The UDHR is a synthesis of an evolution that started with the abstract universality of natural rights, as proclaimed by philosophical thinking; it went through the concrete particularity of positive national rights, when declarations started to be the base for state legislative instruments; it is today ending with concrete universality of positive and universal rights (Bobbio, 1990, pp. 21-25), in which universality is not objectively given, but subjectively accepted by the universe of people, and as such, historically legitimated.

In relation with this process of universalisation, there is one aspect that I was surprised not to find in the UDHR. Being a designer, working in an international environment and in the cross section of different disciplines, I could not prevent myself from noticing the absence of explicit references to culture and cultures. This is why I deepened this aspect.

1.4 WHERE IS CULTURE IN UDHR?

In 1952 Claude Lévi-Strauss, in his famous address to the UNESCO, in Paris, stated that global society could only exist as a coalition, on a planetary scale, of cultural systems, each of them preserving its own originality. Civilisation implies the coexistence of cultures radically different among them (Harrison, 2003, p. 32).


The UDHR does not contemplate cultural rights. There is no explicit “right to difference”.

Melville J. Herskovits, anthropologist, submitted in 1947 a relativist recommendation to the Commission of Human Rights. He pleaded that the future declaration should pivot on three fundamental principles:

- ▶ the fact that the realisation of every individual happens through his own culture; respect for individual differences has to be based on cultural differences;
- ▶ there is no instrument that allows a scientific evaluation of qualitative differences among cultures; respect for cultural differences finds its proof in the history of science;
- ▶ behaviours, costumes, values and habits of every human group are a cultural product and are valid within the culture they derive from.

Herskovits distinguishes the value of “absolute”, from the value of “universal”. The absolute is immutable, does not allow variations and is not different from one culture to the other. The *universal is like a common denominator of human phenomena*. Moral, he believes, is universal, even if different legislative means and connotations are used to apply it in different places and times (Harrison, 2003, p. 34-35).


Fig 7. Detail of Claudio Perna's work, presented at the 53rd Biennale of Arts of Venice.



The cultural issue was not taken into consideration by the Commission at that time. There are several reasons. One that might have played a major role in those particular historical circumstances was the fear of touching a very delicate theme: the degeneration of respect for specific cultures had led to Nazi-fascism. Besides introducing the cultural issue in the Declaration, would have created an embarrassment in colonial countries. This risk was to be avoided. Thus, the UDHR does not contain references to the cultural matter, although it contains *in nuce*, the possibility of interpreting it behind the lens of attention to the rights of cultures.

The cultural issue in Design

Today, I plead that it is necessary to operate this interpretation and read and work on the UDHR under the light of right of culture. *“It is only through a cultural comprehension that it will be possible to formulate, implement and protect human rights in a pluralist manner”* (Messer, 1997, p. 310). Explicitly mentioning and working towards the respect of diversity is crucial to grant people’s identity and therefore to promote peaceful coexistence between individuals, especially in multicultural and nomad societies. It is only through respect of cultural identities that the aim of the Declaration can be achieved in a globalised economy. Although globalisation is a fact, what still is not and what has to be avoided is cultural globalisation. Believing that diversity is a richness that has to be emphasised, the design of products, systems and services has to show how they are rooted in the culture that has manufactured them, how they derive from the human and territorial identities that through design are materialised, thus valorised and spread. These values that products and systems acquire, together with the merging, at the same time, of tradition with latest technologies, represent an



opportunity for local production to get renewed, face a globalised economy with a strong ethical base. I will expand on this theme later, in chapter “3 *Ethics through Making*”, where I elaborate on how the Making empowers towards ethics.

1.5 CONCLUSION: UDHR AND CULTURE

The Universal Declaration of Human Rights and its further implementation, is the authority that, for the reasons enounced in these last paragraphs, I chose to trust. I believe that the respect of this system of values can be used as a foundation for designing for ethics. The necessity of designing for ethics is due to the critical situation of the world we live in, in which issues that were short time ago simple and local, are now complex and global. Social inequalities are becoming extreme and a decorous living standard of the next generations is at stake. The main *aim* of the present research is finding out, as designers, as generators of design knowledge, how it is possible to produce dynamic strategies for giving ethics a wide application, catering for *pervasive ethics*. These strategies have the aim of training new skills, among which autonomy and empathy are basic. By means of creating and diffusing these new skills, a new praxis, strongly rooted on ethical basis, can spread and trigger a new way of thinking. I will show that the respect of this universally accepted system of values can be used as a foundation for designing for ethics. Along this line of thought, Galimberti suggests that a way to fight the current nihilism of Western societies could be to cultivate one's own trust in virtue, in skills, in the Greek Aristotelian *δαίμων* (*daimon*), who, when completely fulfilled reaches *εὐδαιμονία* (*eu-daimonia*), happiness (Galimberti, 2007, p.14). I want to approach this dimension of acting and doing in a virtuous direction, from a social perspective, as I will expand on, in chapter "3 Ethics through Making". To reach this aim, I stress on the relevance of integrating skilful points of view in Making

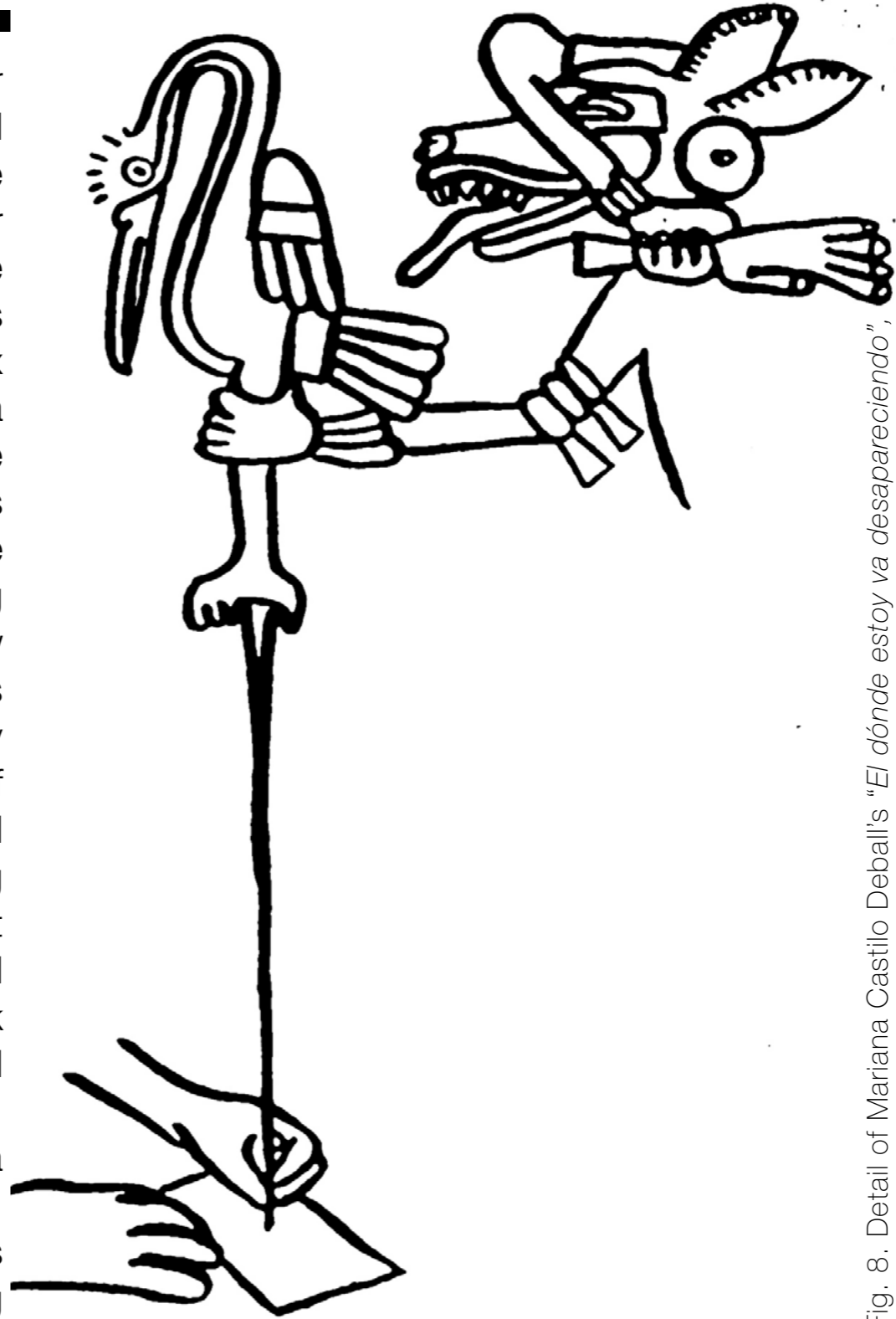


Fig. 8. Detail of Mariana Castillo Deball's "El dónde estoy va desapareciendo", 54th Biennale of Arts of Venice, 2011

processes (see “2.3 Making and Places – saper fare” and the first chapter of part 3, “1 Designing for points of View”) and I point out the entanglement between those and cultural aspects.

In the previous part, in the subsection “*The on-going revolution and the role of design*” I mentioned the two levels on which Flores states that the revolution of human rights has to be made (2008, p.324). Design can contribute to the second level, which is “*making (human rights) a pivot of a cultural shift, similar to the one developed in the middle of the 18th century and in the middle of the 20th century*”. Design can play a massive role in this bottom-up approach. Through the social transformation that new products, systems and services induce in society, design can create a new (ethical) sensitivity (grounded on the embodiment of human rights). In order to understand how to do that, I believe it is necessary to deepen how transformation happens. Transformation is embodied through *Making*, which is the *means* Man uses to fulfil his intentionality. In the next chapter I will describe the Making’s physicality, phenomenology and relationship with places and cultures.



Fig. 9. Detail of Aura Zecchini's Regina Mab

Fig. 1. Detail of "Feuilleton. The Seven Capital Sins", by Angel Vergara presented at the Belgian Pavilion of the 54th Biennale of Arts.

3. MAKING



2. MAKING

2.1 Horizon and approach

2.2 The phenomenology of Making

Experience

The hand

Sketching and repairing as tools for embodiment

Intentionality

Skills

2.3 Making and places – saper fare

Culture and Values

Saper fare, craftsmanship: a condensation of values

2.4 Conclusion: the crisis of Making

2.1 HORIZON AND APPROACH

The second point of departure of this research project is the Making. From a design perspective, I am interested in “Making”, as it describes together action and transformation.

In relation with the definition of pervasive ethics, I have defined in the first chapter of part 1 (*1 Skills for an ethical civilisation*) what I mean by transformation. I expressed my interest in observing the consequences of transformation from a social perspective and from an individual perspective. Then I explained what transformation is from a designer’s perspective.

In this chapter I will describe the Making, both from a phenomenological point of view, from a physical point of view and how Making is influenced by one’s culture. I especially articulate on the work of Sennett, *“The craftsman”* (2008), because on one hand I find his insights extremely fascinating and his and historical overviews inspiring. On the other, he provides a platform for a designerly interpretation of (traditional) craftsmanship. My “use” of his text aims at highlighting the role of Making and of craftsmanship in the context of design.

“For the things we have to learn before we can do them, we learn by doing them.”
Aristotle, Nicomachean Ethics, Chapters 1-3 of Book 2

Fig. 2. “Transformation is not just something A becoming something B as a result of a manufacturing process. In our approach it also refers to the consequences that this something B has, once put into the world.”

Following a phenomenological point of view, perception is active and therefore only through action can there be an experience (see sub-section “*Experience*”), and from the inherently meaningful experience, the Thinking can start. Considering the connection between action and Thinking, I will show how Making can transform Thinking.

There is physicality in Making, Making as an embodied activity (see the sub-sections “*The Hand*” and “*Sketching and repairing as tools for embodiment*”). Observing how hands work and the dynamics of embodiment, by means of sketching¹, helps to understand how the Making elicits and enables the process of making sense of the world.

Through the combination of eyes and hands, through skills, we make sense of the world, while acting in it and transforming it. This leads to the concept of intentionality, which is the motor of transformation (sub-section “*Intentionality*”). This concept allows us to understand how sketching, being tools for embodiment, serve design. Embodiment permits not only to make sense of the world, but also to make new sense of the world, to generate new meaning. Sketching (the action of Making in design) implies skills, with which one can handle resistance (of materials and tools) to achieve a transformation. Sketching accepts ambiguity, deals with complexity by means of intuition. I will deepen this theme in the sub-section “*Skills*”.

The way transformation is physicalised is strongly influenced by the culture one belongs to. This is an aspect we describe in “2.3 *Making and places – saper fare*”, where we face the concept of values and how these relate to skills.



Fig. 3. Detail of the Luxembourg Pavilion at the 54th Biennale of Arts of Venice. *Le Cercle Fermé*, by Martine Feipel, Jean Bechameil. Commissioner: René Kockelkorn. Curators: Kevin Muhlen, Jo Kox. Venue: Ca' del Duca, Corte del Duca Sforza, San Marco 3052

¹. The term “sketching” will be defined later in this chapter, when functional to the narrative.

2.2 PHENOMENOLOGY OF MAKING

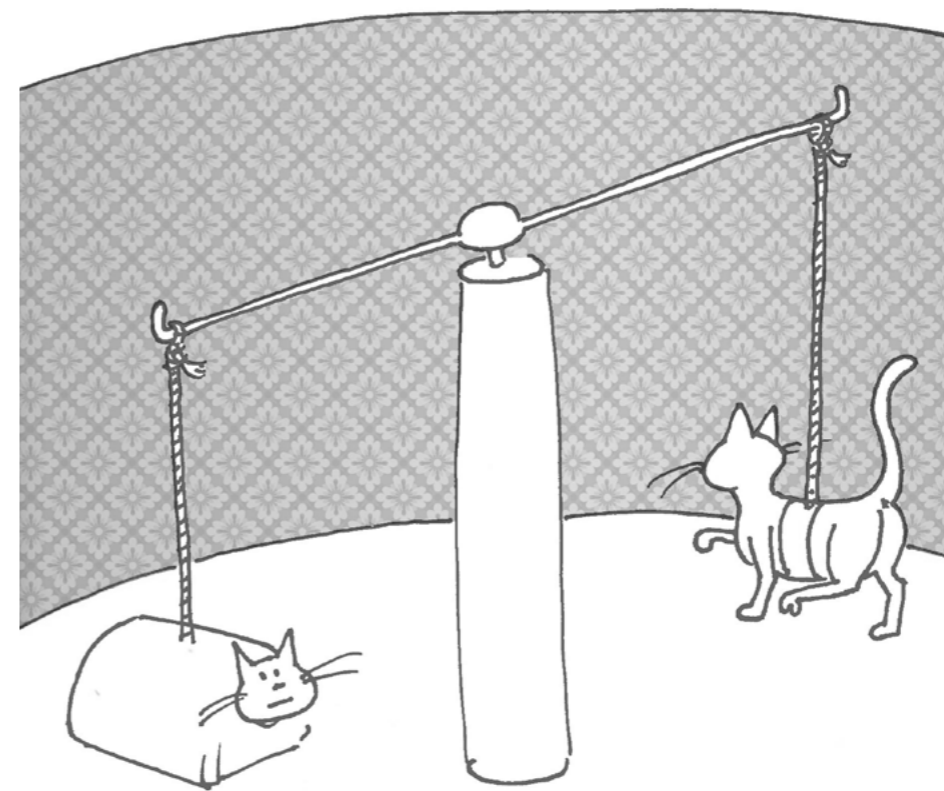
In 1963 two scientists, Alan Hein and Richard Held, from the Massachusetts Institute of Technology did an experiment to evaluate mammalian visual development. They built a carousel apparatus and used it to control movements and visual experience of young kittens.

“The animals were held with neck yokes and halters at opposite ends of a lever pivoted at its centre. The lever and appropriate mechanical linkages transferred the movements of the locomoting kitten to the kitten transported in a gondola. Symmetry of the visible surround provided both animals with a similar view. Visual stimulation was systematically related to self-produced movements for the locomoting animals. For the transported animals, the relation between self-produced movements and visual stimulation was asystematic, having been perturbed by movements of the gondola.” (Hein, Held and Gower, 1970, p. 183).

The result of the experiment shows that kittens, whose motor experience was constrained and who were transported in the gondola, while living in the space, would develop visual impairments, absent in the kittens that were able to move in the space with their own legs.

O'Reagan and Noe elaborate on this concept with their “*sensorimotor*” approach. They fight the long acknowledged idea that for every conscious state of seeing (visual experience) “*a neural substrate exists whose activation is sufficient to produce it*” and they contrast the supposition that “*the function of this neural substrate is to produce sensory experience by generating*

Fig. 4. Graphical representation of O'Reagan and Noe experiment's setting, with two cats; the first constrained to walk along the carousel but free to move his legs; the second constrained in a gondola, attached to the carousel, without possibility of walking (drawing by Bart Hengeveld).



a representation of what is experienced” (Noe, O’Reagan, 2002). Contradictingly, they propose a conception that changes the role of brain in vision and, moreover, the meaning of vision. They claim that vision is not a process in the brain: “though the brain is necessary for vision, neural processes are not, in themselves, sufficient to produce seeing. Instead, it is argued that seeing is an exploratory activity mediated by the animal’s mastery of sensorimotor contingencies, dependent on patterns of interaction between the perceiver and the environment”.

What is extremely relevant, as far as the present dissertation is concerned, is the direct consequence of this approach: “it allows for development of a new framework for thinking about the qualitative character of experience” (Noe, O’Reagan, 2002).



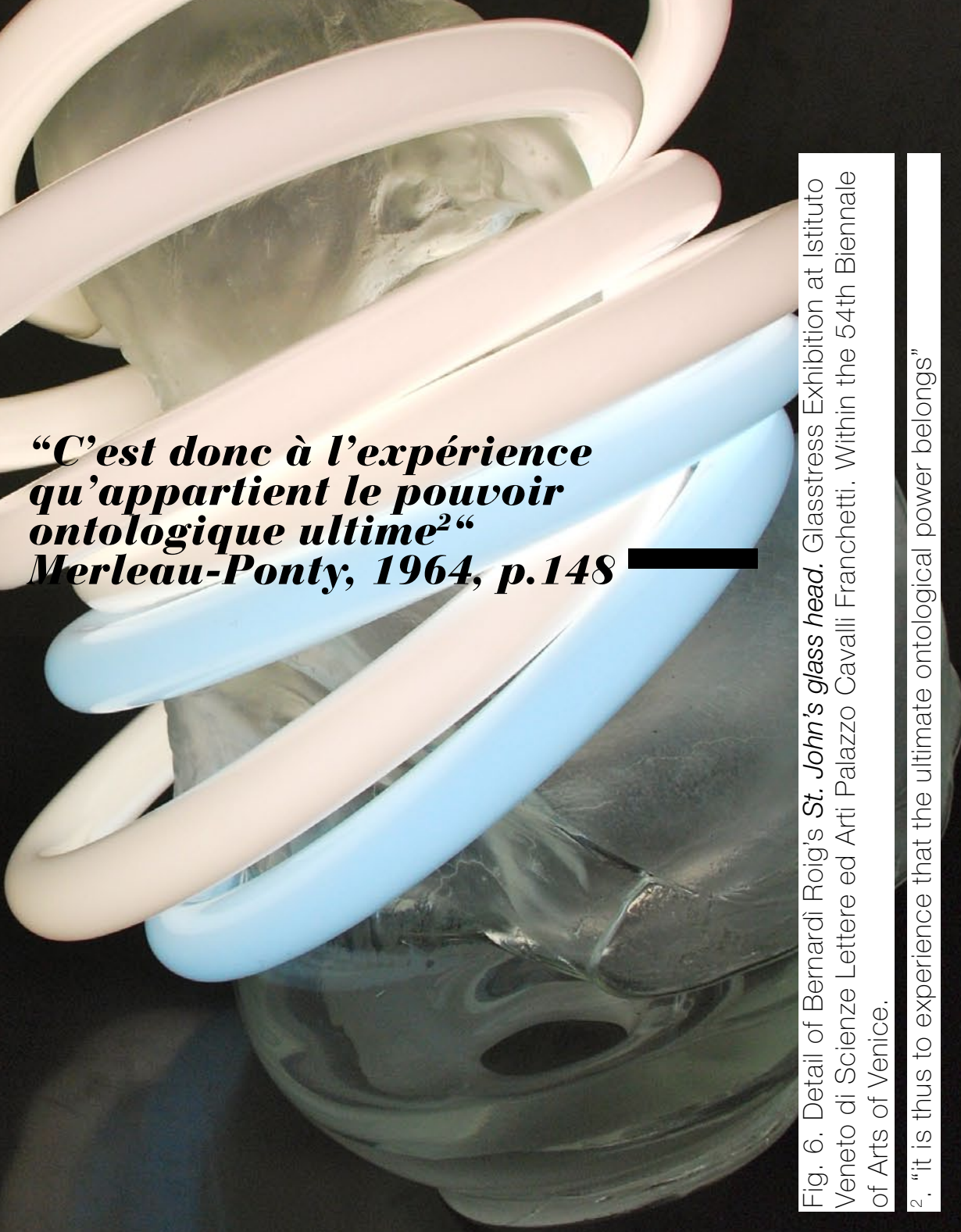
Fig. 5. Detail of Anatoly Shuravlev's *Viewing Deception*. Glasstress Exhibition at Istituto Veneto di Scienze Lettere ed Arti Palazzo Cavalli Franchetti. Within the 54th Biennale of Arts of Venice.

Experience

Experience is the essence, the *“phénomène originaire”* (original phenomenon), *“le contact naïf avec le monde”* (the naive contact with the world) (Merleau-Ponty, 1945). Merleau-Ponty claims *“we must train ourselves to see the world as the strange and ambiguous existence we encounter when we do not interpose [...] concepts between ourselves and objects”* (Matthews on Merleau-Ponty, 2006, p.17-18). The sensory motor contingency theory explains the *importance of movement*, of perceptual motor skills in experience: I can make sense of what to do especially if I (can) move, I can achieve meaning only through movement. This suggests that it is necessary to make an effort to become *aware of action possibilities*, without cognitive prejudices (representations) influencing us. Cognition is therefore secondary to perception and action: there is a pre-reflective involvement with the world, in which the world is perceived in action possibilities, in affordances: *“how we think about the world is then rooted in how we interact with it before we think, and so our intellectual thoughts cannot be used to explain away that pre-reflective experience. We move about the world, make use of the objects in it, respond to situations emotionally, act in order to change it, and so on. All these and other ways of interacting with the world give rise to its meaningfulness, so that the meaning of things in a sense, exist neither ‘inside’ our minds nor in the world itself, but in the space between us and the world, in the interaction”*, says Matthews (Matthews, 2006, p.33) commenting on Merleau-Ponty’s thought.

What is relevant from a designerly perspective is that the world makes sense because we can act in it and, especially, we can *transform* it, through Making. Making implies *skills*, acquired through iterative learning processes. While developing such skills,

the content of what is repeated, changes. The skill expands only because *“the rhythm solution-opening to problems shows itself several times”* (Sennett, 2008, 45).



“C’est donc à l’expérience qu’appartient le pouvoir ontologique ultime²”
Merleau-Ponty, 1964, p.148

Fig. 6. Detail of Bernardi Roig’s *St. John’s glass head*. Glasstress Exhibition at Istituto Veneto di Scienze Lettere ed Arti Palazzo Cavalli Franchetti. Within the 54th Biennale of Arts of Venice.

². “it is thus to experience that the ultimate ontological power belongs”

The hand

The privileged interface, with which we combine the perception of the world with the skill of transformation, is the hand.

The Greek philosopher Anaxagoras stated that humans were intelligent precisely because they had hands (Pallasmaa, 2009, p.33). Language illustrates the intertwinement between motor skills and perception, in the use of bodily expression, to indicate mental activities, such as “*grasping a concept*”. Bornowski (1973) suggests that the extraordinary evolution of the human brain has been a consequence of the co-evolution of the hand or, better, the co-evolution of hand and brain has been tightly intertwined in a mutually enriching relation. Besides, the ethnologist Mary Marzke dates the appearance of the homo faber on earth, when a human being was able, for the first time, of gripping an object securely and manipulate it. She distinguishes three types of grip abilities evolved in sequence: pinching, cradling and cupping. “*Once an animal like ourselves can grip well in these three ways, cultural evolution takes over*” (Sennett, 2008, p.149). At this point of the evolutionary path, tools can be built, enabling for the transformation of the surrounding environment and followed by the search for directions in which this transformation has to be funnelled. Jean Jacques Annaud, in his “*La guerre du feu*” (Quest for fire, 1981), shows in a strongly expressive way, how manual skills led to practical discoveries – in that case exemplified by the skill of making fire – and what consequences these kinds of skills have on prehistoric man’s attitude to life: practical abilities pave the way for contemplation and speculation. It is as if only a creation and realisation that passed through one’s bodily experience, through one’s hands, can trigger speculative thinking, abstraction and therefore philosophical articulation.

Raymond Tallis treats the phenomenon of prehension (perception/conception), dividing it in four steps: (1) *anticipation*, bodily

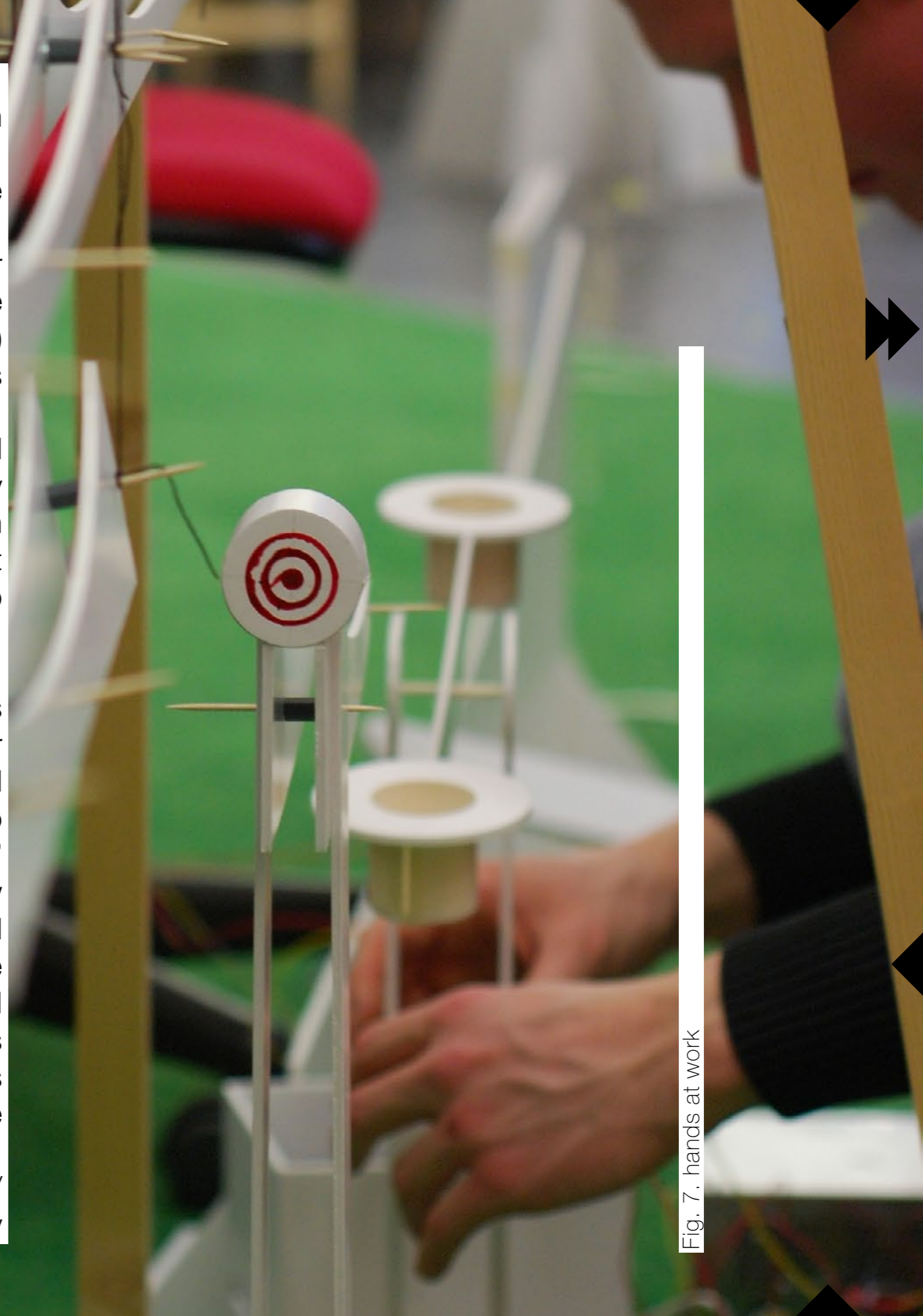


Fig. 7. hands at work

preparation for the act to happen, such as positioning the hand in the best possible configuration to grasp an object; (2) *contact*, when the brain acquires sensorial information; (3) the *language cognition* in naming what one holds; and finally (4) the reflection on the accomplished act. (Tallis, 2003, pp. 329-331). Sennett adds to it a fifth element, relevant to design, which describes the last step in (5) *grasping* as generation of values elaborated by highly specialised hands (Sennett, 2008, 153). By applying skilful points of view, which drag their socio-cultural weight, artefacts are created that embody the pulsing kern of a culture and contribute to its shaping. This is an aspect that I will deepen in the sub-section “*Saper fare, craftsmanship: the condensation of values*”.

This description can be transferred into the design field, to describe an act of transformation, using the same steps. (1) Anticipation consists in preparing for the act of transformation to happen, such as preparing inspirational material and appropriate conditions for sketching. (2) Contact, occurs when intuition (thanks to creative techniques) contributes to decide which perspective to take in facing the design assignment, we start perceiving/conceiving by means of sketching. (3) The language cognition can be related to the moment of giving physical form, by means of Making, to what has been grasped by means of intuition. Finally (4) indeed is the reflection on the accomplished act. Also the 5th element, grasping meant as a generator of values, can be transferred into the design field: as soon as something is actually made, it carries values from the designers and it generates new values, while being used.

Sketching and repairing as tools for embodiment

In this thesis, I adopt the word “sketching” to summarize all sorts of techniques that are used to embody, through hands, what is perceived/conceived. The word refers to more or less defined drawing, realised with different techniques, or to three-dimensional modelling, tinkering, sculpting, prototyping, and so on. Sketching has been for centuries the preferential way for designers to understand the world, make sense of it and project a transformation. The word design derives from Latin: *designare* “mark out, devise, choose, designate, appoint, indicate,” from *de-* “out” and *signare* “to mark,” from *signum* “a mark, sign”. While “design” in English means “to make a project”, in Italian “*disegno*” means drawing and it is considered since the Renaissance, the foundation of design. Leonardo da Vinci’s work perfectly embodies the intertwinement between drawing and design: his study-drawings are still widespread visual icons and served him to conceive some of the most fascinating and astonishing products of the 15th century. In traditional schools of product design, sketching and drawing are still considered fundamental disciplines, despite the introduction of solid modelling applications and CAD systems. In these systems, hands are not used in a “natural” and expressive way, since there is no coupling between the movements that are produced (by moving and

clicking a mouse and tapping on a keyboard) and the form that is modelled. Through sketching objects with a pen, it is possible to understand how they work or could work, how materials are or could be juxtaposed and how components are or could be combined and assembled. This experience constitutes the actual embodiment, through the use of the hands, of knowledge transmitted by objects themselves. It is through drawing that the competencies to design something incrementally or radically new are acquired, as it happens during the “*dynamic repairing*” described by Sennett (2008, p. 200); while Vico stated that only by building something one actually understands how it works, Sennett claims that when you repair something, you must rethink how things are done, invent new ways of using the tools available for this purpose; he defines dynamic repair as the action to “*change the object’s current form or function once it is reassembled [...] At a more complex technical level, the dynamic repair may involve a jump of domains, [...]. Or the dynamic repair may invite new tools for working with objects*”. Repairing, building, sketching are different tools that elicit, at different levels, embodiment of factual knowledge (where factual is meant literally as what has been made). Each of them allows a different degree of ambiguity and space for interpretation. The Finnish architect Pallasmaa says about visual representation: “*painting [as sketching or drawing, my addition] is a singular and integrated act in which the hand sees, the eye paints and the mind touches*” (Pallasmaa, 2009, p. 84). These words clearly convey the synaesthetic character and the effect of embodiment that these activities imply.

To conclude, both in perception and in action, it is the combination of eyes and hands (this could be naturally extended to the entire body) that enables us to make sense of the world acting in it and transforming it.



Video 1. “Sketching as a means for embodiment”, by Martijn van de Wiel, Popsoda, designsketching.

Intentionality

The combination of eyes and hands creates the loop of perceiving and conceiving, in which Intentionality³ – motor of transformation – lies.

Sennett claims that our interest is directed to what we can actually change and transform. Intentionality of transformation is a human peculiarity (Sennett, 2008, p.120). Intentionality is more evident when scope, used technology, ethical framework, adopted material, intended audience, function of a specific object are partially known. If there have been previous experiences that created a sensibility able to welcome and supply a grip for what we perceive (resonance) and if we have a skill, more or less developed, to do something with it, then, what we are sensing becomes meaningful to us.

At the beginning of chapter “1 Towards Universal Human Rights”, I stated that the subject of our discipline is to design for this human intentionality, aiming at a transformation, by materialising a specific vision, a specific objective of a better life. I stated that Man is a teleological, i.e., intentional being, generally acting according to intentions and aims projected in the future. I can now elaborate on this concept, specifying that his intentionality is often oriented towards what he, in his specificity, in his individuality, is able to transform. In the next sub-section I describe how a designer operates a transformation by means of skills.

“Intentionality is not about what I feel. It is about what I do with what I feel”
Kees Overbeeke, 2011

Fig. 8. “Intentionality is not about what I feel. It is about what I do with what I feel”

³. The concept of intentionality in design is far from the connotation this word has in the juridical sphere, where it is linked to the fact of being deliberate in acting against justice.

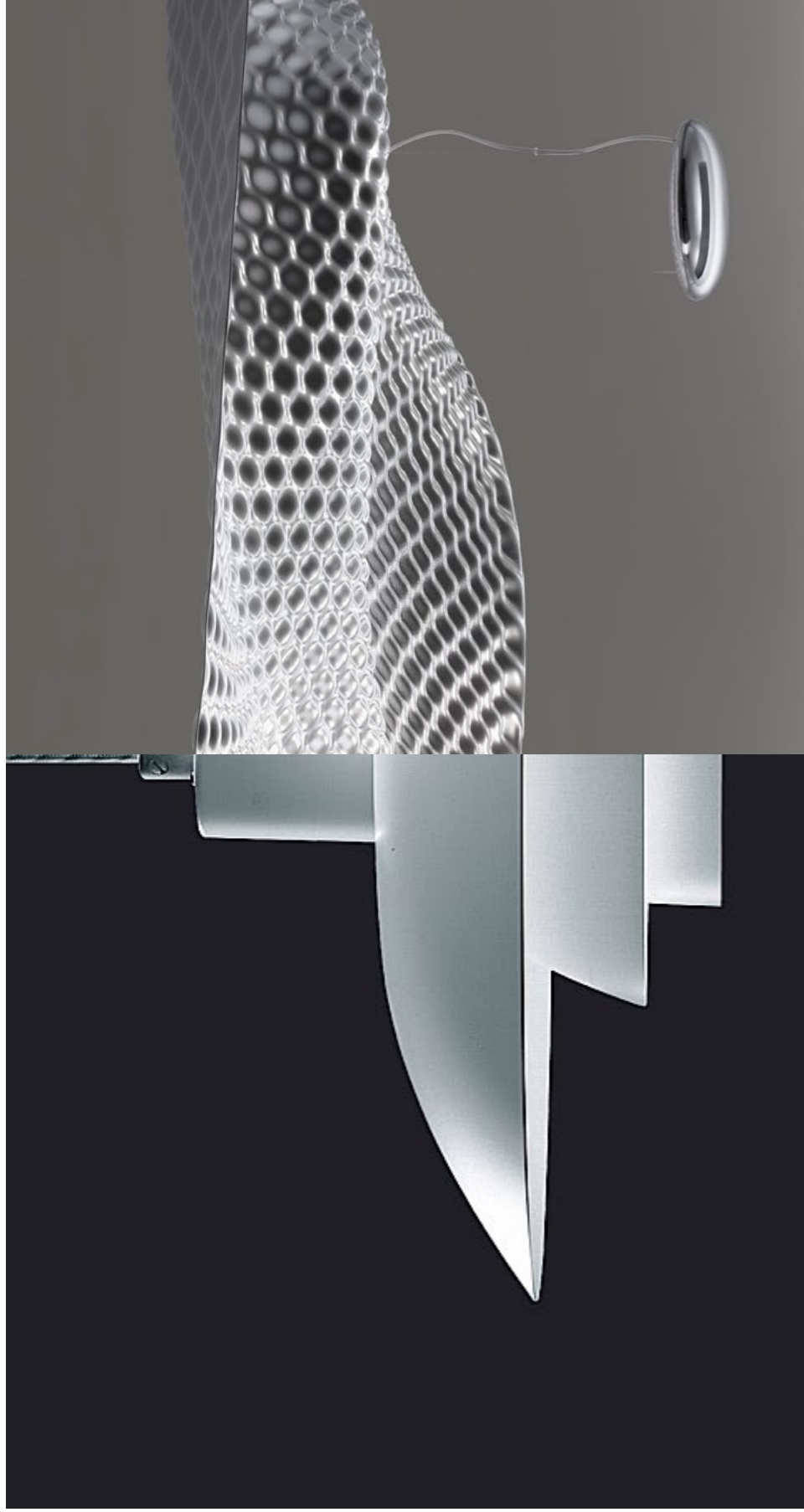
Skills

Sketching, as I defined it, is functional to perception/conception. It allows reflecting on action, it permits to explore meaning and it makes one experience. Sketching involves skills, which deeply influence one's point of view. I now expand on these focal concepts.

The quality of sketching mainly depends on the ability to cope with *resistance and ambiguity*. These two concepts, introduced by Sennett (2008, pp. 214-238) define the interaction between the maker on one side and tools or materials and environment on the other side, while applying one's own skills. Resistance can be found in materials/tools and per extension in the environment to transform. It can also be created by who is performing the transformation, to respond to his own expectations. If we think of sketching with watercolours on paper, the physical resistance is minimal. The relevant part of resistance is given by one's physical abilities, i.e., perceptual-motor skills. Besides, because everybody is endowed with a unique physicality, specific tools and techniques can resonate with one person and not with another. One's expressivity can be more fit to sculpting large-scale stone models, where one clearly needs an appropriate physical condition to be able to perform, because the resistance of the material is high. One can prefer graphic-pen miniatures on rice grains. In this case it is not the material that is resisting, but one finds the resistance in the necessity of extremely fine manipulation of the tool.

“(When people are making,) they do not express themselves in the abstraction of language but in the experiential reality of form and material. The access to the conceptual domain is then not limited by language but limited by skill”

Joep Frens, 2009



Focus: how the tool influences the result

The formal consequences of the choice of tools and techniques are evident: be it enough to think at the change of forms in lighting design before and after the 3D CAD systems. If the Louis Poulsen PH 4/3 is compared to Ross Lovegrove "Cosmic Angel", it is not daring to suppose that the first was sketched on paper in a side view and maybe a simple model was realized with paper or thin cardboard to study the effect of light refraction and the overall aesthetics; while the second was probably modelled (maybe from a quick hand-made sketch, or perhaps even without) with a virtual mesh modelling application and likely rapid prototyped to verify its effect and form language.

Fig. 9. Top: PH 4/3 pendant, by Poul Henningsen for Louis Poulsen (1924-26), wet painted metal with incandescent lighting.

Fig. 10. Bottom: CosmicAngel, by Ross Lovegrove for Artemide (2009), thermoformed methacrylate with RGB LED lighting sources.

The environment clearly influences a making process: good light conditions may affect not only one's mood, but also the colour or the amplitude of lines in a sketch. They therefore address both emotional skills and perceptual-motor skills. If it is cold and damp, the sketches or models or prototypes resent one being cold, maybe also tensed because the body is trying to tight muscle to preserve the heat. One's fine manipulation might decrease because of the cold and drawing might become more edgy, less fluid.

How materials, tools and by extension, the environment influence our way of designing clearly show how much of our point of view is poured in to what is designed. This hints at why, meaning-wise, one's design cannot be separated from his designer, as it cannot be separated from who is using it.

In striving for quality in transformation, dealing with the resistance includes ambiguity. Intentionality has to cope with ambiguity, which features in each making process. Who is making, decides where to put the boundary between finished and unfinished. A relevant aspect, in the context of this dissertation, is looking at ambiguity in terms of meaning. It is impossible, as a designer, to design something, where meaning is "contained" in what is designed, be it a product or a system. In a phenomenological perspective, meaning arises in fact during the interaction: the meaning of a product is not in the product (or system), is not in the designer and not in the person using this product (or system). Meaning arises from the interaction of these components and differs according to the point of view. The designer's meaning of his product will be different from the meaning that the user will find in it and build with it.

But ambiguity has also to deal with the unexpected and with complexity. In the case of design for systems, because of their complexity, it is difficult to design the system's nodes so that their

behaviour is absolutely predictable. Dealing with this ambiguity is a necessary attitude, which excludes the necessity of complete control.

Dealing with resistance and ambiguity, in a domain of complexity, requires an ability of decision making that is based on intuition and cannot rely on procedural thinking and acting. "*Intuition begins with the sense that what is not yet could be*" (Sennett, 2008, p. 201). The practice of intuition prepares the ground for the unforeseen, because of its explorative nature on the one hand, or maybe because of the limitations imposed by a specific tool, by one's skills, or, on the other hand by the tool's or skill's yet unexplored potentialities.

Fig. 11. Detail of the Luxembourg Pavilion at the 54th Biennale of Arts of Venice. *Le Cercle Fermé*, by Martine Feipel, Jean Bechameil. Commissioner: René Kockelkorn. Curators: Kevin Muhlen, Jo Kox. Venue: Ca' del Duca, Corte del Duca Sforza, San Marco 3052

2.3 MAKING AND PLACES - SAPER FARE

Making is a transformation that resonates with the maker's intentionality. This transformation finds its roots, drive and direction in what I named after Sennett, material consciousness. Every time we transform something, we project our intimate world into an external product. This intimate world is built through prior experiences; this sensibility is endowed with a strong cultural component. I believe that in our multicultural nomad society, culture is a fundamental aspect to take into account and it is inextricable to any design process. I am going to explain why I consider it as such.

Culture and values

As I mentioned in the conclusions of the previous chapter, what has been left out in the UDHR is the cultural dimension. Culture consists "*of the unwritten rules of the social game*" (Hofstede, 2005, pp. 4-5). Hofstede describes it using an analogy with the world of computer sciences: culture is like a collective programming that distinguishes members of one group or category of people from others. Groups are made of people that know each other or are anyway in contact; a category consists of people that have something in common without necessarily being in contact. Hofstede describes culture as a level that is superimposed on human nature, which is universal and inherited, while culture refers to groups and categories of people and is learned throughout life, in particular in the first years. Above the cultural level, he positions the level of personality, which is specific to individuals. Personality is inherited, "*modified by the*



Fig. 12. "everytime we transform something, we project our intimate world into an external product", free reelaboration of an image of Skybetter's dancers (<http://www.skybetter.org/>)

influence of collective programming” and learned, thanks to “*unique personal experiences*” (Hofstede, 2005, pp. 4-5). The expression “*collective programming*” fits to describe the fact that this general behaviour, shared by groups and categories of people, lies in a zone that is not accessible to people from the outside, as a script of software is: people use it and are conditioned by its structure, without necessarily being aware of its language or its content. Cultural aspects are, as a matter of fact, codified by social expressions such as religion, through sacred texts, or legislative systems, through laws; but they are not often so explicit. They constitute a terroir in which people grow up, without necessarily being aware that the status of things and consequent behaviours could be different. Concerning the expression “*collective programming*”, there are two elements that I do not completely concur with. The first refers to the fact that it hints at a rigorous separation between different cultures. This has not been true, at least since Modern times have started. From the 18th century on, cultures have tended to be more and more intertwined and mixed. This expression suggests a simplification that is useful to understand Hofstede’s model, but I think it has to be used, bearing in mind its limitations. The second concerns the connotation of human minds as machines. This connotation can trick people to believe that culture addresses only cognitive aspects, while it touches all human spheres and skills.

To avoid this, there is a need of promoting the relevance of culture. I will later explain how I intend to do it.

First, I am looking at how culture reveals itself and how this is linkable to ethics, first, and to Making, later.

Hofstede proposes a simple but effective model of concentric spheres to describe cultural manifestations at different levels of depth (Hofstede, 2005, pp. 6-9). He uses the following terms: symbols, heroes, rituals and values.

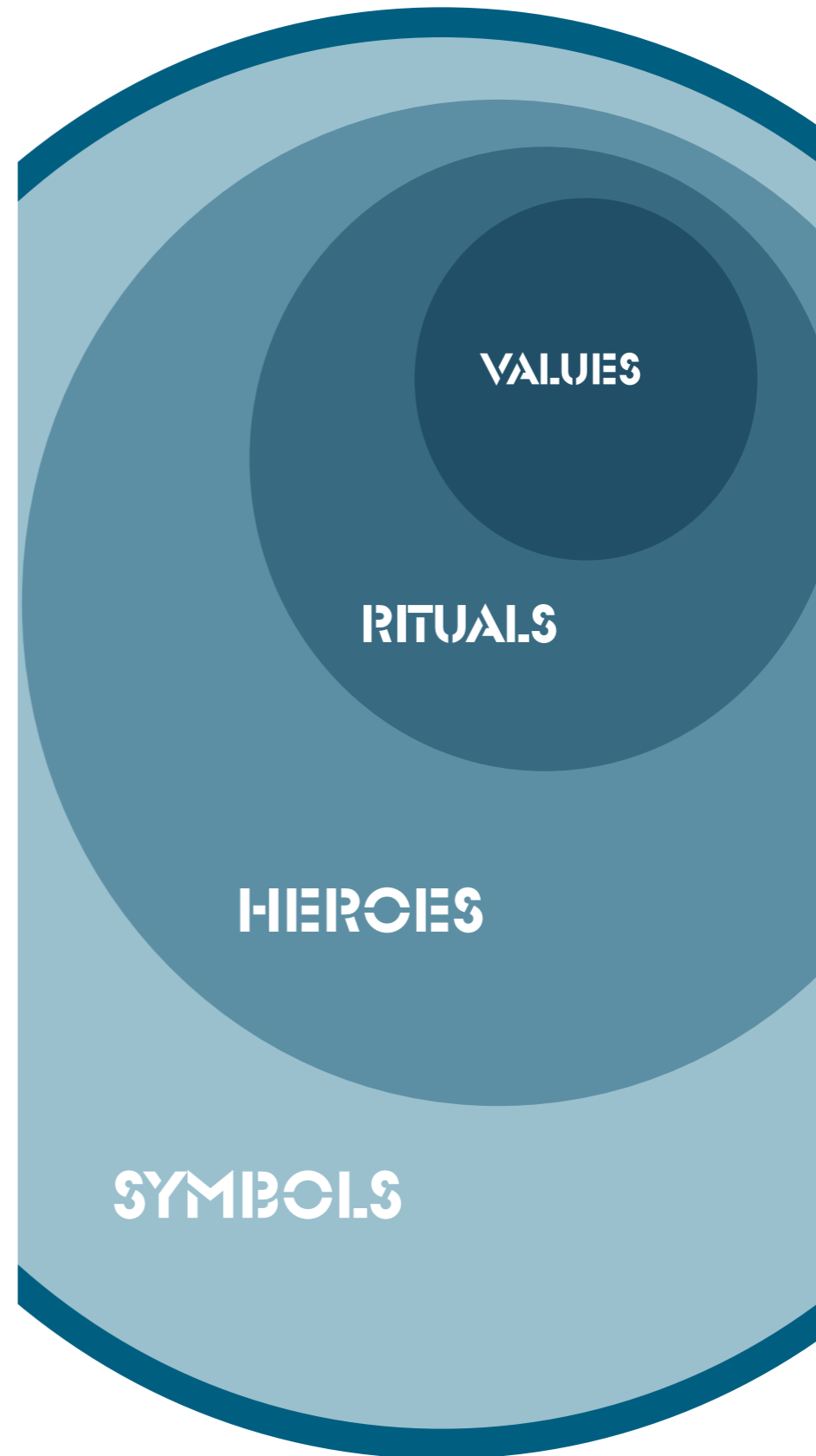


Fig. 13. The nesting of cultural manifestations, after Hofstede, 2005.

Symbols, according to Hofstede, constitute the most superficial layer and are “words, gestures, pictures or objects that carry a particular meaning, only recognized as such by those who share the culture” (e.g. fashion or brands). They are regularly copied within a specific cultural habitat. Heroes are persons, “alive or dead, real or imaginary, who possess characteristics that are highly prized in a culture and thus serve as models for behaviours” (e.g. Steve Jobs). Rituals are “collective activities, technically superfluous to reaching desired ends, but which, within a culture, are considered as socially essential” (e.g. way of greeting, eating). Hofstede mentions ways of greetings and paying respect to others, and social and religious ceremonies. Although it is possible to open a universe of discussions to argue what superfluous in this context means and if it is actually so, I can safely state that this layer constitutes a deeper level, compared to the previous two: its essence is more rooted in people’s behaviour and survives fashion and generations more than heroes and symbols (as Hofstede describes them). The layers of symbols, heroes and rituals are subsumed under the term practices: “as such they are visible to an outside observer” but their “cultural meaning is invisible and lies precisely and only in the way these practices are interpreted by the insiders”.

Hofstede describes therefore the deepest manifestation of culture: values. Values are “broad tendencies to prefer certain states of affairs over others. Values are feelings with an arrow to it: a plus and a minus side” (Hofstede, 2005, p.8). It is when we arrive to values that ethics comes into play. Ross (2008, p.48-49) finds his source for value in social psychology to define ethics in Hebel, who uses the concept of human value as a way to describe ethical beliefs of people. Ross uses the acknowledged Schwarz’s definition of human values, which consists of five formal features:

- ▶ *“Values are beliefs. But they are beliefs tied inextricably to emotion, not objective cold ideas.*
- ▶ *Values are a motivational construct. They refer to the desirable goals people strive to attain.*
- ▶ *Values transcend specific actions and situations. They are abstract goals. The abstract nature of values distinguishes them from concepts like norms and attitudes, which usually refer to specific actions, objects or situations.*
- ▶ *Values guide the selection or evaluation of actions, policies, people and events. That is, values serve as standards or criteria.*
- ▶ *Values are ordered by importance relative to one another. People’s values form an ordered system of value priorities that characterize them as individuals. This hierarchical feature of values also distinguishes them from norms and attitudes.” (Ross, 2008, p.49)*

These elements constitute the core of the culture one belongs to.

Values are beliefs ■■■■■

Values are motivational constructs ■■■

Values are abstract goals ■■■■■

Values serve as standards or criteria ■

Values are ordered by importance relative to one another ■■■■■

Saper fare, craftsmanship: a condensation of values

Artefacts are a product of culture, of which values, according to Hofstede's model, constitute the pulsing core. One of the results of the complex world financial crisis that struck in 2007, is a renewed, generalised, deep reflection on values. The postmodern marketing-based strategies, the decoupling between the real economy and the financial market, whose social consequences we observed and experienced in the last two decades of last century, do not respond to people's values anymore. In a globalised market, a general reflection on values is changing society and the world of production: today, it is users that are often imposing values to companies and not *vice versa* anymore, preparing the ground for inverting the trend of commodification. There are several examples of multinational *colossi*, such as Nike or Ikea or famous fashion brands, such as Ferragamo or Vuitton, who directed their marketing strategies in order to respond to users' requests of sustainable productions processes, both socially and environmentally. When users, who are more and more educated, realise that these campaigns are not grounded in actual sustainable behaviours, they raise their voice and fine-tune their buying power on less known companies that are able to guarantee more socially correct conducts. Brands as Brunello Cucinelli, built their popularity on the idea of "humanistic companies", providing ideal working conditions for their workers and the least possible impact of their production processes on nature. The attempt to govern people's values by creating illusory needs and to empty artefacts of their core cultural meaning has good chances to fail. There is a slow but steady trend towards re-acquiring consciousness of their complex nature as humans, and are progressively tearing off the label of consumers, which had been glued on them for years. This is one of the aspects of the new feeling for sustainability. Besides social sustainability,



Fig. 14. Detail of the South Korean Pavilion, "The Love is gone but the Scar will heal", by Lee Yongbaek. Commissioner: Yun Chea Gab. Venue: Pavilion at Giardini, 54th Biennale of Arts of Venice.

there is also environmental sustainability, which imposes a new need of durability and especially quality. There is a trend showing that quality matters again, and people want products to last longer and to respond to experiential needs and not only visceral shopping compulsivity. Quality, as a natural result of the craftsman's skills that I discussed in the previous chapter, has its roots in places: specific places generate specific quality (degree of excellence) and qualities (distinctive attributes). It is a result of local identities and historicized knowledge and is a consequence of what I call "*saper fare*". This Italian expression, which literally means "knowing how to make things", indicates mastery, the skills of the master craftsman within the socio-cultural context he works in. It grounds on a *terroir* that is difficult to replicate in another place (Trotto, 2008, p.142), being a direct expression of the *genius loci*, the spirit of a place, materialising values that emerge from specific cultural environments.

Saper fare, craftsmanship, summarizes therefore all identifying features of a natural surrounding, made of human beings within a natural context, more or less manipulated by man. It is about the contour of the land where it is practiced, the range of colours and the system of signs that natural landscape offers; it tells about raw and elaborated material that become part of our imagery in the first part of our life, making us believe that artefacts can only be made that way, with those techniques, those materials, those shapes, those smells and flavours. Quality is about details. Craftsmanship, *saper fare*, expresses the spirit, the identity, the character of the territory, which generates it. Through the mediation of craftsmen these local values, that determine a specific cultural environment, are condensed together with universal human values, and transformed, embodied, materialised, brought into vibrant life.

In 1931, when Modernism, the International Style were starting to strongly impact society with the concept of minimum standard,

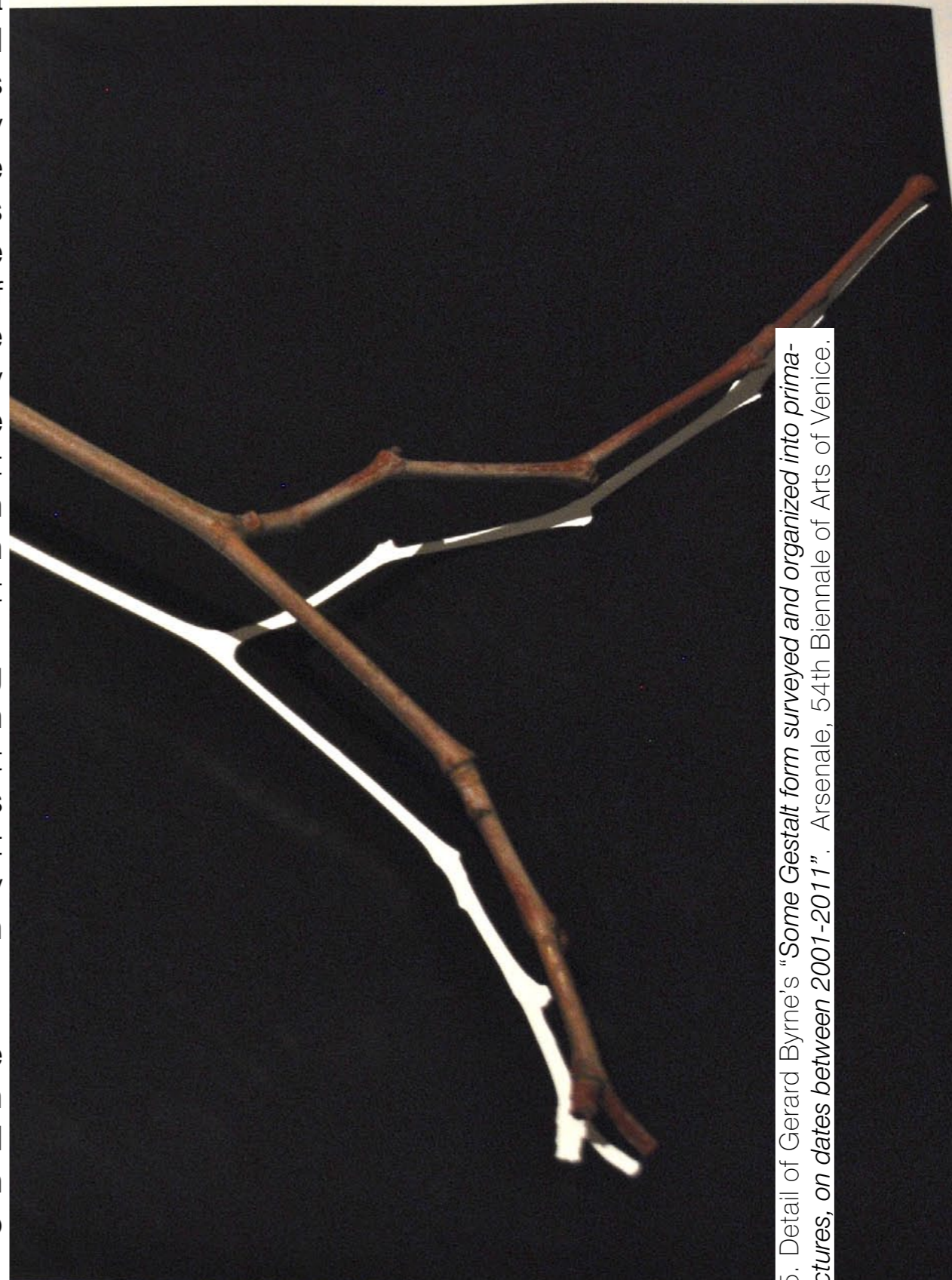


Fig. 15. Detail of Gerard Byrne's "Some Gestalt form surveyed and organized into primary structures, on dates between 2001-2011". Arsenale, 54th Biennale of Arts of Venice.

Dewey observed that “*the mobility and trade of populations, due to the economic system, (had) weakened or destroyed the connection between works of art and the genius loci of which they were once the natural expression*” (Dewey, 1931). I believe that this trend towards cosmopolitanism is today being re-scaled and local values are again highly praised in artefacts.

Artefacts endowed with this identity, thus soaked in local values, fulfill the need of new, post modern and post crisis users, longing for depth of meaning emanating from using products and systems.

This skilfulness does not necessarily refer to old traditions and techniques. It can capitalise on any sort of Making processes. The barrier between old techniques and new technologies, in this context, does not make sense any more.

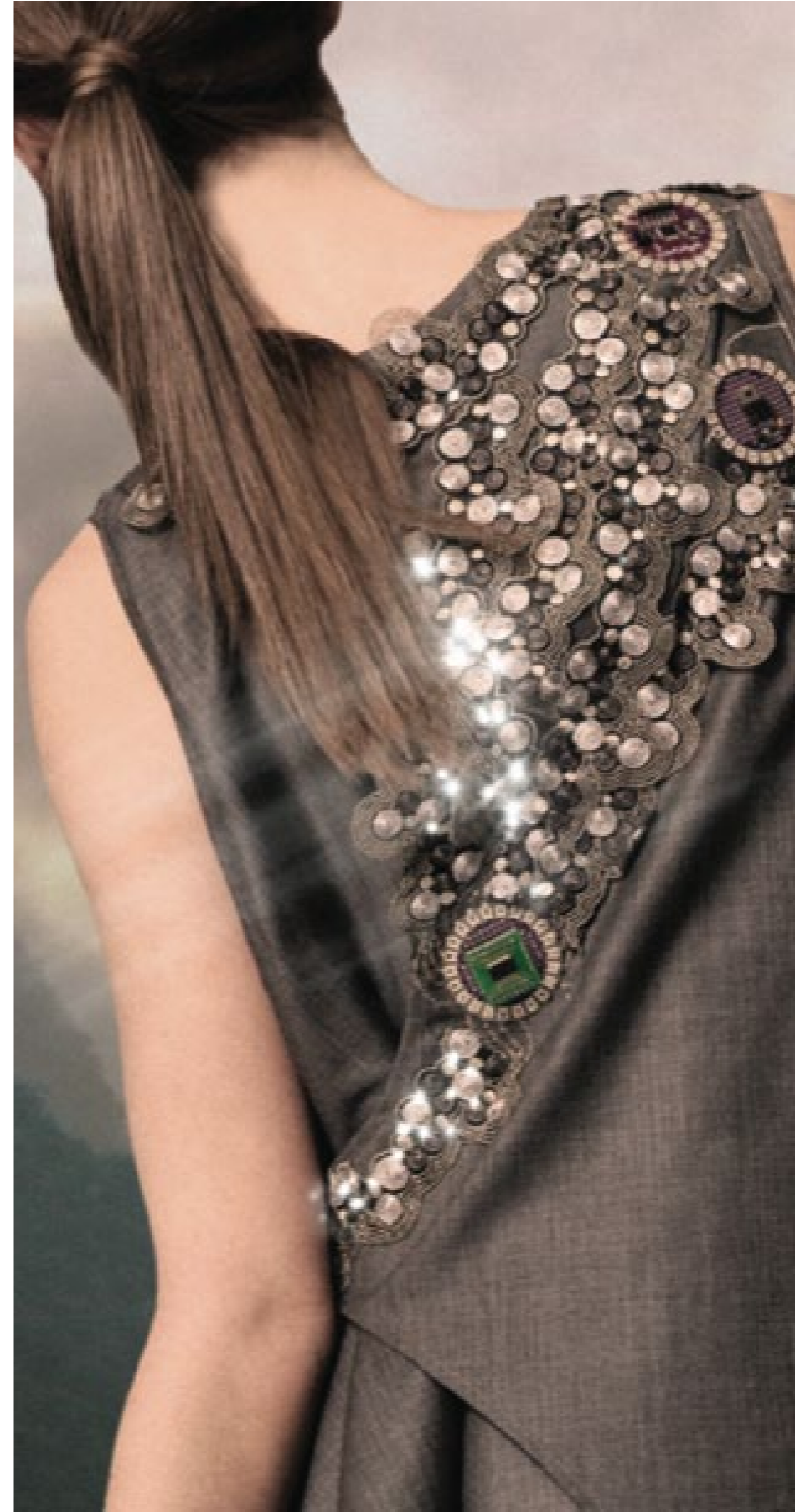


Fig 16. Images of integrations of different technologies in the making process of experienceable prototypes; these are pictures taken during the different workshops, with the exception of *Diffus Design*,dk (Hanne Louise Johannesen and Michel Guglielmi).

2.4 CONCLUSION: THE CRISIS OF MAKING

Making, and designing, according to what I discussed in this chapter, are pre-reflective involvements with the world. They are meaningful to people, because they constitute a natural resonance to our human intentionality, as teleological beings: we naturally and intuitively focus our interests on what we can actually change and transform. We build our skills, based on our sensibility. This is part of our personal history, enriched with a cultural dimension, because skills are strictly linked with local identities and the spirit of places, where products are designed and realised.

Making is a way to interact with the world that is meaningful to people: it requires our intuition and perception to be activated, our consciousness to be developed, our cognition to elaborate and respond to our need for transformation. This need for transformation is fulfilled during a doubting, partly a-procedural process, in which certain behaviours of who is operating the transformation can be traced and described, but not abstracted as consequential methods.

We are today in the low part of the curve of the sinusoidal function that describes the social role of Making. Making is going through a crisis and, as it has already happened in the past, it can be combined with other ingredients to form a recipe to re-humanisation of the anthropic environment, i.e., a new Enlightenment. In the next chapter I will articulate this reflection to understand what Making is and can be for designers as *δημιουργοί* (demiurgoi) or *homines fabri*, i.e., ethical beings.

Fig. 17. Detail of Urs Fischer' melting wax replica of Gianbologna's "Rape of the Sabine". Arsenale, 54th Biennale of Arts of Venice.



Fig. 1. Detail of Yoshi's installation "Spaces", at the Venezuelan Pavilion, 54th Biennale of Arts of Venice.

APPROACH
MAKING
RICHES THROUGH
MAKING
THROUGH
MAKING
THROUGH

3. ETHICS THROUGH MAKING: THE RIGHTS THROUGH MAKING APPROACH



3.1 Horizon and approach

3.2 The craftsman and the social role of Making

Demiurgos vs. cheirotechnes

The social role of making: from demiurgos to homo faber

3.3 Sharing the language of Making

Phenomenological stance: integration of points of view through making (a)

Limitation of expressivity (b)

Socio-cultural Perspective: the smile of the Enlightenment (c)

3.4 Conclusion: the foundation of RtM

3.1 HORIZON AND APPROACH

In the first part of this thesis, I framed a design challenge / research quest. I there listed three actions that I am convinced are necessary to cater for pervasive ethics, and I have described how the Rights through Making approach can contribute to it, from a design perspective. These three actions are: (1) the balancing of the social importance of Making and Thinking, (2) the educations of skills (with a particular emphasis on autonomy) and (3) the integration of skilful points of view (where the skill of empathy plays an important role). This chapter aims at grounding the relevancy of these actions.

In the previous chapter (2 *Making*) I have explored what “Making” is, as the protagonist of transformation. I have described how the Making is done and why it is a *conditio sine qua non* for Thinking to happen. I have only partly researched two aspects: the nature of the person that performs the act of Making and the social role of Making. As the Universal Declaration of Human Rights does, my perspective holds the human being as the fascinating and complex motor of this thesis. I now want to focus the attention on who actually triggers and operates transformation: the craftsman. The Making is done by craftsmen. Keeping in mind my final goal, i.e., sketching a framework to find a designerly strategy to empower pervasive ethics, in 3.2 I describe the Craftsman and the social role of Making, how it changed in history and its consequences on social wellbeing. Sennett indicates the degeneration of working culture as the determining factor for the decline of the social capital (2008, p.36): societies with few craftsmen are impoverished societies.

For, in a word, everything that we choose, we choose for the sake of happiness, which is an end”
Aristotle, Nicomachean Ethics, Book X, Chapter 6

“Designers are engaged in nothing less than the manufacture of contemporary reality”
Rick Poynor, Design is about Democracy in First things First: a Brief History, Looking closer 4: Critical Writings on Graphic Design, Allword Press, 2002

“The responsibility for the waste of talent which they (authors of the First things First manifesto) have denounced is one we must all share. The evidence for it is all around us in the ugliness with which we have to live. It could so easily be replaced if only we consciously decided as a community to engage some of the skill which now goes into the frills of an affluent society”.
Anthony Wedgwood Benn on The Guardian, 24th January 1964

Fig. 2. Detail of Urs Fischer' melting wax replica of Gianbologna's "Rape of the Sabine". Arsenale, 54th Biennale of Arts of Venice.

This undermines the solidity of a basis made of practices, without which new Thinking cannot be developed. In the design field, this results in a weakening of expressivity, where expressivity is a result of the combination of Making and Thinking. This leads to the triumph of representation that overrules the ability of reading into experiences, against the Kantian encouragement of *Sapere Aude* (dare to know).

When Making and Thinking were tuned, for instance during the Enlightenment, the picture that historians drew was of a moment of social wellbeing and optimism. I articulate on this in section 3.3, where I describe how the Making empowers towards ethics in collaborative processes.

It is on these elements that I propose to act in order to create a paradigm shift, through design towards a pervasive ethics.



Fig. 3. Detail of David Goldblatt's portrait of a shoemaker at work in Raleigh Street, Yeoville, Johannesburg (2006). Photography exhibited at the 54th Biennale of Arts of Venice.

3.2 THE CRAFTSMAN AND THE SOCIAL ROLE OF MAKING

The craftsman, as Sennett defines him, is a figure that embodies a specific human condition: he personally commits to making something and he therefore develops a specific skill (Sennett, 2009, 28). This definition is open and can indicate all people who commit to perfect their activity, applying the ἀρετή, *arete*, i.e., the struggle for excellence. My definition of craftsman is enriched by Arendt's concept of *homo faber*, who combines bodily skills, such as fine manipulation and refined coordination, with speculative skills, framed in a social perspective; as such the craftsman has an ethical task. While the "employee" of the *homo faber*, the *animal laborans*, only asks himself "how?", the *homo faber* also constantly wonders "why?" (next to how). In reality, there is not such a clear distinction between the two, but I am describing these two extremes to make a point.

Demiurgos vs. cheirotechnes

Hephaestus is an exemplary craftsman. He, according to the legend, is the craftsman of the gods, who, in his metallurgic workshop, provided the Olympus with all sorts of assets and products, such as the dwellings of the gods – Eros' bow and arrows, Hermes' winged sandals and helm, Zeus' sceptre, shield and thunderbolts and Achilles' armour.

This portfolio of products shows how his ability recalls the Italian Renaissance ideal of modern craftsman/designer, rather than the χειροτέχνης, *cheirotechnes*, the manual worker of Aristotle's times. Filippo Brunelleschi, designer/architect of the

Florentine dome of Santa Maria del Fiore, one of the most astonishing constructions ever built, also had a background as a goldsmith. He actually was part of this corporation, the guild of goldsmiths: the tile for the Baptistery's Paradise door that he designed to respond to the call for tenders of 1401 to realise the whole work, shows his expertise. Brunelleschi was also a mathematician, expert of geometry, inventor of building machines, military and naval engineer, designer of musical instruments and scholar of literature. Such polyhedric figures were not rare at that time: think of Donatello, Donato Bramante, Paolo Uccello, Benvenuto Cellini, Leonardo da Vinci or Michelangelo Buonarroti. The myth of Hephaestus and the reality of the renaissance craftsman supply clues to sketch the expertise of this specific human figure: he can approach different fields of production, handling design culture in all its technical aspects, not only obtaining ground-breaking final products, but innovating the process of production too. In the case of Hephaestus, this is shown by the fact that in his forge, he does not only rely on human force, but he uses advanced technology to optimize his production processes: he invents, builds and exploits *automata*, mechanical androids that can substitute men in manual operation (Kalligeropoulos, D. and Vasileiadou S., 2009). He uses technology as a tool to serve his godly clients.

The social role of making: from demiurgos to homo faber

The craftsman as such appears in Greece during the archaic period, told by Homer and other ἀοιδοῦ, *aidou*, choristers, indicated as δημιουργόῦ *demiurgu*. This word's etymology shows the derivation from δήμιος, *demios*, i.e., belonging to the people, and ἔργον, *ergon*, i.e., work, showing the social role of (manual) work in that particular anthropic context. The work of the *demiurgos* was aimed to the community and acted therefore in an ethical sphere, since it worked in the common ἦθος, *ethos*, i.e., the social environment, and therefore acted on the fundamental values of a people and of a culture.

In *archaic Greece*, as ethics and politics were intertwined, ethics and manual work were. This is another aspect that describes what I call “pervasive ethics” in this dissertation. A civic dimension and a public shared aim in human activities was a cultural asset, taken for granted. At the same time, thinking, designing, conceptualising and making were conceived in a holistic way, without hierarchy of any sort. It was later on, in the Greek classic period, that thinking and making started to be separated. The social role of Making and of craftsmen mutated: the growing wealth of the Greek πόλις, *polis*, allowed for an increasing number of slaves. They could take over most of the manual work that, until that moment was performed by middle-class men. The role of makers was compromised from this moment on, but it cyclically had its glorious moments again in history.

Hannah Arendt (Sennett, 2008, p.15-16) defines two species and relates them with each other: *animal laborans*, i.e., working animal, and *homo faber*.

Animal laborans is he, who works without having a complete framework of what he is doing, blocking the world out – and ignoring the consequences of his actions – taking the work as an end in itself; *homo faber* is he, who aims at making a life in

a community, Arendt says. She extends the Latin expression with a political sphere, in tune with the Greek archaic concept of pervasive ethics. In Latin, *homo faber* indicates the *artifex* (craftsman), the creator. Both words recall a process of making that is not just blind application of techniques, but also imply a conceptual process of creation. Ironically *faber*, means also (gold)smith, as Hephaestus and Brunelleschi or Benvenuto Cellini originally were. Facts show that in their case, *faber* was an understatement, implying a set of skills that characterized exactly what I mean by Craftsman.

Designers have to be new craftsmen. Their way of acting has to include the characteristics of a *demiurgos* or a *homo faber*. Designers have to be able to make, to reflect on what they make, to envision a transformation that the object of their design can create and to find tools for this transformation to be achieved. In such way they can operate the social transformation in the direction of pervasive ethics. In such way, they can contribute to the diffusion of a new transformative praxis in society, they can be instrumental to the balancing between the social role of Making and the social role of Thinking.

In the following section, I articulate on the effects on society of sharing acts of Making.

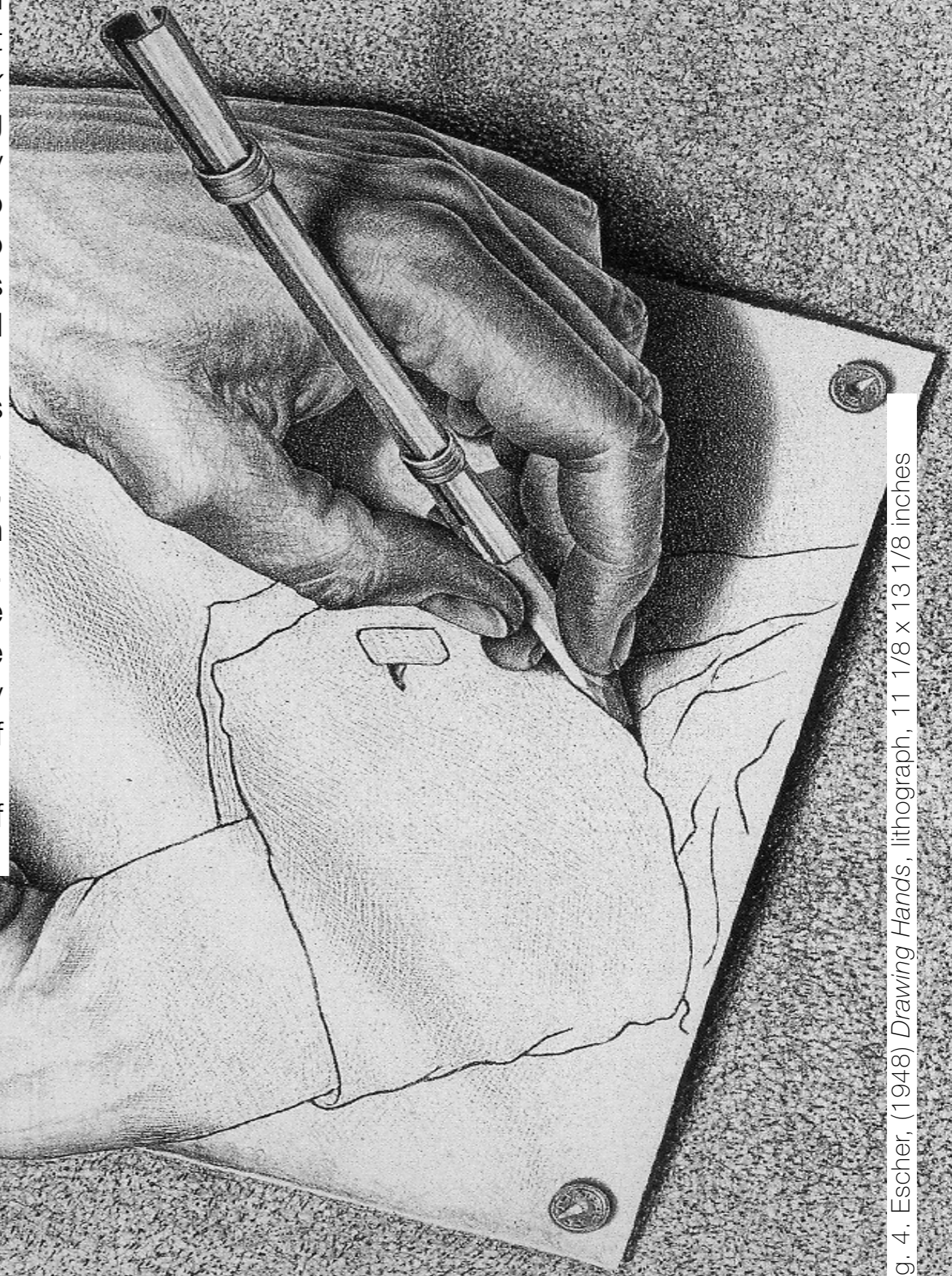


Fig. 4. Escher, (1948) *Drawing Hands*, lithograph, 11 1/8 x 13 1/8 inches

3.3 SHARING THE LANGUAGE OF MAKING

Complexity. Imagine the work of Escher “*Drawing hands*” in which one hand draws another hand, which draws the first one. According to different points of view, it is possible to make sense of it in different ways. Two-dimensional signs mutate into volumes, picturing an impossible, surreal situation. If we abandon reassuring notions of the world, everything starts to make sense: even drawings that draw themselves. Now imagine that society is like the overall picture.

Skills (of which our cultural background is a relevant component) form our points of view, which make us find a plausible perspective among others that seem not to make sense, within a complex scenario.

Respect is a necessary ingredient to allow us to ignore our own habits and customs as the only criterion of order, and it is what makes us able to enjoy the beauty of the image’s complexity, indulging in curiosity and savouring ambiguity.

Intuition is what makes us able to move about in a realm of ambiguity and savour uncertainty. This is the richness of *diversity*, this is what makes diversity a symphonic expression, whose aesthetics is so fascinating to observe and whose dynamic engages us.

The first chapter of this part explains why I took the Universal Declaration of Human Rights as my ethical vocabulary. I start from the postulate that human rights are universal and must be respected. *What* I here propose is, on the one hand, to empower and to entice people towards their daily realisation by using products and systems; on the other hand I aim at empowering

designers to their realisation through designing, thanks to the application of the RtM approach. How to do this? In our manifesto we stated:

“We plea for integrating knowledge and skills, i.e., the cognitive skills of the designer as well as his/her perceptual-motor, emotional and social skills. We believe that design thinking, where action and thinking are combined, could take the lead in developing a new approach to these global problems. Sharing the “language of making” might break down the barriers between people, ideologies and communities, while, at the same time, preserving diversity.”

Speaking of rights is not sufficient; educating designers about their meaning is not enough. Just asking designers to design for them is not enough. What I proposed in the first part of this thesis, are three actions: (1) *to balance the social importance of Making and Thinking*, (2) *to educate towards making* and (3) *to make together*. In this chapter I explain why I think that hands-on activities (Making) in design processes are pivotal to cater for ethics. There are three arguments that I bring into the discussion: the first (a) takes a phenomenological stance to answer this question; the second (b) is a practical observation that concerns the nature of language in multicultural design environments and its limitation of expressivity; the third (c) observes the social role of making in history and gives a socio-cultural perspective on it.

Phenomenological stance: integration of points of view through making (a)

The first argument in favour of Making in design refers to phenomenology. According to Merleau-Ponty, we perceive others and ourselves not as mere objects in the world, but as points of view from which we perceive/conceive the world (Matthews on Merleau-Ponty, 2006). Meaning is therefore in the interaction with the world, in “*acting in the world*”. As a consequence, every experience is inherently meaningful. This also implies that meaning is dynamic: dynamics of processes, dynamics of skills, dynamics of humanity. As explained before, experience is a pre-reflective involvement with the world. It is dynamic and the world makes sense because we can act in it, we can transform it through Making.

The combination of different people, i.e., of points of view, in an ethical sphere, in a design process can be accomplished only through Making, because *through Making different points of view can really be integrated*. In my experience talking leads to compromise. The nature of Making prepares the platform for pervasive ethics to flourish in designing.

Limitation of expressivity (b)

Secondly, I believe that Making can transcend the expressive boundaries of language. It is almost impossible to describe a making process (or, by extension, a design process) by means of just words. Words cannot be the only *medium* of communication that is used in a design process. The use of embodiment, of Making, by means of drawing, modelling or whatever act of making that implies skills, constitutes the *designerly way* to reflect. Designers use their skills to transform the world they live in. When designers are asked to translate their sensitivity, without using their skills, but by using language and rationally structured thinking, their *expressivity* is evidently constrained.

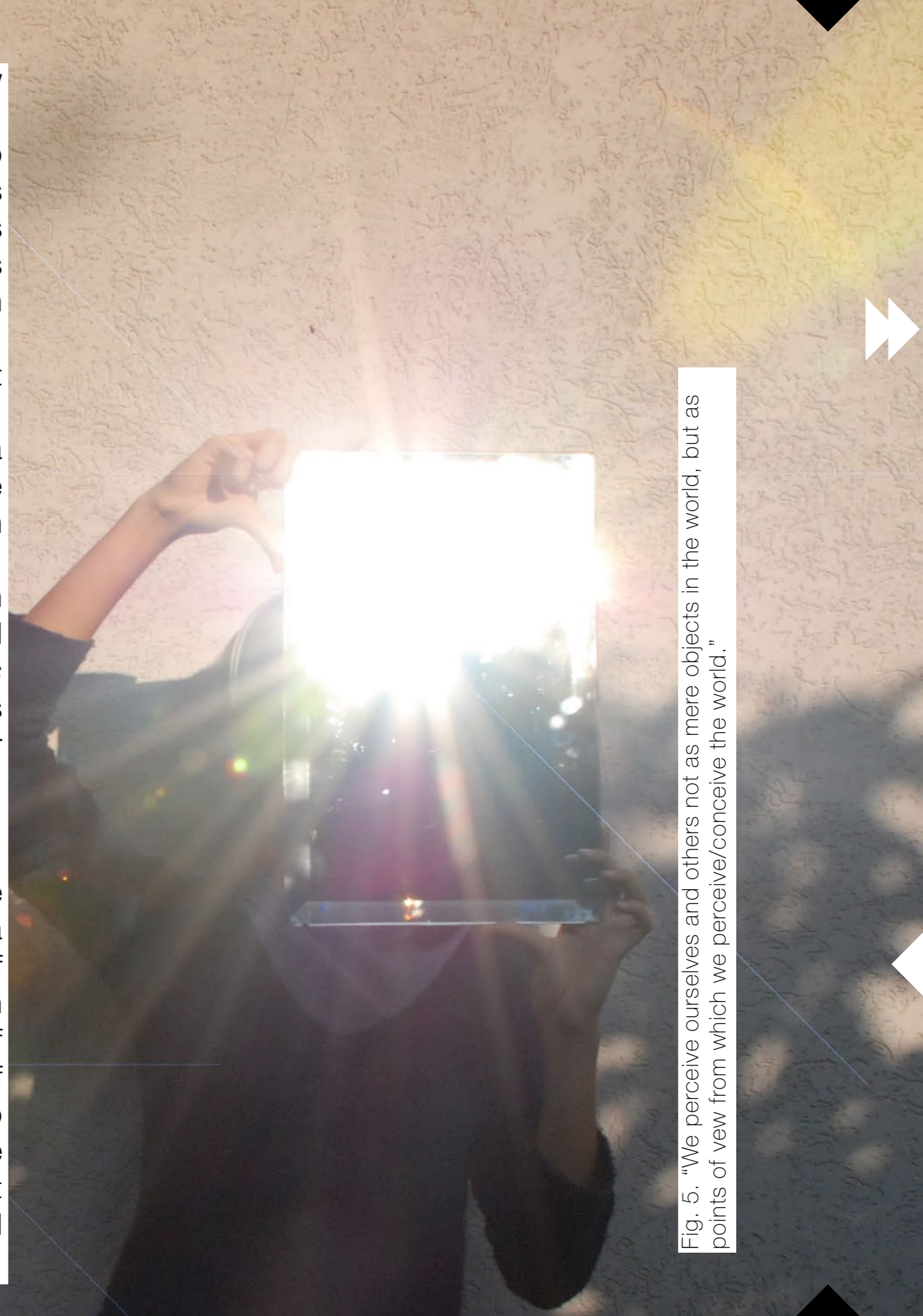


Fig. 5. “We perceive ourselves and others not as mere objects in the world, but as points of view from which we perceive/conceive the world.”

Sennett calls this “*the fundamental human limit*”: language is not an adequate “*mirror tool*” for the physical movements of the human body” (Sennett, 2008, p. 95), signifying that language does not help to understand actions and properly describe skills. Diderot, in his “*Encyclopédie, ou Dictionnaire raisonné des sciences, des arts et des metiers*”, (1750-1776) admits the difficulty of understanding and explaining skills with words: he, himself, tried to learn the basics of most of the skills he documented in his work. He had to go through an embodiment process, confirming what I just stated: the thinking/abstracting process can happen only if a Making session has taken place. Then, to express what he learned in the best possible way, Diderot used images, which illustrate step by step the production processes used by craftsmen (Sennett, 2008, p.88-104). Designers, who work in an international context, face yet another issue: they are asked to read, write and speak in English about their (physical) skills, according to mental patterns that often do not belong to them, that are far from their cultural consuetudes, consequently reducing their expression possibilities. And design is about expressivity.

Socio-cultural Perspective: the smile of the Enlightenment (c)

The third argument inducing me to support empowering the Making as a leading force is the socio-cultural argument. Galimberti claims that young people in the Western world, live in the shadow of nihilism, because all horizons of meaning have been upset or have disappeared (*orizzonti di senso*) (Galimberti, 2007). This disappearance of meaning is a complex phenomenon, hard to grasp and problematic to describe. It emerges from the lack of possibilities of changing one’s condition. It finds motivations in the disappearance of external teleological aims, such as ideologies

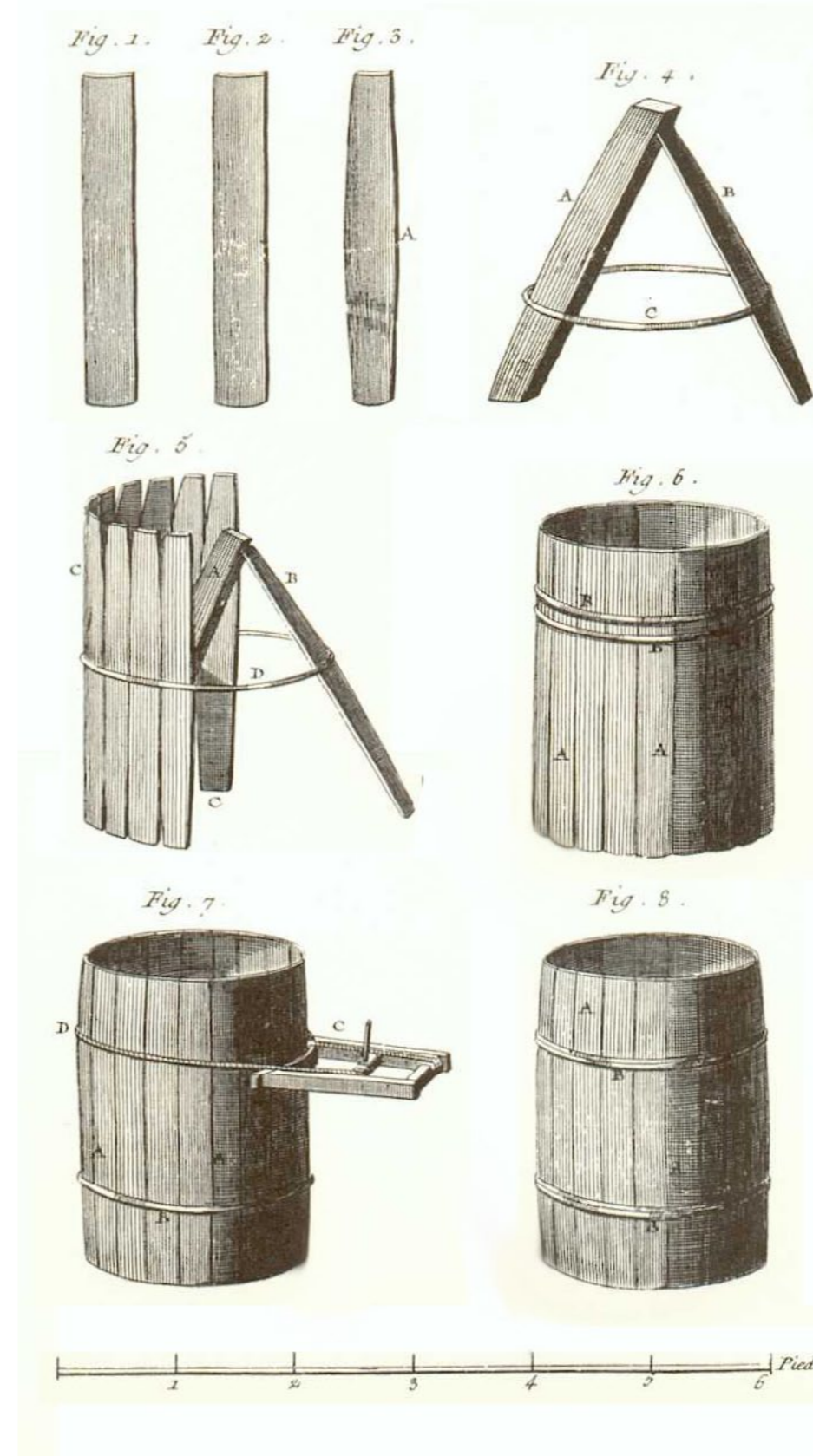


Fig. 6. illustration of the Encyclopédie on how to build a wooden barrel

1. “is an implement that invites us to think about ourselves” (Sennett, 2008, p. 84)

and religious frameworks. It emanates from the fragmentation of the globalised world and in the loss of importance of the Western role, within this new geographic ecology. It manifests through the crumbling of hopes for improvement of the new generations. The hedonism of the ephemeral, reflected in the mechanisms of financial markets, of social networks and television imagery, is a new form of alienation. Marxian alienation consisted in the loss of contact with the finished product and the decoupling between manual work and final result. With the industrial revolution, the worker became a cog of a bigger mechanism, whose general purpose and nature was not perceived by the worker himself. The new alienation consists in another – more complex – sort of destabilising decoupling between cause and effect: the contact with the matter (materiality) is lost. In the so called “service” society it is not clear what to be proud of at the end of the working day, exactly as it happened to Marx’s worker,

for different reasons. This creates a vertigo, where new generations lose their point of reference and float in flocks – refugees of the soul – searching for new reference points, a new way of breathing, living, moving and, most of all, making sense of the world.

A strong counter-image is a serene craftsman that transforms matter, leaving his traces and impressing his values on it. His work makes him proud and fulfilled. There is a healthy, cathartic and thaumaturgic aspect related to making, that makes of laboriousness an attribute for good people. Why this positive connotation? Is it perhaps because making is constructive, because it is by definition an additive, positive process?



Fig. 7. Pieter Bruegel de Oude - De Val van Icarus. The fall of Icarus, where Icarus is drowning in the bottom right corner, while workers are portrayed doing their job, careless of Icarus' destiny.

During the Enlightenment, this aspect of harmony created by the craftsman at work is shown by the images portrayed in the *Encyclopédie* by Diderot: all the skilled people appearing in those images emanate purposefulness and dynamic beatitude.

Even the exponents of Enlightenments appear in all paintings with a serene smile, without any trace of sarcasm. The calm optimism that emanates from this iconography is an evidence of the spirit of the time.

The Enlightenment is the period in which manual skills were seen with admiration and praised more than intellectual activities, which were considered arid and *per se*. Merely intellectual activities had, according to the thinkers (and makers) of that period, no substantial consequences for social progress and well being, while craftsman could produce valuable commodities. In the first chapter of this part, I mentioned the definition of Enlightenment given by Immanuel Kant on the *Berlinische Monatsschrift* in 1784. He stresses the refusal for dogmatic knowledge and blind respect for tradition, while encouraging a new kind of knowledge based on our own free intellect and not on a pre-packaged conscience. He praises the necessity of unity between intuition and thinking: intuition, without thinking is blind and concepts without intuitions are empty (Ferraris, 2009). This statement supports what I discussed in the previous chapter on Making, when I stated that the practice of intuition in a making process prepares the ground for the unforeseen, i.e., new knowledge. As mentioned in the chapter "*Skills for an ethical society: a new civilisation*", the definition posted by Moses Mendelssohn (1784) proposed the equation: *Bildung = Kultur + Aufklärung*. This equation has a profound implication for this work: it is only by being able to make "things" (*Kultur*) and reflecting on them outside of dogmatic schemes, practicing autonomy (*Aufklärung*) that human values can be formed and civilisation can progress. In other words *it is only through the combination of making and thinking that ethics becomes pervasive*.

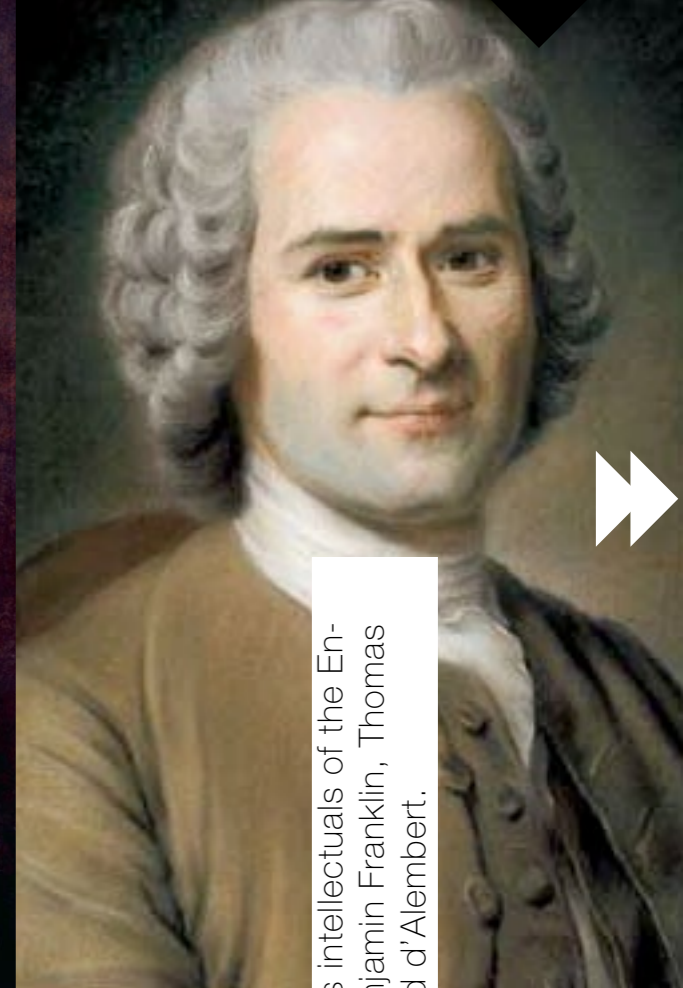
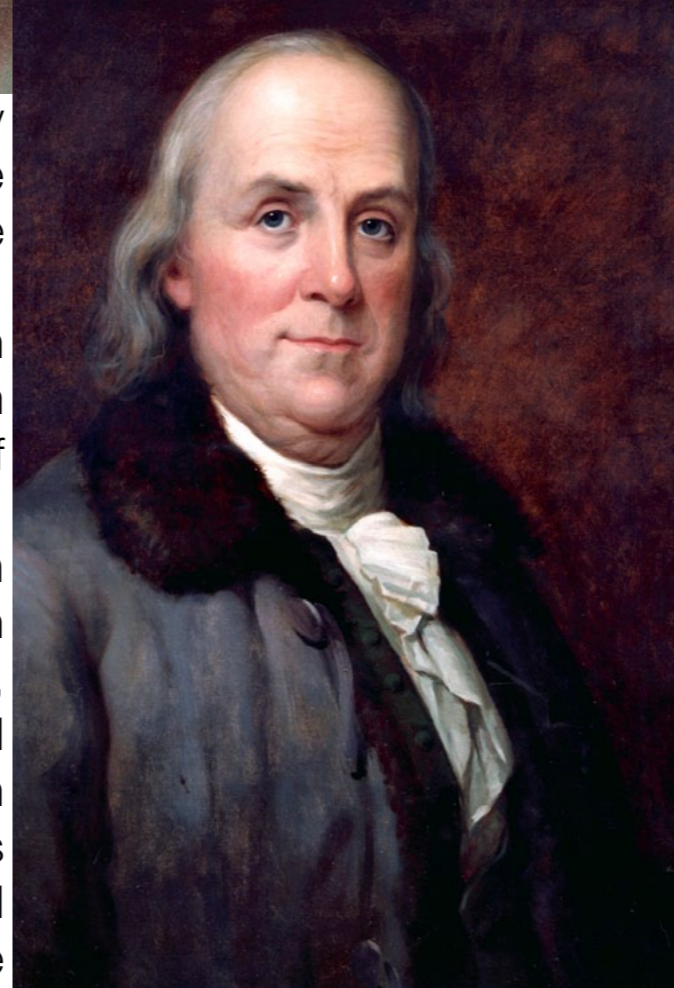


Fig. 8. The smile of the Enlightenment. Images of famous intellectuals of the Enlightenment: Denis Diderot, Jean-Jacques Rousseau, Benjamin Franklin, Thomas Jefferson, Charles de Montesquieu, Voltaire, Jean le Rond d'Alembert.

3.4 CONCLUSION: THE FOUNDATION OF RTM

The combination of the actions arising in the first part of this thesis², and the conclusions deriving from this theoretical background, create the foundations on which the Rights through Making approach is based. Let me resume the main three elements arising in the present chapter:

(a) the phenomenological stand shows that, in a (design) team, it is necessary to make together, rather than talk together, in order to actually integrate skilful points of view. The integration of skilful points of view educates empathy. It thus enables to design in respect of diversity and therefore to design for ethics; (b) making is necessary to respect designers' expressivity or it is the most suitable language to do it; (c) the sociocultural perspective gives the grounding to state that the iterative combination of making and thinking (reflection-on-action) empowers towards the exercise of autonomy. The daily practice of autonomy, combined with the daily practice of empathy eventually lead to the desired praxis of pervasive ethics.

In the next part I describe how I applied this theoretical framework into workshops, according to what initially is proposed in the manifesto.

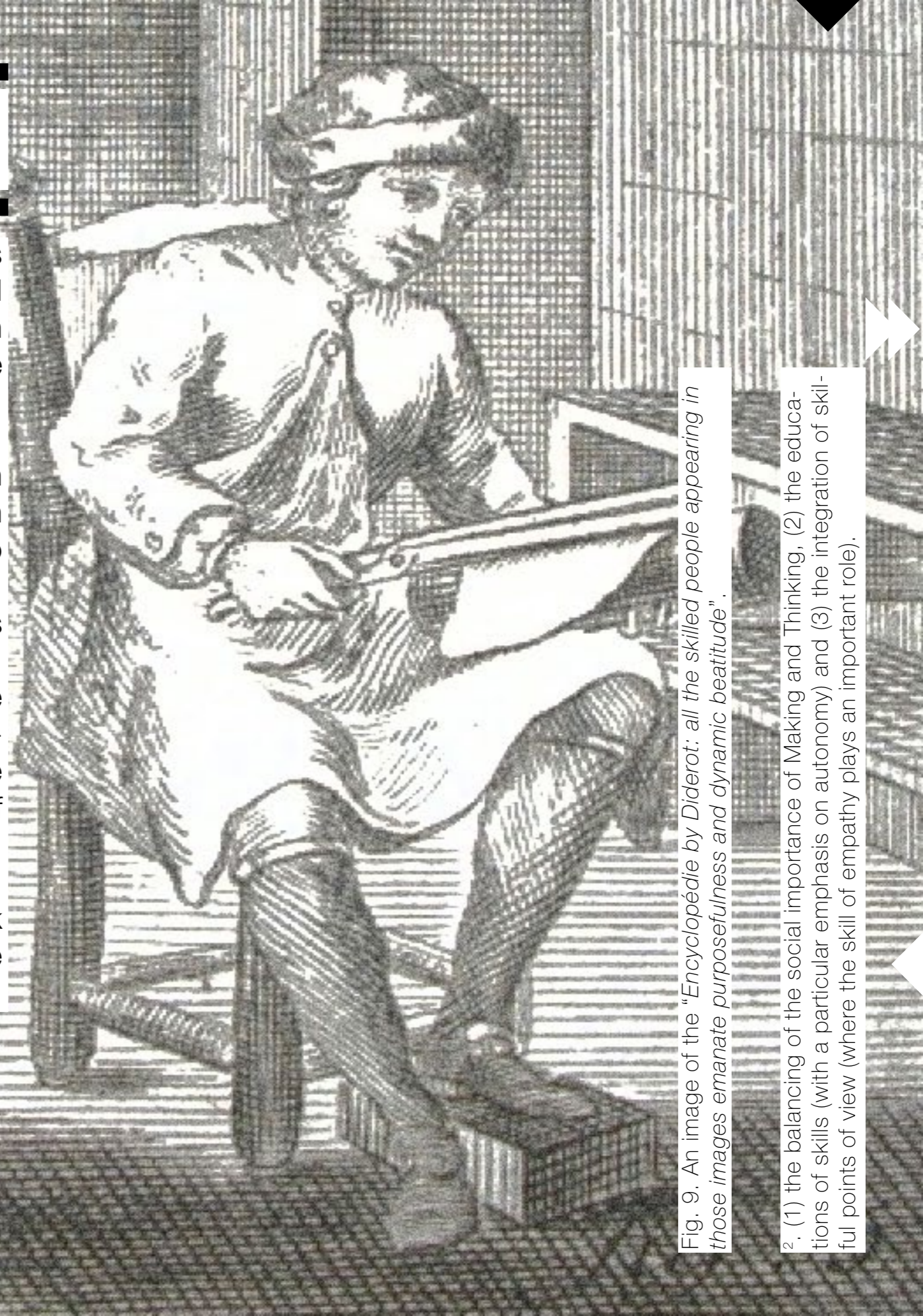


Fig. 9. An image of the "Encyclopédie by Diderot: all the skilled people appearing in those images emanate purposefulness and dynamic beatitude".

². (1) the balancing of the social importance of Making and Thinking, (2) the educations of skills (with a particular emphasis on autonomy) and (3) the integration of skilful points of view (where the skill of empathy plays an important role).

PART 3

THEORY'S
EVALUATION
THROUGH
WORKSHOPS AND
RTM APPROACH
DEVELOPMENT



PART 3 - THEORY'S EVALUATION THROUGH WORKSHOPS AND RTM APPROACH DEVELOPMENT

1. DESIGNING FOR POINTS OF VIEW

- 1.1 Horizon and approach
- 1.2 Description of the Workshop's set up
- 1.3 Sijme's scissorhands: an example
- 1.4 Evaluation of the workshop

2. WORKSHOPS' OVERVIEW

- 2.1 WS 1 - Rights through Making
- 2.2 WS 2 - Wearing Quality
- 2.3 WS 3 - Bionic Wearables
- 2.4 WS 4 - Cultural Waves
- 2.5 WS 5 - Urban Lights
- 2.6 WS 6 - Metamorphic Fashion
- 2.7 WS 7 - Trial for collaborative design space

3. WS 5 - URBAN LIGHTS: AN EXAMPLE

- 3.1 Workshop's Preparation
- 3.2 The workshop
- 3.3 The workshop's model

4 THE INTERNET PLATFORM: COLLABORATIVE DESIGN SPACE

- 4.1 Motivation
- 4.2 Experiment's preparation
- 4.3 The design space's evolution and in business
- 4.4 Future implementations in academics



PART 3 RIGHTS THROUGH MAKING (RTM) WORKSHOPS

In this part I illustrate how the theoretical framework that is expressed in the first part of this thesis, was materialised into the Rights through Making approach.

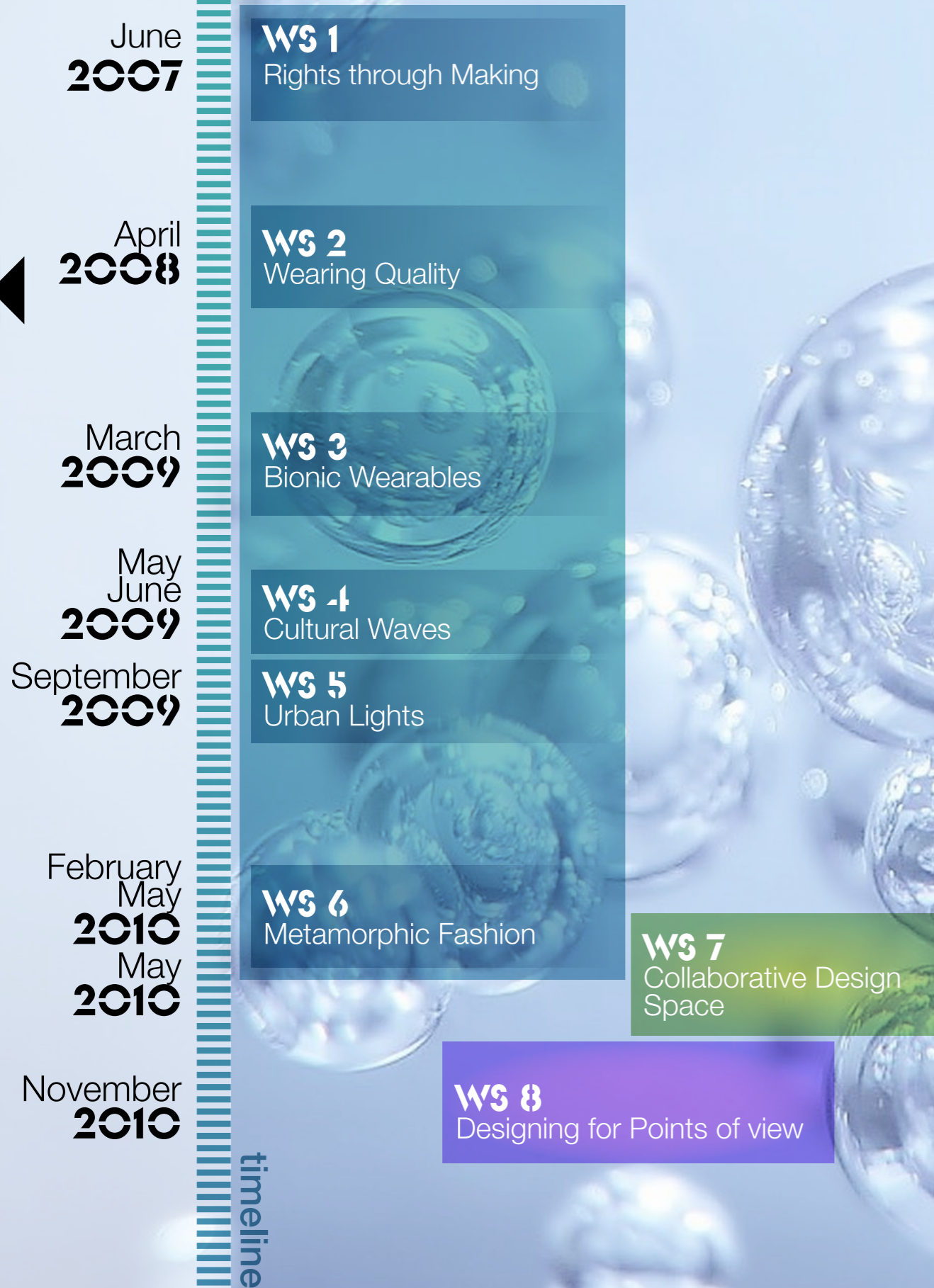
The Manifesto of ideals and vision written as a kick off of the present research project, expressed the desire to materialise Universal Human Rights through multicultural workshops:

“The project proposed in this document focuses on eliciting and raising awareness. This sharing activity leads to the construction of a design network between individual designers, design research institutes, governmental and non-governmental institutions, educational institutions and (design) companies.

Our approach starts with workshops to be held around the world, in places where there is a focus on challenging political, social or scientific situations. During these workshops, designers from the participating countries design products or systems (communication, services, business, education) that empower, entice and seduce people to reach the ideals contained in the Universal Declaration of Human Rights, through “to kalon”, a synthesis of beauty and good. With the use of such products, we aspire to promote the respect of human rights, as part of the everyday life of multicultural societies. We base these workshops on the Universal Declaration of Human Rights, for we believe in the authority of this agreement on basic rights and values amongst different countries and cultures all over the world.



Fig. 1. Students working during WS 5 - Urban Lights, Eindhoven.



Furthermore, we believe that the designing of products and systems should take advantage of the newest technologies available to mankind and of their integration with the locally available “making” skills and techniques – saper fare – respecting, therefore enriching, habitats and cultures.” (Trotto et al. 2008)

In four years of research, 8 “Rights through Making” (RtM) workshops were realised and every time the approach was refined according to the previous experience, to pursue the aims stated in the Manifesto and to prove or disprove, evidenced by design results, the effectiveness of this approach. The eight workshops, in chronological order, are the following:

- ▶ WS 1 – Rights through Making (Trotto et al., 2008)
- ▶ WS 2 – Wearing Quality (Trotto et al. 2009)
- ▶ WS 3 – Bionic Wearables (Trotto et al. 2010)
- ▶ WS 4 – Cultural Waves
- ▶ WS 5 – Urban Lights (Trotto et al. 2010)
- ▶ WS 6 – Metamorphic Fashion
- ▶ WS 7 – Trial for the Collaborative Design Space
- ▶ WS 8 – Designing for Points of View (Trotto et al. 2011)

In the body of this thesis, I describe 3 of them, in this order:

- ▶ WS 8 – Designing for points of view
- ▶ WS 5 – Urban Lights
- ▶ WS 7 – Trial for Collaborative Design Space.

Fig. 2. The distribution of workshops along time. In this scheme, it is visible how the first six workshops belong to the same group; with WS 7 and WS 8 I have investigated other aspects.

The other 5 workshops are described in detail in the Annexes of this thesis.

The choice of presenting them in this order, which is different from the chronological one, is aimed at appropriately explaining the Rights through Making approach.


The first 6 workshops belong to the same family. The length, structure, the given assignments, themes and tasks, are comparable, although the format was incrementally refined in time. This is why I only present one of them, the 5th (WS 5 – Urban Lights), which is the most representative of the series. The 7th workshop (WS 7 – Trial for the Collaborative Design Space) was done, while the 6th workshop (WS 6 – Metamorphic Fashion) was still going on, because there were two critical points that kept being unsolved, during the first series of workshops. The first point was about the limitation in space and time of the first 6 workshops. If the aim is to achieve pervasive ethics through design, a larger amount of people should be reached. The idea is to use the Internet as a platform to achieve this goal. I expand in chapter “4 Internet platform: a collaborative design space”. The second critical point is the actual integration of skilful points of view. In the first six workshops, having students actually making together did not happen as I wished. Workshop WS 7 - Trial for the Collaborative Design Space was an improvement, but not radical. The key workshop, which completely tackled this aspect, was the 8th (WS 8 – Designing for Points of View). This is why I present it before the others. It really touches the focal point of the RtM approach. Placing it before the others in this thesis allows the reader (1) to understand what my aim was; (2) to better see what did not work in the other workshops I describe; (3) it leaves the space to imagine how these other workshops could have better worked, keeping the first experience in mind.



Fig. 3. Detail of Lap, outcome of WS 6 - Metamorphic Design; designed in 2010 by Danilo De Roberto, Beatrice Donati, Laura Pierleoni, Marco Bottone, Elena Salusti



This part of the thesis is therefore structured as follows.



In chapter “1 *Designing for Points of View*”, I illustrate the focal workshop. During this experience, I tackled the most relevant aspect of my endeavour: the integration of skilful points of view. After that, in the chapter “2 *Workshops’ overview*”, I introduce an overview of results of the other workshops. I present, for each workshop, a factsheet containing information that help in contextualising it. For every of them, I list the design outcomes and I show some of the videos illustrating such outcomes. Although the results are not the key element to evaluate the Rights through Making approach, I believe they are indeed useful for the reader to acquire an overall impression of what has happened along the years.

The detailed description of WS 5 – Urban Lights follows, with the complete process, in chapter “3 *WS – Urban Lights*”.

In “4 *The internet platform: collaborative design space*”, I describe how I envision the diffusion of the Rights through Making approach on a different level than the present, explaining reasons and ways of creating a permanent online design platform and a trial online workshop that I realised to test such a possibility.

In the Annexes of this thesis, in “*The workshop’s process*”, I present the macro-steps of the workshops from 1 to 6. In “*The workshop’s approach evolution*”, I relate on the development of the approach, along these 6 workshops. In “*Reflections and evaluation of the RtM workshops*” I reflect on the first 6 workshops, on each steps, on the design outcomes and on the students’ growth in awareness.





Fig. 1. Points of Views, Source: <http://www.flickr.com/photos/amckelvie/779346319/>

POINT OF VIEW
: A WEIN FIC & VILCO
PO&YRQW-ATEM A



1. DESIGNING FOR POINTS OF VIEW, A META-WORKSHOP



1.1 Horizon and approach

1.2 Description of the Workshop's set up

Documenting one's own skill

Documenting person 1's skill by person 2

The design of a tool by person 1 to let person 3 experience person 1's skill

Documenting person 3's skill

Final presentation

1.3 Sijme's scissorhands: an example


Reformatting

Adjacency

Wonder

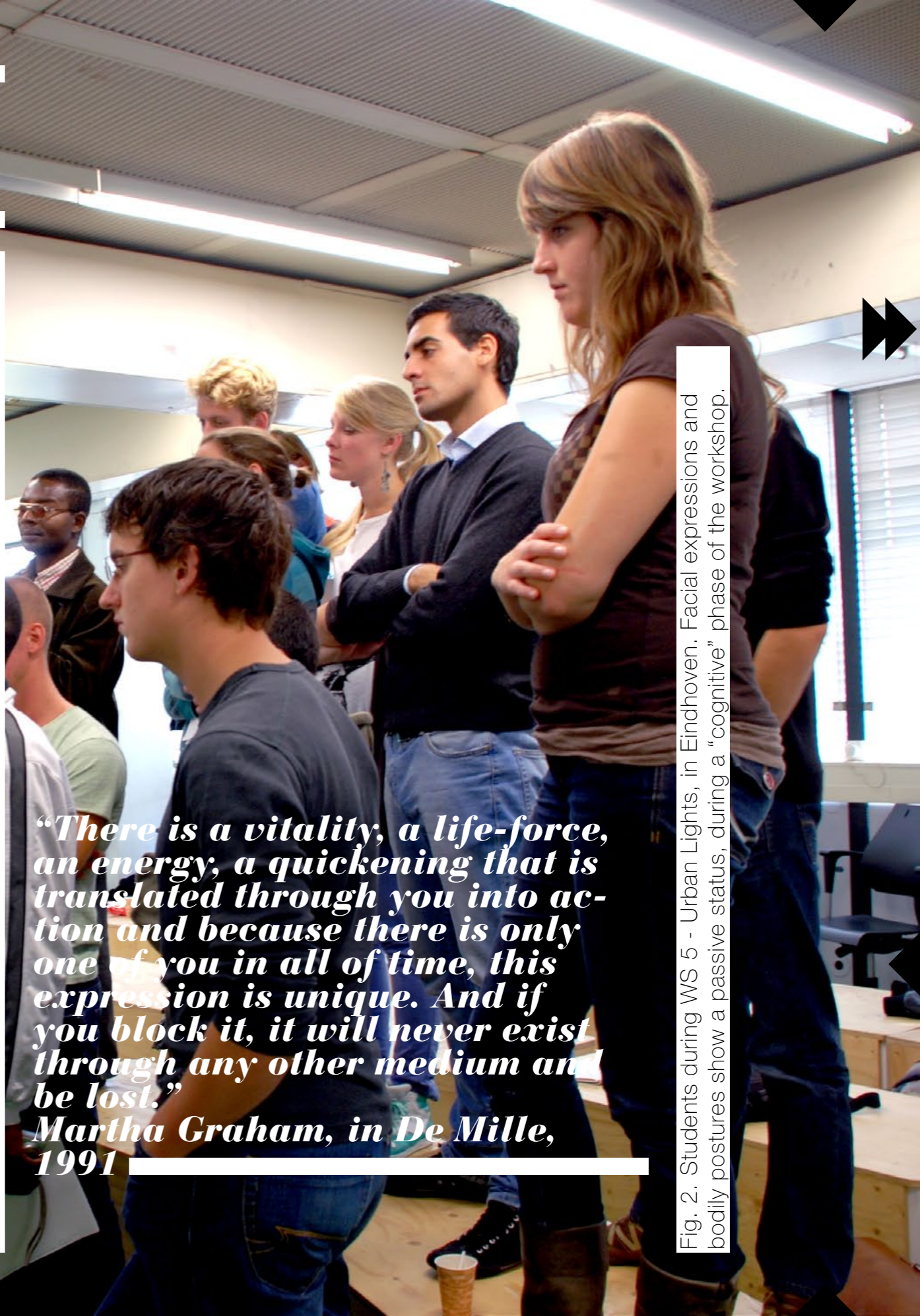
Gravity

1.4 Evaluation of the workshop



1.1 HORIZON AND APPROACH

In the second chapter of the first part, “2 *The Rights through Making approach*”, I introduced how the approach that I designed can empower towards pervasive ethics through design. The effectiveness of such approach became especially evident, once the last workshop was done: “*Designing for points of view*”. The most serious problem that emerged during the first 6 workshops, and that could not be completely tackled, in spite of the efforts, was the “sharing the language of making” phase. In order to do that, I went back to the foundation of what Making is. I consider Making (synthesising and concretising) an essential activity of designers, prior to Thinking (analysing and abstracting), because only through experience – a result of acting in the world – I achieve meaning, funnelling human intentionality. Making enables designers to explore the unknown by trusting their senses, exploring resistance and ambiguity and by tapping into their intuition (Sennett, 2008). Dijksterhuis and Nordgren (2006) show that intuition, or unconscious thought as they call it, is better suited for dealing with more complex matters than conscious thought. Designing, which is based on creating, is the highest form of (cognitive) complexity according to the “*Revised Bloom’s Taxonomy*” (Anderson, & Krathwohl, 2001). Intuition is not considered as an “official” *modus operandi*, because its use does not contribute to make the process repeatable by others. Yet, because of the complexity of design processes and of the intrinsic complexity of people – who will eventually use design products – intuition is an indispensable component in designing; it is the tool that empowers us to make choices



“There is a vitality, a life-force, an energy, a quickening that is translated through you into action and because there is only one of you in all of time, this expression is unique. And if you block it, it will never exist through any other medium and be lost.”
Martha Graham, in De Mille, 1991

Fig. 2. Students during WS 5 - Urban Lights, in Eindhoven. Facial expressions and bodily postures show a passive status, during a “cognitive” phase of the workshop.

along the iterations of a design process. Because “*intuition begins with the sense that what is not yet could be*” (Sennett, 2008, p. 201), it involves skills, as skills are our way to make sense of the world and transform it. Intuition is necessary to make leaps, and is “*an imaginative experience ... that guides us towards what I sense is an unknown reality latent with possibility*” (Sennett, 2008, p. 213). Therefore, training intuition is essential to become skilled in designing systems and products, especially if they aim at a radical shift of meaning. Going back to my initial goal – empowering people to integrate skilful points of view – I explored in this workshop how to achieve meaning through integrating points of view, using intuition through skills. The main two questions were: Can (a glance of) meaning be transferred to someone else in some way? Can externalising, visualising, changing and reflecting upon points of view enrich the design process, with new meaning?

I here first explain the overall set-up of the Master’s class, held at the Eindhoven University of Technology, in November 2010 (22nd-26th). Thereupon I describe one of the outcomes of the explorations. The outcomes of this workshops have been described in the paper “*Towards design-driven innovation: designing for points of view using intuition through skills*” (Trotto, A., Hummels, C.C.M., Cruz Restrepo, M., 2011). In this paper an accent was set on how the approach of this workshop could contribute to design innovation by means of generating new meaning. In this thesis, I describe the purpose of this experience as far as the ability of integrating points of view, triggering empathy and transferring skills into a design process are concerned.

Fig. 3. “remain in the cloud of abstraction (third person perspective), without putting themselves (first person perspective), their point of view, their experience, their skills into the design space, as basic ingredients for designing”

Focus: Experience sensitises people



Experience sensitises people, it entices towards the creation of tools to deal with things in the world. These tools are skills. Skills are the tools we use not only to deal with the world but, as designers, to transform it and to generate new meaning in our acting in the world. By means of skills, our experience is again transformed, in a feedback system. Our design activity can only be meaningful/generate meaning, if it goes through the filter of experience. Otherwise it remains at an abstract level of ideals and it cannot relate with the concrete reality of people, talk to their flesh and bones, vibe with their joys and sorrows, tackle their strengths and weaknesses, foster their dynamics and strive for balance.

In the early workshops (from WS 1 to WS 6), students managed to materialize the values expressed by an article of the Universal Declaration of Human Rights when they poured their (social, emotional, perceptual-motor) skills into the design process. This contributed to the awareness that the use of one's own skills is fundamental to design for ethics, i.e. to design for people. One can remain in the cloud of abstraction, but it is impossible, from there, to design for a real transformation in an ethical direction.

Video 1. Carolyn Carlson, Il vuoto nell'acqua, music by Luigi Nono, source <http://www.youtube.com/watch?v=8H9SEcOVz8A>

1.2 DESCRIPTION OF THE WORKSHOP'S SET UP

A group of 9 Master's students worked during a 5-days class on the assignment of individually designing an empowering/enabling tool that allows a third person to begin to experience the first person's skill. To be able to design such a tool, the students went through several steps of documenting and reflecting upon their own and each other's skills. Let me first explain the overall set-up of the class.

Documenting one's own skill

Each student was asked to choose a personal skill to focus on (ideally a physical one) and make a short video documentary on the relevant elements such as: What is the skill about? Why do you do it? What does it mean for you? Why is it important or meaningful? What do you experience and feel when performing the activity? The goal of this first video (video A) was for each student (person 1) to directly reflect on these questions, explore one's own point of view and skill, and prepare himself for telling the story to another student. The videos were at this point not presented to others, except for the lecturers.

Documenting person 1's skill by person 2

Later that day, "another" student (person 2) was asked to make a short video documentary (video B) about person 1's skill, based on a demonstration and explanation of it in the context, documented with an interview by person 2 and, if feasible, by letting person 2 try out the activity. At the beginning of day 2, every video B was presented to person 1 in order to show him a new perspective on his own skill. In this way, they would be able

to see and reflect on the point of view of person 2. What did person 2 consider to be meaningful for person 1, what was person 2's own point of view? By showing such a "mirror", person 1 could scrutinise their meaningfulness and point of view again, thus adding an extra layer of self-awareness. Person 1 was allowed to update their first video documentary (video A) based on their findings.

The design of a tool by person 1 to let person 3 experience person 1's skill

Near the end of day 2, students were asked to extrapolate one significant aspect of their skill, which would be the starting point to design a tool to enable another person (person 3) towards the aspect of the experience of the skill. Since another person that is not skilled can never experience person 1's skill in the same way, I encouraged the students to explore all senses and to design their enabling tool beyond the boundaries and context of the original skill. They had one-and-a-half day to build such tool and were allowed to test it in-between with person 2.

Documenting person 3's skill

Person 3 was asked to try the tool and to learn to master the accompanying skill in a time span of one hour, while being recorded on video. Then, person 3 would edit this video on his experience of using the tool and developing the skill, and on the meaning of this experience for them: video C.

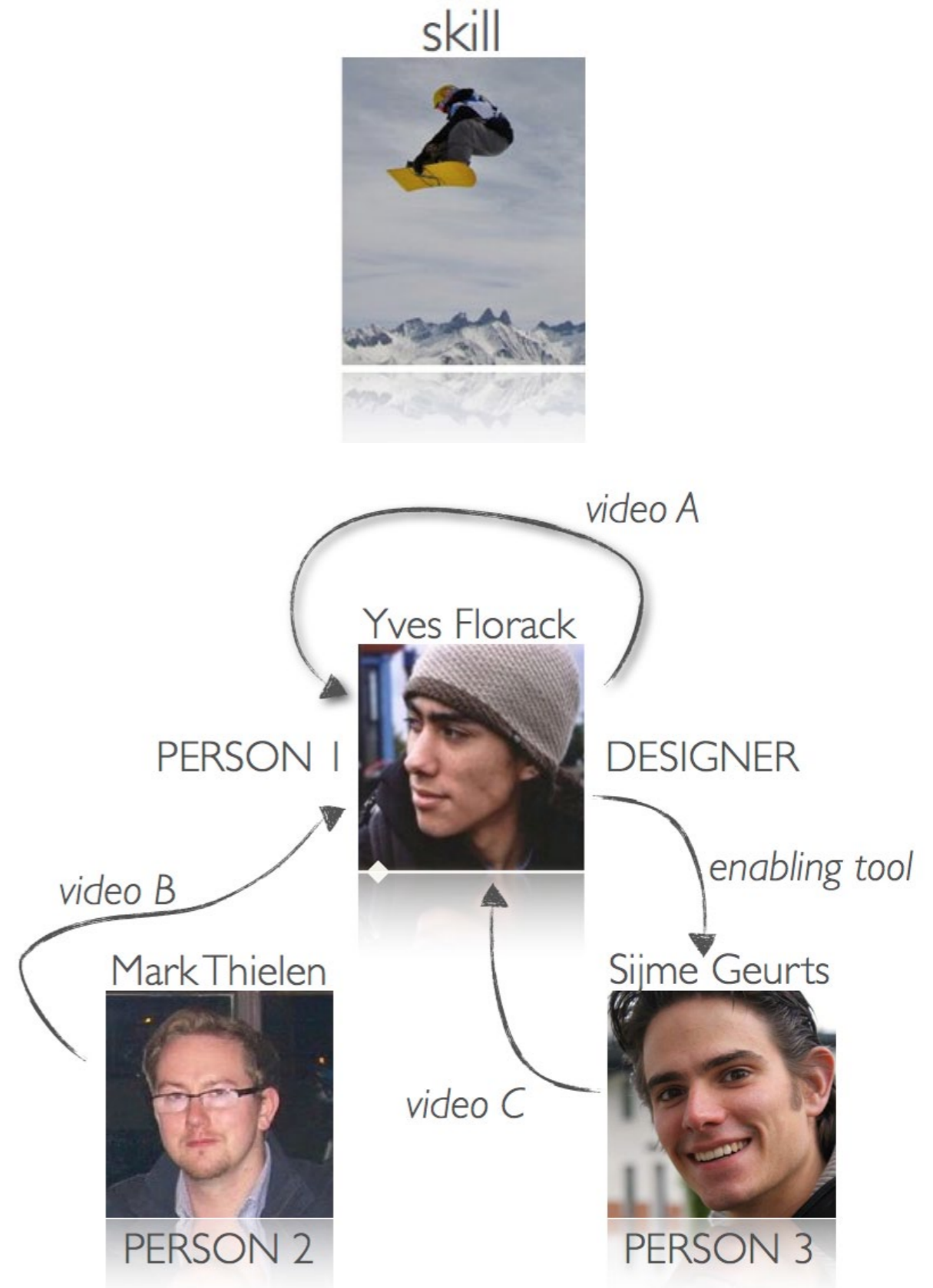
Final presentation

The final presentation took place in the afternoon of the fifth day. Every presenter (person 1) would show simultaneously videos A, B, and C and his design (experienceable tool), and meanwhile explain the process and reflect on it. This explanation included a reflection on the connections between the points of view and how this influenced his “prehension” of meaning. The class was concluded with an overall discussion on use of points of view, personal skills and intuition in the design process.

1.3 SIJME'S SCISSOR-HANDS: AN EXAMPLE

To explore how my approach enriches the design process by merging skilful points of view, and how it creates solution spaces towards shifts of meaning, I use Sennett's four stages of intuitive leaps: reformatting, adjacency, wonder and gravity (Sennett, 2008, p. 209), to describe one of the workshop's outcomes, i.e., Yves Florack's project.

Yves Florack (person 1) loves snowboarding, and he explored, through video A, what makes snowboarding meaningful for him. After he saw video B by Mark Thielen (person 2) reflecting his perception of Yves' skills, Yves refined video A and designed a cutlery tool for Sijme Geurts (person 3) to experience a glance of his prehension, perception and meaning of snowboarding, which appeared to come close.



Reformatting

Reformatting is the first intuitive leap Yves made. By definition, reformatting is “*the willingness to see if a tool or practice can be changed in use*” (Sennett, 2008, p.210); it is the abstraction phase. In order to design a tool that would allow another person to begin to experience aspects of snowboarding like he does, Yves tried to analyse relevant elements of his experience with this sport: the adrenaline rush of speed, jumping and landing, the hedonistic component of acrobatics, and so on. Because this specific experience, like most, is extremely context-dependent, it was necessary to abstract the essence of these aspects in order to isolate one salient element, thus operating the reformatting leap.

From Yves’s perspective, snowboarding essentially allows him to mould the world around him through an artificial extension of his body (or prosthesis). In order to master this skill, the person needs to reconsider the relationship between his/her body and the environment, because there is a shift in the physical possibilities and constraints. The snowboard, due to its form and material properties, allows Yves to constantly flatten and carve the snow surface in order to travel down smoothly and quickly. At the same time, the board constrains the independent movement of his legs forcing them to act as one entity, and, therefore, affording a different way of using waist, hip, knee and ankle joints. The board becomes part of a “system”.

The salient element in Yves’s snowboarding experience, and eventually his design focus, is therefore the *moulding of a material* through the mastering of new possibilities and constraints provided by an artificial extension of the body. This became his design brief.

Adjacency

The modelling of the material by means of a prosthesis, should allow smoothness and speed of performance to emerge and should empower feelings of control and power, qualities that Yves explicitly described as being important for his experience. In order for the intuitive leap to take place, the designer set an adjacency. Adjacency occurs when “*two unlike domains are brought together*” (Sennett, 2008, p.210). In this case Yves searched for a material (to be moulded, i.e., carved, crushed, cut, compressed, scattered, melt, mixed, ...) with similar qualities as snow; he chose to work with (soft) food. In order to transform edible ingredients (the material) into food (the moulded material), a person needs to acquire a level of mastering of kitchen utensils (tools that become an extension of the body).

In this domain, I can find some of the characteristics of snowboarding that Yves found relevant for his experience: speed, the act of showing off, danger, and, especially, the smooth interactive interplay between Man and matter. From this point, Yves had the foundation for the design of his empowering/enabling tool. The final design consisted of a pair of glove-like extensions of the hands with different kinds of knives, forks and kitchen tools embedded (see Figure 2). By wearing them, fingers would be unified and hands would acquire a new set of capabilities, with which the person would learn how to master in order to complete the task; in this case, making sandwiches.

It is through abstraction that Yves could understand the aspects of his skill that bring the experience to life in order to use them as the foundation for his design direction and decisions. By going through the adjacency leap, iterating between cycles of abstraction and concretization, a designer is able to reach innovation, not through re-designing, but instead, because of the shift in domain, through looking at activities and designing for them from an experiential perspective.

Wonder

Retrospectively, it is possible to clearly see in Yves design the adjacency leap, or domain shift, from moulding snow to transforming food. During the process, though, these steps were not necessarily done consciously. His intentionality in and through design was based on trusting his intuition. At this point in the process, the actual making and trying-out phase was the moment in which Yves “*dredg[ed] up tacit knowledge into consciousness to do the comparing [and was] surprised*” (Sennett, 2008, p. 211). As Sennett reminds us, the word wonder, in ancient Greek is embedded in *ποιεῖν (poiein)*, a word that indicates the act of making, which is also the root-word for poetry.

Ultimately, I am dealing with Beauty: when another student, Sijme Geurts, tried Yves Florack’s gloves for about 1 hour, what came out of his actions was beauty, the beauty of dexterity. The feeling of a smooth swiftness that a snowboarder achieves was successfully translated into the cutting and preparing of food. This moment of “wonder”, for both the designer and the observers, emerged after Sijme Geurts learned to master this new tool. The intended ease of movement was achieved and a clear dexterity was acquired: these scary scissor-hands - gaffer-taped scathing tools piled together - empowered Sijme Geurts with a beautiful swishing interaction quality and allowed him to



Fig. 4. Sijme Geurts learning to master his new scathing gloves, by making sandwiches; dexterity augments very fast and his movements become increasingly fluid and swooshy.

cut a bread in half as if he was using a regular knife; with similar ease and speed but with other aesthetic qualities. I was able to look beyond a traditional sense of beauty and aesthetics (that of a static form), ignore the fact that the tool was made out of cardboard and taped utensils, and truly find a new kind of beauty, the beauty of interaction.

Gravity

The last stage of intuition which allow us to see beyond what is there, once again through the use of abstraction, is “*recognizing that a leap does not defy gravity; unresolved problems remain unresolved in the transfer of skills and practices*” (Sennett, 2008, p. 211). There are two limitations that persist: the first concerns skills; as a matter of fact, an object in itself has hardly any meaning. It only becomes alive when it is not only used, but also mastered. In order to achieve the desired interaction quality, and the experience to come through, a skill has to be acquired. This was not only true for Yves design, but it was also a common trait of all of the designs resulting from this process. The second limitation is functional: by operating a domain shift, the experience of snowboarding inspired a new kind of cutting, a tool was designed, whose functionality is limited to cutting and clearly cannot serve to anything else.



Fig. 5. A pile of chairs

1.4 EVALUATION OF THE WORKSHOP

Because of the change in points of view, students were able to not only get more insight into their own skills by looking at them through someone else's eyes, but also found ways of communicating through experienceable designs, what those skills mean to them in relation to the overall experience. According to what Yves Florack wrote in his reflections, Sijme Geurts' documentary conveyed the resemblance of using the enabling tool and Yves' experience of snowboarding. Yves Florack though complained about Sijme's inability of using the gloves in unexpected and acrobatic ways, as you do in snowboarding (e.g. jibbing), but this would have plausibly happened if Sijme had the time to become more skilful in using them. All this shows that, at the very least, a glance of meaning was in fact transmitted through externalising, visualising, changing and reflecting upon points of view. Most importantly, Sijme Geurts learned an aspect of Yves Florack's skill and felt a small part of the feeling that he gets from snowboarding because it did not stay in the abstract realm of words and cognitive messages and was made concrete, by making it experienceable. Empathy was triggered. Because meaning emanates from (inter)acting in the world, words would not suffice and Making becomes crucial. Since the students were able to see from different perspectives how they can create and communicate meaning through design as well as experience it through action, I believe that they will, from now on, change their approach towards design, as several of them wrote in their reflections.

I am able to conclude that the bodily knowledge of skills is able to add to the design scope, because the final result that I show

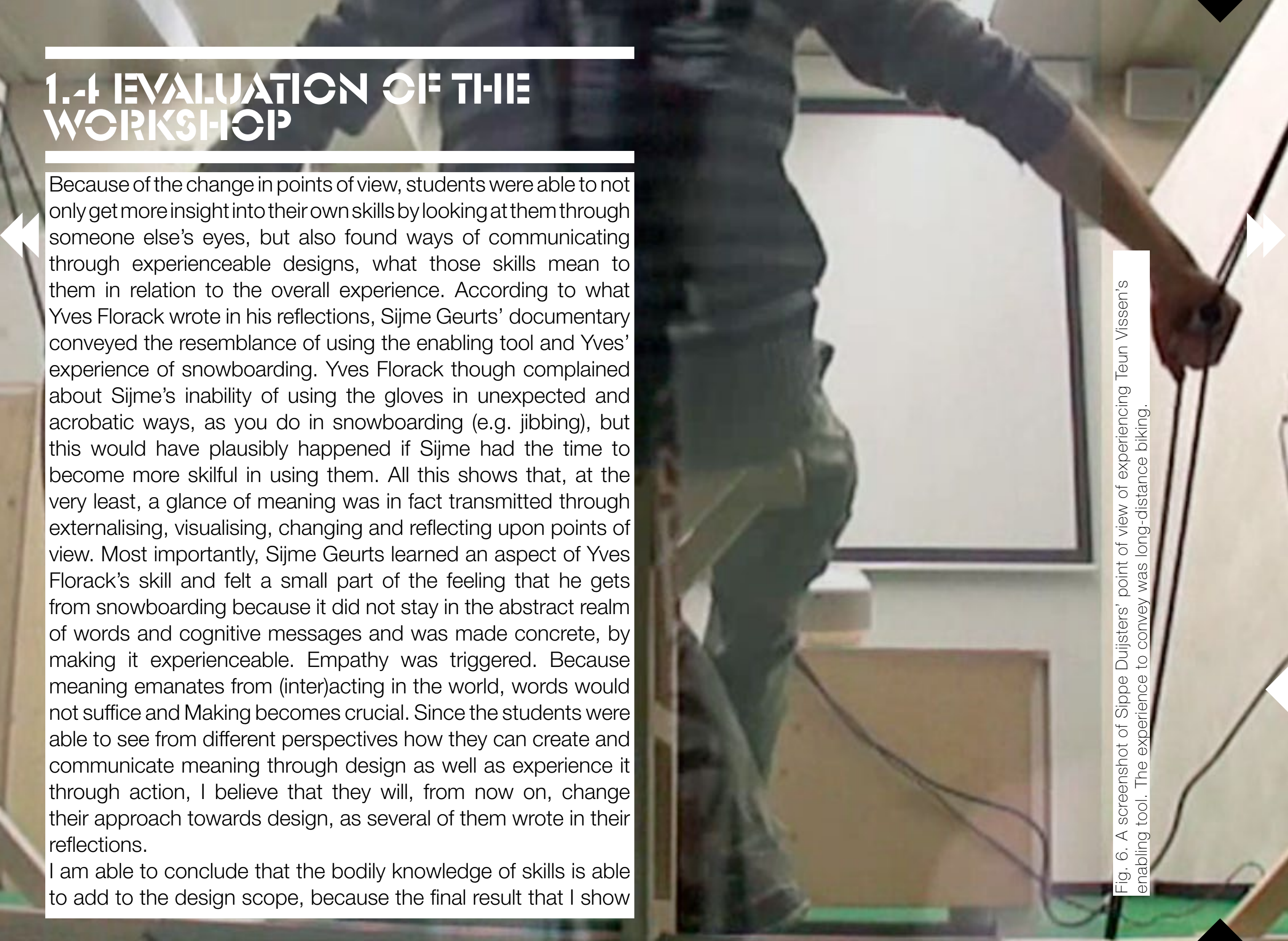
A person is shown from the side, wearing a dark long-sleeved shirt and dark pants. They are holding a long, thin, black cable or rope that extends across the frame. The background is a plain, light-colored wall. The image is slightly blurred, suggesting motion or a focus on the action of using the tool.

Fig. 6. A screenshot of Sippe Duijsters' point of view of experiencing Teun Vissen's enabling tool. The experience to convey was long-distance biking.

proved to be a rich experience for the person that tested: when Sijme started swishing the sharp gloves on food, moving his arms and hands as in a contemporary dance performance, I understood I succeeded. Of course his experience was not the same as snowboarding, but it was, without a shadow of a doubt, richer and more meaningful than a told story and his view on cutting and preparing food has now changed forever. This result has been obtained not only by starting from one's own skills, but also thanks to the integration of different points of view. The ideal design process that I envision, through the application of RtM, uses people with different skills and (cultural) backgrounds, in a context that catalyses collaborations and multidisciplinary processes, creating mutual enrichment. The approach developed in this class showed to be fruitful in this sense: I required students to externalise their point of view, to visualise it by means of videos, to refine or change it as a consequence of confronting it with others', to reflect on it, and to design for it, so that other people would be able to experience it. The enabling tool designed by Yves Florack, but also the ones designed by the other students working on this assignment, contributed to illustrate that my aim was achieved: the integration of different points of view is possible and the use of intuition, enabled by starting to design from one's own skills (enabling the first person perspective), concur to enrich a design process and build the basis for a richer result in terms of meaning. And since this approach promotes iterations of Making and Thinking and it integrates skilful points of view, it empowers towards pervasive ethics: by generating new meaning, new, shared values are formed and civilisation can progress, in the symphonic richness of complex diversity.



Fig. 7. Enriching through Points of View

Fig. 1. Outcomes of the Rights through Making workshops.






2. WORKSHOPS' OVERVIEW



WS 1 – Rights through Making



WS 2 – Wearing Quality



WS 3 – Bionic Wearables



WS 4 – Cultural Waves



WS 5 – Urban Light



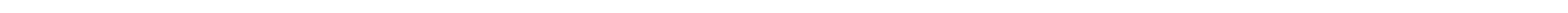
WS 6 – Metamorphic Fashion




WS 7 – A trial for a collaborative design platform




WS 8 – Designing for Points of View






In the next pages, we present 6 charts, each of them containing facts and figures of the first 6 Rights through Making workshops. The results of each workshop are accessible online in the internet site showcase www.rightsthroughmaking.org

Each outcome is there presented by means of a short description, several images of the process and the final designs and videos of the experiential prototypes.

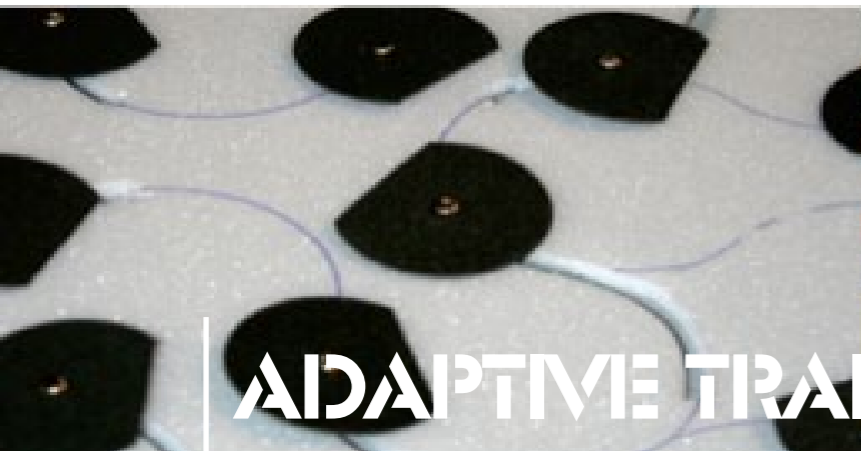


The level of definition of these charts increases along time and the terminology changes. We decided not to make it uniform, leaving these differences visible, to show the evolution of the workshop format in time. In the next two chapters we describe (3) WS 5 - Urban Lights and (4) the Internet Platform: collaborative Design space.



WS 1 RIGHT THROUGH MAKING

Date	28th May 2007 – 2nd June 2007	
Location	Eindhoven University of Technology, Department of Industrial Design	
Partners	Eindhoven University of Technology, Department of Industrial Design Università di Firenze, Corso di Laurea in Disegno industriale	
Coaches	Kees Overbeeke, Caroline Hummels, Ambra Trotto	
Students	Eindhoven University of Technology, Department of Industrial Design Università di Firenze, Corso di Laurea in Disegno industriale	Annegien Bruins, Geert Bullens, Ivo de Boer, Linda de Valk, Irene Joris, Floor Mattheijssen, Joanne Riekhoff, Dick Rutten, Roanda Steba, Jos Verbeek Jacopo Bonacci, Patrizia Cacciapuoti, Gloria Cerretani, Francesco Ciardi, Carolina Iraci, Francesca Puma, Meri Seto, Mauro Solmi, Tsuyoshi Takagi, Joan Veling
Nationalities	Italian, Dutch, Japanese	
Contributors	–	
Task	Design an interactive wearable system or product that enables people towards human rights (based on the assigned article)	
Theme	–	
Assignment	–	
Deliverables	▶ experiential prototypes ▶ meaningful presentations	
Publication(s)	▶ Trotto, A., Hummels, C.C.M., Overbeeke, C.J., Cianfanelli, E., Frens, J.W., Goretti, G., (Eds.) (2008) Rights through Making. Firenze, Polistampa. ▶ www.rightsthroughmaking.org	



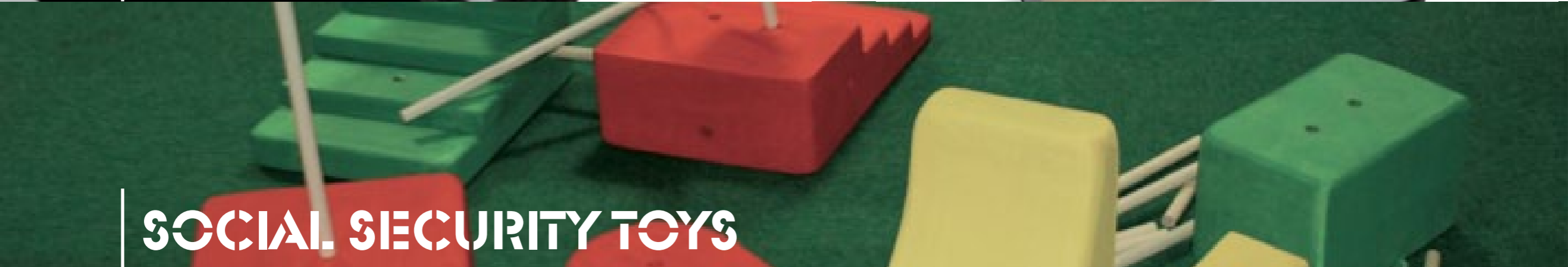
ADAPTIVE TRAINS



AMBROSIA



TREASURE BOX



SOCIAL SECURITY TOYS

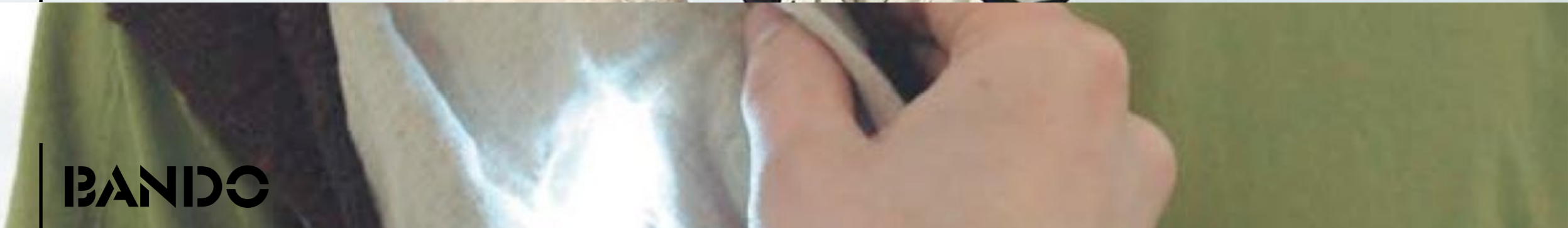
WS 2 WEARING QUALITY

D ate	14th April 2008 – 18th April 2008				
L ocation	Florence, Palazzo Vegni and Corso di Laurea in Progettazione della Moda (Scandicci)				
P artners	Eindhoven University of Technology, Department of Industrial Design Università di Firenze, Corso di Laurea in Disegno industriale Università di Firenze, Corso di Laurea in Progettazione della Moda				
C oaches	Kees Overbeeke, Joep Frens, Caroline Hummels, Ambra Trotto				
S tudents	<table><tr><td>Eindhoven University of Technology, Department of Industrial Design</td><td>Lilian Admiraal, Ehsan Baha, Saskia Bakker, Laurens Boer, Bram Braat, Laurens Doesborgh, Bart Dohmen, Tom Frissen, Jan Gillesen, Eva Hopma, Jelle Stienstra, Rob Venstra, Jing Wang, Arne Wessels, Joris Zaalberg</td></tr><tr><td>Università di Firenze, Corso di Laurea in Disegno industriale</td><td>Lorenzo Carrara, Simone Fiori, Federico Laguzzi, Claudio Manetti, Axl Pizzinini, Alessandro Pol, Renata Romano Rocha, Marco Sforza, Federico Tecchi, Stephanie Unson, Ilaria Visca</td></tr></table>	Eindhoven University of Technology, Department of Industrial Design	Lilian Admiraal, Ehsan Baha, Saskia Bakker, Laurens Boer, Bram Braat, Laurens Doesborgh, Bart Dohmen, Tom Frissen, Jan Gillesen, Eva Hopma, Jelle Stienstra, Rob Venstra, Jing Wang, Arne Wessels, Joris Zaalberg	Università di Firenze, Corso di Laurea in Disegno industriale	Lorenzo Carrara, Simone Fiori, Federico Laguzzi, Claudio Manetti, Axl Pizzinini, Alessandro Pol, Renata Romano Rocha, Marco Sforza, Federico Tecchi, Stephanie Unson, Ilaria Visca
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Università di Firenze, Corso di Laurea in Disegno industriale	Lorenzo Carrara, Simone Fiori, Federico Laguzzi, Claudio Manetti, Axl Pizzinini, Alessandro Pol, Renata Romano Rocha, Marco Sforza, Federico Tecchi, Stephanie Unson, Ilaria Visca				
N ationalities	Italian, Dutch, Brazilian, Chinese, Iranian, American				
C ontributors	Museo dei Ragazzi in Palazzo Vecchio, Fondazione Arte della Seta Lisio, SAPAF, Decobel				
T ask	Design an interactive wearable system or product that enables people towards human rights (based on the assigned article)				
T heme	-				
A ssignment	Design a product that combines traditional accessory and garment production with high-tech				
D eliverables	experiential prototypes meaningful presentations				
P ublication(s)	Trotto, A., Hummels, C.C.M., Overbeeke, C.J., Cianfanelli, E., Frens, J.W. (Eds.) (2009) Rights through Making, Wearing Quality, Ethics in Design n°2. Firenze, Polistampa. Trotto A. et al. (2009), Rights through Making: 9 projects, in Smart Textile Salon proceedings, 25th September 2009. Ghent University, pp. 59-62. www.rightsthroughmaking.org				

 GLOWWE

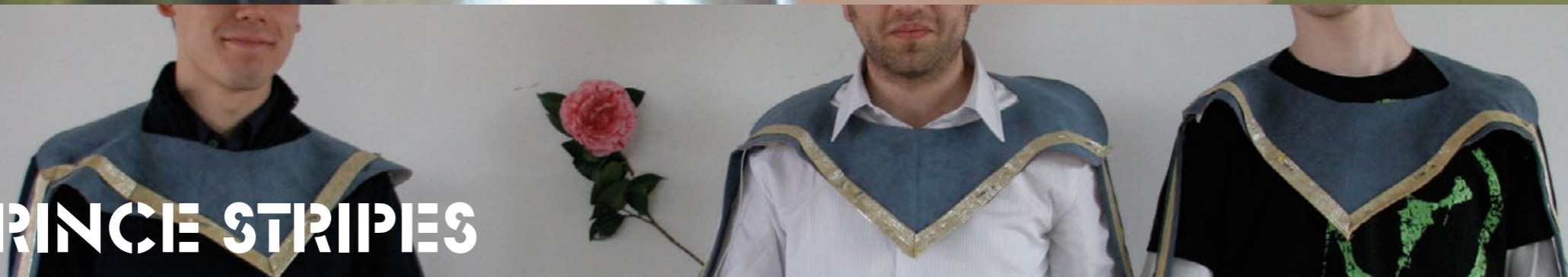


 INTOUCH

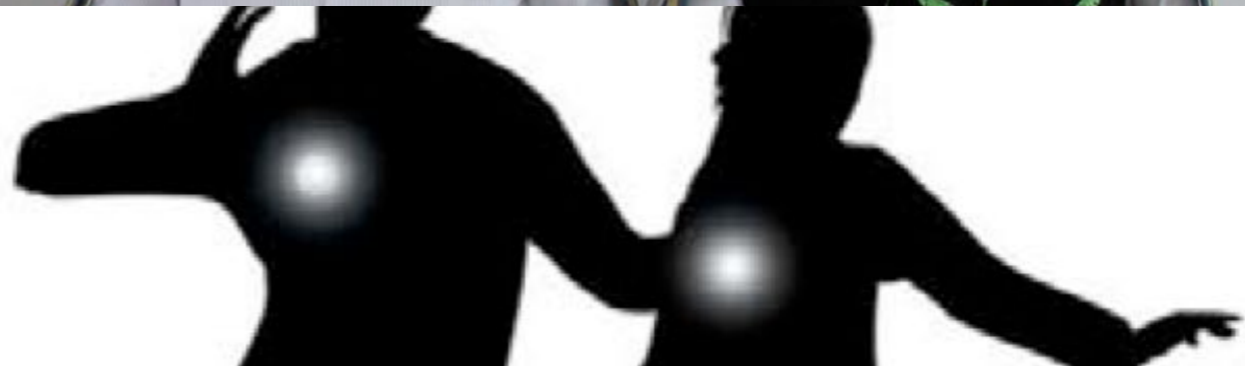


BANDO

PRINCE STRIPES



BROOCH OF BELIEF



WS 3 - BIONIC WEARABLES

Intelligent wearable products able to enhance social interaction in urban environments

Date	16th – 21st March 2009	
Location	Eindhoven University of Technology, Department of Industrial Design	
Partners	Eindhoven University of Technology, Department of Industrial Design Università di Firenze, Corso di Laurea in Disegno industriale	
Coaches	Kees Overbeeke, Joep Frens, Michael Cruz, Caroline Hummels, Gabriele Goretti, Elisabetta Cianfanelli, Ambra Trotto	
Students	Eindhoven University of Technology, Department of Industrial Design	Jeroen Witjes, Joran Damsteegt, Gilles van Wanrooij, Bas Goudsmit, Barbara Schachter, Jeanine Kierkels, Niek Otten, Edward Drabovitch, Eveline Brink, Kim Böhre, Erik van Erp, Eric Toering, Enaut Arratibel Kortabarria, Frank de Jong, Ruud Schatorjé, Jeroen Brok, Jesper Schwachöfer, Pakwing Man, YouYou Yang, Jasper Pieterse, Jan Belon, Niko Vegt
	Università di Firenze, Corso di Laurea in Disegno industriale	Matteo Gioli, Filippo Castellani, Luca Laureana, Anna Bonciani, Erika Cellai, Simone Morelli, Veronica Cornacchini, Erica Battaglia, Federico Perruccio, Silvia Piantini, Giulia Mari
	Università di Firenze, Corso di Laurea in Progettazione della Moda	Sara Spolverini, Michela Gadani, Laura Meneghello
Nationalities	Italian, Dutch, Basque, Hungarian, Chinese	
Contributors	-	
Task	Design an interactive wearable system or product that enables people towards human rights (based on the assigned article)	
Theme	Social interaction in multicultural cities	

Assignment

- ▶ design a wearable interactive product
- ▶ dedicated to social interaction in urban environments
- ▶ enabling people towards human rights
- ▶ endowed with fashion values

Deliverables

- ▶ strong concepts dedicated to the urban man, living in multicultural towns
- ▶ beautiful products (where there is balance between form, interaction and function)
- ▶ experienceable prototypes
- ▶ meaningful presentations

Publication(s)

- ▶ Trotto, A., Hummels, C.C.M., Overbeeke, C.J., Cianfanelli, E., Frens, J.W. (Eds.) (2010) Rights through Making, Bionic Wearables & Urban Lights, Ethics in Design n°4. Firenze, Polistampa.
- ▶ Trotto, A., Kuenen, S. (2010). 2.3 Metamorphic Fashion Design. In S. Kuenen, Cianfanelli, E. (Eds.), Metamorphosis. (pp. 86-105) Firenze, Italy: Edizioni Polistampa.
- ▶ Trotto A. et al. (2009), Rights through Making: 9 projects, in Smart Textile Salon proceedings, 25th September 2009. Ghent University, pp. 59-62.
- ▶ www.rightsthroughmaking.org



BEEHUGGED



BYOU

FREEFALLA



KAMEL

TWINTRIBE

WS 4 - CULTURAL WAVES

Extending local identities, skills and manufacturing to global markets

D ate	25th May – 17th June 2009	
L ocation	Curso de Graduação em Design da Universidade do Sul de Santa Catarina, Florianópolis, Brasil	
P artners	Eindhoven University of Technology, Department of Industrial Design Università di Firenze, Corso di Laurea in Disegno industriale Curso de Graduação em Design da Universidade do Sul de Santa Catarina, Florianópolis, Brasil Curso de Tecnologia em Design de Moda da Universidade do Sul de Santa Catarina, Florianópolis, Brasil	
C oaches	Ambra Trotto, Stoffel Kuenen	
S tudents	Universidade do Sul de Santa Catarina, Florianópolis, Brasil	Claudio da Silva, Luiz de Bettio, Claudia Batista, Talles Oliveira, Maira Scirea, Fabio Texeira, Tatiana Rodrigues, Pamela Riva, André Ramos, Bárbara Vali, Karla Cruz, Isabelle Kowalski, Lígia Fascioni, Claudia Peterle
N ationalities	Brazilian	
C ontributors	Morongo, Mormaii Alexandre Goettems, Mormaii Tech Dhelyo Pereira Rodrigues, CSP Jaci Rocha Gonçalves, coordinator of the extension project “UNISUL - Povos Originários” in the special program: “Revitalizando Culturas” Marco Aurélio Nadal De Masi, Laboratório de Antropologia Cultural e Arqueologia UBS Campus Grande Florianópolis - Ilha Centro - Trajano	
T ask	Design an interactive wearable system or product that enables people towards human rights (based on the assigned article)	

Theme	Cultural roots of Santa Catarina
Assignment	<p>Develop an intelligent wearable product, which:</p> <ul style="list-style-type: none"> ▶ materialises the given UDHR article ▶ extends the Mormaii brand values ▶ transforms local values into fashion values.
Deliverables	<ul style="list-style-type: none"> ▶ strong concepts dedicated to the Mormaii man/woman, living according to Mormaii lifestyle ▶ beautiful products (where there is balance between form, interaction and function) ▶ experiential prototypes ▶ meaningful presentations <p>The result of the project are products:</p> <ul style="list-style-type: none"> ▶ that make life more fun and more pleasurable, ▶ connecting people over time and over space with each other, their environment, their culture and history, ▶ uniting traditions with the highest technology and quality of manufacturing that Santa Catarina has to offer, ▶ placing the region firmly in the 21st century in a global context, ▶ projecting local values in a global context, to show the world how respect for life and the fun we have in it can lead the way to better world.
Publication(s)	<ul style="list-style-type: none"> ▶ Trotto, A., Kuenen, S. (2010). 2.3 Metamorphic Fashion Design. In S. Kuenen, Cianfanelli, E. (Eds.), Metamorphosis. (pp. 86-105) Firenze, Italy: Edizioni Polistampa. ▶ www.rightsthroughmaking.org



▶ ANAUIE



UGWA

21455980



YRUPIGUA



WS 5 - URBAN LIGHTS

Using light to enhance social interaction in urban, multi-cultural spaces

Date	28th September - 2nd October 2009	
Location	Eindhoven University of Technology, Department of Industrial Design	
Partners	Eindhoven University of Technology, Department of Industrial Design Università di Firenze, Corso di Laurea in Disegno industriale Universidade Positivo, Curitiba, Brasil Midiaeffects, Florianópolis, Brasil Universidade do Sul de Santa Catarina, Florianópolis, Brasil Technical University of Akure, Nigeria	
Coaches	Kees Overbeeke, Joep Frens, Michael Cruz, Caroline Hummels, Gabriele Goretti, Ambra Trotto	
28 Students	Eindhoven University of Technology, Department of Industrial Design Università di Firenze, Corso di Laurea in Disegno industriale Technical University of Akure, Nigeria Universidade Positivo, Curitiba, Brasil	Christian Sallustro, Hakki Altun, Federica De Angelis, Jop Japenga, Maarten Brugmans, Sebastiaan Pijnappel, Lizette Reitsma, Marcel Ton, Loes Smits, Gordon Tiemstra. Clizia Monaca, Natalia Ortiz Montoya, Domenico Serratore, Mattia Vegni, Michele Santella, Nevena Radovic, Beatrice Cinelli. Oni Toluluo Aduke, Fadairo Oluwarotimi, Adegun Ayodeji, Adebisi Ademola, Adesoye Adeboye, Okubo Grace Ebikenie, Adelabu Oluwafemi. Bruna Goveia

	<p>Midiaeffects, Florianópolis, Brasil</p> <p>Universidade do Sul de Santa Catarina, Florianópolis, Brasil</p>	<p>Felipe Vieira, Thomas Ventura</p> <p>Talles Oliveira, Maira Scirea, Fabio Texeira</p>
N ationalities	Italian, Nigerian, Dutch, Colombian, Brazilian, Turkish, Serbian	
C ontributors	Gemeente Eindhoven Cees Donkers	
T ask	Design an interactive wearable system or product that enables people towards human rights (based on the assigned article)	
T heme	Social interaction in multicultural cities	
A ssignment	Design an interactive system or product that uses light to enhance social interaction in urban environments, enabling people towards human rights (based on the assigned article)	
D eliverables	<ul style="list-style-type: none"> ▶ strong concepts dedicated to people living in multicultural cities (special focus on Eindhoven) ▶ beautiful products (where there is balance between form, interaction and function) ▶ experiential prototypes ▶ meaningful presentations 	
P ublication(s)	<ul style="list-style-type: none"> ▶ Trotto, A., Hummels, C.C.M., Overbeeke, C.J., Cianfanelli, E., Frens, J.W. (Eds.) (2010) Rights through Making, Bionic Wearables & Urban Lights, Ethics in Design n°4. Firenze, Polistampa. ▶ www.rightsthroughmaking.org 	



CONNECTABLE



FROMMETOYOU



GBAMI



INFORMI



NO PROBLEM! BENCH



REFLEXITY

WS 6 - METAMORPHIC FASHION

D ate	23rd February – 8th June 2010	
L ocation	University of Florence, Master course in Industrial Design	
P artners	Eindhoven University of Technology, Department of Industrial Design Università di Firenze, Laurea Magistrale in Disegno industriale	
C oaches	Ambra Trotto, Stoffel Kuenen, Elisabetta Cianfanelli	
S tudents	Università di Firenze, Corso di Laurea in Disegno industriale	Danilo De Roberto, Beatrice Donati, Laura Pierleoni, Marco Bottone, Elena Salusti, Federica Francini, Riccardo Roggi, Michele Tittarelli, Elena Vangi, Giulia Pavanello, Eleonora Andrei, Francesca Casu, Alessandra Sale, Daniele Sale, Vittorio Sanfilippo, Claudio Melis, Danilo Scuccimarra, Angelo Monaco
N ationalities	Italian, Dutch	
C ontributors	Chamber of Commerce of Prato, Inntex /Firenze, Spintech/ Prato, Lenzi Egisto/Prato, Milior/Prato, Thes Tziveli/ Empoli, Furple idea/Prato, Stefano Biagini/Prato, Original Vintage/Prato	
T ask	Design an interactive system or product that materialises an article of the Universal Declaration of Human Rights	
T heme	New Made in Italy	

Assignment

Different teams had different assignments, related to the UDHR article they were given:

- design for the right of privacy and new urban tribes
- design for the right to full development of personality and playful interaction between people
- design for the right of education in sports
- design for the right of free participation to cultural life of the community and enjoyment of arts within the context of Florentine museums.

Deliverables

The expected results of each team are:

- ▶ working prototype(s) of the product/garment with high formal (aesthetic) qualities;
- ▶ a well presented concept:
 - ▷ the design rationale, the design decisions made;
 - ▷ the function and the relevance for users;
 - ▷ enabling technologies, manufacturability;
 - ▷ the market perspective of the product.
- ▶ a video presenting the product-interaction and aesthetics: published on e.g. vimeo, youtube, embedded or linked to on website (see below);
- ▶ high resolution pictures and/or renderings of product in action;
- ▶ a website presenting the project (concept, process, product result), referencing and/or criticizing similar projects in the international design scene.

Publication(s)

▶ www.rightsthroughmaking.org



▶) SPORTS



▶ | WEARING CULTURE



| SOUND EXPERIENCE



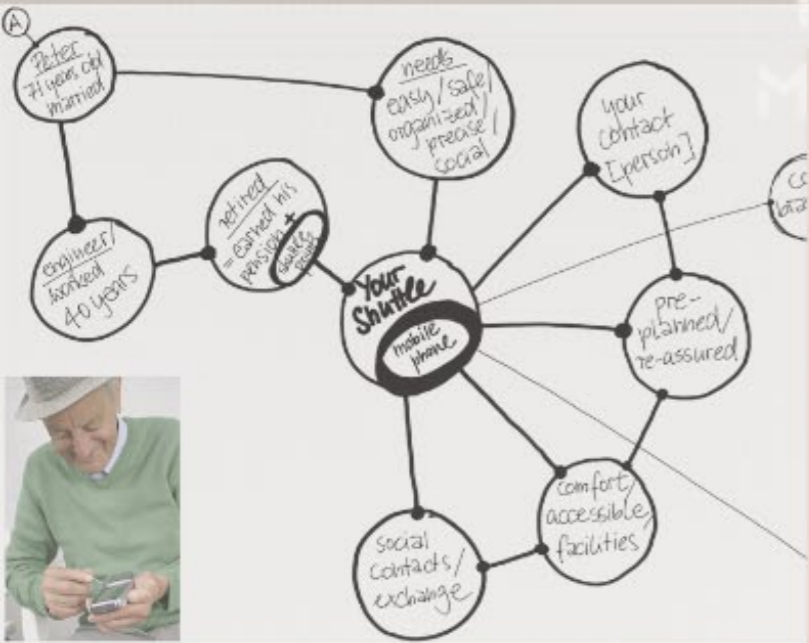
▶ | PLAYFUL INTERACTION

WS 7 - TRIAL FOR A COLLABORATIVE DESIGN SPACE

D ate	3rd - 8th May 2010
L ocation	The Internet
P artners	Eindhoven University of Technology, Department of Industrial Design Università di Firenze, Laurea Magistrale in Disegno industriale
W S managers	Ambra Trotto, Jelle Stienstra
P articipants	Alexandre Bau, Jan Brauer, Erika Cellai, Sara Colombazzi, Michael Cruz, Sanneke Duijf, Helena Goznikar, Bart Hengeveld, Diederik Kuenen, Federico Laguzzi, Martin Lundberg Jensen, Jennie McDowell, Fabrizio Mezzalana, Jacopo Mutti, Silvia Piantini, Birgitta Ralston, Micaela Romagnoli, Patrizia Salis, Valentina Santi, Aashild Stav, Jan Stienstra, Dana Stimming, Fabrizio Tondolo, Fiorenzo Valbonesi
N ationalities	Italian, Dutch, Swedish, German, Danish, Puertorican, Slovenian, British, Norwegian, French
C ontributors	Transplant, Norway
T ask	Design an interactive system or product that materialises an article of the Universal Declaration of Human Rights
T heme	-
A ssignment	Give your contribution to the design of a wearable transport means dedicated to elderly people, which empowers people towards the values expressed by article 26 of the UDHR (right to education); please do it with whatever medium suits your sensibility best (text, images, poetry, music, videos, etc.). This material will be added to a shared “design space”, to which other people will contribute.
P ublication(s)	www.rightsthroughmaking.org

RIGHTS THROUGH MEANING

ETHICS IN DESIGN



transport means dedicated to elderly
covers people towards the values
6 of the UDHR (right to education)

Components and Values



Article 26



BROWSING THE COLLABORATIVE DESIGN SPACE

WS 8 - DESIGNING FOR POINTS OF VIEW

D ate	22nd - 26th November 2010
L ocation	Eindhoven University of Technology, Department of Industrial Design
P artners	Eindhoven University of Technology, Department of Industrial Design Università di Firenze, Laurea Magistrale in Disegno industriale
C oaches	Caroline Hummels, Ambra Trotto, Michael Cruz Restrepo
P articipants	Koen de Greef, Rens Brankaert, Sijme Geurts, Yves Florack, Mark Thielen, Laura van Geel, Dominika Potuzakova, Teun Vinken, Sippe Duisters
N ationalities	Dutch, Czech
C ontributors	-
T ask	-
T heme	-
A ssignment	▶ Design an enabling tool to make other people feel what you feel, based on your skills. The aim is to evaluate if and how meaning can be transferred from one person to another, through a product.
P ublication(s)	▶ Trotto, A., Hummels, C.C.M., Cruz Restrepo, M., (2011) Towards design-driven innovation: designing for points of view using intuition through skills. Designing Pleasurable Products and Interfaces 201, Proceedings. Milano, Italy, pp. 3-9. www.rightsthroughmaking.org



▶) MOUNTAINBIKING



▶) LONG DISTANCE BIKING



▶) SNOWBOARDING



▶) COOKING




Fig.1. Working in the lab, during WS 5 - Urban Lights, Eindhoven



Urban Lights - 3D Printing

3. WS 5 - URBAN LIGHTS



3.1 Workshop's Preparation
Task, theme and assignment
How it started
The location
Involving expertise and setting up a schedule

3.2 The Workshop
Introducing theme and assignment
Dividing into teams and team-work
Inspirational support/context information
Creative techniques
Choreography of Interaction
Final presentation
Living together
Conceptualising by Making

3.3 The workshop's model



3.1 WORKSHOP'S PREPARATION

In this chapter I describe one of the 8 workshops, WS 5 - Urban Lights. This workshop belongs to the first cluster of 6 workshops that I did. I now introduce the main steps of the workshop's preparation and of its realisation. I start by explaining a basic terminology that will serve to understand how the first 6 Rights through Making (RtM) workshops are articulated.

Task, theme and assignment

There was a general, basic *task* at the base of the first 6 RtM workshops, and it responded to what was stated in the Manifesto: I asked to materialise the values expressed by a specific article of the Universal Declaration of Human Rights. This meant that the design that resulted from the workshop was a product or a system that empowered people towards the realisation of fundamental Human Rights.

The second layer was the *theme*: before each workshop, coaches from the two funding institutions defined a general theme that they wanted the student to address. This theme was the field in which a most specific *assignment* was defined and given to students, which clarified more specifically the theme and the expected deliverables. The theme of the fifth workshop was: enhancing social interaction in multicultural cities. The assignment was to use light to achieve the aim stated by the theme, in the design of urban products.

How it started

The fifth workshop arose from a collaboration that the Municipality of Eindhoven and the Eindhoven University of Technology started.



Fig. 2. Working in the lab, during WS 3 - Bionic Wearables, Eindhoven

The Municipality was interested in exploring designerly ways to face the enhancement of social interactions within the city of Eindhoven. For this purpose, experts from the Municipality were involved both in the definition of the workshop's assignment and in the introductory part of the workshops.

The location

WS 5 – Urban Lights was done in the premises of the Department of Industrial Design of the Eindhoven University of Technology. The infrastructure offered by the TU/e Eindhoven made it a very good location to set up a workshop, mainly because of the presence of electronic laboratories and material supplies. As the focus of the Department of Industrial Design of the TU/e is on intelligent products, systems and related services, it is common practice to work with electronics. A one-week workshop requires an extremely optimized schedule that can be set easier, if there are already laboratories dedicated to the specialised activities that students are required to do.

Involving expertise and setting up a schedule

WS 5 – Urban Lights was, as most of the other workshops, a very intense cultural immersion, both for students and for coaches, full-time for five days.

The kind of guided activities the schedule contemplated and the way time was planned and activities were divided have been subject to substantial refinement along these years. It became clear that the schedule was an important player in the success of the workshop.

The following is the structure that lists the steps and the related activities that have been proposed to students to lead them through the design process of WS 5 – Urban Lights.

1. Theme Introduction
2. Dividing into teams
3. Inspirational support/context information
 - ▷ urban design vs. light design (Gabriele Goretti)
 - ▷ experienceable prototyping (Joep Frens)
 - ▷ ethics in design: design for transformations (Philip Ross)
 - ▷ dreaming of the impossible (Kees Overbeeke) (WS 5)
4. Inputs from contributors
 - ▷ presentation of Eindhoven as city of Design (Cees Donkers) (WS 5)
5. Applying creative techniques
 - ▷ choreography of Interaction (Michael Cruz, Caroline Hummels, Ambra Trotto)
 - ▷ (silent) Presentations (Kees Overbeeke, Caroline Hummels) (WS 1, 2, 3, 4, 5 and 6)
6. Conceptualization by Making (experience able prototyping)
 - ▷ designing form, function, interaction
7. Results

These steps are described in the following section.

3.2 THE WORKSHOP

In the previous section I have explained the steps involved in the preparation of the workshops. How the actual workshop is articulated is what is described in this section.

Introducing theme and assignment

Every time a workshop took place, I gave an introduction to students, to open up the RtM approach, presenting its focal points. This introduction also defined the workshop's theme and assignment – basically what I asked students to design – and it explained the creative techniques that were supplied. By introducing the RtM approach, I explained the three main points and their intersections.



“In the first place, we have put into words some inherent rights. Beyond that, we have found that the conditions of our contemporary world require the enumeration of certain protections, which the individual must have if he is to acquire a sense of security and dignity in his own person. The effect of this is frankly educational. Indeed, I like to think that the Declaration will help forward very largely the education of the peoples of the world.” (Roosevelt, 1948)



Fig. 3. Collar Hood is thought for hip-hoppers and controls the influence of external beats with sensors integrated in the hood's rim.

One of the three components is *ethics*, as explained in the first chapter of the second part (*1 Towards Universal Human Rights*), which I chose as a foundation in my design approach. Design that does not take into account the social, environmental consequences of the transformations that it induces, cannot be sustained anymore. There is a need of a new humanism, in which the value of respect becomes primary. I chose the Universal Declaration of Human Rights as a fundamental design tool to elicit the embodiment of ethics; by integrating the values that the Declaration expresses into the design of products and services, I aim at steering societal transformations triggered by products, towards ethics.

The second component, as explained in part 2, chapter 2, is *Making*. I asked students to make things, leaving aside as much as possible all techniques that capitalised on cognitive patterns in order to elicit the use of all other skills that involved the use of the body. As I explain later, the creative techniques I introduced to the students, reinforced this aim, as the design process has to involve bodily experiences and not only conceptual (cerebral) abstractions.

The third component that I introduced at the beginning of the workshop is the communication that students are required to use, which is based on the *sharing of the language of making*. This component constitutes a link between ethics and making, because it elicits their connection both ways: by sharing the language of making, an ethical aim is achieved; materialising the values expressed by an article of the Universal Declaration of Human Rights into a product, has to be done through a Making process, that involves different layers of skills.



Video 1. Top: "Je sense donc je suis", with Luca Bondioli, written and directed by Ambra Trotto, 2009

Fig. 4. Bottom: Detail of "The artwork nobody knows" by Ryan Gander at the 54th Biennale of Arts of Venice, 2011

In the fifth workshop (WS 5 – Urban Lights) the task was, as usual, materialising the values of the Universal Declaration of Human Rights. The theme was the same as in the third workshop: enhancing social interaction in multicultural cities. In this case, as I explain later, the theme was deepened thanks to a talk given by a collaborator of the Municipality of Eindhoven, focusing on this city's social challenges. Students could, thanks to this, design for issues that had been mentioned and discussed during this session. This contributed to increase the plausibility of the concepts that were designed, also because in this way, students could get closer to the theme and relate it to their values and experiences. The assignment was to design an interactive system or product that uses light to enhance social interaction in urban environments, enabling people towards human rights.

Dividing into teams and team-work

Teams were built as multicultural and multi-skilled as possible, according to my belief in diversity as a richness (see part 2, chapter 1, subsection *The Cultural issue in Design*). By increasing diversities, I aimed at achieving richer results. With the experience of the first six workshops with the Eindhoven University of Technology and/or the University of Florence, it became soon easy to recognize cultural patterns in the behaviour of either Dutch students or Italian students¹. A pre-introduction to the workshop, preparing them for the different approaches has shown to minimize the initial shock; specifications on roles and deliverables have shown to be necessary and helpful to catalyse the team-forming phase. I relate on how I reached this awareness and how I consequently tuned the approach in the Annexes, in section “2.2 *The evolution of supporting teamwork*”. The fifth workshop (WS 5 – Urban Lights) was the first really multicultural one as far as participants were concerned: where

in the first three I have 3 or 4 nationalities participating, in this workshop I could host, thanks to a sponsoring of the Municipality of Eindhoven, students and professionals from 6 different institutions: besides students from TU/e and from the University of Florence, the Nigerian University of Akure, two Brazilian Universities (the Southern University of Santa Catarina, UNISUL and the University Positivo of Curitiba) and a Brazilian company (Midiaeffects) were invited. Finally I could fully experience the third element of RtM: the value of sharing the Language of Making. This situation forced the students to share Making processes (such as the Choreography of Interaction and the prototype building), and to abandon as much as possible long and arid discussions.

Inspirational support/context information

As a follow-up to the introduction on ethics, I created a set of experiences or lectures to submerge students into the chosen theme. While for instance, it was very easy to create a pervasive experience with the cultural environment in Florence (both in the arts and crafts industry and in history and arts), when doing WS 5 in Eindhoven, I had to be creative, for instance by inviting people to do *ad hoc* theme related presentations. This part contributed to guide students towards a deeper insight into the approach and the tools I offered. This support was necessary especially because they did not

¹. In this dissertation, we call “Dutch students” the students that study at the Eindhoven University of Technology and “Italian Students” the students that study at the University of Florence. This does not always mean that they have a Dutch or an Italian nationality. Dutch or Italian refer to the nationality of the Institution where they studying. In fact almost never the group of students were all Dutch or all Italians; both University have high rate of foreign students.

have time to explore for inspiration by themselves (the available time for the workshop was very short).

In the fifth workshop (WS 5 – Urban Lights), where the client was the Municipality of Eindhoven, it was possible to host at the Department of Industrial Design of the TU/e an introductory presentation of the theme (enhancing social interaction in multicultural cities) by experts from the City Hall. So, after my usual presentation of the workshop's model, Cees Donkers introduced the vision of Eindhoven, its culture, the role that design plays in it and the social questions that the Municipality has to face, which can be addressed in a designerly way.

A reinforcement of the ethic drive that RtM proposes, was the lecture of Philip Ross. He gave a presentation of his Doctoral Thesis' project, "*Ethics and aesthetics in intelligent product and system design*". This research constitutes one of the foundations of the present research: students were confronted with the fact that products induce a transformation, they can elicit behaviours and this creates an opportunity to steer this transformation towards human values.

Gabriele Goretti gave then a presentation on urban lighting: the theme was social interaction in multicultural cities, and the assignment was designing urban products using light to enhance this social interaction. A compact analysis on how Urban Light has been used in cities around the world and a discussion on whether the purpose was actually achieved, could be useful to boost students into the design process.

I usually tried to condense all inspirational support/context information introductions at the beginning of the week, so that students could elaborate that knowledge through doing in the following days. During this workshop I did an exception for the presentation of Kees Overbeeke, "*Dreaming of the Impossible*", which I placed on Wednesday afternoon. Already in the previous

edition I observed a peak of frustration in students around that moment. They already had an introduction on the theme and the collateral inspirational and context presentations, they already started to know each other and to design through bodily exploration. As soon as the actual design concept part started, the language barrier rose, the cultural differences were difficult to handle, and the urge of making was not strong enough to make them start doing things, instead of talking and thinking. This was the worst moment for students, because they forget to dream. They get trapped in reasoning, leaving aside the poetry of being and designing. This is why the presentation of Kees Overbeeke had its perfect place in these exact circumstances. They started to realise again why they were doing it: together with a set of examples, the presentation proposed the research team's vision, its surrounding philosophy, the ideals that support it; the result, in terms of creating motivation, was immediate. For some though, it raised fear of failure.

Creative Techniques

Students, who knew neither each other, nor most of the coaches, were quickly submerged into the workshop environment. To shake them free from the traces of previous experiences, avoid conventional patterns and boost them towards a new approach, I dedicated the first hours/days of their schedule to cultural and creative explorations.

The creative techniques I used are based on the principle of alienation: “*the design challenge is forced out of context to invoke new insights, associations and viewpoints*” (Frens, 2008, p.29). To this principle of alienation, I added the involvement with skills. According to what I stated in the previous chapter, the world makes sense to us and especially to designers, because they can transform it, by means of their own skills. Skills, both innate and acquired (feeling, thinking and particularly perceptual-motor skills) are instrumental and necessary to activate the building of human values, and therefore contribute to what I defined as pervasive ethics. “*In this way I enrich existing creativity techniques by not just forcing different views conceptually but also literally, physically*” (Frens in Trotto et al. 2008, p.29).

The inspirational support/context information part was concentrated in the first days of the week. The aim was to create the conditions for students to start making, as soon as possible. In WS 5 – Urban Lights, I used Choreography of Interaction (Klooster and Overbeeke, 2005) as creative technique to devise these conditions.

In the Annexes, in chapter “2 *The RtM workshop approach’s evolution*”, in section “2.4 - *The evolution of creative techniques*” I explain the different techniques and their evolution along the first six workshops.

In the Annexes, in chapter “3. *Reflections and evaluation of the RtM workshops*” I evaluate if and how these techniques worked.

Nella danza il corpo abbandona I gesti abituali che hanno nel mondo il loro campo di applicazione, per prodursi in sequenze gestuali senza intenzionalità e senza destinazione che, nel loro ritmo e nel loro movimento, producono uno spazio e un tempo assolutamente nuovi, perché senza limiti e senza costrizioni. Perdendo l’aderenza alle cose del mondo, nella danza ogni gesto diventa polisemico, ed è proprio in questa polisemia che il corpo può riciclare I simboli [nell’accezione greca di syn-bállein, che significa mettere insieme] può confonderli o addirittura abolirli. Liberandosi nella pura gestualità non intenzionata, il corpo del danzatore descrive un mondo che è al di là di tutti I codici [...], perché nella danza l’unico segno visibile è quello in cui il corpo iscrive se stesso fra la terra e il cielo.²”
(Galimberti, 2008, pp. 159-160)

². “In dance, the body abandons habitual gestures that have their field of application in the world, to embody gestural sequences without intentionality and without destination, which in their own pace and movement, produce absolutely new space and time, because without limits and without constraints. Losing the grip from the things of the world, every gesture, in dance, becomes polysemic. It is in this polysemy that the body can recycle symbols [in the Greek sense of syn-bállein, which means putting together] may confuse them or even abolish them. By realising itself into pure, non intentional gesture, the body of the dancer describes a world that is beyond all codes, because in dance, the only visible sign is that of the body inscribing itself between the earth and the sky.”

Choreography of Interaction

Choreography of Interaction is a technique pioneered by Klooster (Klooster et al. 2005), which has been widely explained in the previous RtM books, collecting the workshops' results. Joep Frens explained how the choreography of Interaction was used in the second workshop, (Rights through Making – Wearing Quality) (Trotto et al., 2009, pp. 29-31) and Michael Cruz Restrepo reflects on how this technique was used in the third workshop and how it evolved in its fifth edition (Rights through Making – Bionic Wearables and Urban Lights) (Trotto et al., 2010, pp. 36-39, 68-73).

For a description of this technique, I therefore refer to these two texts. In the following focus boxes I mention the salient passages.



“The value of the Choreography of Interaction [technique] is therefore in the use of the body (with its capabilities and limitations) as a means to explore meaning in expression within a specific context. In this sense, the process is guided by the idea that we understand the world by moving and acting within it. Within this on-going action and reaction game, between our bodies and the world, lies a third layer that lets us then consider meaning in body movement: movement qualities. Quality (the manner in which I, for example, stretch out my arm by unfolding it along the joints, and not just the act in itself), then becomes a key aspect for the understanding of meaning and intention in interaction.

We ask students to translate or express the values expressed by a specific article of the Universal Declaration of Human Rights into Movement and series of movements. Movement is essential in this collaboration, not only as the way to explore the meaning of the rights, but as an effective communication tool between students from different countries. Soon students discover their bodies are the language they shared.

When beginning to translate the values in the article into movement, the tendency is to act

Focus: Choreography of Interaction

out a scenario in which ideas are mimicked and symbolized through the creation of characters. This is not the overall goal of these sessions, but in some ways, this first step allows students to get comfortable with this method and helps them to begin the process of embodiment. The value of these “sketches” is that within them, lies the true essence of movement. This step establishes an overall aesthetic of movement that can then be analysed, abstracted and translated again into a different concrete form, laying out the foundation for the design concept in terms of interaction. The students are then supported by the coach in finding the essence of the values embedded within each article by defining it through keywords. These keywords then became the basis for the exploration of the Choreography of Interaction session in which they translated them into Dynamic Qualities (Spatiality, Time, Forces) (Klooster and Overbeeke, 2005). These qualities were then translated into a specific context (defined by where the article is naturally challenged/ denied in an urban scenario). Throughout the entire process, students were encouraged to go back to their choreography as a way to reflect on their translation of the concept into physical form and to validate their ideas”. (Cruz Restrepo in Trotto et al., 2010, p.37)

Fig. 5. Choreography of Interaction: the bodily expression is transformed in material forms.

The bodily explorations through the Choreography of Interaction technique aimed at allowing students to embody qualities of the aspects that they considered relevant in the UDHR article. It wanted to give them the possibility of feeling in their bodies the deep meaning of the values of respect conjugated according to the single articles. Through their bodies, the students should discover and design interaction possibilities. From there, students could embody these interaction possibilities into the final concept. Capitalising on the experience of these workshops, I observed that the flaw of the choreography of interaction was its intrinsic inability to lead to concretization. In most cases it succeeded to let students explore the meaning of the article with their body, but it did not help to make the step from abstraction to concretization. The moment in which students finished the exercise, the choreography and the designing part were felt as separated. While I thought that the use of bodily exploration would provide a platform to think with hands and body and begin to make and design starting from the bodies, it actually often deviated the design process towards abstraction.

Final presentation

WS 5 – Urban Light was done in collaboration with the Municipality of Eindhoven. Cees Donkers gave an introductory lecture and the assignment was agreed with the team of the Municipality. The official final presentation, that was done at the Department of Industrial Design in Eindhoven in the space where students worked, was organized more as an exhibition, rather than a classic presentation. Students would stand next to their experienceable prototypes and describe them, while people were walking around. Personalities from the Municipality of Eindhoven, journalists, external guests, teachers and students were present. The filming was also itinerant and contemporary to the event.

Living together

In every workshop, the *conditio sine qua non* for participating, was that each student of the hosting institution would find a place to stay for at least one guest student. Of course, they were not forced to host, also because not all housing and personal conditions allowed it. But they were required to organize a place, as part of the workshop. I am not completely aware of what happened after the working hours, but I got glimpses of very active nights and various social activities. They shared spaces of normal life, next to professional moments, feeding mutual feelings of trust. Several friendships were born and, for what I could see, even few love stories flourished. This aspect of the workshop, being almost forced to a total full immersion, served as a catalyser for social relationships among students coming from different schools and as a boost of socio-cultural awareness. Several students decided to attend abroad the next cycle of their studies.

Conceptualising by Making

Conceptualisation is the phase in which students were asked to design a product or system according to given task, theme and assignment. I explicitly asked students to conceptualise by making. During this phase, students had to build experienceable prototypes as tools for reflection. By “experienceable prototype” I intend a three-dimensional object, embodying a unity of form, function and interaction. Frens (2006, p.185) defines prototypes as “*physical hypotheses’ that have sufficient product qualities to draw valid and relevant conclusions from. For only through experiencing and testing interaction can the quality of it be assessed*”. I did not demand students to make high fidelity objects, yet I requested that the prototypes could be experienced. During each workshop, this process went through two or three iterations, in which the overall quality of the prototype and its conceptual consistency with the given task, theme and assignment were each time more refined, facilitated by a shared reflection between supervisors and students.

Keeping this phase far from cognitive patterns was the most difficult part of the workshop, because it was when students start discussing and rationalising, forgetting to make and use their (physical) skills. When people are making, “*they do not express themselves in the abstraction of language but in the experiential reality of form and material. The access to the conceptual domain is then not limited by language but limited by skill*” (Frens in Trotto et al., 2009).

Making, as I stated in chapter 3 of part 2 is more appropriate for three reasons:

- ▶ according to the phenomenological point of view I took, in a design process, making is more suitable than talking, because it supports a real integration of points of view, creating richer meaning;

- ▶ secondly, it respects designers’ expressivity;
- ▶ the iterative combination of making (first) and thinking (after), from a sociocultural perspective, contributes to pervasive ethics, because it changes the common practice by creating new skills, empowering towards a shift of Thinking.

Setting this only as a requirement was not enough and I had to elaborate on support techniques to catalyse the integration between making and conceptualising. WS 8 – Designing for Points of View, that I presented in the first chapter of this part, was designed especially to find an effective way to catalyse this phase.

Focus: Socio-cultural Awareness



In a context that aims at preparing designers able to cater for social and societal transformation, social cultural awareness is yet another fundamental competency to be acquired. Envisioning changes requires the ability of understanding the societal consequences of newly designed products and systems. The ethical question is focal in this competency “related to taking responsibility for society and the notion of “good” in design” (Hummels, Vinke, 2009, p. 59). This evidently also includes the necessity of a clear understanding of the past. The social cultural awareness competency is fully addressed in the RtM workshops, in which ethics is both a means and an end and the combination of past and future is inherent to it. It is a means because, through Making together, designers actually change their praxis towards a new way of Thinking and Making, which is ethical and moves towards pervasive ethics. It is an end, since the task the students have is to materialise the values expressed by an article of the Universal Declaration of Human Rights. It combines knowledge deeply rooted in the past with the transformation that will shape our future, because it capitalises on local saper fare and integrates it with new technologies, creating new meaning, rooted in local identities. What emerged is that students generally started the workshop with a low awareness of cultural and societal aspects. Very often, especially when their discussion remained at an abstract level, they showed to have a simplified and inconsistent view on societal matters. This is comprehensible, since it is difficult to be properly prepared on the subject of human rights, where a philosophical background is needed, it is necessary to constantly be well informed on contemporary socio-political mutating geographies and a solid preparation on the historical evolution of these matters is also desirable. This kind of specialist knowledge is hard to find in the designer’s house. What designers must have, is a “keen bird’s eye view on this continually changing cultural (and social, we add) landscape, turning observations and knowledge into intelligent systems which match the needs of societies and cultural communities, as well as enabling social transformation” (Hummels, Vinke, 2009, p. 59). Designers are required to develop the ability of gathering a bird’s eye view and the ability of synthesising its essence into intelligent systems. We have noticed, by reflecting on the workshops’ results, that not knowing societal issue into depths, i.e. having specialist knowledge, is a small problem, if students manage to make a shift from the abstraction of the UDHR article and their personal experience.

Video 2. A reflection on socio-cultural awareness. “Track and Field” by Jennifer Allora and Guillermo Calzadilla, at the United States of America Pavilion of the 54th Biennale of Arts of Venice.

3.3 THE WORKSHOP'S MODEL.

The choreography of interaction succeeded in ice breaking between students and it indeed catalysed at least a partial understanding of embodying and expressing vs. cognition and representation. But it failed to actually and effectively support students in making before thinking and using their skills for this purpose. An analogue effect was reached through silent presentations or silent working moments: instead of having interactions express their meaning, silent presentations were eventually felt as a gag, often constraining students' expressivity and, at times, causing frustration and lack of depth in what they presented. It is possible to conclude that the main problem was on the one hand to establish a strong connection between the creative techniques and the making/conceptualising part (see the left circle in Figure 1); the creative techniques had to provide a sort of slide aimed at the platform where, through Making, ethics is enforced and reflection is triggered. On the other hand, the phase of conceptualising and the phase of Making (of which prototyping is a part) should have been merged in one session, in which several iterations of reflection-on-action would take place; this rarely happened (see the circle on the right of Figure 1). By reflecting on all the workshops of this series (from WS 1 to WS 6), I conclude that the main cause is the first person vs. third person issue. I explain: students often tended to remain in the cloud of abstraction (third person perspective), without putting themselves (first person perspective), their point of view, their experience, their skills into the design space, as basic ingredients for designing. Partly, this is due to the fact that when discussions



Fig. 6. Interaction Relabeling session, during WS 2 - Wearing Quality, Florence.

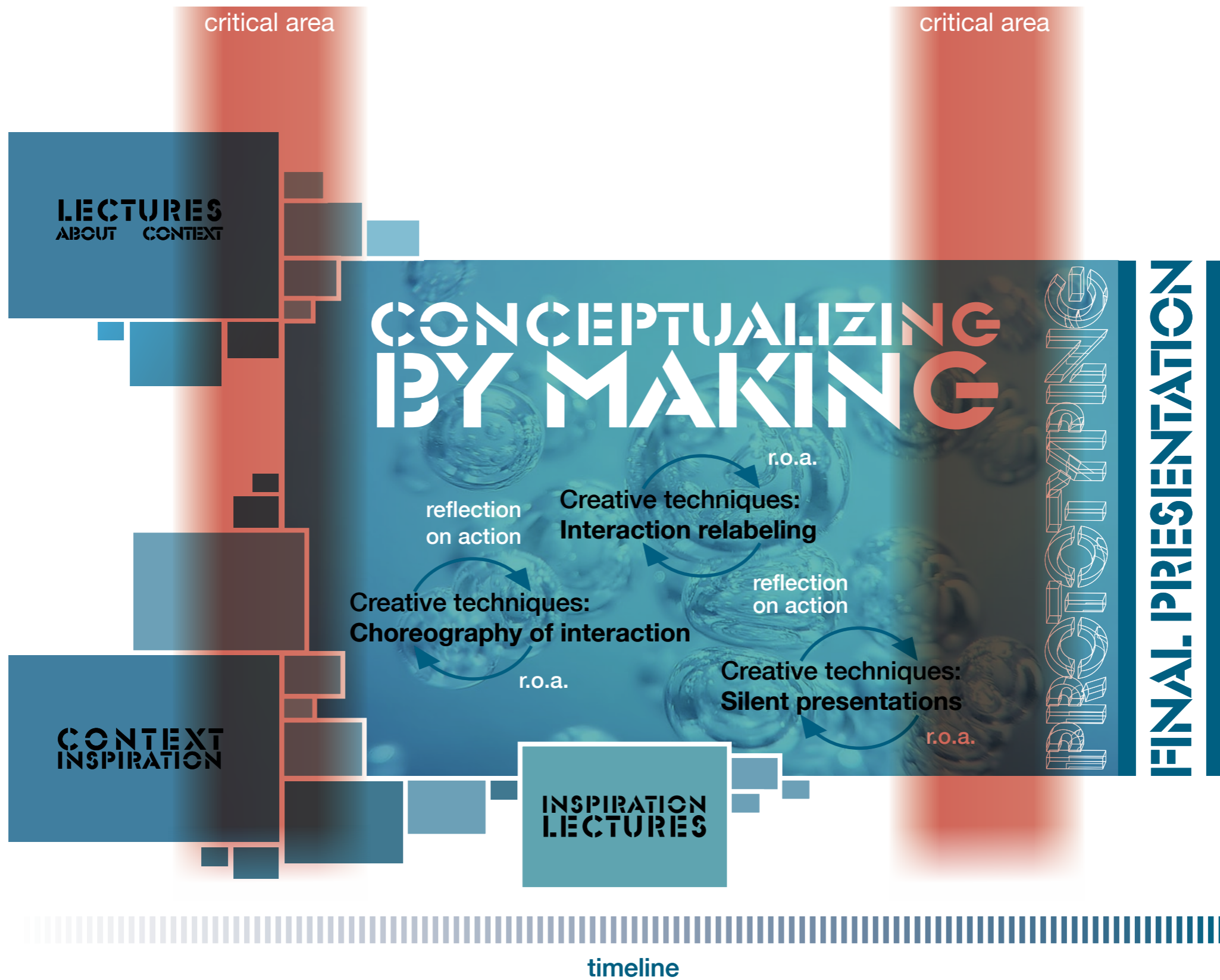


Fig. 7. The two red areas indicate the two main untackled issues of the RtM approach: the sliding from the creative techniques/enables into the making/conceptualizing part and the merging between conceptualizing and making phases.

start within a team, people tend to forget about their skills and their own expertise and try to contribute from the neutral zone of abstraction, trying to speak the same language of others, flattening the individual expressive power deriving from their skills and relying on dialectics – which is by definition oppositional – more than in what they are able to make. Intuition is dampened in a context of eloquence; skills and material consciousness are far from where they would serve as designing force.

This explains once more the reason why I dedicated a full workshop on tackling this issue: WS 8 – Designing for Points of View, which is described in the previous chapter. In the next chapter I will illustrate WS 7 – Trial for a Collaborative Design Space, which proves the possibility of success of setting up a permanent online means to diffuse the Rights through Making approach.



Fig. 8. After the final presentation of WS 3 - Bionic Wearables in Eindhoven, outside the Town Hall

DESIGN IN SPACE CONTEMPORARY ARTS & ARCHITECTURE

Fig. 1. Integration of skills, 53rd Biennale of Arts of Venice.






4. THE INTERNET PLATFORM: COLLABORATIVE DESIGN SPACE



4.1 Motivation



4.2 Experiment's preparation




4.3 The design space's evolution

Participants' behaviour

The space's behaviour, media and design synthesis



4.4 Future implementations in academics and in business



4.1 MOTIVATION

To collect all the projects done in these years and make them accessible and sharable, an Internet Showcase was designed. Of course, this space has to respect and enforce the main values of the Rights through Making (RtM) approach. It also had to be an RtM product itself, “*whose use would empower and entice people towards the respect of human rights*” (RtM manifesto). Although all the other projects, resulting from the various workshops, were embodied in experienceable (temporary) prototypes, this is the only “real” interactive product, completely functional and accessible to external parties, other than founding people and partners. The initial idea was to design an Internet platform that would serve as a showcase of projects and concepts, but also as a permanent space for confrontation, diffusion and growth of the RtM approach. The Showcase has been realized, it is accessible at www.rightsthroughmaking.org and is described in the Annexes, in “*The Internet Platform: showcase*”. The Collaborative Design Space will be the next step of implementation and I relate on it in the present chapter.

Rightsthroughmaking.org presents a collection of projects done so far. It serves as a base to show what is possible; its form and use reflect the Rights through Making (RtM) spirit, but it is not a tool itself to enable and promote the application of RtM. I believe that the second step towards the diffusion of RtM is to create a virtual space that supports and empowers people to make together and embody the ideals behind the approach.

Workshops have strengths and limitations. One of the limitations, as already mentioned, is that it is a spot activity. The workshop experiences have for sure made an impact on participants’ point

Fig. 2. Detail of Tomás Saraceno’s “Galaxies forming along filaments, like droplets along the strands of a spider’s web” at the 53rd Biennale of Arts of Venice.

of view and way of working, but I can be honest about the fact that this impact is not yet such as to create a permanent change of making and thinking approach and it does not influence designers' daily intentionality as wished in the initial declaration of intents. To leave a permanent trace, *it is important to inject the approach in everyday design activities*. RtM must become viral and acquire a life of its own. Different making cultures have to mix, contaminate each other, cross-pollinate and breed a new way of making, and therefore thinking. To permeate daily intentionality, I envision an online collaborative design space, which is able to provide a permanent space of confrontation, of creation of new design knowledge, through making together. This enables people to feel and make sense of the points of view of others, to respect each other's position and to make together.

This can be pursued, based on the already explored RtM criteria, i.e., by gathering (groups of) people their perspectives/points of view, coming from all over the world, to enrich a design process with cultural values and to share the language of making, instead of that of words. There are myriads of online spaces that offer to allow people to exchange opinions and experiences. Because my approach is phenomenologically based, I am convinced that this exchange is meaningful only when action is involved: words are useful to reflect after making, but not alone to create meaning. Blogs, twitter, even conferences aim, on paper, to a mutual growth, but without any embodiment. Their essence tends towards solipsism and self-indulgence, since in a metaphorical/representational environment, such as internet, words can easily be detached from meaning and there is a decoupling between sensing and expressing. I doubt their actual constructiveness or their effectiveness in terms of human/cultural/content enrichment. I doubt their ethical role.



Fig. 3. "Their essence tends towards solipsism and self-indulgence, since in a metaphorical/representational environment, such as Internet, words can easily be detached from meaning and there is a decoupling between sensing and expressing".

By means of an experiment, held with the support of Jelle Stienstra, I researched how an online collaboration that responds to the RtM approach could work. The exploration aimed at evaluating certain aspects, such as people's motivation, but also to acquire inspiration on how to empower making and an actual sharing of points of view in a space that is by definition representational.

What kind of constraints do I need to fix? How can I steer people towards the synthesis of a design process, how is it possible to minimize discussions and maximize constructiveness? How can I cater for different points of view? In one question: what is the behaviour that the collaborative design space must embody to empower an RtM approach?

1	A.B.	designer	French
2	J.B.	designer	German
3	E.C.	designer	Italian
4	S.C.	building engineer, photographer	Italian
5	M.C.	designer and dancer	Puertorican
6	S.D.	artist	Dutch
7	F.F.	law student	Brazilian
8	H.G.	designer	Slovenian
9	B.H.	designer and musician	Dutch
10	D.K.	doctor, general practitioner	Dutch
11	F.L.	product designer and visual artist	Italian
12	M.L.J	computer sciences student	Danish
13	J.MD	designer	British
14	F.M.	architect, universal design expert	Italian
15	J.M.	anthropologist, sailing instructor	Italian
16	S.P.	designer	Italian
17	B.R.	art manager, designer	Swedish
18	M.R.	journalist	Italian
19	P.S.	literate	Italian
20	V.S	expert in participatory design	Italian
21	A.S.	designer	Norwegian
22	J.S.	retired bank manager	Dutch
23	D.B.	designer	German
24	F.T.	pharmaceutical manager	Italian
25	F.V.	architect and designer	Italian
26	A.T.	Architect and designer	Italian

Fig. 4. List of participants, with their profession and nationality.

4.2 EXPERIMENT'S PREPARATION

This experiment aimed at exploring and validating the RtM approach in an online collaboration assignment, by submitting his point of view to a common design space, visible and accessible online for all participants.

The online workshop is a one-week experiment that ran from May 3rd to May 8th 2010.

I invited, with a personal/customized invitation, 25 participants, from 10 different nationalities and with completely different professional backgrounds.

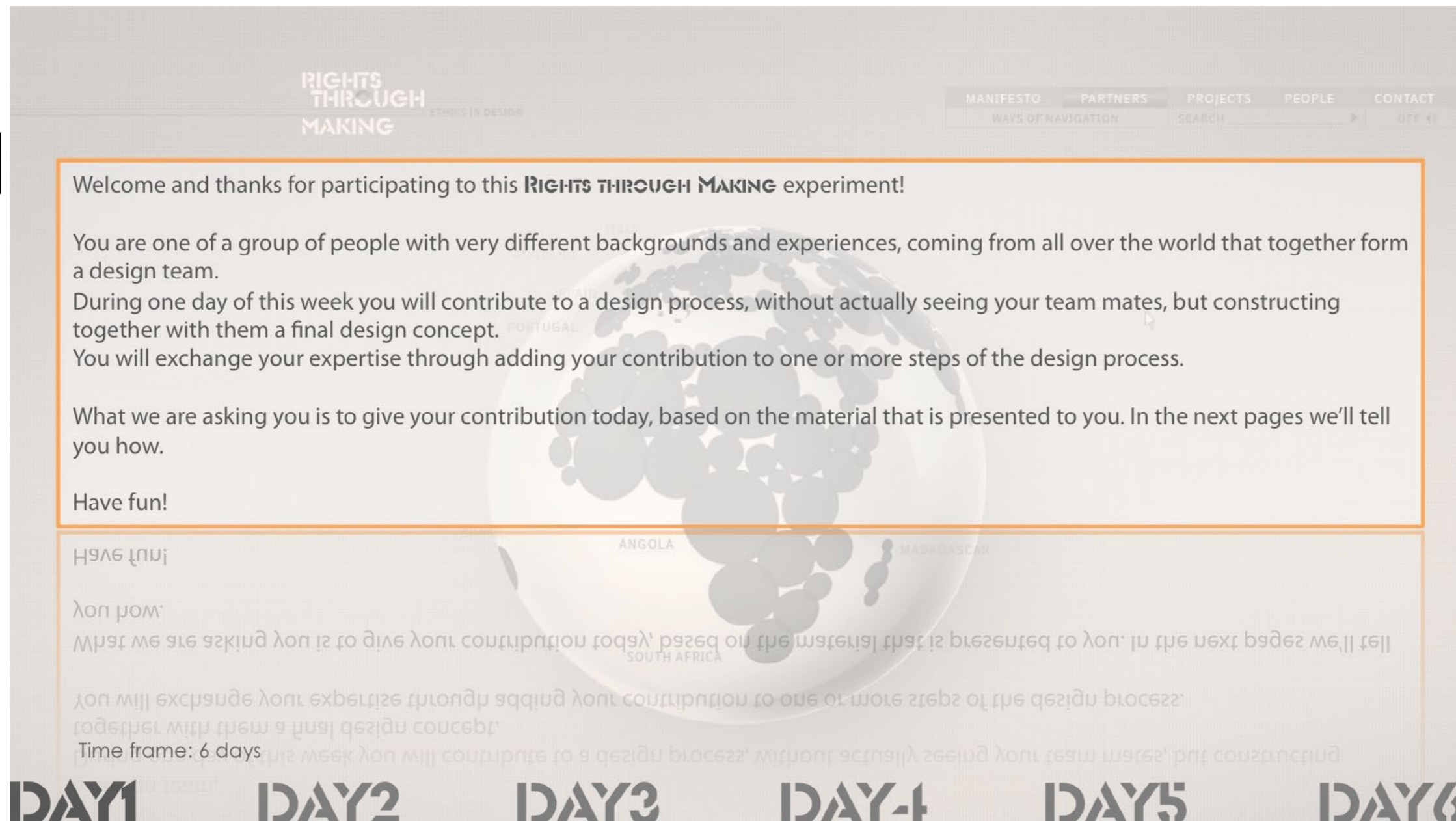
The contribution of each participant to one given design project, was planned for a specific day of the week. This was necessary mainly because contributors could not add directly to the design space: to simplify and accelerate preparations, I asked contributors to send digitized material via e-mail instead of building an application that would allow them to access directly to the design space. At the end of every day we manually added to the design space the files sent by contributors during the day, using a Wizard of Oz approach (Hummels, 2000, p. 3.55). This meant that contributors were not able to see in real time the space's growth; they could only observe it with a day-by-day granularity. The consequences of this limitation are discussed later.

Planning and distributing contributions along the week had thus practical and experimental/content reasons. It allowed me:

- ▶ to handle the uploading (at night we had from 2 to 5 contributions to add);

- ▶ to provide everybody, each day, with material to work on;
- ▶ to observe the design space's growth, seeing, for instance, what contributions were more attractive than others for people to elaborate on.

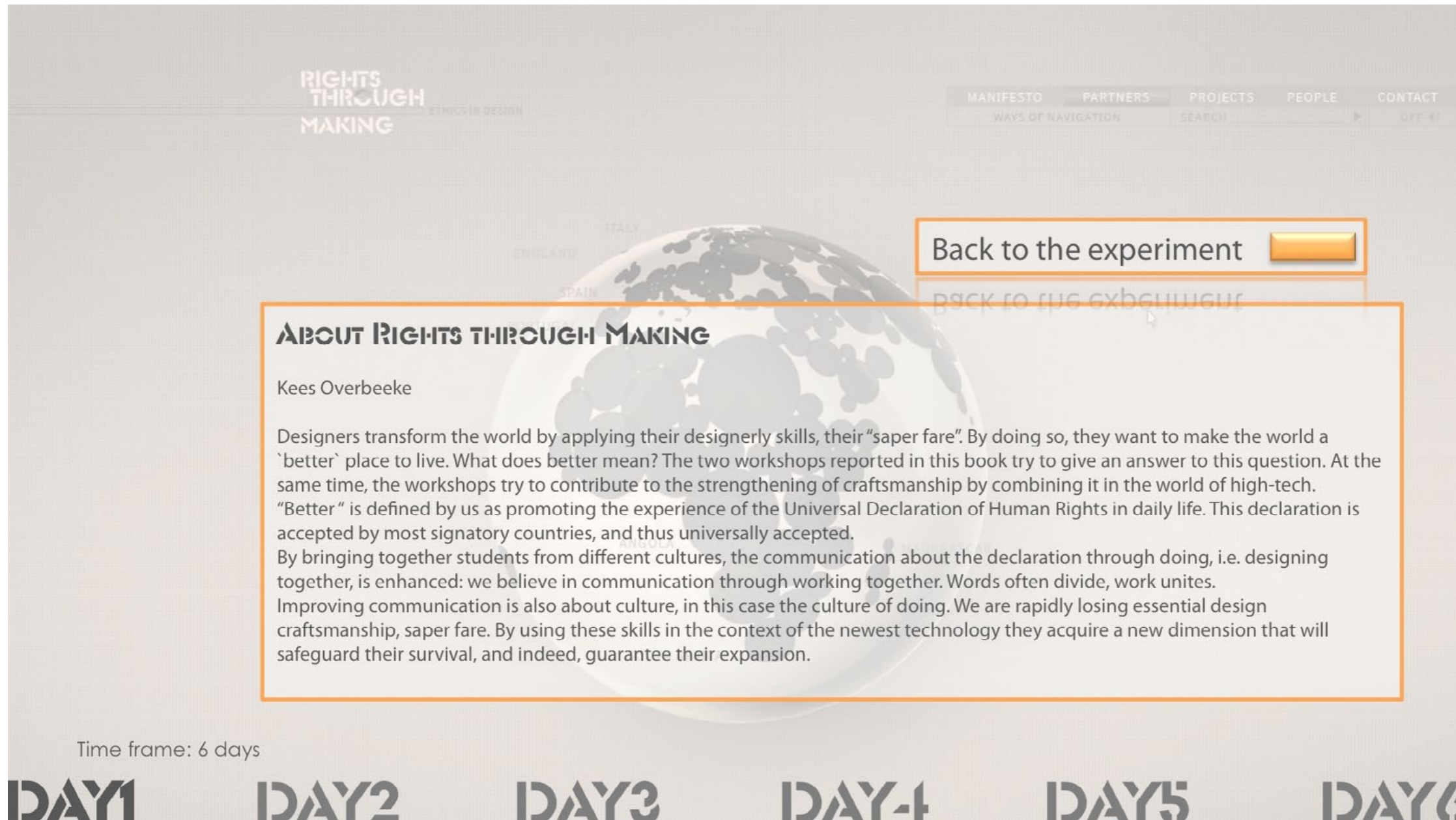
We sent a set of instructions the first day, by means of a url with a Flash page, as you can see in Figure 5.



It started with an extremely brief presentation of the design process dynamics.

After this, participants were given a chance to read something more about the RtM approach. If they decided to do it, they could read the manifesto, a paragraph summarizing the approach's *Geist* (see Figure 6) and a short overview of the funding partners.

Fig. 5. First slide of the workshop's introduction.



If they decided not to read this material, they were directly forwarded to the instructions' page (see Figure 7). If they did decide to read the extra slides, they would arrive to the instructions page afterwards. Instructions were minimized and participants asked to contribute with any medium they could master and to digitize the results; if they built a vase, they had to provide for instance jpg images of the relevant views of the vase or a documentary or a movie of its making process, depending what they considered the relevant aspect to be.

Fig. 6. a brief explanation of the RtM Geist.

The image shows a screenshot of a website slide titled "INSTRUCTIONS". The slide is part of a presentation, as indicated by the navigation menu at the top: "MANIFESTO", "PARTNERS", "PROJECTS", "PEOPLE", "CONTACT". Below the menu, there are links for "WAYS OF NAVIGATION" and "SEARCH". The slide content is as follows:

INSTRUCTIONS

You, together with other participants are receiving this material now

Please follow the instructions, and take a look at the assignment that you will find in a couple of slides

We ask you to give your perspective on it, with **whatever medium** suits your sensibility best and deliver it within today

Participants working tomorrow, will use your material as a base of stimuli, to prepare their contribution
They will find your material displayed on the shared **design space**

Because you are the first you work from the assignment, and not from previous work done by others, you have complete freedom of action

Any input is valuable in any digitized form!

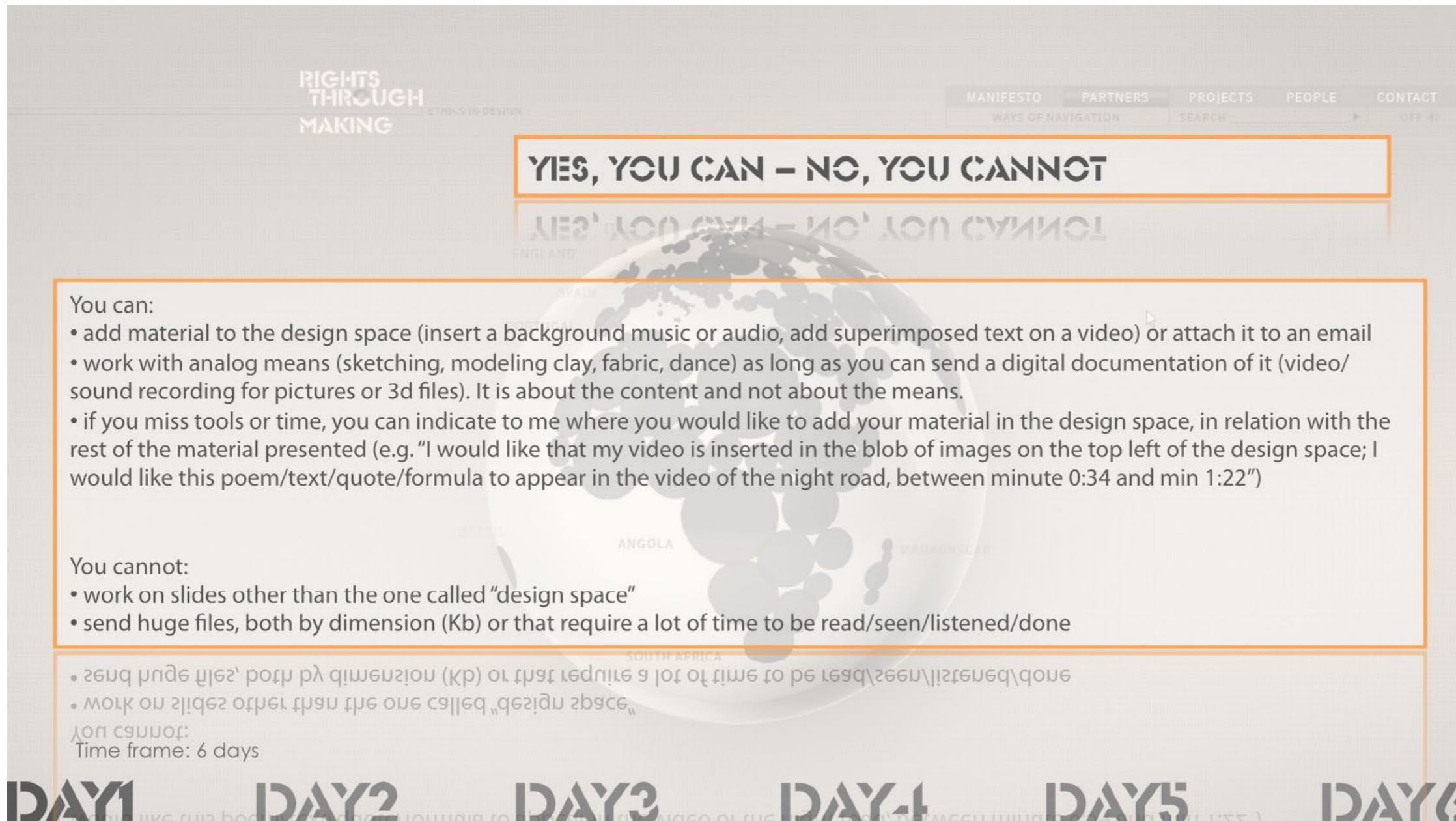
Time frame: 6 days

The background of the slide features a faint world map with labels for "ANGOLA", "SOUTH AFRICA", "MADAGASCAR", "SPAIN", and "PORTUGAL".

To prevent questions and confusions about what was allowed and what was not, we inserted a page with few further specifications, as you can see in Figure 7. Basically the only obligation I wanted to impose was that each contribution to the design space could exclusively be additive. Experienced sketchers in sketching, allow no rubber. Analogously, no erasing was permitted in the space, because every contribution was meaningful and was a potential source of inspiration for other contributors.

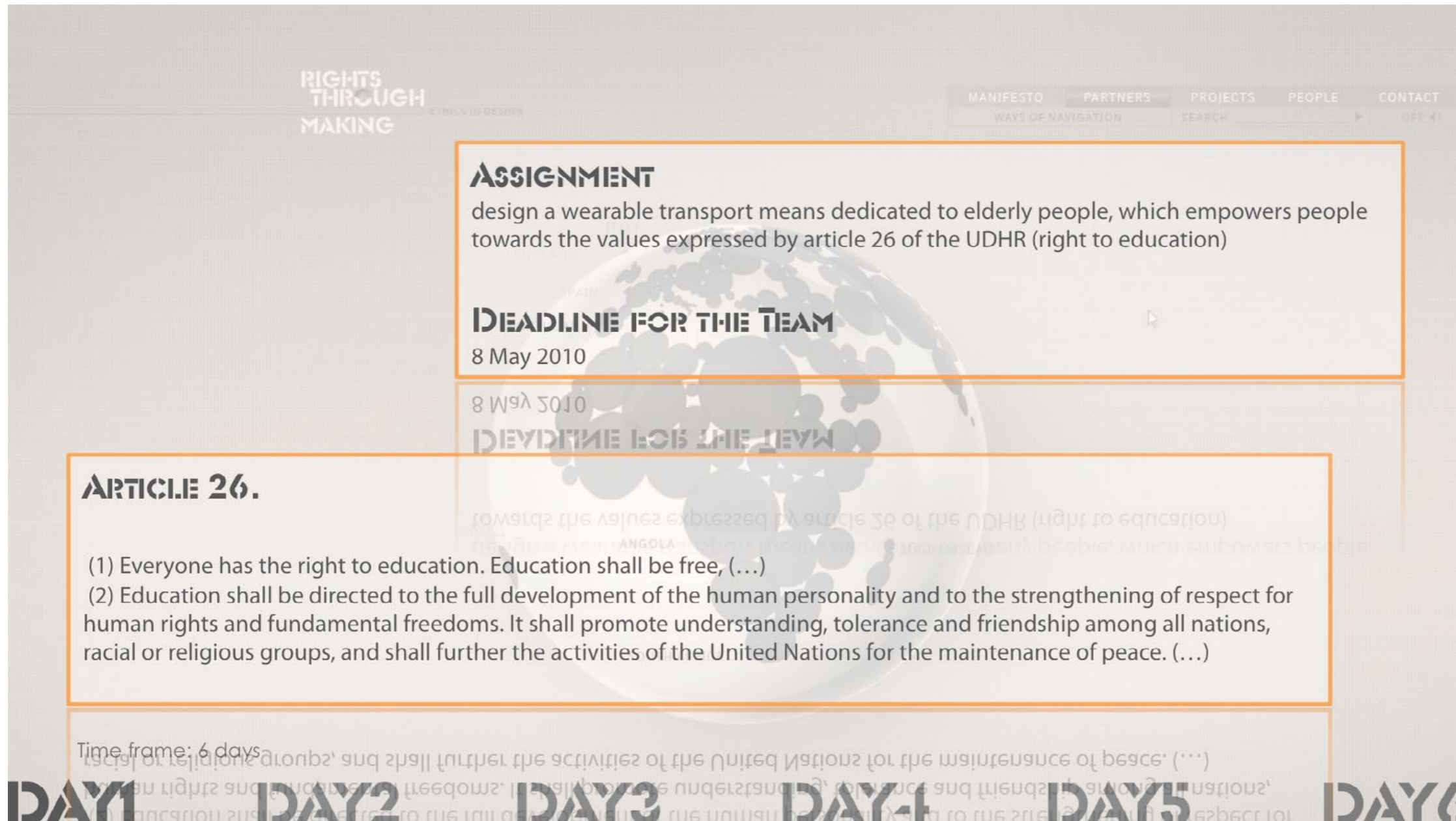
In this trial, it was not even necessary to specify that only adding was permitted, because people could not access directly to the design space: they were required to send files to me and we

Fig. 7. Slide with first day's instructions for the participants.



uploaded them. The self-positioning of each person's contribution would have been a relevant feature to grant and observe. To repair, we allowed them to mention via e-mail particular wishes, with respect to positioning their contribution. In the following slide they found the assignment and the task, i.e., the related article to materialize with their project.

Fig. 8. Day 1's prescriptions.



The assignment I defined was to “*design a wearable transport means, dedicated to elderly people, empowering the values expressed by article 26 of the UDHR (Right to Education)*”. (See Figure 9)

Starting from the second day, both instructions and the “*yes, you can - no you cannot*” slides had more information than the instructions given the first day, referring to the possibility of working on material previously uploaded by other participants. (See Figure 10 and Figure 11).

Fig. 9. Assignment and related article of the UDHR.

RIGHTS THROUGH MAKING ETHICS IN DESIGN

MANIFESTO PARTNERS PROJECTS PEOPLE CONTACT

WAYS OF NAVIGATION SEARCH

INSTRUCTIONS

You, together with other participants are receiving this material now

Please take a look at the assignment. (next slide)

We ask you to give your perspective on it, with **whatever medium** suits best with your sensibility and deliver it within today

Participants working tomorrow, will use your material as a base of stimuli, to prepare their contribution

They will find your material added on the shared **design space** you will work on today, which you will find as a last page of this presentation

Any input is valuable in any digitized form!

YES, YOU CAN – NO, YOU CANNOT

You can:

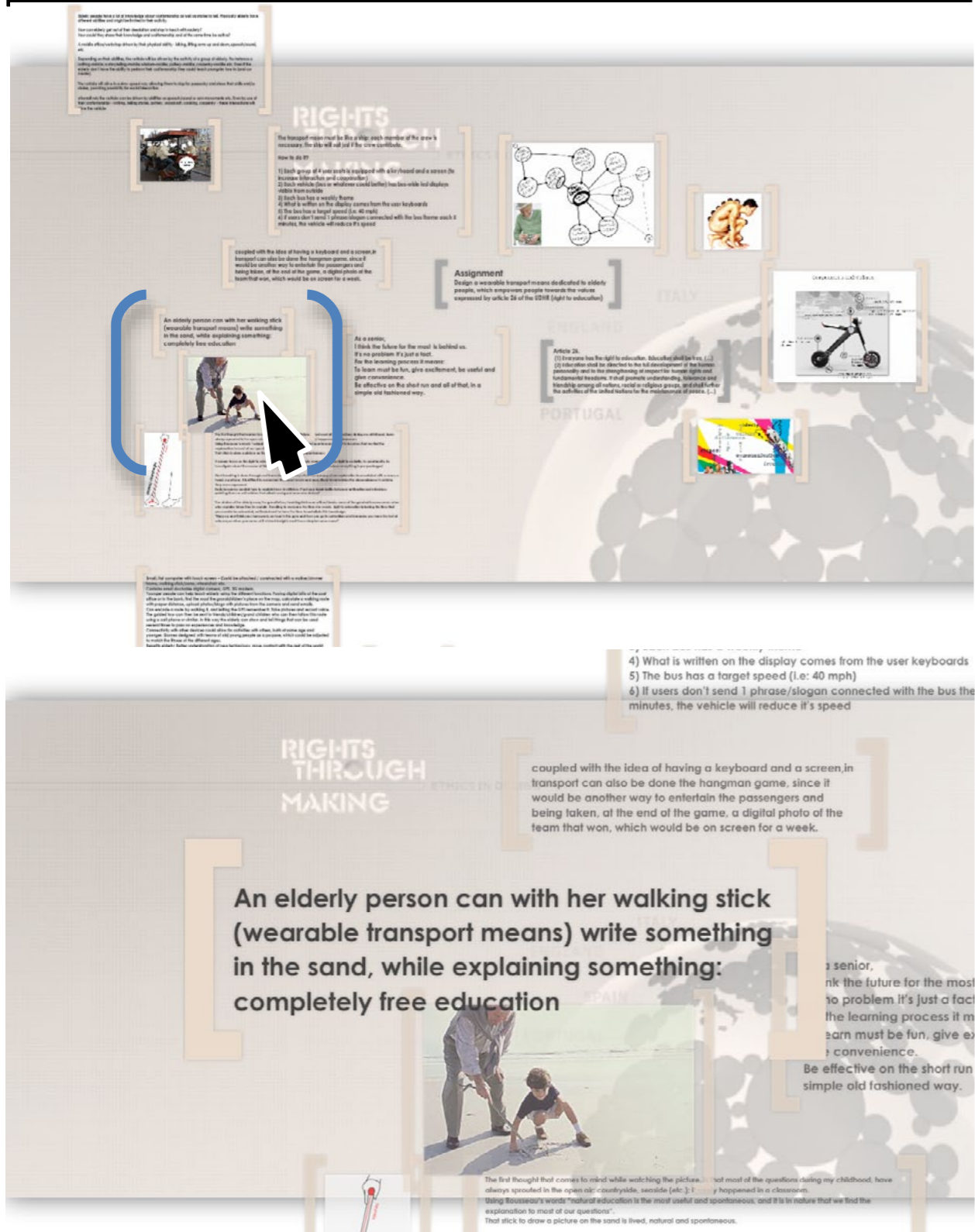
- add material to the design space (insert a background music or audio, add superimposed text on a video) or attach it to an email
- work with analog means (sketching, modeling clay, fabric, dance) as long as you can send a digital documentation of it (video/sound recording for pictures or 3d files). It is about the content and not about the means.
- if you miss tools or time, you can indicate to me where you would like to add your material in the design space, in relation with the rest of the material presented (e.g. I would like that my video is inserted in the blob of images on the top left of the design space; I would like this poem/text/quote/formula to appear in the video of the night road, between minute 0:34 and min 1:22)
- you can indicate what connection with the previous material you want us to highlight for the next round, if any.

You cannot:

- work on slides other than the one called “design space”
- erase material inserted by other participants
- send huge files, both by dimension (Kb) or that require a lot of time to be read/seen/listened/done

Fig. 10. Top: instructions contributions received starting from the second day onwards.
 Fig. 11. Bottom: restrictions and instructions that contributions received starting from the second day onwards.

4.3 THE DESIGN SPACE EVOLUTION



The design space, for the first participants, looked like an empty space with the assignment written in the middle. At the end of the first day, we could add the material in the design space. The design space was realized as a flash file. People could, by clicking on the different contributions, have a closer look to each of them (see Figure 12).

By clicking out of any of the contents' frames, one would go back to the global view of the design space.

The purpose was to have a dynamic space, where it was possible to explore different points of view and how the various contributions related to each other.

Fig. 12. By clicking on the area indicated between the blue brackets of the left image, one would get an animated enlargement of the content of that same area, as in the image on the right.

This is how the evolution of the design space looked along the week.

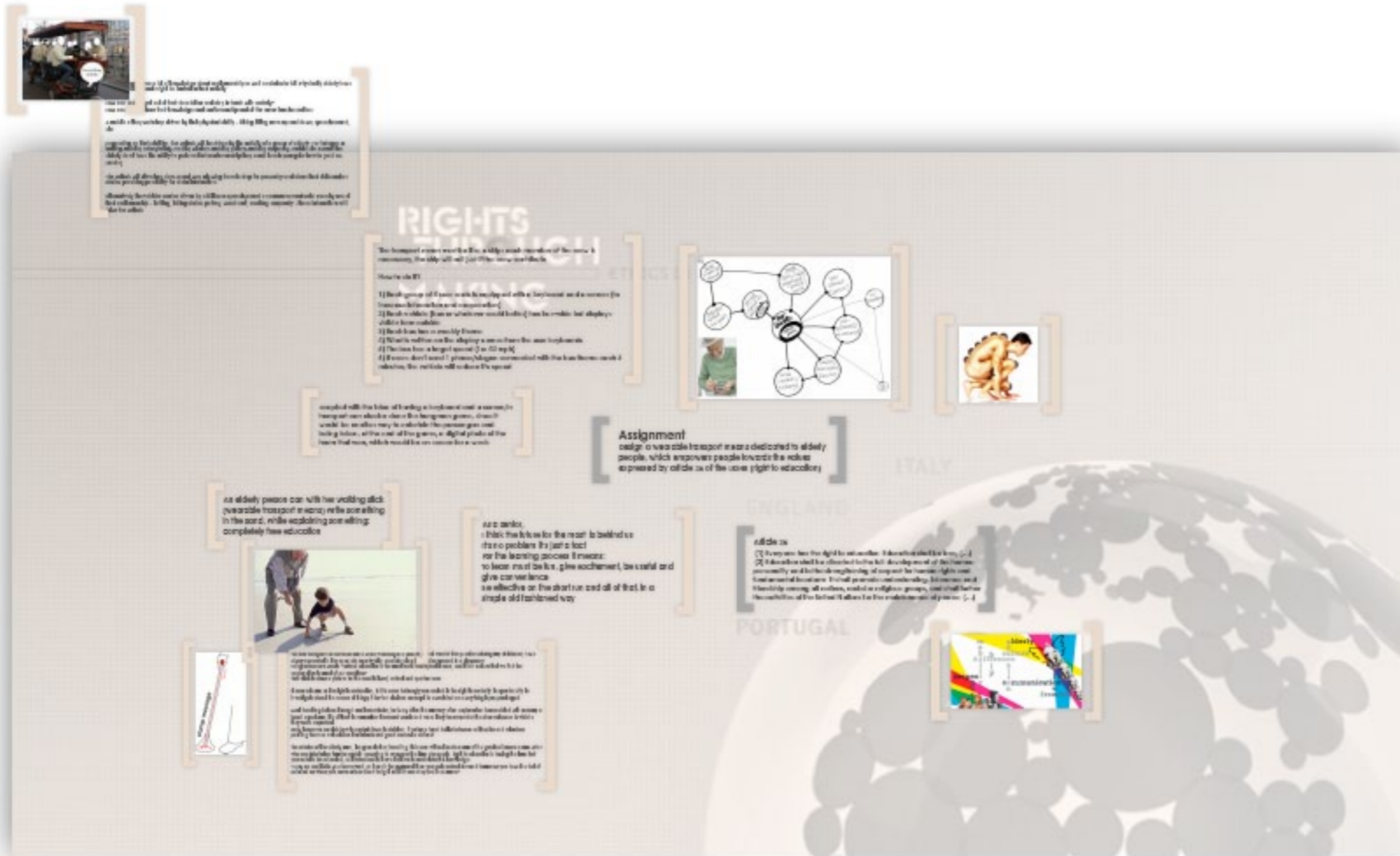
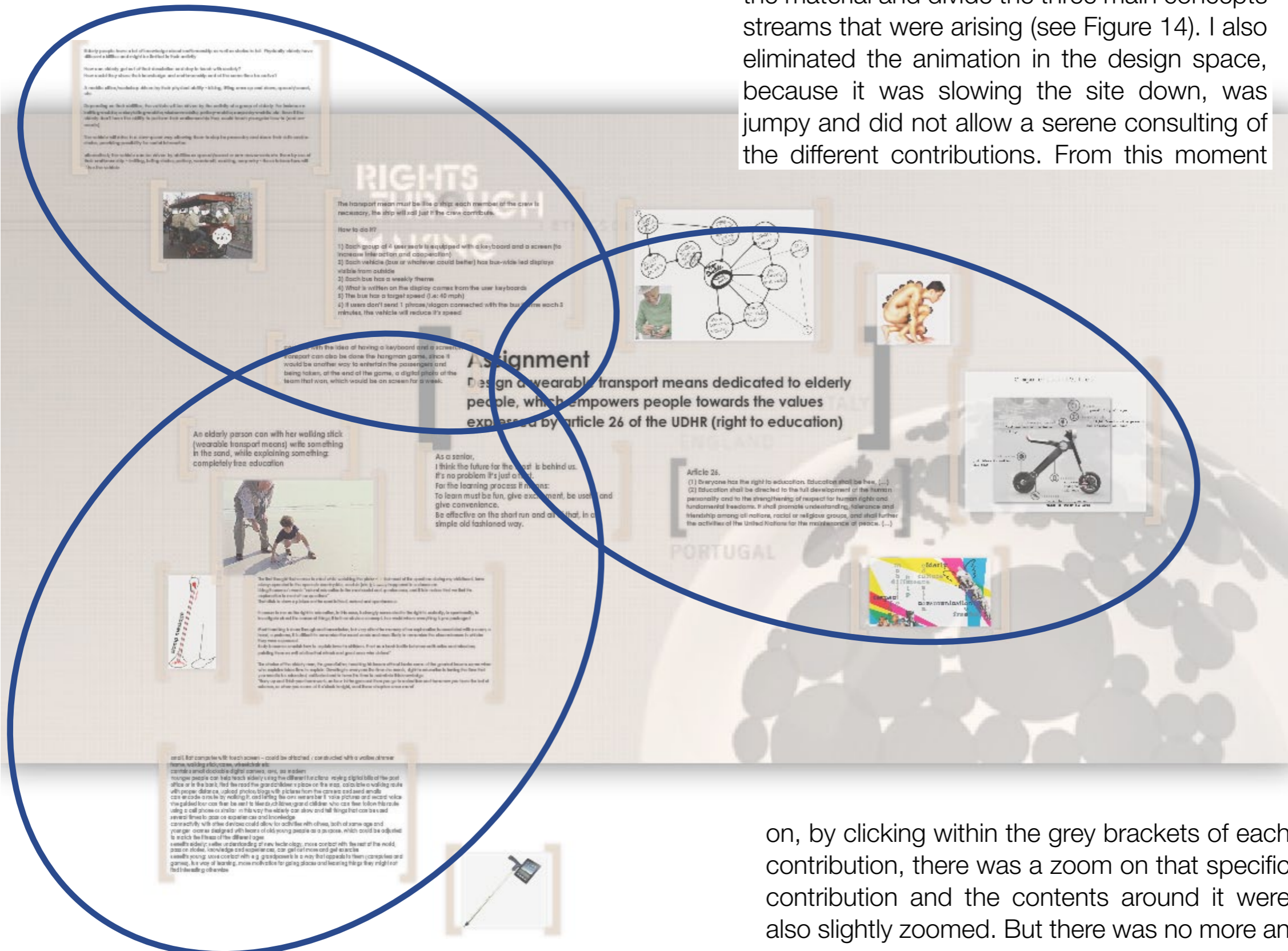


Fig. 13. The design space at the end of day 2.

Between day 3 and day 4, I decided to reorganize the material and divide the three main concepts streams that were arising (see Figure 14). I also eliminated the animation in the design space, because it was slowing the site down, was jumpy and did not allow a serene consulting of the different contributions. From this moment



on, by clicking within the grey brackets of each contribution, there was a zoom on that specific contribution and the contents around it were also slightly zoomed. But there was no more an animated transition.

Fig. 14. The design space at the end of day 3.

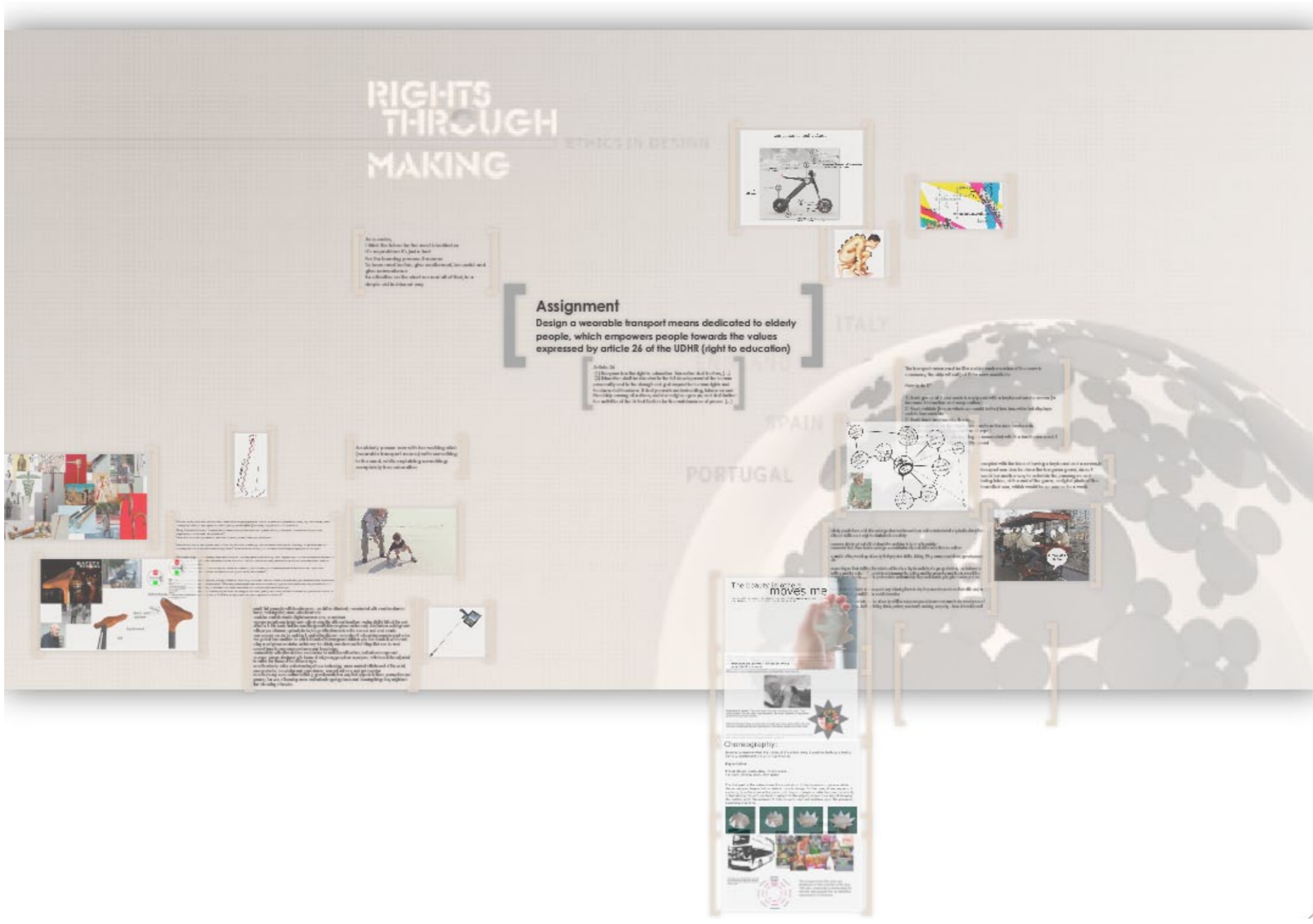


Fig. 15. The design space at the end of day 4

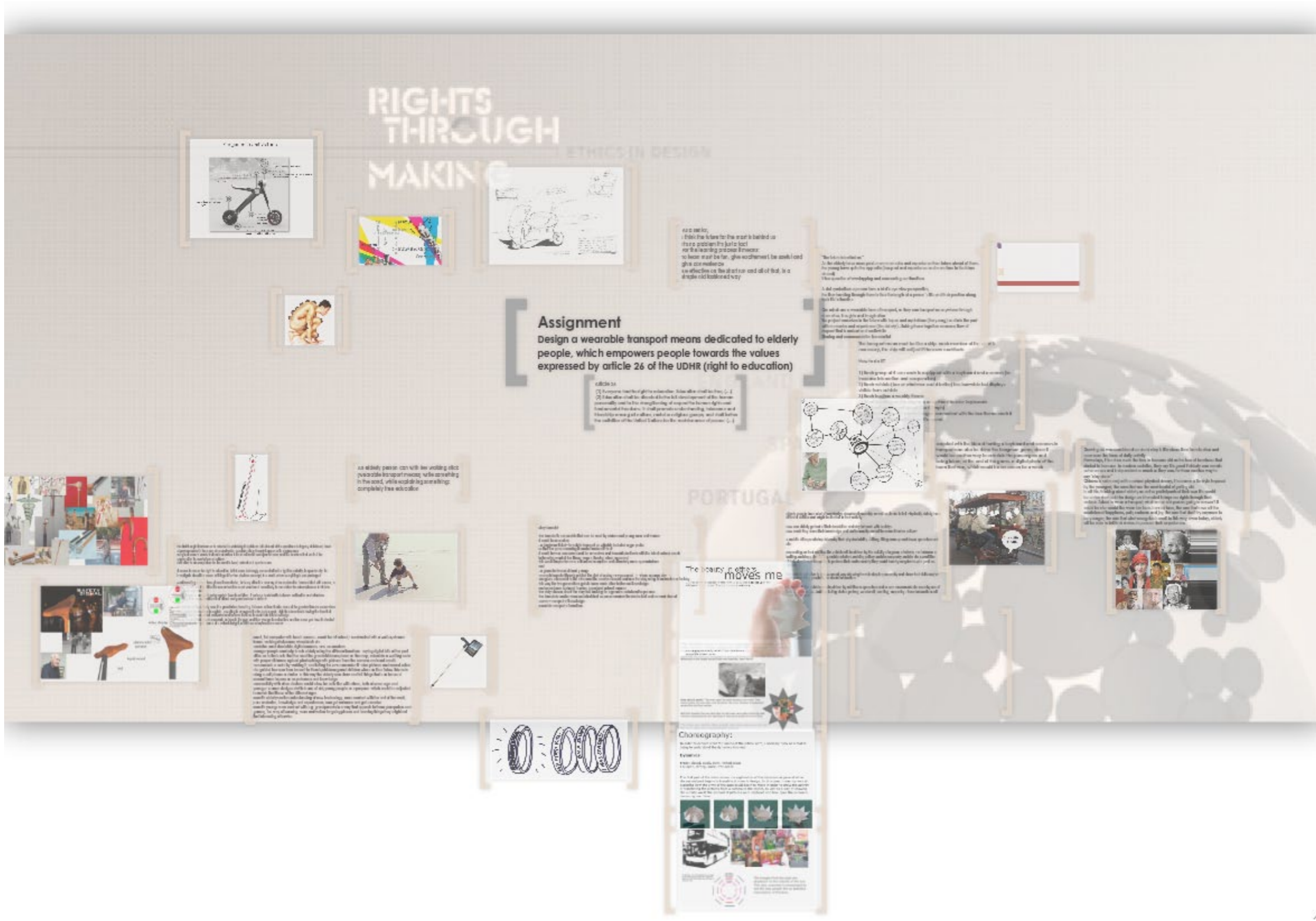


Fig. 16. The design space at the end of day 5

Participants' behaviour

As far as the evaluation of this experiment is concerned, I was rather surprised that everybody I invited actually accepted a last minute call (the invitation was sent 3 to 7 days in advance). Most of the people did it with sensible enthusiasm and curiosity, as can be traced in the e-mail conversations with the participants.

Non-designers said to be flattered by the invitations and often admitted to be slightly anxious. Only three of the people forfeited at the last moment, for sudden working commitments and did not participate. Seven people delivered late, i.e., not at the end of the day, but the following day. It was astonishing to note the commitment of almost every participant: the quality of the contributions reveals that each of them really took the time to work on the assignment and prepare his contribution, whether own text, or graphics or video.

Not all of them examined or took into account the other participants' contribution, but it is visible that most of them did, because they included traces of others' in their addition.

Observing the experiment from the perspective of people involvement, I can say it was absolutely positive, even more positive than expected. Three participants even contributed more than once, without being explicitly asked: they sent material in two different days. As a matter of facts, one of the initial doubts was about why would people bother to participate and how I could seduce them into the process. This seemed not to be an issue, although probably biased by the fact that all of them were connected with me with a good friendly relationship and did not doubt the request I made. It remains to be seen what would happen in case "strangers" were involved and how to tempt people into a longer commitment.

The space's behaviour, media and design synthesis

The main issue emerging from the workshop was yet the inadequacy of the design space, to support the process. The initial goal was to have a *dynamic, fluid space, where the different contexts where mapped according to conceptual proximity and one could assume distinct points of view.*

I first thought of creating this possibility of assuming disparate points of view by allowing people to navigate a 3D virtual space, where they could assume different positions and therefore perceive the space according to distinct perspectives. During the trial, the space, accessible online, was realized with Flash, which seemed to be the fastest solution to make an interactive and animated space. The idea of a three-dimensional environment was abandoned and the assumption of different points of view was reached by means of zooming: people could see an overview of all the posted contributions, but could also zoom on each one. As a result, also the surrounding contributions to the one clicked, would enlarge. The strolling among content and the perception of the various perspectives was not as intuitive and effective as it would have been in a three-dimensional environment. The interaction was therefore more cognitive based, but this was the compromise I had to make in order to make the experiment happen. Along the trial, I soon realized that the files were too heavy: they were slowing down the animation and making it twitchy. This made the consultation of the various contributions unpleasant and uneasy, inducing people to have only a partial look at what was on the design space and not an attentive, playful study of the previous contributions. As previously mentioned, we had to turn the animated transitions off, in the middle of the experiment, because people were complaining the about jerkiness and delaying of the design space. The fact that interactivity was limited, turned the space's behaviour into



Fig. 17. A visualization of the virtual collaborative design space

additive and discreet and not fluid and clearly complex as I wished it to be. From the kind of contributions that were delivered, a tendency to juxtaposition can be traced, vs. an integrative one. If a fluid behaviour and a clear consultation of the material were fully and beautifully supported, I believe that the integration of points of view would certainly be more effective. But this remains to be evaluated with a further trial.

As it is visible in the images (from Figure 12 to Figure 16), there were a lot of textual contributions (more textual than visual), mainly received, as expected, from non-designers or people not used to work in a visual way. Texts were short statements, quotations, longer reflections on the theme, personal stories or concepts' presentations. Some of the contributions were composed by a text and a visual part. Visual materials were of several natures: there were inspirational images (especially at the beginning of the week), graphic illustrations mixed with keywords and values' statements and then more or less detailed sketches/presentations of concepts. There was only one video contribution.

By observing how the design space grew, I can draft a general ranking of effectiveness of the different media. My interpretation is that longer texts were weaker than short statements. Images (especially with keywords) appeared to be more effective in imprinting on people's imagination and their traces are evident in later contributions, confirming what already stated in the previous chapter about the power of visual material and the consequent responsibility of graphic designers. It also confirms what already stated about expressivity in design: words can be a support, but they are not the key of a design process. Starting by Making is more effective.

The ideas that were put on the design space in the first days, where further elaborated by other participants, showing a "spontaneous" synthesis process, mainly carried by designers. The drawback of having people participating only once, was that they could not reflect on their own work and on what impact it had on others and use it for further design steps. The second strong limitation was the rhythm of interaction with the space: people could not see in real time what was happening. There was a delay, whose impact I cannot evaluate, because I cannot compare it with a situation in which there would be a direct feedback. Although this experiment concerned only the conceptual phase of a design process, I was positively impressed by the degree of definition of specific contributions at the end of the week.

This suggests that in the definitive design of the collaborative space, it could be enough to give a starting moment and a final deadline, although further "catalysers of synthesis" methods could be explored.

A problem immediately appears, when observing the context (screen-base interfaced internet), the means (graphic design) and the concept I want to empower (RtM, i.e. sharing the language of making) to create the online projects' showcase and the online collaborative design space. I state that skills, especially perceptual-motor skills are indispensable to trigger reflections and understanding; I also claim the primacy of action and making as the way to support designer's need for expressivity in their transformational processes. Meaning is achieved only when skills and making are involved: so how to deal with a context that is cognitive and representational? How to materialize the values expressed by the Universal Declaration of Human Rights in a virtual space? This is a project using graphic design, which is ontologically representational. What it is necessary to aim at is a representation as expressive as possible, which relies the most on non-cognitive skills of people using it. It should avoid metaphors, which are a common language for graphic designers. The necessity of delivering a real product certainly requires some compromises, but creates at the same time an extremely challenging environment to test our approach.

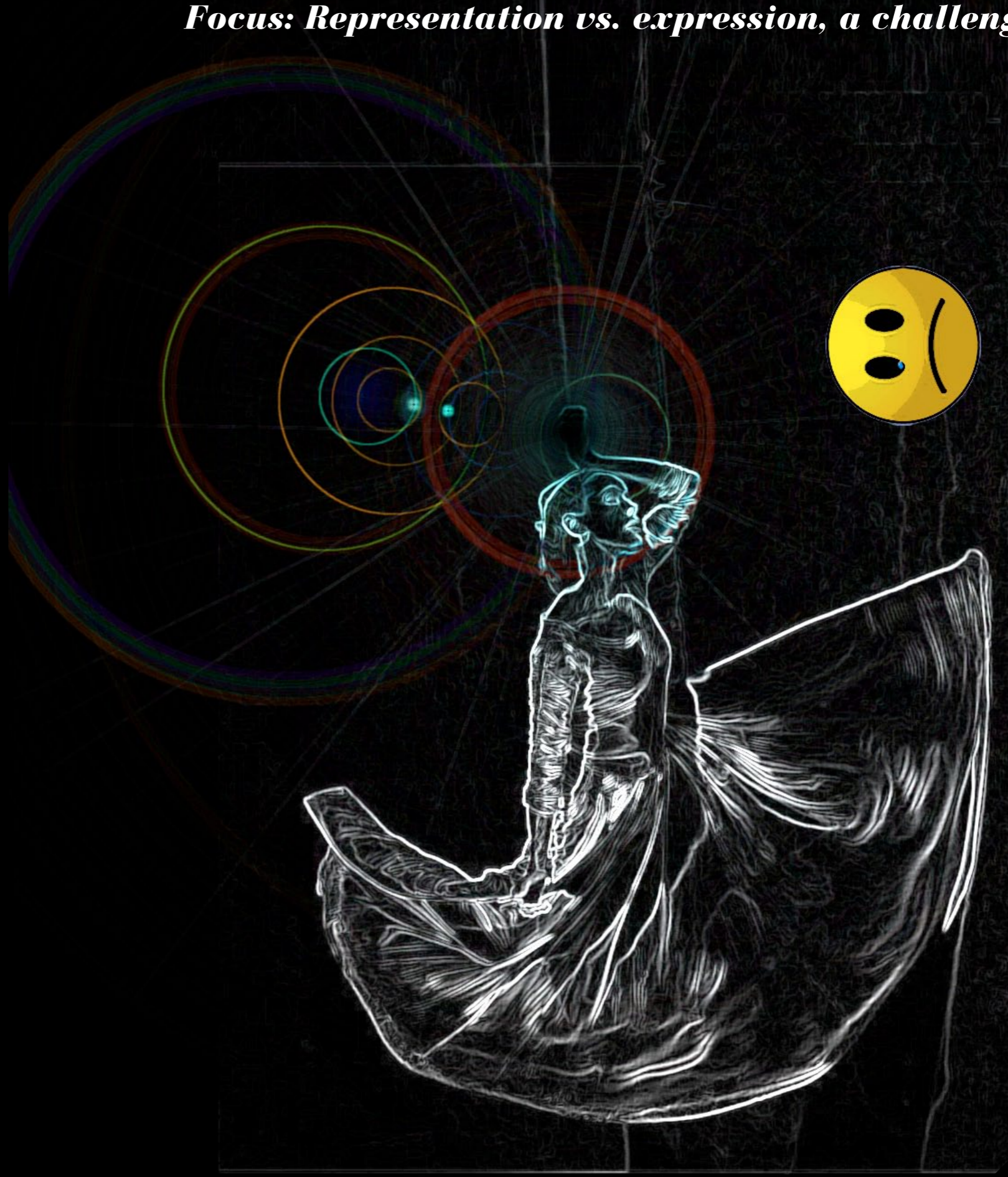


Fig. 18. The power of expression vs. the one of representation

Focus: Representation vs. expression, a challenge

4.4 FUTURE IMPLEMENTATIONS IN ACADEMICS AND IN BUSINESS

The observations resulting from the experiment I just described constitute valuable elements to actually design and realize a reliable pilot of the envisioned online collaborative space. Not all the questions initially asked were answered; yet, I believe this material is rich enough to actually realize it and strongly contribute to the diffusion of the RtM approach.

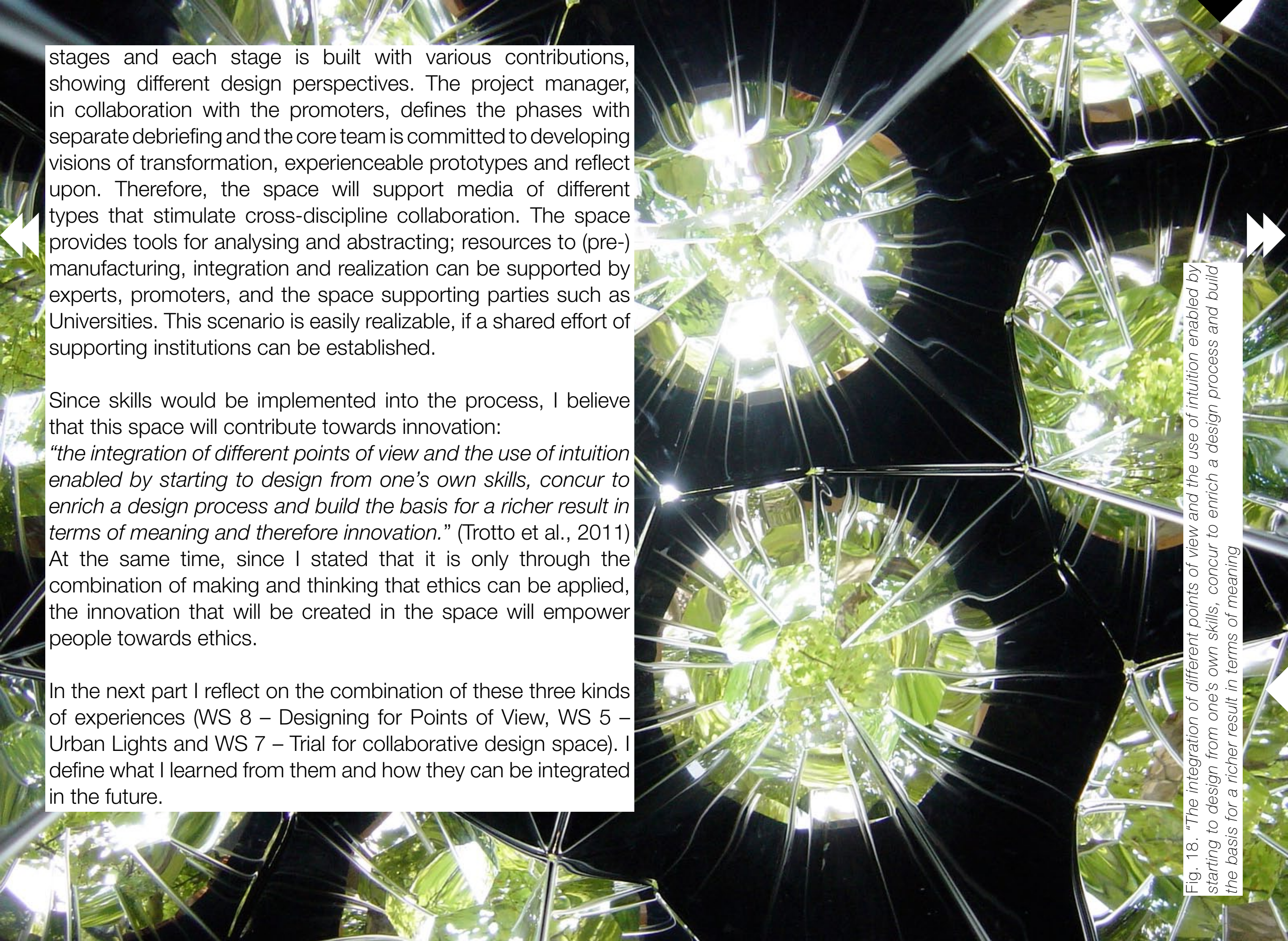
It is possible to imagine two main streams of application of this space: one is within design research and the other is in a business environment (products and systems' research and development).

In part 2, chapter “3 *Ethics through making*” I have mentioned expressivity as key issue to support the power of making vs. the use of words. Words impose sensible limitations to expressivity, especially when they want to describe making processes, skills. Being design about expressivity, meaningful reflections arise more likely from making rather than from logic speculations. The collaborative design space could become a shared space, where people:

- ▶ add/contribute with their projects, in an additive environment;
- ▶ reflect/reason by means of projects and not only words;
- ▶ map these in a complex space (i.e., positioning according to proximities/descendancy);
- ▶ propose points of view (by rearranging material, showing new relationships among items) and seducing others to build on one's own point of view.

This could also serve as a tool for people working in research as a sort “permanent conference” to build on design knowledge in a designerly way. This would constitute a brand new way of facing innovation in the academic world, which I believe is more suitable to designers, since it allows to use one's own skills, to build and design together with others and to do it in a three-dimensional and visual way.

The collaborative design space can also be seen as a professional design tool, dedicated to designers and industry that research innovation. I can indeed imagine the following scenario: participants with various backgrounds from all over the world are engaged throughout the development of projects thanks to the collaborative design space as enabling tool. A core team, lead by a project manager, guides the process by contributing to it with his specific knowledge and point of view, through related media of communication. Next to the core team, other expert participants (Verganti, 2009, would call them interpreters) enrich the projects. Expert participants can also be invited to contribute to specific areas or steps, according to their expertise. Promoters are needed to initiate and fund the project and its process. Outcomes can be produced under Creative Commons license with developmental advantages for the promoters. The development process can be divided in phases, each consisting of several



stages and each stage is built with various contributions, showing different design perspectives. The project manager, in collaboration with the promoters, defines the phases with separate debriefing and the core team is committed to developing visions of transformation, experienceable prototypes and reflect upon. Therefore, the space will support media of different types that stimulate cross-discipline collaboration. The space provides tools for analysing and abstracting; resources to (pre-) manufacturing, integration and realization can be supported by experts, promoters, and the space supporting parties such as Universities. This scenario is easily realizable, if a shared effort of supporting institutions can be established.

Since skills would be implemented into the process, I believe that this space will contribute towards innovation:

“the integration of different points of view and the use of intuition enabled by starting to design from one’s own skills, concur to enrich a design process and build the basis for a richer result in terms of meaning and therefore innovation.” (Trotto et al., 2011)

At the same time, since I stated that it is only through the combination of making and thinking that ethics can be applied, the innovation that will be created in the space will empower people towards ethics.

In the next part I reflect on the combination of these three kinds of experiences (WS 8 – Designing for Points of View, WS 5 – Urban Lights and WS 7 – Trial for collaborative design space). I define what I learned from them and how they can be integrated in the future.

Fig. 18. “The integration of different points of view and the use of intuition enabled by starting to design from one’s own skills, concur to enrich a design process and build the basis for a richer result in terms of meaning

PART 4

MAKE TOMORROW



PART 4 - MAKE TOMORROW

- 1. MAKE TOMORROW**
- 1.1 "Where the dreamer's dream is dared"
- 1.2 Where the dreamer's dream will lead




Fig. 1. "complexity, dynamism, permanency, être au monde and acting in the world."

MAKE THE WORLD



1. MAKE TOMORROW



- 1.1 “Where the dreamer’s dream is dared”
 - Conceptualising by Making: the easy trap
 - A NEW Craftsmanship
 - The power of integrating skilful points of view
 - 1.2 Where the dreamer’s dream will lead
 - Challenging Opportunities
 - The poetic expression of RtM
 - An inspiring case: leaving traces through light
 - Within the context of design research
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1.1 “WHERE THE DREAMER’S DREAM IS DARED”

In the first part of this thesis, I have stated the necessity of applying three actions, in order to support the on-going revolution towards pervasive ethics, through design. The Rights through Making approach was designed to fulfil this ambition. By means of workshops I have validated and refined the approach. Now that the three most significant workshops are illustrated in detail, I review the three main actions: (1) the balancing of Making and Thinking, (2) the necessity of educating (new) skills and (3) the need of integrating skilful points of view in a design process. An intertwined reflection on how these actions have been performed follows in the next paragraphs.

Conceptualising by Making, the easy trap

The first action relates to the necessity of balancing the social dignity of Making and Thinking.

I before stated that *“To promote a new culture in which Thinking and Making are equally important, the Rights through Making approach educates towards a design culture in which Making precedes Thinking: RtM envisions designers, first of all, as Makers”*.

In all workshops, the main requirement was Making, before Thinking.

The way to make this happen was initially to ask students to build experienceable prototypes and reflect on them, in iterations of reflection on action. This responded to the phenomenological perspective, of which I showed a primacy of meaning, part of experience, created by Making (and therefore transforming).

Fig. 2. “To promote a new culture in which Thinking and Making are equally important, the Rights through Making approach educates towards a design culture in which Making is primary in time: RtM envisions designers, first of all, as Makers”



Compatibly with the time restrictions imposed by the duration of the workshops, students made experienceable prototypes. They documented the use case scenario of at least the last version of the prototypes, to explain their design. They have, without a shadow of a doubt, learned how advantageous it is, design-wise, to build a prototype and use it on the one hand, as a tool to assess the dynamic form of their design and on the other, to appropriately communicate it to other people (e.g. assessors). Only requiring students to build experienceable prototypes was not enough to properly actuate conceptualisation by Making. Further techniques had to be developed in order to integrate Making and Thinking. This awareness grew workshop by workshop and, although there was an evident improvement of the design results, it was obvious that there was still work to do in this direction.

In the fifth workshop (WS 5 – Urban Lights), for example, I tried to merge this phase with the second part of the Choreography of Interaction. As soon as students went back to their desks and were allowed in their comfort zone, they also tended to get back to standard design procedures. Far from the state of alienation in which they were compelled during the application of the creative techniques, they tended to forget the sensorial parts of their previous explorations and applied rational patterns of thinking. At this point, another component started playing a major role in the team dynamics: language. All participants were forced to use a language that was not their native. The use of language and not mastering the common language created limitations of expressivity and therefore frustration in the communication within the team, slowing down the concept's design and stifling the design process. My experience has demonstrated that the design process goes smoothly only when the previous

bodily explorations have already landed into a concept's design. It works when there is a gradual transition from the bodily explorations into the Making, without a cerebral interruption, which often shows its incapability of handling the assignment's complexity.

It was clear that students are trained to move in a rational and logic sphere and do not feel at ease in challenging skills that are different from cognitive, i.e., perceptual motor or emotional. It is as if they are magnetized to get back into tracks they are more familiar with, such as discussing, using their linguistic skills (both by talking and writing). The moment, in which they manage to step into the Making mode, this improves dramatically their ability of understanding (even in a rational way) and attacking the design challenge.

This issue constitutes an *easy trap*, in which not only students fell, but also I stumbled several times upon. For example, although I kept on encouraging students to make together, instead of discussing and thinking too much, I gave them a different message in the organizational material I provided them with. In the questionnaires that I describe in the annexes, in the chapter "*Reflections and evaluation of the RtM workshops*" or in producing the workshops' schedules, the concept's design and the making session were mentioned separately. Only afterwards I realised this, at

times, inconsistency of my communications. This shows clearly of *how deeply, unconsciously and dangerously the separation of “Thinking” and “Making” is rooted in our way of facing the world and consequently in designing, even when we are completely aware of its inadequacy and vigorously fight against it.*

This is a further reason to envision an ideal situation in which designers are placed to work in environments that afford Making, in a location that is tuned with the place’s craftsmanship spirit. We need not only tools, but also environments that fit the design assignment.

Concluding: while, by coaching students and working together with them, we could help them to work towards a unity of form, function and interaction, what missed was conceptualisation by Making.

When I realised that this was the focal point, I started to further elaborate and design methods and techniques for this integration to happen. WS 8 – Designing for Points of View tackles exactly this issue. Which responds to the third action: integrating skilful points of view. I will expand on it later.

A NEW Craftsmanship

In order to create the *terroir* for a new civilisation to flourish and in order to consolidate new values, new skills have to be acquired in relation with the exercise of autonomy and of the Kantian free reason. This is what Mendelssohn stated with the equation “*Bildung = Kultur + Aufklärung*”.

If contextualised in the present situation, this statement suggests two opportunities of action. A new attitude in designing has to be taken and a new material consciousness has to be developed. I explain.

The new attitude in designing can be built on the model of Arendt’s *homo faber*. Designers have to design starting from



Fig.3. Detail of “Endless” Chair, by Dirk van der Kooij

making and actuating iterations of reflection on action; their personality as designers is filtered by their skills. They have to strive for excellence, led by passion and continuously improve their skills. At the same time, designers must keep exercising the ability of forecasting what transformation their designs will create in society. They constantly have to wonder *why* they are taking specific choices and what consequences these choices will have. “Autonomy is built by means of developing one’s own skills and one’s own learning path, during learning-through-doing cycles. It respects therefore individual sensitivity, boosting one’s own proclivities towards transformations”.

Sennett defines the concept of “material consciousness”, which is the awareness of the potentialities that a certain “material” offers towards a transformation (2008, pp. 119-144). In the context of new craftsmanship, a new material consciousness has to be acquired: new materials are today at hand and have to be combined with traditional materials. Because we act in a world in which systems and services have the potential of becoming more and more intelligent, the consequence is that designers have to deal with digital technology, as a material. Now, if digital technology is a material, the designerly way to treat it, is through sketching. How is it possible to sketch with digital technology? The problem is that there are no techniques available allowing to actually sketch as it can be done with any other traditional material (e.g. cardboard or clay). Although there are attempts in this direction (e.g. Object Oriented Modeling), there is no embodiment while dealing with digital technology. What we noticed, is that as soon students had a concept that they developed with a low-fi prototype and they decided to turn this concept into an experiential prototype, if digital technology was involved, the reflection stopped. They started “blindly” building with digital technology, without any possibility of reflection,

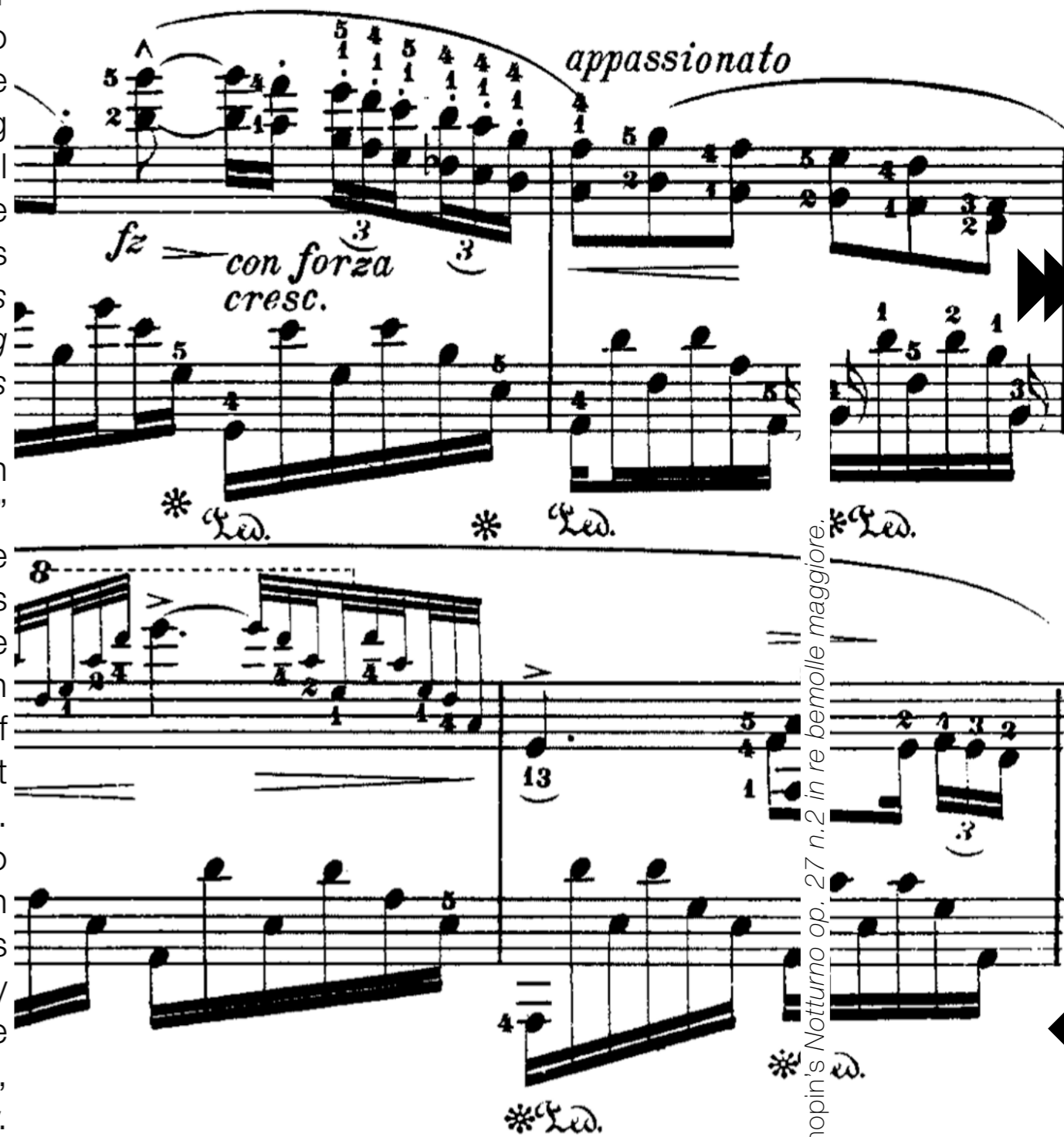


Fig. 4. Fryderyk Chopin's Notturmo op. 27 n.2 in re bemolle maggiore.

because there is no possible embodiment with digital technology. As Kees Overbeeke often claimed, the lack of gravity in digital technology makes it difficult to sketch with it: there is no embodied experience. Using digital technology requires today the learning of a language. Using digital technology demands to go through abstraction, breaking the loop of reflection on action, possible thanks to embodiment. This confirms the already perceived necessity of designing ways to sketch with digital technology (Frens et al., 2003, p.4), so that a new craftsmanship can rise.

The power of integrating skilful points of view

WS 8 – Designing for Points of View has faced the issue of integrating skilful points of view. How did I get there? Along the years I realised that it was necessary to provide students with techniques that would allow them to actually conceptualise by making. In order to do this, I realised that it was necessary to start from the individual skills of people and not from their opinions and views. Starting from one's own skills requires a personal engagement in the design process, which helps to reach expressivity and raises respect and empathy in other participants of the process.

This workshop has constituted the turning point of this research. It opened up optimistic future perspectives in several layers of meaning:

- ▶ The approach that has been used respects the designer's individuality/sensitivity; the designer is in fact able to pour into the design process his identity, of which culture is a relevant component;
- ▶ This approach promotes a respectful/constructive integration of points of view, of different individualities, participating to a design process, a true integration of competences;
- ▶ It elicits a transfer of meaning through skills, from the designer

to whom is using the design, opening up for possibilities of resonance and empathy;

- ▶ It boosts the creation of meaning, as a result of experience, by involving perceptual motor and emotional skills, beyond cognitive ones.
- ▶ Since designing is always a collective effort and since an integrative efforts respecting each individual's sensitivity involved can happen only through Making, this skilful integration of points of view, is the key, if properly spread in the design practice, for the desired shift of thinking towards pervasive ethics.

Fig. 5. Detail of Amalia Pica's Venn Diagram (under the spotlight). Photography exhibited at the 54th Biennale of Arts of Venice.



1.2 WHERE THE DREAMER'S DREAM WILL LEAD

Challenging Opportunities

The evaluation of the outcomes of the different workshops' I gave shapes new directions, which are the next steps to refine the RtM approach. The main elements arising are the following (which I list in order of priority): (1) implementing in the "traditional" RtM workshops (the first 6 workshops), the technique developed during WS 8 - Designing for points of view, to foster conceptualising by making and the integration of skilful points of view in a design process; (2) realising the "*Collaborative Design Space*", finding ways to create a permanent workshop in time and in space, embodying the RtM approach; (3) adding in the workshops sources for competencies on human rights and societal issues – knowledgeable people in this domain – not just giving inspirational lectures but also participating during the process, will concur towards stronger foundation regarding the plausibility of design concepts and will diminish the risk of naive visions on societal problems; (4) introducing in the workshops working sessions together with craftsmen, not just using it as inspirational material, but actually including it in the Making session; (5) refining the approach, allowing more iterations of reflection-on-action on interim prototypes. This aims at strengthening the integration between Conceptualising and Making. It can be realised through a more relaxed schedule both for students and for supervisors, which would hopefully allow people to get to know each other better and, as a consequence, work better together.

This work has aimed at creating an approach that could empower

pervasive ethics through design. The approach used in workshops is the main thing that I have based my reflections upon. To have an example of how this approach would impact not only the designer, but also the people using the product, I would like to give an example of an outcome. But before giving the example, I present what I called "*The poetic expression of RtM*".

The poetic expression of RtM

The model that I introduced in part 3, chapter 3 ("WS 5 – Urban Lights"), has been refined after the following workshops. Here, I propose a visualisation, very different from the one already presented, which did not express some aspects that are focal for RtM. These are *complexity, dynamism, permanency, être au monde and acting in the world*.



Video 1. "The poetic expression of RtM"
Fig. 6. "Spirograph Unleashed", by Scott Chitwood

An inspiring case: leaving traces through light

The main question at this point is: How can we get designers to apply our approach?

I end this thesis by illustrating an example that condenses several of the outcomes of this research. This design reconnects to my personal motivation and is a good example of the effectiveness of the RtM approach.

Roos Flapper is a master student at the Department of Industrial Design. She is also a singer and song-writer. She is fascinated by the possibility of connecting people and especially different generations through design. She designed a beautifully simple system to create pretexts for communication between grandparents and grandchildren. The lamp is provided as a construction kit, formed by (1) standalone lighting modules (circuit, lighting source, power), (2) a template to create the single modules composing the lamps, (3) the basement and (4) instructions of how to build it. Every module can be created by folding paper or cardboard in an origami manner, based on the template. Once the modules are built, the lamp can be set up as follows: the basement is mounted and attached to electricity; then the different modules are applied to the basement. Each module can be realised with whichever paper or cardboard one finds more appropriate. It can be decorated in any manner (carving it, drawing on it, applying things on its surface, and so on).



Fig. 7. An image of the experienceable prototype built by Roos Flapper, 2011.

The light source inside each module, once the surface of the module has been manipulated and reapplied to the base, will shine for a defined amount of time. After that, somebody will need to take the module off again, possibly work on it, and put it back on the base.

A suggestion of a use case scenario is the following: a grandchild gives this lamp as a gift to the grandparents. Then they build it together and install it in the grandparents' house. Every time the grandchild visits, he can play with it, he can create new modules, insert messages inside, grandparents can leave all sort of traces, to set a playful, secret exchange of "skilful messages". The grandchild will probably also be motivated in keeping the light alive.

The concept is simple: by leveraging on curiosity and playfulness, an expressive dialogue can be created between older and younger generations. Its expressivity is based on the sharing of skills, which determines a playful and hopefully long-lasting involvement. This system creates opportunities for meaning to arise, respecting the users' sensitivities.

There are several layers of interest in this example. Some of them concern the design process and some of them the outcome.

Regarding the process, there are two elements that I want to highlight:

- ▶ The designer's skill was the point of departure: Roos sings and writes lyrics. When she was asked to reflect on the salient element of her skill, she isolated the pleasure of being expressive and therefore to communicate feelings to other people;
- ▶ By means of sketching, and therefore embodiment, Roos succeeded in translating her abstract skill into a palpable product, where manual skills serve as a trigger to start using the product.

Looking at the design outcome, I observe that:

- ▶ The system educates new skills, by promoting the exchange of skills between generations;
- ▶ Although it was not part of the assignment, the system materializes several human rights. The requirement of using one's own skills (using a 1st person perspective) and merging skilful points of view led to the design of a system, of which the use will empower towards basic human rights. Let it be noticed that materialising an article of the Universal Declaration of Human Rights was not specified in the assignment. The system for instance, educates towards freedom of expression (art. 19), towards protection of the family (art.16, comma 3), and to the free development of one's personality (art. 22).

Within the context of design research

Among all the outcomes of the workshops, the lamp designed by Roos Flapper is not the best example to highlight the integration of different points of view, as I intend it in the RtM approach, because it is an individual design effort. To examine results which are meaningful with respect to this aspect, I refer to the results of the 8th workshop (WS 8 – Designing for Points of view), as illustrated in the paper “Towards design-driven innovation: designing for points of view using intuition through skills” (Trotto, Hummels, Cruz Restrepo, 2011). However, it gives me the possibility to briefly open another perspective. The integration of different points of view happens on a different level of the one elicited by the method that I designed in WS 8. It is not properly what I called “*integration of skilful points of view*”, because, in my approach, the skills are those of designers involved in the design process. In this case, the initial idea of Roos Flapper was influenced by the dialogues/making sessions that she had with the people she interviewed, which were also the users of her final design. This makes this process more similar to participatory design, rather than to the RtM approach. The integration of points of view is a theme that is nowadays treated in several domains (i.e., co-design, open design or participatory design). In this thesis, I have not started by positioning my approach within the context of analogue attempts in design research. This is mainly due to the fact that I, myself, wanted to test the effectiveness of starting from the Making. I first gave workshops, based on the beliefs and intuitions expressed in the Manifesto, and afterwards I reflected on them. Still the resulting approach has elements of originality, with respect to what is done in design research. The element of starting from the designers’ skills and combining it with others’ skills is an example. This opens the possibility of collaborating in the future with researchers moving in these domains and enrich each others’ perspectives.

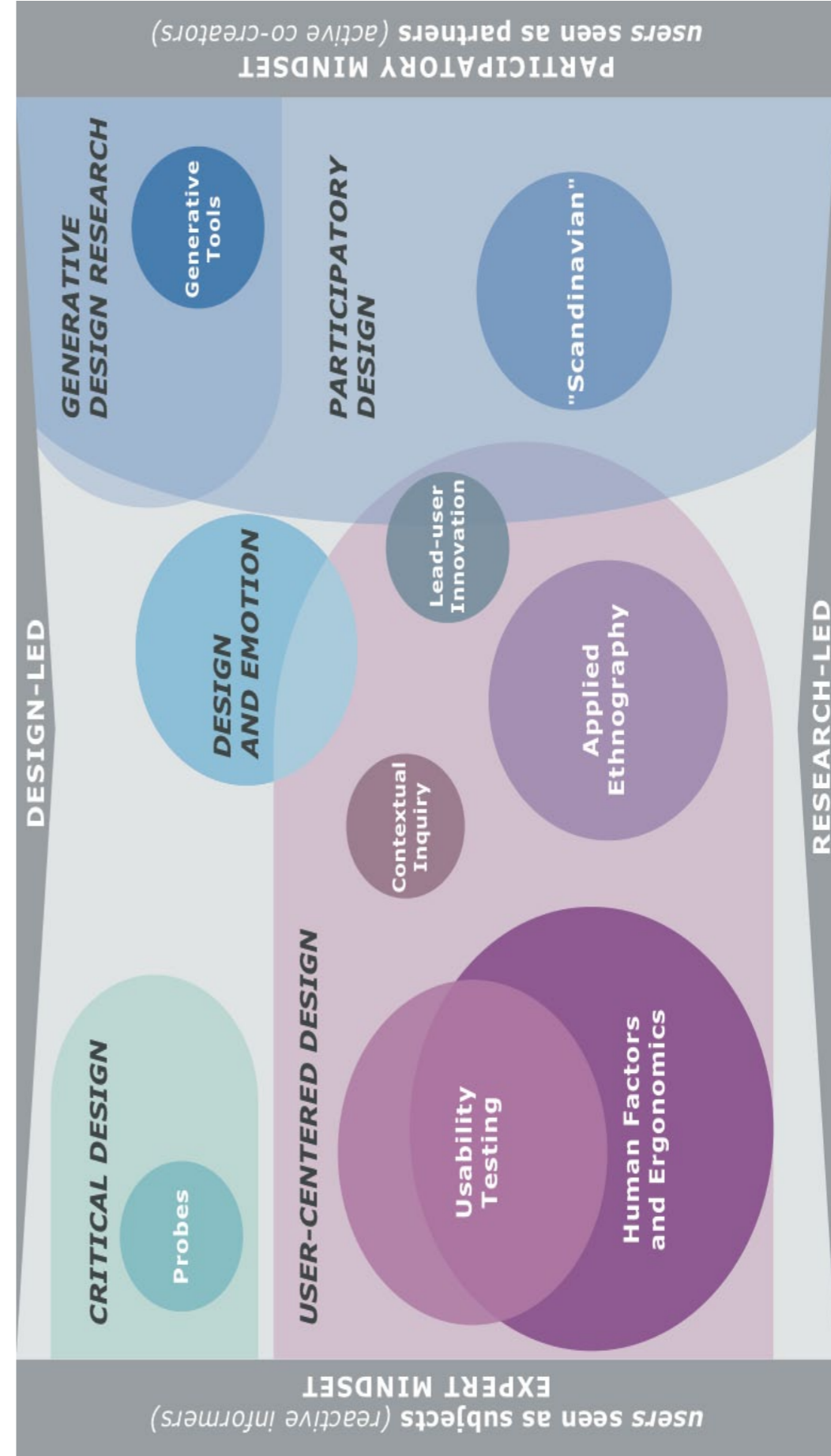


Fig. 8. Detail of Liz Sanders' map of design research - research types

Behind every endeavour lies an obsession. Obsession is the necessary attitude to acquire, consolidate and refine skills. With this research I contributed to the creation, the application and the diffusion of new skills in the design field. Hopefully, through the development of the RtM approach, this skilful integration of points of view will become a praxis and, through the current complexities and points of resistance, the desired change in Thinking towards pervasive ethics, will mark its way. And civilisation will progress.

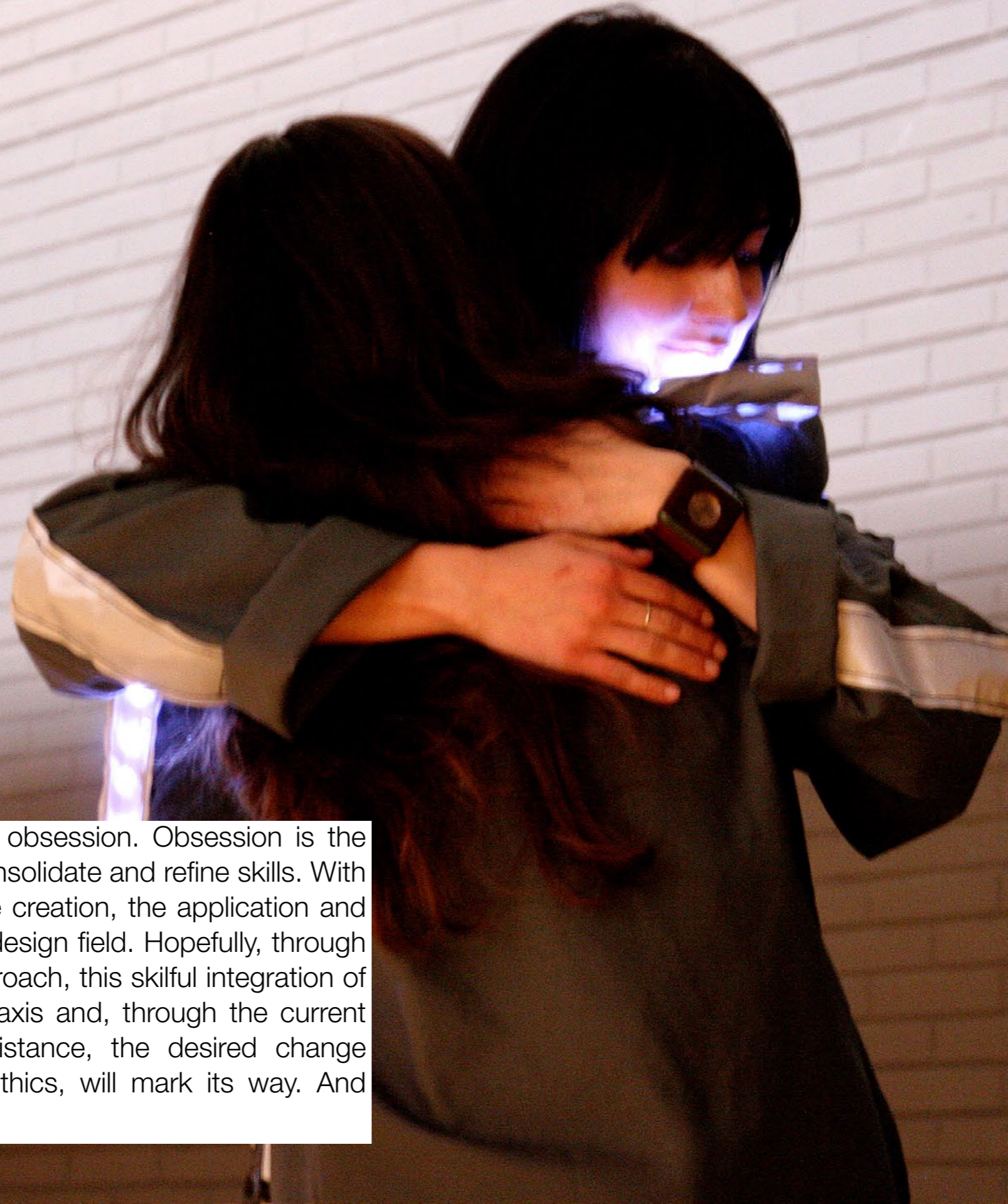


Fig.9. *Beehugged* (2009), a jacket to recharge other people's electronic devices by means of physical contact, designed during WS 3 - Bionic Wearables by Erica Battaglia, Veronica Cornacchini, Youyou Yang, Pakwing Man and Jesper Schwachofer.

ANNEXES

RTM WORKSHOPS
SPREADING RTM



RTM WORKSHOPS

1. WORKSHOP'S PROCESS

- 1.1 Workshops' preparation
- 1.2 The Workshop

2. WORKSHOP'S APPROACH EVOLUTION

- 2.1 The evolution of introducing theme and assignment
- 2.2 The evolution of supporting team-work
- 2.3 The evolution of the inspirational support/context information session
- 2.4 The evolution of creative techniques
- 2.5 The evolution of the conceptualising by making session

3. REFLECTIONS AND EVALUATION

- 3.1 Questionnaires: the students' evaluation
- 3.2 Reflections on the workshops' experience
- 3.3 Evaluation of the workshop's results
- 3.4 The RtM model

1. INTERNET PLATFORM: SHOWCASE

- 1.2 Internet and Human Rights
- 1.3 Representation vs. expression: the challenge
- 1.4 Rightsthroughmaking.org: graphic project development

SPREADING RIGHTS THROUGH MAKING



In these annexes, there are descriptions and reflections that I have written and used in order to build the thesis, but that could not belong to the main narration line. I decided to insert them, in case the reader is interested in knowing more details, both about the first six workshops and the design process of the Internet Showcase.

It is possible to directly go to a chapter, by touching on the desired area of the index.



Fig. 1. Graphic exploration of how to interact with the internet platform, by Ilaria Visca

RTM WORKSHOPS



RIGHTS THROUGH MAKING (RtM) WORKSHOPS

In this part, I describe how the Rights through Making approach was created and developed with the first six workshops and I reflect on its developments and results.

Every workshop was an opportunity to refine the approach, according to the previous experience, to pursue the aims stated in the Manifesto and to prove or disprove, evidenced by design results, the effectiveness of this approach.

The first 6 workshops are illustrated in this part:

WS 1 – Rights through Making

WS 2 – Wearing Quality

WS 3 – Bionic Wearables

WS 4 – Cultural Waves

WS 5 – Urban Lights

WS 6 – Metamorphic Fashion

I start from listing all the characteristics and presenting the outcomes in the following chapter “The workshops’ overview”. In “The workshop’s process” I present, the macro-steps of these workshops. In “The workshop’s approach evolution”, I relate on the development of the Rights through Making approach, workshop after workshop. The last chapter, “Reflections and Evaluation of the RtM workshops” contains the reflections on each step, on the design outcomes and on the students’ growth in awareness.

Fig. 2. Students working during WS 2 - Wearing Quality, Florence.

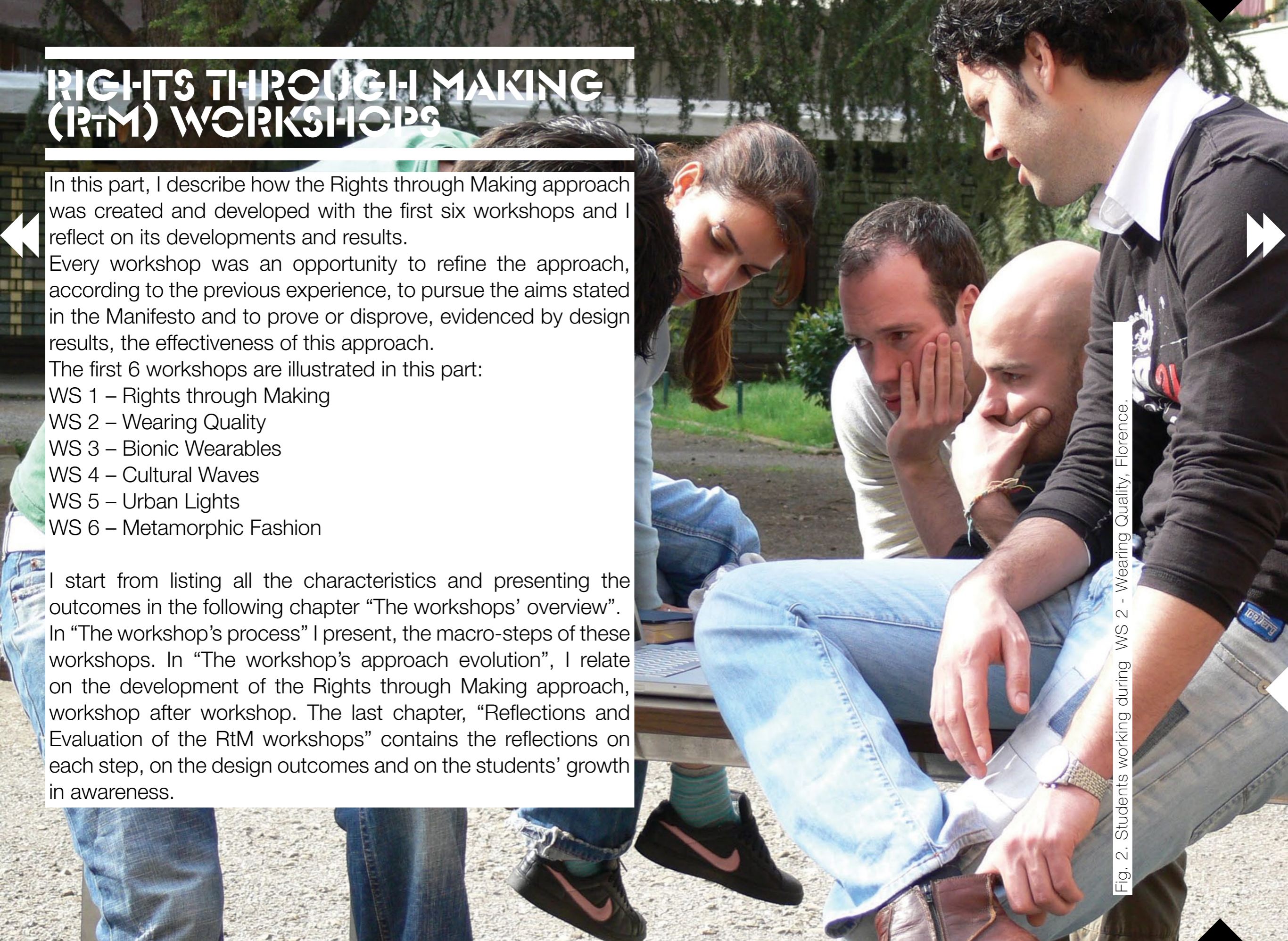


Fig.3. Working in the lab, during WS 5 - Urban Lights, Eindhoven



2019-2020
2020-2021

1. WORKSHOP'S PROCESS

1.1 Workshop's Preparation

Terminology

How it starts

Choosing the location

Involving contributors

Defining a theme and an assignment

Defining the creative techniques

Involving expertise and setting up a schedule

1.2 The Workshop

Introducing theme and assignment

Dividing into teams and team-work

Inspirational support/context information

Explaining creative techniques

Conceptualisation by Making

1.1 WORKSHOP'S PREPARATION

In this chapter I introduce the main steps of the first six workshop's preparation and of the actual workshops. I then give a schematic overview of all six workshops, listing the main characteristics (such as participants, outcomes and contributors). I start by explaining a basic terminology that will serve to understand how the Rights through Making (RtM) workshops are articulated.

Terminology

Let's first define the terminology that I use in describing the workshop's process.

There is a general, basic *task* that is at the base of the RtM workshop, and it responds to what stated in the Manifesto: I ask to materialise the values expressed by a specific article of the Universal Declaration of Human Rights. This means that the design that results from the workshop is a product or a system that empowers people towards the realisation of fundamental Human Rights.

The second layer is the *theme*: before each workshop, coaches from the two funding institutions define a general theme that they want the student to address. This theme is the field in which a most specific *assignment* is defined and given to students, that clarifies more specifically the theme and the expected deliverables. For instance, the theme of the third and the fifth workshop was the same: enhancing social interaction in multicultural cities. The assignment was different: in the third workshop students had to design a wearable product, dedicated to people living in urban spaces, endowed with fashion values; in the fifth workshop,



Fig. 4. Working in the lab, during WS 3 - Bionic Wearables, Eindhoven

they had to use light to achieve the aim stated by the theme, designing urban products.

How it starts

The six workshops had three different origins: the first, second, third and sixth were initiated by the founding partners (Eindhoven University of Technology and University of Florence, together or separately). The fourth started as an invitation from the Universidade do Sul de Santa Catarina in Florianópolis, Brazil to the University of Florence, to lecture for a two months period at their University. The fifth workshop arose from a collaboration that the Municipality of Eindhoven and the Eindhoven University of Technology started.

Choosing the location

Until now, apart from the workshop in Florianópolis (workshop 4 – Cultural Waves), the two founding partners hosted all of them. The infrastructure that Eindhoven can offer, makes it easier to set up a workshop there, mainly because of the presence of electronic laboratories and material supplies.

As the focus of the Department of Industrial Design of the TU/e is on intelligent products, systems and related services, it is common practice to work with electronics. A one-week workshop requires an extremely optimized schedule that can be easily made if there are already laboratories dedicated to the specialised activities that I require students to do.

Involving contributors

In most of the workshops that I held, I involved external contributors. Their nature was different every time: museums, companies, public institutions and other departments of the universities.

When I describe the evolution of the RtM approach, I mention which contributors have been involved in each workshop and with what purpose.

Defining a theme and an assignment

In each workshop, the team of organizers and coaches has agreed on a specific theme and on an assignment. I started without a defined theme in the first workshop; in the following workshops I proposed a theme and constrained more and more its amplitude, to optimize time, based on the results of previous workshops. The theme itself has been chosen on the basis of the location (territorial identity, local manufacturing districts) and on the base of the departments' current research topics. For both founding Universities, these two criteria intertwine and partly overlap (e.g. the relationship between the presence of Philips and the focus on intelligent products of Industrial Design at the TU/e on one side; the historical fashion district in the Florentine area, and the strong drive for formal research at the Department of Industrial Design of the University of Florence). The choice of the assignment has followed the same criteria, as did the nature of the contributors.

Defining the creative techniques

I have already stated that the general task in each RtM workshop, is the request of materialising the values expressed by a specific article of the

Universal Declaration of Human Rights into a product. According to the chosen theme, the coaches have designed different creative techniques to use in workshops.

The techniques that I applied, expand on earlier work¹ and are specifically designed to sensitize students on the subject of Rights Through Making. The purpose is to catalyse a rapid concept generation to face the assigned theme.



Involving expertise and setting up a schedule

Four out of six workshops were done in one week, fulltime. They were intense cultural immersions that involved both students and coaches, full-time for five days. The fourth workshop was done in a longer period of one month and a half, involving coaches and students for ten working days. The sixth workshop was done in a period of four months, with a weekly meeting day.

The kind of guided activities the schedule contemplates and the way time is planned and activities are divided have been subject to substantial refinement along these four years. It has become clear that the schedule is an important player in the success of the workshop. I discuss how this refinement developed during the six workshops in the next sections.

The following is a general structure that illustrates the sum of all single workshops experiences, listing all the steps and the related activities that have been proposed to students to lead them through the design process.

¹. See DQI (Designing Quality in Interaction Group at the Department of Industrial Design of the Eindhoven University of Technology) scientific production, http://dqj.id.tue.nl/?page_id=236

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- 
1. Theme Introduction
 2. Dividing into teams
 3. Inspirational support/context information
 - ▷ dreaming of the impossible (Kees Overbeeke) (WS 5)
 - ▷ what is meant by fashion values (Gabriele Goretti) (WS 3)
 - ▷ bionics in design (Ambra Trotto) (WS 3 and 4)
 - ▷ how to use the Use Case Scenario technique (Gabriele Goretti) (WS 5)
 - ▷ urban design vs. light design (Gabriele Goretti) (WS 5)
 - ▷ experienceable prototyping (Joep Frens) (WS 2, 3 and 5)
 - ▷ ethics in design: design for transformations (Philip Ross) (WS 5)
 - ▷ what is wearable technology and the role of designers in society (Stoffel Kuenen) (WS 5 and 6)
 4. Inputs from contributors
 - ▷ designing for quality in a manufacturing perspective (Gabriele Guidoni, Decobel) (WS 2)
 - ▷ historical changes in social values (Museo dei Ragazzi di Palazzo Vecchio) (WS 2)
 - ▷ the influence of society and culture in arts and design (Museo dei Ragazzi in Palazzo Vecchio) (WS 2)
 - ▷ presentation of MormaiiTec vision and brand values (Alexandre Goettems) (WS 4)
 - ▷ presentation of Eindhoven as city of Design (Cees Donkers) (WS 5)
 5. Explaining creative techniques
 - ▷ choreography of Interaction (Michael Cruz, Caroline Hummels, Ambra Trotto)
 - ▷ interaction Relabeling (Caroline Hummels) (WS 2)
 - ▷ (silent) Presentations (Kees Overbeeke, Caroline Hummels) (WS 1, 2, 3, 4, 5 and 6)
 6. Conceptualisation by Making (experienceable prototyping)
 - ▷ form
 - ▷ function
 - ▷ interaction
 7. Results

These steps are described in the following section.

1.2 THE WORKSHOP

In the previous section, I explained the steps involved in the preparation of the workshops. How the actual workshop is articulated is what is described in this section.

Introducing theme and assignment

Every time a workshop takes place, I give an introduction to students, to open up the RtM approach, presenting its focal points; it also defines the workshop's theme and assignment -basically what I ask students to design- and it explains the creative techniques that are supplied. By introducing the RtM approach, I explain the three main points and their intersections.

“In the first place, we have put into words some inherent rights. Beyond that, we have found that the conditions of our contemporary world require the enumeration of certain protections, which the individual must have if he is to acquire a sense of security and dignity in his own person. The effect of this is frankly educational. Indeed, I like to think that the Declaration will help forward very largely the education of the peoples of the world.” (Roosevelt, 1948)

One of the three components is *ethics*, as explained in the first chapter of the second part (*1 Towards Universal Human Rights*), which I chose as a foundation in our design approach. Design that does not take into account the social, environmental consequences of the transformation that it induces, cannot be sustained anymore. There is a need of a new humanism, in which the value of respect becomes primary. I chose the Universal Declaration of Human Rights as a fundamental design tool to elicit the embodiment of ethics; by integrating the values that the Declaration expresses into the design of products and services, I aim to steer societal transformations triggered by products, towards ethics.

The second component, as explained in part 1, chapter 2, is *Making*. I ask students to make things, leaving aside as much as possible all techniques that capitalise on cognitive patterns in order to elicit the use of all other skills that involve the use of the body. As I explain later, the creative techniques I introduce to the students, reinforce this aim, as I am convinced that the design process has to involve bodily experiences and not only conceptual (cerebral) abstractions.

The third component that I introduce at the beginning of the workshop is the communication that students are required to use, which is based on the *sharing of the language of making*. This component constitutes a link between ethics and making, because it elicits their connection both ways: by sharing the language of making, an ethical aim is achieved; materialising the values expressed by an article of the Universal Declaration of Human Rights into a product, has to be done through a Making process, that involves different layers of skills.



Fig. 5. Detail of "The artwork nobody knows" by Ryan Gander at the 54th Biennale of Arts of Venice, 2011

Dividing into teams and team-work

Teams are built as multicultural and multi-skilled as possible, according to our belief in diversity as a richness (see part 2, chapter 1, subsection *The Cultural issue in Design*). By increasing diversities, I aim at achieving richer results. With the experience of six workshops with the Eindhoven University of Technology and/or the University of Florence, it became soon easy to recognize cultural patterns in the behaviour of either Dutch students or Italian students². A pre-introduction to the workshop, preparing them for the different approaches has shown to minimize the initial shock; specifications on roles and deliverables have shown to be necessary and helpful to catalyse the team-forming phase. I relate on how I reached this awareness and how I consequently tuned the approach in section “2.2 *The evolution of supporting teamwork*”.

Inspirational support/context information

As a follow-up to the introduction on ethics, I have each time created a set of experiences or lectures to submerge students into the chosen theme.

This part lacked in the first workshops and has been inserted and optimized in the following editions, in relation with the theme and the location's peculiarities and potentialities. While for instance, it has been very easy to create a pervasive experience with the cultural environment in Florence (both in the arts and crafts industry and in history and arts), in Eindhoven I had to be creative, for instance by inviting people to do *ad-hoc* theme related presentations. This part contributed to guide students towards a deeper insight into the approach and the tools I offered. This support is necessary especially if they didn't have time to explore for inspiration by themselves (the available time for the workshop was always very short).

Explaining creative techniques

Students, who knew neither each other, nor most of the coaches, were quickly submerged into the workshop environment. To shake them free from the traces of previous experiences, avoid conventional patterns and boost them towards a new approach, I dedicated the first hours/days of their schedule to cultural and creative explorations. The creative techniques I used are based on the principle of alienation: “*the design challenge is forced out of context to invoke new insights, associations and viewpoints*” (Frens in Trotto et al., 2008, p.29). To this principle of alienation, I added the involvement with skills. According to what I stated in the previous chapter, the world makes sense to us (i.e, people) and especially to designers, because they can transform it, by means of their own skills. Skills, both innate and acquired (feeling, thinking and particularly perceptual-motor skills) are instrumental and necessary to activate the building of human values, and therefore contribute to what I defined as pervasive ethics. “*In this way we enrich existing creativity techniques by not just forcing different views conceptually but also literally, physically*” (Frens in Trotto et al., 2008, p.29). In most of our workshops, for instance, I used Choreography of Interaction (Klooster and Overbeeke, 2005) and in some I applied role-playing techniques to unleash and enhance a bodily experience and enhance this with our own interaction relabeling technique (Djajadiningrat et al., 2000).

². In this dissertation, I call “Dutch students” the students that study at the Eindhoven University of Technology and “Italian Students” the students that study at the University of Florence. This does not always mean that they have a Dutch or an Italian nationality. Dutch or Italian refer to the nationality of the Institution where they studying. In fact almost never the group of students were all Dutch or all Italians; both University have high rates of foreign students.

In the following chapter “2 *The RtM workshop approach’s evolution*”, in section “2.4 - *The evolution of creative techniques*” I explain the different techniques and their evolution along the six workshops.

Conceptualisation by Making

Conceptualisation is the phase in which students are asked to design a product or system according to given task, theme and assignment. I asked students to conceptualise by making. Keeping this phase far from cognitive patterns is the most difficult part of the workshop, because it is when students start discussing and rationalising, forgetting to make and use their (physical) skills. When people are making, “*they do not express themselves in the abstraction of language but in the experiential reality of form and material. The access to the conceptual domain is then not limited by language but limited by skill*” (Frens in Trotto et al., 2009).

Making, as I stated in chapter 3 of part 2, is more appropriate for three reasons:

- ▶ it respects designers’ expressivity;
- ▶ secondly, according to the phenomenological point of view I assumed, in a design process, making is more suitable than talking, because it supports a real integration of points of view, creating richer meaning;
- ▶ the iterative combination of making (first) and thinking (after), from a sociocultural perspective, contributes to pervasive ethics, because it changes the common practice by creating new skills, empowering towards a shift of Thinking.

As I will reflect more elaborately later on, only setting this as a requirement was not always enough and I had to elaborate on support techniques to catalyse the integration between making and conceptualising.

The main deliverable of the RtM workshops was an experienceable prototype. By “*experienceable prototype*” I intended a three-dimensional object, embodying a unity of form, function and interaction. Although I did not ask to have high fidelity objects, I requested that the prototypes could be experienced. During each workshop this process went through two or three iterations, in which the overall quality of the prototype and its consistency with the given task, theme and assignment were each time more refined, facilitated by a shared reflection between supervisors and students.

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Fig. 6. Students trying out an experienceable prototype during WS 6 -
Metamorphic Fashion



2. THE RTM WORKSHOP APPROACH'S EVOLUTION



2.1 The evolution of introducing theme and assignment

2.2 The evolution of supporting team-work

2.3 The evolution of the inspirational support/context information session

2.4 The evolution of creative techniques

Choreography of Interaction

Role playing and interaction relabeling

(Silent) presentations / Silent working sessions

Use case scenarios

Multicultural Dinner

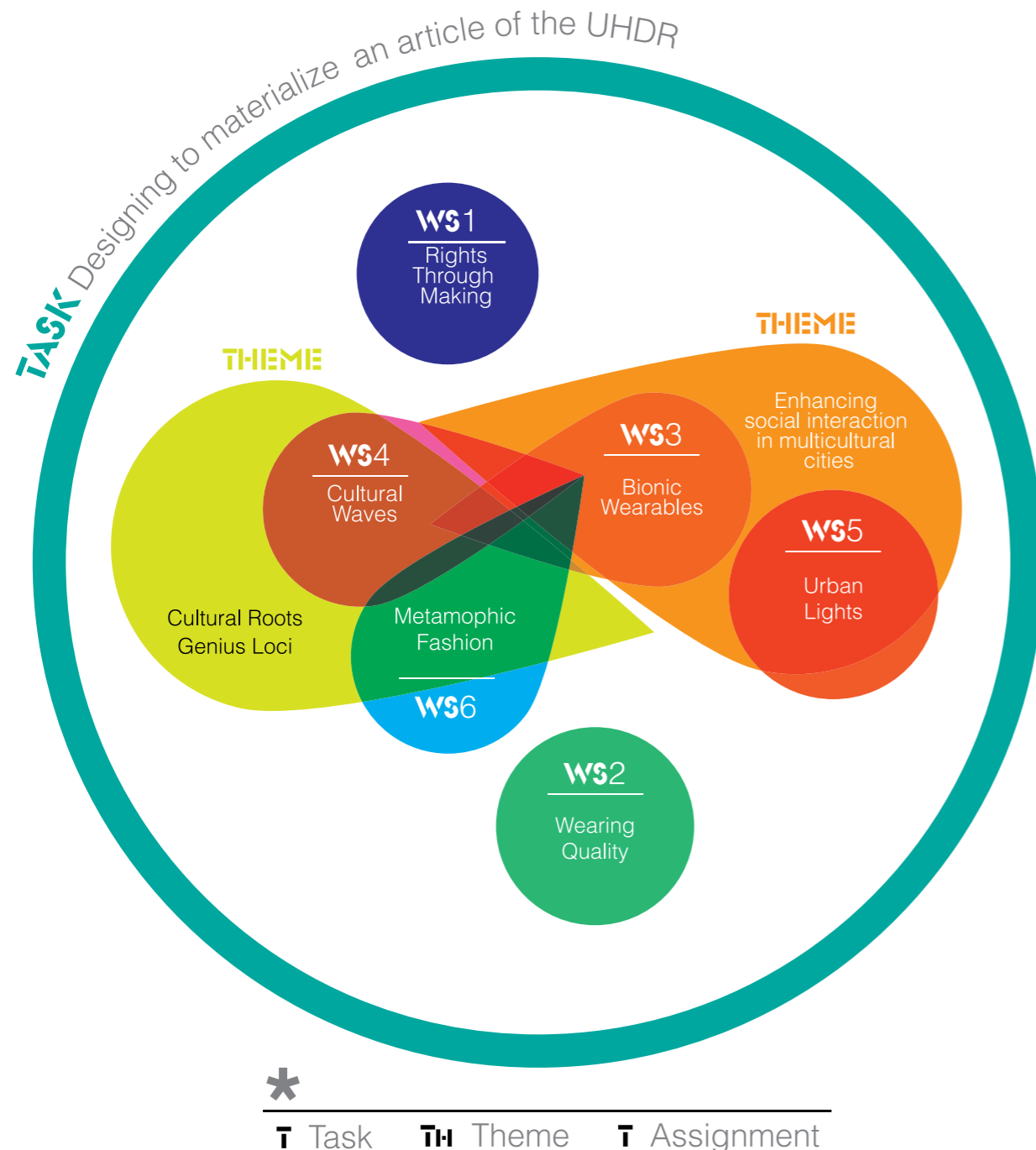
Final Presentations and documenting

Living together

2.5 The evolution of the conceptualising by making session



The structure of this chapter reflects the structure of the previous chapter's session "1.2 The Workshop". It describes how the RtM workshops evolved in time, and it clarifies the underlying motivations for this evolution to happen. While this chapter only aims to relate on the evolution of workshops, the next chapter, "3 Reflections and evaluations of the RtM workshops", focuses on reflecting on the approach and its results.



WS1 Rights Through Making

T Design an interactive system or product that materialises an article of the Universal Declaration of Human Rights

WS2 Wearing Quality

T Design an interactive system or product that materialises an article of the Universal Declaration of Human Rights

A Design a product that combines traditional accessory and garment production with high-tech

WS3 Bionic Wearables

Intelligent wearable products able to enhance social interaction in urban environments

T Design an interactive system or product that materialises an article of the Universal Declaration of Human Rights

TH Social interaction in multicultural cities

A Design a wearable interactive product dedicated to social interaction in urban environments
 Enabling people towards human rights
 Endowed with fashion values

WS4 Cultural Waves

Extending local identities, skills and manufacturing to global markets

T Design an interactive system or product that materialises an article of the Universal Declaration of Human Rights

TH Cultural roots of Santa Catarina

A Develop an intelligent wearable product, which:
 materialises the given UDHR article
 extends the Mormaii brand values
 transform local values into fashion values

Fig. 7. This chart shows how task, theme and assignment relate among each other and positions the six workshops within this map.

2.1 THE EVOLUTION OF INTRODUCING THEME AND ASSIGNMENT

In the first workshop (WS 1 – Rights through Making), I did not define any specific theme and any specific assignment. The only constraint was to pursue the Rights through Making (RtM) task: materialising the values expressed by the Universal Declaration of Human Rights. The final results suffered from the freedom in choosing the theme, because students invested a lot of time in defining what sort of product to design: field of application and related functionalities. Some teams avoided the problem, by not putting time in looking for a product whose functionality was relatable to the assigned article; they only focused on designing for the quality of interaction between user and product, aiming for it to resonate with the assigned article¹. They directly translated the movement qualities that resulted from the Choreography of Interaction experience² into the interaction possibilities allowed by the final design.

Looking for a suitable function and related context, which would favour the empowerment towards human rights, took a long time and confronted students with social issues that were often far from their direct experience.

After this workshop I immediately realised that this freedom did not work, and I narrowed it down, by adding a context, next to the general RtM task, starting from the second workshop.

In the second workshop (WS 2 - Wearing Quality) I asked students to design wearable products. This choice of the assignment was dictated by the location that was chosen: Florence, with its artistic and historic heritage and its manufacturing district.

The city boasts a long tradition in this domain. I found extremely challenging the opportunity of combining traditional accessory and garment production with high-tech. I did it thanks to the help of several contributors. In this case students had a task and an assignment, but they were not given a theme³. The need of having a general theme arose during this workshop, because also in this case, they had too much freedom to define what sort of product they could design; this consequently led, once more, to delaying the concept design phase and undermined the final results.

¹ see the project “Ambrosia” in Trotto et al. 2008, pp. 35-41

² The Choreography of Interaction technique will be explained in the homonymous sub-section that will shortly follow.

³ See the sub-section Terminology, in chapter 1, section 1.1

It is in the third workshop (WS 3 – Bionics Wearables) that I eventually decided to structure the workshop on these three levels of definition: I gave them a task, a theme to move within, and a specific assignment. The task was the RtM task of materialising the values of the Universal Declaration of Human rights, common in most RtM workshops. The theme was to design for social interaction in multicultural cities and the assignment was to design a wearable interactive product, dedicated to social interaction in urban environments, endowed with fashion values. The satisfying results of this workshop, suggested that a restriction of the design assignment, could contribute to a more focused and effective design process.

In the fourth workshop (WS 4 – Cultural Waves) held in Florianópolis (Brazil), the task was materialising the values of the Universal Declaration of Human rights. The assignment was chosen as a consequence of the collaboration with a local company, Mormaii, which produces surf gear and surf-wear and has a section (Mormaiitec) that focuses on the manufacturing of electronic devices. The theme in which I asked the students to move, was the cultural roots of the area in which they were designing and where the company is located: I asked to work out the *genius loci*, and pour its peculiarities into the final design concept, exploring the culture of the *mbya guarani* (a local pre-columbian population). The assignment was to extend, within the assigned theme, Mormaii's brand values, transforming local values into fashion values and to design a wearable product responding to such values. The assignment in this case was almost a commercial assignment. Deliverables were in this case extremely clear: this helped in obtaining results that were not visionary, but, on the other hand, rather plausible products.

In the fifth workshop (WS 5 – Urban Lights) the task was, as usual, materialising the values of the Universal Declaration of

Human rights. The theme was the same of the third workshop: social interaction in multicultural cities. In this case, as I explain later, the theme was deepened thanks to a talk given by a civil employee of the Municipality of Eindhoven, focusing on this city's social challenges. Students could, thanks to this, face issues that had been mentioned and discussed during this session. This contributed to increase the plausibility to the concepts that were designed, also because in this way, students could get closer to the theme and relate it to their values and experiences. The assignment was to design an interactive system or product that uses light to enhance social interaction in urban environments, enabling people towards human rights.

In the sixth workshop (WS 6 - Metamorphic Fashion) as it happened for the fourth workshop (WS 4 - Cultural Waves) the theme was chosen as a consequence of the collaboration with a local institution, the Chamber of Commerce of Prato, representing the interests of local companies; the Province of Prato is world renowned for its textile district, specialised in wool mix and fabrics' nobilitation. After 2001 this district has encountered one of its cyclic dips, both because of external circumstances and structural complications. Especially the increasing market-push attitude overshadowed the product-push one, shifting the economic power from the hands of manufacturers of (semi)products into those of brands and distributors.

Two of the strategy lines promoted by the Industrial Association and that the district is adopting, are:

- ▶ *“the capacity of proposing continuous creativity and speed in responding to market impulses” [...]*
- ▶ *“the capacity of producing high-quality articles, with a high fashion content” [...]* (Area Studi Unione Industriali Pratesi, 2010)

For these reasons, the Chamber of Commerce manifested great interest in the scenario of wearable technologies. The theme I chose is *“new Made in Italy”*, as in the combination and integration of traditional manufacturing excellence with high-tech (production processes and technologies or materials) applied to materialise the renowned Italian lifestyle. The assignment was designing a wearable, interactive product; each team had to work within a given context, related to the UDHR article they were assigned:

- ▶ design for the right of privacy and new urban tribes
- ▶ design for the right to full development of personality and playful interaction between people
- ▶ design for the right of education in sports
- ▶ design for the right of free participation to cultural life of the community and enjoyment of arts within the context of Florentine museums.

This sub-section shows how the introduction of theme and assignment mutated workshop after workshop, towards more refinement and articulation. This increase of details resulted in better design results, as it is argued in sub-section *“3.3 Evaluation of the workshops’ results”*.

2.2 THE EVOLUTION OF SUPPORTING TEAM-WORK

As I said in section 1.2 (*Annexes*), for brevity reasons, when I refer to “Dutch” students, I mean students studying Eindhoven and when I refer to “Italian”, I mean students studying in Florence. But the participating students from Eindhoven were usually mostly Dutch and the participating students from Florence were usually mostly Italian. So the prevalent cultures, when students from Eindhoven and students from Florence were participating, were Dutch and Italian. In this section I refer to some traits that characterise these two cultures, which I had to take into account, as supervisors, to support students along their work. Also in this case, our awareness as supervisors, of the consequences of these cultural traits on the students’ work and the team dynamics, grew along time. Next to this awareness grew our ability to deal with these traits.

The first workshop (WS 1- Rights through Making) was attended by students from the two funding institutions; mainly Italian and Dutch students. The Dutch students were Master Students of Industrial Design. Italian students were chosen within the Bachelor of Industrial Design, because the University of Florence had not started the Master course at that time. Most of the students were first year students; the challenge they had to face was too arduous. Although they showed strong motivation, the overall experience was rather intense for them. This pushed me to a more accurate selection of students in the second workshop (WS 2 – Wearing Quality): Dutch students were Master students and Italian were chosen among older students, with a more solid experience than the ones participating to the first workshop (WS

1 – Rights through Making). Already since the second workshop, I personally started to talk to the Italian students, as they were selected, to prepare them on what they were to experience, also in a cultural sense. Dutch students are more used to reasoning, discussing and to fight for their ideas, whereas Italian students are less adamant in front the supervisors’ authority. Besides, whereas the program of Industrial Design at the Eindhoven University of Technology is based on self-directed learning, the course at the Department of Industrial Design of the University of Florence has a traditional educational model. Because of the specific educational system that Dutch students have, they are always required to explicitly evaluate their skills, by means of written reflections, after each project they make. They are thus trained to continuously identify and work on their strengths and weaknesses. The Italian educational model does not stress this aspect; this leads to the fact that Italians students are not always aware of their abilities, fragilities or potentialities. This difference often, next to the bold attitude in discussing that characterizes Dutch students, overwhelmed the Italians. It often prevented them to express their competences, especially in the beginning of the workshop. Another aspect of difficulty for the Italian students was the language. Italians’ English skills are lower than the Dutch’s: the courses they attend are in Italian and they are not daily exposed to English, as the Dutch

are (having most of their education program in English). Social awareness and formal quality sensitivity are characteristics that belong to Italian students more than to the Dutch. Ability of abstraction, conceptualisation and design for quality of interaction are stronger in Dutch students. The cultural difference of team working contributed to the fact that in the first workshop I did not have actual designs in the end, but concepts without a clear formal definition. Where Dutch students were generally satisfied with it, Italian finished the week with the frustration of not having been able to give their contribution to the process; furthermore the final result did not respond to their expectation of refinement. This tendency was counterbalanced in the next workshops by two techniques: preparing Italian students beforehand to the kind of cultural clash they would experience and defining, for students of both institutions, what I expected in the end. I started asking for beautiful products, in which a unity between form, function and interaction was to be reached.

The assignment of the third workshop (WS 3 – Bionic Wearables) was on wearables, as in the second one. In the second workshop I felt the lack of expertise in garment design and making. For this reason I decided to involve students from the Fashion Design department in this workshop: one in five Italian students was chosen within the Fashion Design Department of the University of Florence.

For the fourth Brazilian workshop (WS 4 – Cultural Waves), there was no selection, because students and teachers applied for it, both from the Fashion Technology Department and the Industrial Design Department. The rate of dropout in that workshop was pretty high: the challenge I proposed to the students was too harsh for some of them. Many, especially Fashion students, gave up along the way. The mixture of teachers and students in the team was a new phenomenon within the RtM approach, which should be further looked at, in future workshops, to deduce

some meaningful observations.

The fifth workshop (WS 5 – Urban Lights) was the first really multicultural one as far as participants were concerned: where in the first three there were 3 or 4 nationalities participating, in this workshop it was possible to host, thanks to a sponsoring of the Municipality of Eindhoven, students and professionals from 6 different institutions: besides students from TU/e and from the University of Florence, a Nigerian University, two Brazilian Universities and a Brazilian company were invited. Finally I could fully experience the third element of RtM: the value of sharing the Language of Making. This situation forced the students to share Making processes (such as the Choreography of Interaction and the prototype building), and to abandon as much as possible long and arid discussions.

The sixth workshop (WS 6 – Metamorphic Fashion) was the least multicultural: all the students were Italian and apart from 3 Bachelor students, all the other were Master students. I set two *criteria* in making teams: I asked for volunteers in learning to use the technological platform Arduino and people that were acquainted with designing garments and realising them. I wanted that every team had at least one person vowed to take responsibility towards making the electronic part of the experienceable prototype work and at least one could take responsibility of realising the prototype (making the model, sewing).



Fig. 8. Working in the lab, during WS 2 - Wearing Quality, in Florence.

2.3 THE EVOLUTION OF THE INSPIRATIONAL SUPPORT/ CONTEXT INFORMATION SESSION

As already mentioned before, the first workshop (WS 1 – Rights through Making) was an exploration, which I used to develop and mature a meaningful RtM approach, based on the intentions expressed in the initial Manifesto. In this workshop I did not provide students with any support but an initial presentation on the Universal Declaration of Human Rights: its origins, its purpose and its thirty articles. I soon realised that it was naive to believe that such demanding task (designing a product or a system to empower people towards Human Rights) could be faced without providing students of any handle to get a grip on. I got back to what we stated in the Manifesto: in there we praise the integration between advanced technologies and *saper fare* – knowing how to make things – embedded in the territory. In the second workshop (WS 2 - Wearing Quality), held in Florence, I therefore tried to overexpose students to local cultural and manufacturing environments, compatibly with the planned schedule of a week work. The location facilitated the creation of a link with the territory in which you can breathe a historically layered culture. First there was a visit at Decobel, a company that produces textiles for furnishing. The quality of their products is extremely high: the care and passion they dedicate in achieving this level, the way they traditional techniques for the decoration of the fabrics (e.g. serigraphy with precious metals prints), the attitude of the entrepreneur, all this contributed

to educate students to the meaning of quality, to get rid of the rationalist traces that praise for standardization and mere functionalism.

The second local experience they had was the Museo dei Ragazzi in Palazzo Vecchio. This extraordinary place, located in the Palace of the Municipality of Florence, is a *sui generis* reality: it overturned the traditional, at time boring, museography, to create alive cultural experiences that go beyond the informative level. Theme workshops are created, which invite young minds of any age to engage in active learning, triggering critical thinking and other skills than the cognitive. I chose three workshops from their carnet of offers and they adapted them to the purpose of our workshop. Their choice was based on the parallelism between their approach and ours and based on the articles that I chose for the students to work on. The mini-workshop “*Painting as theatre; the language of gestures, mimic and postures*” resonates with our use of the Choreography of Interaction: I provided students with a different way of approaching the meaning of movement and dynamics, specifically in the semantic context of art expressions commissioned by a monarchic system (Signoria Medicea).

Another example of mini-workshop the students did was to attend the theatre play “*Life at court; the story of Asmà, an ottoman slave at the court of Cosimo de’ Medici*”; this had the purpose of inducing students to reflect on slavery and

to have a view on the meaning of cultural differences among people: how different and relative points of view can be.

Of course this was a fast immersion I compelled students to. The understanding of a culture and learning to recognize and value quality are processes that require a lifetime, much more than a couple of days, but they definitely contributed to have a slight change of perspective in the students' approach. This change of perspective became visible during the actual design phase. It was clear, while reflecting with the students on the assignment, that the initial activities had left a trace and instigated reflections on themes that otherwise would be completely alien to them.

In this workshop, I first introduced a lecture on prototype making: because in Florence there is no electronic lab in the spaces we could use to work, all the material had to be brought from Eindhoven. Joep Frens prepared a lecture, with a showcase of selected materials (mainly sensors and actuators) that students could use to prepare the final model.

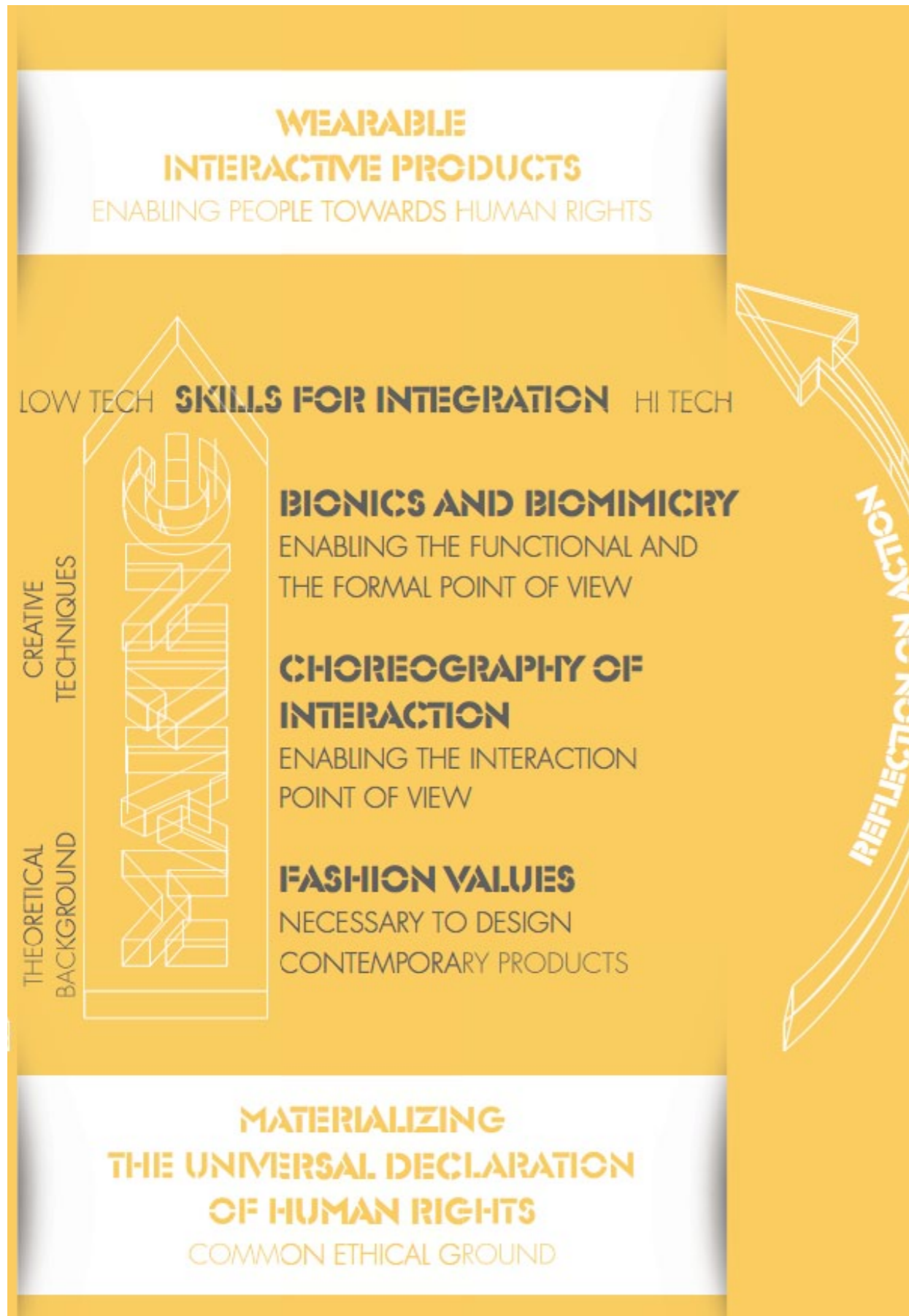
While the inspirational session of the second workshop (WS 2 - Wearing Quality) was a wonderful experience, especially for the Dutch students, it took too much time, compared to the time the students had to actually make their design. What I did from workshop three on (WS 3 – Bionic Wearables) was condensing, distilling the inspirational support/context information session that I thought student would need as a kick off for designing, into lectures given by coaches. It was a compromise I had to accept, although contradictory with the core RtM idea, which promotes experience and making over informative/cognitive moments. In a way, I can also state that the department of Industrial Design of the Eindhoven University of Technology itself is already an expression of the local identity: its infrastructure are a clear and direct consequence of the manufacturing culture that is spread

in the territory. The kind of professionals that are trained within those walls expresses the spirit of the area. A drive for radical (technological) innovation has distinguished Eindhoven in the last decades and ID forms a new type of designer/engineers that are able to respond to this strive for innovation. The type of professional that is formed in ID Eindhoven is so projected towards visionary practices, that industry is not always ready to create a working position for him yet.

The situation is different in Florence, and in Italy in general, where a post-Cartesian ungluing between the academic and the manufacturing world can be observed. The intellectual preparation is higher than what industry is able or willing to appreciate, and the practical preparation is not as strong as industry would like it to be. The students coming out of the University have troubles in finding a role in the productive world.

In the third workshop (WS 3 – Bionic Wearables), for the first time, I proposed a model to the students (see Fig. 9), to show them explicitly, what they were required in terms of task, theme and assignment, within the context of RtM. I illustrated, through this model, what sort of inspirational support/context information I would provide, through means of lectures and what kind of creative techniques I would supply them with.

The assignment of this workshop was to design a wearable product that would enhance social



interaction in multicultural cities, endowed with fashion values and formally inspired by *bionics* and *biomimicry* models. I decided that they needed an introduction on what is meant by fashion values (lecture that was given by Gabriele Goretti). They were given a definition of fashion from a designerly point of view: fashion is the ability of interpreting contemporary instances and it is not limited to garment design, but it is a transversal aspect of product design. They also had an introduction on bionics, because I saw that in the previous workshops the final outcomes did not show the unity between form, function and interaction. The aspects of interactions, for several reasons were deepened more than those of (physical) form. The students from the Department of Industrial Design in Eindhoven do not have a trained sensitivity towards “traditional” formal aspects: their main focus was to design the interaction and realise an experienceable prototype out of it. Students from Florence were less used to work in the domain of interaction design and were not, at least until the third workshop (WS 3 – Bionic Wearables) able to steer the design process towards their strength: form giving. To stress the importance of formal aspects and convey the awareness of a necessity of balance between form, function and interaction, it was decided to prepare an introduction on bionics and biomimicry. Design has always used nature as a source of inspiration to translate concepts

Fig. 9. Model of WS 3 – Bionic Wearables, exemplifying the steps

into evocative physical shapes and to achieve an optimization of material use and mechanical functions, enabling sustainable choices. This process of drawing design inspiration from nature, is called bionics or biomimicry. The purpose is therefore to use bionics and biomimicry as a tool to model behaviours and ecologies and as a basic formal vocabulary to build a consistent language in the aesthetics of the final design. This introduction, together with examples of products inspired by bionics and biomimicry models, was given both in the third workshop (WS 3 – Bionic Wearables) and in the fourth (WS 4 – Cultural Waves). This inspirational lecture, given by myself, wanted to be a suggestion. Not all the teams appreciated it and used it, but it showed to be a tool that, when used, helped to phrase the design formal semantics.

Also in the fourth workshop (WS 4 – Cultural Waves), I gave students a general introduction, in which I explained the model. In this case, the situation was differing from the previous experiences for many reasons and I had to tune the inspirational support/context information session accordingly to this new setting. I now explain: the location was in none of the funding partners' University, the teams were formed both by students and teachers, only Brazilian students were present, the duration (calculated in day/man) was double than in previous workshops and it was spread over one month and a half and, most important as far as the topic addressed in this section is concerned, we had an assignment from a company.

Culturally speaking, it was a completely different situation from the European one: multiculturalism has been a reality in Santa Catarina for two hundreds years already. In the last century there has actually been a mixture among the different national communities of immigrants. Before the European immigrants

arrived, Portuguese in particular, there were *indios* living in those areas for centuries. The arrival from the Old World determined, in the area of Santa Catarina, a flee of the local tribes towards South West. Some of them had to hide in Paraguay. In those regions, there has never been a harsh clash between locals and immigrants, as it notoriously happened in other regions of South America. Only recently, the Governments have started policies to get these peoples back where they belonged; but it is daring to talk of belonging after centuries. I induced students to adopt this aspect of local identity, although controversial, to reinforce the brand identity of Mormaii, our "client". We visited the company and hosted an introduction of MormaiiTec (the section that produces Mormaii's electronic devices for entertainment) by Alexandre Goettems. This company manufactures surf gear and has expanded its production to surf wear. This kind of products always has a Californian flair. I suggested to extend Mormaii's brand values and to reposition its international identity, by expressing a local lifestyle, which is the result of centuries of multiculturalism and social coexistence. Stoffel Kuenen gave an introduction to students about the essence and the state of art of wearable technologies and the role that designers play in this scenario. To give students a brief account of the indigenous pre-existence of Santa Catarina – the element of recognition that I defined as a base for the

brand repositioning – we consulted an expert, Marco Aurélio Nadal De Masi, a cultural anthropologist of the University, who gave us literature references and answered our questions along the workshops; then I asked for two introduction lectures to Jaci Rocha Gonçalves, coordinator of a University (UNISUL) project on original people of Santa Catarina. The idea behind these introductory lectures was to confront students with a different value system, because they were not naturally forced to do it through multicultural teams, as it happened to students in the previous workshops. They had the possibility to ask experts what the meaning, the “translations” of a specific article was for Indian people (*mbya guarani* in specific).

In our fifth workshop (WS 5 – Urban Lights), where our client was the Municipality of Eindhoven, I could host an introductory presentation of the theme (enhancing social interaction in multicultural cities) by experts from the City Hall. So, after my usual presentation of the workshop’s model, Cees Donkers introduced the vision of Eindhoven, its culture, the role that design plays in it and the social questions that the Municipality has to face, which can be addressed in a designerly way.

A reinforcement of the ethic drive that RtM proposes, was the lecture of Philip Ross. He gave a presentation of his Doctoral Thesis’ project, “Ethics and aesthetics in intelligent product and system design”. This research constitutes one of the foundations of the present research: students were confronted with the fact that products induce a transformation, they can elicit behaviours and this creates an opportunity to steer this transformation towards human values.

Gabriele Goretti gave then a presentation on urban lighting: the theme was the same of the third workshop: social interaction in multicultural cities, and the assignment was designing urban products using light to enhance this social interaction. I believed

that a compact analysis on how Urban Light has been used in cities around the world and a discussion on whether the purpose was actually achieved, could be useful to boost students into the design process.

I usually tried to condense all inspirational support/context information introductions at the beginning of the week, so that students can elaborate that knowledge through doing in the following days. During this workshop, an exception was done for the presentation of Kees Overbeeke, “*Dreaming of the Impossible*”, which I placed on Wednesday afternoon. Already in the previous edition I observed a peak of frustration in students around that moment: they had an introduction on the theme and the collateral inspirational and context presentations, they already started to know each other and to design through bodily exploration. As soon as the actual design concept part starts, the language barrier rises, the cultural differences are difficult to handle, and the urge of making is not strong enough to make them start doing things, instead of talking and thinking. This is the worst moment for students, because they forget to dream, they get trapped in reasoning, leaving aside the poetry of being and designing. This is why the presentation of Kees Overbeeke had its perfect place in these exact circumstances. They started to realise again why they were doing it: together with a set of examples, the presentation proposed the research team’s

vision, its surrounding philosophy, the ideals that support it; the result, in terms of creating motivation, was immediate. For some it raised fear of failure.

The sixth workshop (WS 6 – Metamorphic Fashion), as the fourth, did not take place in a week-time. It started in February and it ended at the beginning of June, with the final examination/presentation of projects. There was one full day a week of work, students and coaches together. Initially, after the usual workshop presentation, Stoffel Kuenen produced an introduction about the state of the art of wearable technologies, together with a vision on the role of designers in society. Differently from the general line of the previous workshops, inspirational support and context information were in this case provided in pills (on demand), along the way. This choice was made in relation with the working pace of this workshop. An inspirational support could be diluted in time to keep on supporting the students along the process. To get a grip on the theme (new Made in Italy), several short lectures were offered on what Made in Italy is and what are the strategies of its repositioning in the global market, thanks to the integration of advanced technologies and Italian lifestyle into products. These lectures were held by Elisabetta Cianfanelli, Gabriele Goretti and Ambra Trotto. We suggested students to work on Arduino platform and because students were not acquainted with it, Stoffel Kuenen gave an introductory presentation about its philosophy and functioning and made several tutorial sessions. One team needed also an entry to Max/MSP environment, and that was offered ad hoc, during the prototype building session. Compared to the previous workshops, the initial inspirational support/context information session was somewhat diluted in time, to reinforce its assimilation at the students’.



Fig. 10. Detail of Aura Zecchini's Regina Mab

2.4 THE EVOLUTION OF CREATIVE TECHNIQUES

The inspirational support/context information part was concentrated in the first days of the week, in case of the short workshops (WS 2 – Wearing Quality, WS 3 – Bionic Wearables and WS 5 – Urban Lights) and diluted in time in the longer ones (WS 4 – Cultural Waves and WS 6 – Metamorphic Fashion). In both cases, the aim was to create the conditions for students to start making, as soon as possible. The creation of these conditions was realised by means of creative techniques and enablers, which I explain in the following sub-sections. In the next chapter “3. Reflections and evaluation of the RtM workshops” I evaluate if and how this worked.

**“Nella danza il corpo abbandona I gesti abituali che hanno nel mondo il loro campo di applicazione, per prodursi in sequenze gestuali senza intenzionalità e senza destinazione che, nel loro ritmo e nel loro movimento, producono uno spazio e un tempo assolutamente nuovi, perché senza limiti e senza costrizioni. Perdendo l’aderenza alle cose del mondo, nella danza ogni gesto diventa polisemico, ed è proprio in questa polisemia che il corpo può riciclare I simboli [nell’accezione greca di syn-bállein, che significa mettere insieme] può confonderli o addirittura abolirli. Liberandosi nella pura gestualità non intenzionata, il corpo del danzatore descrive un mondo che è al di là di tutti I codici [...], perché nella danza l’unico segno visibile è quello in cui il corpo iscrive se stesso fra la terra e il cielo.”⁴
(Galimberti, 2008, pp. 159-160)**

“In dance, the body abandons habitual gestures that have their field of application in the world, to embody gestural sequences without intentionality and without destination, which in their own pace and movement, produce absolutely new space and time, because without limits and without constraints. Losing the grip from the things of the world, every gesture, in dance, becomes polysemic. It is in this polysemy that the body can recycle symbols [in the Greek sense of syn-bállein, which means putting together] may confuse them or even abolish them. By realising itself into pure, non intentional gesture, the body of the dancer describes a world that is beyond all codes, because in dance, the only visible sign is that of the body inscribing itself between the earth and the sky.”

Choreography of Interaction

Choreography of Interaction is a technique pioneered by Klooster (Klooster et al. 2005) and that I have used in almost each workshop (with the exception of WS 6 – Metamorphic Fashion), at various levels of depth and creating different sorts of relationships with the rest of the design process. It has been widely explained in the previous RtM books, collecting the workshops' results. Joep Frens explained how I used the choreography of Interaction in the second workshop, (Rights through Making – Wearing Quality) (Trotto et al., 2009, pp. 29-31) and Michael Cruz Restrepo reflects on how I used this technique in the third workshop and how it evolved in its fifth edition (Rights through Making – Bionic Wearables and Urban Lights) (Trotto et al., 2010, pp. 36-39, 68-73).

For a description of this technique, I therefore refer to these two texts (see other side of the page).



Focus: Choreography of Interaction

"The technique was developed to explore meaning in interaction by means of (bodily) movement. The technique makes participants acutely aware of the rich meaning and the qualities that lie in movement. Typical results of such a session are sets of movements that meaningfully tie interaction to functionality. (...)

The students start with a warming up session in which they operate as one big team. They are to suggest and to copy movements and see how this influences the team dynamic. Through this exercise they lose much of their initial timidity of moving and performing in front of each other. Moreover, they start to get a feel for the quality that is hidden in fine bodily movements. At this point we separate them into project teams and ask them to explore enactments of the articles they are given. [...] Our motivation in doing this, is that we feel that by focusing on their bodies and their bodily skills the students are triggered to explore inherently meaningful actions instead of performing representations. That is, by using their bodies the students more often refer to their bodies and actions in their exploration instead of referring to what they know". (Frens, in Trotto et al. 2009, pp.29-31)

Fig. 11. Choreography of Interaction: the bodily expression is transformed in material forms.

Role playing and interaction relabeling

Role playing and interaction relabeling were used in the second workshop (WS 2 – Wearing Cultures) and described by Frens in the second RtM publication (Trotto et al, 2009). For a description of this technique, I therefore refer to this text.

In the next focus page, I mention the salient passages.

This technique was used exclusively in WS 2 – Wearing Quality, because it did not add to the process as I expected. I substituted in the following workshops with a second session of Choreography of Interaction, where students could explore by adding materials to their expressive choreographies and slowly move towards designing the product or system.

(Silent) presentations / Silent working sessions

Interim presentations were therefore a way to promote reflection-on-action.

Nevertheless, I also realised that it was indispensable to find a good balance between working progress and presentations: in the time frame of the workshop, too many presentations do not leave students enough time to make and to reflect. Too few presentations leave students the possibility to loose their track in the design process.

In the first workshops, I asked students to present silently: I allowed them to use all sorts of expression media other than words. It partially worked: too often after a presentation, a discussion commenced that was completely beside that which the students had intended and only by the use of words we could actually create a constructive interaction between students and coaches. This led me to adopt a more tolerant approach, in which I encouraged students to use all sorts of media and to minimize conceptual explanations by means of words.

What I also did, when I saw that discussions were leading to

“Role-playing techniques are often used as early phase creativity techniques (e.g., Burns et al. (1994), Hummels et al. (2001)). Although they are generally used as a means to explore context we took an approach inspired by Buur et al. (2004) in which the actors (students) not only enact the behaviour of the people in a given situation but also the behaviour of the products and systems that are present. In the second workshop – Wearing Quality – next to the Choreography of Interaction, to help students with this and to give them an extra means of exploration we suggested them to combine the role-playing technique with another creativity technique: interaction relabeling (Djajadiningrat et al., 2000). Interaction relabeling is a technique that is specifically developed to aid in designing interactive products. The technique comprises the mapping of the functionality of one product onto the form of another (unrelated) product in order to explore new, meaningful interaction-possibilities. It enables designers to break free

Focus: Interaction Relabeling

of existing conventions and regard form as an expressive medium for interaction. It gives designers the opportunity to investigate the relations between form, interaction, and function (Frens, 2006). We adapted this method for use in a role-playing context. We used not the form of products to map functionality on but the bodies of the actors (students) themselves. That is, we provided the students with post-its that they could use to highlight functionality on their bodies. [...] We observed that the adaptation of the interaction relabeling technique worked out in a different manner than we aimed for; it proved to distract the students from what they could do with their bodies. The post-it's invoked a button-like approach where students were distracted from their exploration of meaningful action in favour of a search for functionality.” (Frens in Trotto et al., 2009, pp. 29-31)



Fig. 12. Interaction Relabeling session, during WS 2 - Wearing Quality, Florence.

abstraction and impeding students to get to the factuality of design, I asked them to work for short periods without talking. This request was not received with much enthusiasm, but helped to shake them off the rigidity of a dialogical – oppositional – confrontation. During these short periods, students “discussed” by means of sketching and gestures.

Use case scenarios

This is a basic technique, often used in design disciplines. I decided to apply it explicitly in our fifth workshop – Urban Lights – to support students in the conceptualisation phase. I proposed them to use it, but they did not always do it in a visual way. Probably because not explicitly required by the supervisors, they built the scenario and the story and often told it with words, and neither by sketching nor enriching it with different languages than words.

Multicultural Dinner

During one of the workshops (Bionic Wearables), I decided to prepare a multicultural dinner, to have students experiencing cultural nuances and aspects through sharing cooking and eating together. Unfortunately it was not possible to share the cooking part: while the Italian stayed at the University to prepare the dinner, some Dutch students prepared their food at home. The power of conviviality is a theme that is worth further investigations, when multicultural teams are involved.

Final Presentations and documenting

Each workshop had a final presentation. How official it was changed every time. In WS 1 – Rights through Making the presentation was in the Master Space of the Department of Industrial Design of Eindhoven University of Technology and it

Focus: Scenario-based design

“Scenario-based design is a family of techniques in which the use of a future system is concretely described at an early point in the development process. Narrative descriptions of envisioned usage episodes are then employed in a variety of ways to guide the development of the system that will enable these use experiences. [...] A user interaction scenario is a sketch of use. It is intended to vividly capture the essence of an interaction design, much as a two-dimensional, paper-and-pencil sketch captures the essence of a physical design. [...] Scenarios are stories. They consist of a setting, or situation state, one or more actors with personal motivations, knowledge, and capabilities, and various tools and objects that the actors encounter and manipulate. The scenario describes a sequence of actions and events that lead to an outcome. These actions and events are related in a usage context that includes the goals, plans, and reactions of the people taking part in the episode.”
(Rosson and Carroll, 2002, pp.1032)

was open to all personnel. Students showed the prototype and a video, during a silent presentation. They did not declare to which article their product was related and the audience had to guess and couple every project to its article. The team that designed the project that conveyed its relationship with the article most clearly won a little prize. The experienceable prototypes were filmed in function after the presentation ended. In WS 2 - Wearing Quality, the presentation was given at the Municipality of Scandicci, the city near Florence, which hosts the Department of Fashion Design. In this department's labs the workshop was done. The place where the presentation was done, was disconnected from the working environment. This created several problems: during the transportation, fragile prototypes broke, compromising the final result. Students were also intimidated by the official location and setting, where aldermen introduced their work and left them a stage that did not resonate with the overall experience. Final results were properly filmed in a neutral setting, when the presentation was over. In WS 3 – Bionic Wearables, there was an official presentation at the Eindhoven City Hall, because the Municipality had shown interest in the RtM project and was considering to become a partner, which actually happened. The participants later staged the use scenario of their work in front of the video camera, when we went back to the University. In WS 4 – Cultural Waves, the final presentation was given in the auditorium of the Universidade do Sul de Santa Catarina, in Florianópolis. Press and participating companies were invited. The project was introduced by the coaches and by personalities of the University. How the prototypes worked was filmed by the University journalist. After the presentation, there was a small reception in an adjacent room, where posters with the projects' presentation were hung and all the participants were free to exchange thoughts about both experience and results. WS 5 –

Urban Light was done in collaboration with the Municipality of Eindhoven. Cees Donkers gave an introductory lecture and the assignment was agreed with the team of the Municipality. The official final presentation, that was done at the Department of Industrial Design in Eindhoven in the space where students worked, was organized more as an exhibition, rather than a classic presentation. Students would stand next to their experienceable prototypes and describe them, while people were walking around. Personalities from the Municipality of Eindhoven, journalists, external guests, teachers and students were present. The filming was also itinerant and contemporary to the event. In WS 6 – Metamorphic Design, students presented their own work to the teachers at the end of the course, during the examination. In this case I asked students to do the filming before the final presentation and to prepare their own videos, which they delivered as part of the final material.

Living together

In every workshop, the condition sine qua non for participating, was that each students of the hosting institution would find a place to stay for at least one guest student. Of course, they were not forced to host, also because not all housing and personal conditions allowed it. But they were required to organize a place, as part of the workshop. I am not completely aware of what happened after the working hours, but I

got glimpses of very active nights and various social activities. They shared spaces of normal life, next to professional moments, feeding mutual feelings of trust. Several friendships were born and, for what I could see, even few love stories flourished. This aspect of the workshop, being almost forced to a total full immersion, served as a catalyser for social relationships among students coming from different schools and as a boost of socio-cultural awareness.



Fig. 13. A team of students after the final presentation of WS 5 - Urban Lights

2.5 THE EVOLUTION OF THE CONCEPTUALISING-BY-MAKING SESSION

The reason why I attribute to Making a central role in our approach has been widely clarified in chapters 2 and 3 of the second part. What I want to explain here is how, during these workshops, students were empowered towards making, by creating the best possible conditions for this aim to be achieved. This process, as the other just described has gone from free to more systematic and structured.

One aspect of the making session was prototyping: already in the second workshop, I realised that I had to provide students with a framework of possibilities that electronic could give them, especially to the students that never worked with it. In the third workshop I decided to transform the introduction on electronics into an introduction to prototyping: once the interaction possibilities and the shape of my concept are defined, what kind of compromise should I make, in order to realise an experienceable prototype?

Another aspect that had to be observed, as far as the making sessions were concerned, is its inherent aim in the design process. It took me until the third workshop to become aware of the fact that I had to demand explicitly, in the assignment, to aim to a unity between form, function and interaction.

As explained in the section “2.4 *The evolution of creative techniques*”, I inserted techniques and enablers to provoke students to realise this unity. Since the first workshop the fact that they had to design an interaction was very clear, undoubtedly

also thanks to the Choreography of Interaction session that they did. The fact that also the function of the product should be related with the embodiment of the article’s values through the design, became explicit as soon as I introduced the theme.

Relatively to the formal aspect, it was necessary to make students understand and accept the fact that it was demanded from them to have a product whose formal aspects were also designed, together with the function and the interaction.

As already mentioned, the difference in culture and in background between the Dutch and the Italian students often created an impasse: Italian were not always able to exploit their socio-cultural awareness in the conceptualisation phase because of the weaknesses in English and they could not express their competences in formal quality design because this need was not always felt by Dutch students, who were responsible for the planning and decided not to dedicate time to it. Of course this is a generalisation of what happened: each team had its specific dynamics and in some situation the scenario I just depicted was less dramatic. Some of the results, already since the second workshop are a clear evidence of it (I show results and reflect on the in the next chapter).

This unbalance is something that I felt I had to improve, workshop by workshop. I did it by means of restricting themes and assignment

and by supplying enablers that would also enhance the formal side of design. As far as the quality of prototypes is concerned, what I could observe is that when I worked on wearables, it was rather easy to obtain reasonably good models, especially in the sixth workshop (WS 6 – Metamorphic Fashion), where particular care was attribute to the formal aspects. When the size increased, as in the case of last workshop (WS 5 - Urban Light) the formal quality of prototypes decreased. On the contrary the level of experienceability was maintained, because prototypes could easily be tried out.



Fig. 14. Working in the lab, during WS 2 - Wearing Quality, in Florence.

RESEARCH, DESIGN, & PROTOTYPING



Fig. 15. Background image: one of the maps we did to reflect on the RtM workshops, with strengths, weaknesses, and comparisons.

Fig. 16. Black silhouettes: images of the project Sound Experience, WS 6 - Metamorphic Fashion

3. REFLECTIONS AND EVALUATION OF THE RTM WORKSHOPS



3.1 Questionnaires: the students' evaluation

Context
The questionnaire
The results

3.2 Reflections on the workshops' experience

Preparing the workshop
Inspirational support/context information session
Creative Techniques
Conceptualising by Making, the easy trap

3.3 Evaluation of the workshop's results

Students' growth in awareness
Evaluation of the final design concepts

3.4 The RtM model

3.1 QUESTIONNAIRES: THE STUDENTS' EVALUATION

Context

After the fifth workshop (WS 5 – Urban Lights), I prepared a questionnaire to let students evaluate their experience (see Fig. 17); our purpose was to collect data to refine the workshop's structure and content, identify weaknesses and strengths. The questionnaire was especially prepared, according to the workshop's structure and content.

The questionnaire

The questionnaire was anonymous and asked for nationality, affiliation, age, name of the design and number of assigned UDHR article. It was divided in four main sections:

- ▶ Process;
- ▶ Final design: description;
- ▶ Final design: evaluation;
- ▶ And “your reflections”.
- ▶ In the process' section I asked to evaluate:
 - ▶ The various introduction lectures (Presentation of the participating Universities, presentation of the workshop by Ambra Trotto, introduction on urban and lighting design by Gabriele Goretti, ethics in design by Philip Ross, introduction on prototyping techniques by Joep Frens and Sjriek Alers, lecture on the city of Eindhoven and its relationship with design by Cees Donkers and the lecture “dreaming of the impossible” by Kees Overbeeke);
 - ▶ The choreography of interaction (both the corporal exploration of the given article and the scenario definition – design through choreography);

- ▶ The concept's design;
- ▶ The Making: experiential prototypes, aesthetics and functionality and final presentation;
- ▶ The overall process: when the hardest moment was and when the easiest and for which reasons, the quality and consistency of the supervisors' feedback along the workshop and general remarks.

In the final design section, I asked to describe the design process in maximum 400 words and the final design according to:

- ▶ How it reflects on the article of the UDHR;
- ▶ Strength of the concept;
- ▶ Its context of use;
- ▶ The balance between Function, Form and Interaction.

I therefore asked to evaluate it, according to:

- ▶ The extent to which the final product would be relevant in the context where students live;
- ▶ Its consistency with the choreography of interaction;
- ▶ Its consistency with the article of the UDHR;
- ▶ Its relevant in the chosen context.

At the end of the questionnaire, students could fill a general reflection on the experience. Here follows the questionnaire.

Participants' Feedback on RTM workshop n*5

Problems or questions: ambra.trotto@gmail.com

Date:

This form will be used to gather material to fine tune the Rights through Making approach. It will not be used to assess you. Please, answer as honest as possible to the questions. The questions marked with a * are obligatory, but it is very appreciated if you answer to all of them.

Nationality*.....
Affiliation*.....
Age*.....
Name of your design*.....
Assigned article*.....

process

introduction lectures: university presentations

relevance / adequacy

extent to which this presentation has been relevant and adequate to the overall process

low high ... N/A

introduction lectures: RTM introduction / workshop presentation - Ambra Trotto

relevance / adequacy

extent to which this presentation has been relevant and adequate to the overall process

low high ... N/A

introduction lectures: urban and lighting design - Gabriele Goretti

relevance / adequacy

extent to which this presentation has been relevant and adequate to the overall process

low high ... N/A

introduction lectures: ethics in design - Philip Ross

relevance / adequacy

extent to which this presentation has been relevant and adequate to the overall process

low high ... N/A

Fig.17. Questionnaire for students, who participated to WS 5 – Urban Light

Each question asked to position a cross along a line, whose left-end would indicate a low mark and right-end a high mark. The mark was given on relevance, adequacy or effectiveness of a specific session of the workshop and on the effectiveness of “group work” (how successful the collaboration within the team was).

So, for instance (see Fig.18), it was asked to what extent the choreography of interaction (corporal exploration of the given article) was relevant and effective to the overall design process and to what extent the members of the team successfully worked as a unit. In order to rate, students had to position a cross on a line that connected “low” to “high”.

choreography of interaction: corporal exploration of the given article (Monday afternoon)

relevance / effective*

extent to which this part of the process has been relevant and effective to the overall process

lowX..... high ... N/A

group work*

extent to which the members of the group have successfully worked together as a unity

lowX..... high ... N/A

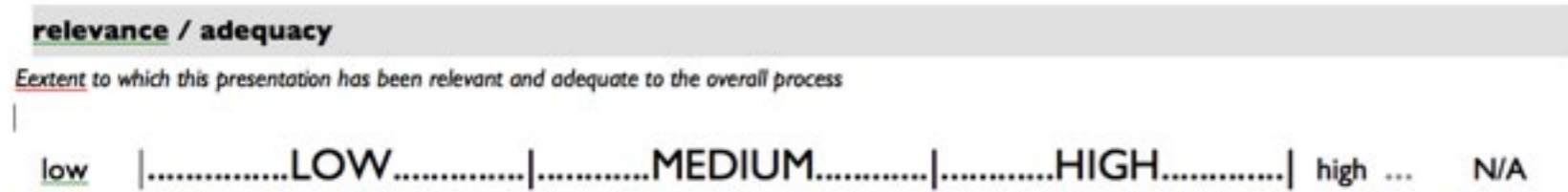
explain your reflection on this approach with a few words*

.....
.....

Fig. 18. Example of question posed in the questionnaire, where the evaluation meter system is visible on a line that goes from low to high.

The results

Thirty students participated to the workshop (WS 5 – Urban Lights). The questionnaire was sent by mail, with a request of filling it. Seventeen of them sent the questionnaire back. Some students misinterpreted how I expected them to do the rating and, instead of placing a cross along the line, they indicated a level, by writing on the line (low, medium, high). Since I was focusing on exploring a trend, rather than the exact ratings, I decided to use all results. But in order to do it, the quantitative results were collected and converted into three blocks: when a cross was put in a range going from the left end of the line to a third of the line, I translated the rating into the value “low”; from a third of the line to two thirds, I translated the rating as “medium”; from two thirds of the line to the right end of the line, I translated the rating as “high” (see Fig. 19).



Therefore these results were inserted in a table, to have an overview and to reflect upon (see Fig. 20).

These quantitative results are clear and consistent in showing that the students' overall evaluation of the workshop was positive, indicating that the process that I adopted in WS 5 was appraised as successful. It is a pity that I cannot compare these results to previous workshops. I collected the students' impressions on previous workshops with informal talks and, as far as the Dutch students are concerned, their evaluation and opinion about the

Fig. 19. When a cross was set in the first third, the rating was considered as “low”, and so on.

PROCESS	low	medium	high	no answer	
university presentations					
relevance/adequacy	0	6	9	2	
workshop presentation					
relevance/adequacy	0	2	14	1	
urban and lighting design					
relevance/adequacy	2	2	12	1	
ethics in design					
relevance/adequacy	1	5	10	1	
prototyping					
relevance/adequacy	0	7	7	3	
city of Eindhoven					
relevance/adequacy	0	1	15	1	
dreaming of the impossible					
relevance/adequacy	1	2	13	1	
choreography of interaction: corporal exploration of the given article (Monday afternoon)					
relevance/adequacy	1	2	14	0	
group work	1	3	13	0	
choreography of interaction: design through choreography - scenario definition (Tuesday afternoon)					
relevance/adequacy	2	3	12	0	
group work	2	5	10	0	
designing the rationale (Wednesday)					
group work	1	8	8	0	
your role	0	5	11	1	
the making: experiential prototype					
group work	1	4	12	0	
your role	0	6	10	1	
the making: aesthetics and functionality					
group work	1	3	13	0	
your role	1	4	12	0	
the making: final presentation					
group work	0	4	13	0	
your role	0	2	14	1	
OVERALL PROCESS					
your role	0	3	13	1	
feedbacks from supervisors: useful	0	1	15	1	
feedbacks from supervisors: consistency	2	7	8	0	
FINAL DESIGN: EVALUATION					
relevance / adequacy	2	1	13	1	
consistency with the choreography of interaction	2	1	13	1	
consistency with the article	0	4	12	1	
relevance in the chosen context	0	2	14	1	
Monday	Tuesday	Wednesday	Thursday	Friday	
hardest moment	0	2	9	5	0
easiest moment	6	1	3	0	7

Fig. 20. Table summarizing the results of the inquiry; in yellow the rating(s) that scored the most.

workshop's process could be at times extracted from their final written reflections. These informal data helped me in fine-tuning each workshop, according to the modalities explained in chapter "2 The RtM workshop approach's evolution".

These charts and the comments on the questionnaires show that students enjoyed the initial presentations, especially when their practical implications with the current design assignment was clear. The inspirational presentation of Kees Overbeeke "*Dreaming of the Impossible*" is an exception: its practical usefulness was not absolutely immediate, but it was very valuable because it gave a motivational boost to students. Especially because it was placed in the most stressful moment of the week and of the workshop (as it is possible to see in the last two lines of the table): Wednesday afternoon.

From the questionnaires (especially in the qualitative answers), it emerges that the experience of the choreography of interaction was initially seen with scepticism, but was a very useful moment to break the ice among people, to express each individuality in a balanced way and reflect together.

As reflected also by written comments, the second session of the choreography of interaction, in which students actually started to design a scenario, by combining movement with material and building rough mock-ups, already showed a weakening of the Making power and a lot of discussions started to take place. This is not that evident in the rating, which scores only slightly lower than the first session. It emerges in the students' comments, where it is clear that for some reasons, the second session was still felt more as a preparatory exercise, rather than actual design and some students complained that this part was too long compared to the actual "designing part". The harmony of intents was then lost when students went back into the usual office spaces and sat together at a table to "*start designing*". Some complained that

at that moment "*people started to do their own things*" and it became "*difficult to keep the team discussion focused and relevant*". What emerges in the comments of the questionnaire's section that describes conceptualising by Making (both the line about the concept's design and the line about the prototype's making) is rather thought provoking. In the written reflections about this section, egos literally burst. Students start to affirm the importance of their individual weight in the design process and minimize others' role: "*I feel to be a talent in the "teamwork and cooperation" competency area and I think this experience improved even more my skill. At the beginning it was difficult to make everybody agree and happy*"; "*I am a naturally expressive person and I am not afraid of going through a public display, so I guess this helped the team to just go with the flow*"; "*the project (concept's name) was my initiative, but we all worked together to realise the prototype*"; "*I will say we all worked together, but the concept of (concept's name) was mine. I did the engineering, assembling, coupling, blasting, etc. I gave it a name (...)*"; this last statement was repeated twice, in two different parts of the questionnaire. An underlying frustration bubbles to the surface, clearly indicating that expressivity was not respected in the phase in which students were acting according to traditional (logic) patterns of idea generations. This frustration disappears in the phases in which students were forced to make together, such as during the

choreography of interaction or the prototype building phase or the preparation of the final presentation. A peaceful, constructive atmosphere is clearly perceivable in the reflections concerning these sessions, where everybody felt himself and his expressivity respected, empowering towards mutual respect, therefore ethics and leading to concrete results.

During the phases of discussion and conceptualisation, where Making and Thinking were disjoined, another aspect that is perceivable in the questionnaires (although not explicitly mentioned) is the shakiness of trust among students, especially from different nationalities: *“I did not know what to expect from the foreign students”*. Besides, when asked when the most difficult, most frustrating of the workshop was, almost all students state that it was in the middle of the workshop, during the concept’s design (Wednesday, first half of Thursday). Difficulties of communication, lack of proficiency in English are often accused to be the cause of frustration and stall, but this is often more an escape goat, than the real reason. These problems of communication, as a matter of facts, disappear when students start Making things together. Communication is indeed a problem, but only a collateral one; it is a side effect, which hides the real issue responsible for frustration: rational thinking preceding and overshadowing Making, draining constructive energies and destabilising mutual trust.

These observations are crucial in the Rights through Making (RtM) approach and confirm our thesis that the Making empowers towards ethics, in a (multicultural) teamwork.

3.2 REFLECTIONS ON THE WORKSHOPS' EXPERIENCE

Preparing the workshop

A very careful preparation of the workshop showed to be very important to obtain valuable results. The kind of guided preparatory activities that the schedule includes and the way time is planned and activities are divided have been subject to substantial refinement along these four years. A tight, effective schedule is crucial to keep students focused and to create a process of growth in the direction as desired in the RtM approach. Longer workshops, such as WS 4 - Cultural Waves (Florianópolis) and WS 6 - Metamorphic Fashion (Florence) risked being dispersive and requiring a strict discipline, both from the supervisors and from the students. There were people abandoning and the effort was also more intense. Concentrated workshops, lasting one week, permit to focus, compel participants (students and supervisors) to leave all other obligations and are a full cultural immersion. I believe, by reflecting on the experience that I acquired in these years, that a duration of two weeks, full-time, would probably be a better option, as far as the refinement of final results are concerned. This duration would allow:

- ▶ to introduce working sessions together with craftsmen/local saper fare (not just using it as inspirational material, but actually including it in the Making session);
- ▶ implementing competencies on human rights and societal issues: knowledgeable people in this domain, participating during the process, (not just giving inspirational lecture), could concur towards stronger foundation regarding plausibility of design concepts and diminish the risk of naïf visions on societal problems.

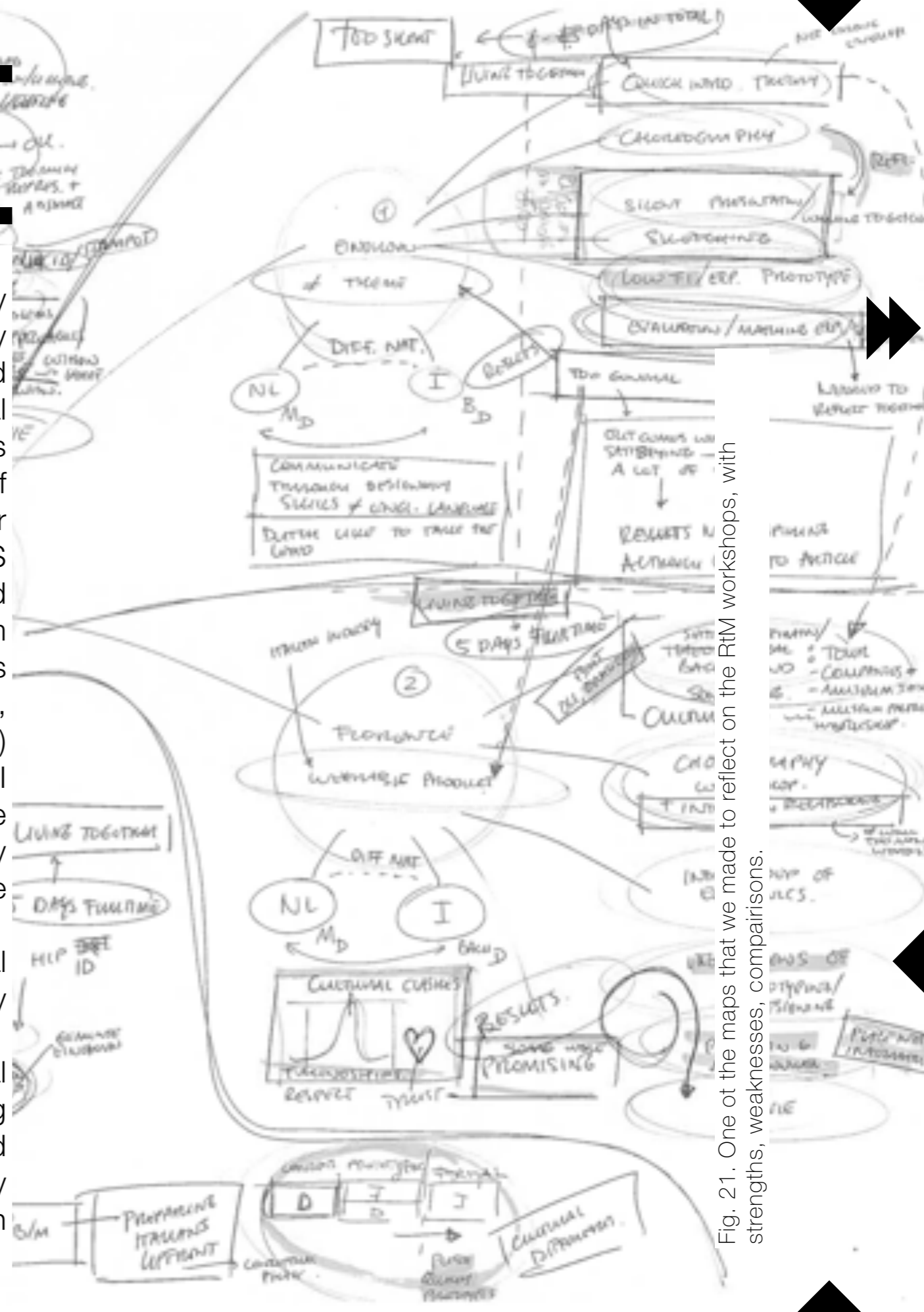


Fig. 21. One of the maps that we made to reflect on the RtM workshops, with strengths, weaknesses, comparisons.

- ▶ introducing creative techniques to achieve a stronger integration of points of view, by means of emphasizing the team members skills during the design process (see part 3, chapter “1 Designing for points of view”);
- ▶ more iterations of reflection-on-action on interim mock-ups, to strengthen the integration between conceptualising and Making;
- ▶ the refinement of the experiential prototype’s quality (function-, interaction- and form-wise);
- ▶ a more relaxed schedule both for students and for supervisors, which would hopefully allow people to get to know each other better and, as a consequence, work better together.

I learned that it is important, if possible, to have an introductory conversation with participating students, to discuss expectations, but also to prepare them to the different design approaches of the participating schools. This introductory conversation was done mostly with Italian students and not with the others and it was done in an unofficial way, more based on intuition, rather than on an acknowledged procedure. It was clear that this initial conversation should become a habit, because it showed to minimize the initial (cultural) shock and a preparation on the mutual roles within the process and has demonstrated to be necessary and helpful to catalyse the team-forming phase.

Inspirational support/context information session

In every workshop, I dealt differently with this part. What often happened, is that this session had to be shortened because of time constraints. What I did in the second workshop (WS 2 – Wearing Quality) in Florence was the most appreciated situation by students: visiting companies and diving in the local cultural dimension. It was definitely too long for the time available. In a two-week scenario (or at least in workshops that

last longer than 5 days), it would be possible to get this inspirational support in person, without undermining the design process, but greatly supporting it. Students gain insight in being in factories, museums or by simply walking in the city. They must live (in the German sense of *erleben*), experience, smell, move around, touch and feel the environment, the world from which to extract inspiration and for which to generate new meaning. This inspirational support/context information session constitutes a part that, up to now, has been separated from the Making part. Ideally, in further explorations, these two moments would be merged; e.g. I could think of designing in a factory or in a craftsman laboratory, where the saper fare, the actual distilled knowledge of local Making would be at hand.

Creative Techniques

There is great space for improvement in this part. Apart from interim presentations, the creative technique that was used the most is the choreography of interaction. Even the choreography of interaction has not obtained the results I wished and it needs to be further adapted to our purpose. The bodily explorations through the Choreography of Interaction technique, aimed to allow students to embody qualities of the aspects that they consider relevant in the UDHR article. It wanted to give them the possibility of feeling in their bodies the

deep meaning of the values of respect conjugated according to the single articles. Through their bodies, the students should discover and design interaction possibilities. From there, students could embody these interaction possibilities into the final concept. Capitalising on the experience of these workshops, I observed that the flaw of the choreography of interaction was its intrinsic inability to lead to concretization. In most cases it succeeded to let students explore the meaning of the article with their body, but it did not help to make the step from abstraction to concretization. The moment in which students finished the exercise, the choreography and the designing part were felt as separated. While I thought that the use of bodily exploration would provide a platform to think with hands and body and begin to make and design starting from the bodies, it actually often deviated the design process towards abstraction.

This technique has though demonstrated to be very important within the RtM approach. When this part has been treated in a more superficial or brief way, students had bigger difficulties to use their bodies to design interactions (such as in the fourth workshop, WS 4 - Cultural Waves) and the resulting products belong more to traditional form-giving rather than ground-breaking design for quality in interaction.

How to tackle this issue, in order to optimize the impact of the Choreography of Interaction, is a subject that has to be faced in the future with designers' experts in bodily dynamics related to interaction design, to be able to elaborate valid further hypothesis.

Conceptualising by Making, the easy trap

As a concluding reflection of this part of the research, I have to say that the techniques that I provided in order to integrate Making and Thinking during the design process still have to be refined. This awareness grew workshop by workshop and,

although there was an evident improvement of the design results, I see there is still work to do in this direction.

In the fifth workshop, for example, I tried to merge this phase with the second part of the Choreography of Interaction. As soon as students are allowed back in their comfort zone, they also tend to get back to standard design procedures. Far from the state of alienation in which they were compelled during the application of the creative techniques, they tend to forget the sensorial parts of their previous explorations and apply rational patterns of thinking. At this point, another component starts playing a major role in the team dynamics: language. All participants are forced to use a language they do not master completely. The use of language and not mastering the common language create limitations of expressivity and therefore frustration in the communication within the team, slowing down the concept's design and stifling the design process. Our experience has demonstrated that the design process goes smoothly only when the previous bodily explorations have already landed into a concept's design. It works when there is a gradual transition from the bodily explorations into the Making, without a cerebral interruption, which often shows its incapability of handling the assignment's complexity.

It was clear that students are trained to move in a rational and logic sphere and do not feel at ease in challenging skills that are different from cognitive, i.e. perceptual motor or emotional. It is as if they

are magnetized to get back into tracks they are more familiar with, such as discussing, using their linguistic skills (both by talking and writing). The moment, in which they manage to step into the Making mode, this improves dramatically their ability of understanding (even in a rational way) and attacking the design challenge.

This issue constitutes an *easy trap*, in which not only students fell, but also the researchers carrying out this research stumbled several times upon. For example, although I kept on encouraging students to make together, instead of discussing and thinking too much, we gave them a different message in the organizational material we provided them with. In the questionnaires we described in section “3.1 Questionnaires: the students’ evaluation” or in producing the workshops’ schedules, the concept’s design and the making session were mentioned separately. Only afterwards we realised this, at times, inconsistency of our communications. This is a clear evidence of *how deeply, unconsciously and dangerously the separation of “Thinking” and “Making” is rooted in our way of facing the world, even when we are completely aware of its inadequacy and vigorously fight against it.*

This is a further reason to envision an ideal situation in which designers are placed to work in environments that affords Making, in a location that is tuned with the place’s craftsmanship spirit. We need not only tools, but also environments that fit the design assignment. Concluding: while, by coaching students and working together with them, we could help them to work towards a unity of form, function and interaction, what missed was conceptualisation by Making.

At this point I knew that this was the focal point, to further elaborate, by designing methods and techniques for this integration to happen. Part 3, where the workshop “*Designing for points of views*” is described, is a step in this direction.



Fig. 22. Working in the lab, during WS 6 - Metamorphic Fashion, in Florence.

3.3 EVALUATION OF THE WORKSHOP'S RESULTS

The aim of the RtM workshops is to verify the effectiveness of the approach that combines ethics with *saper fare*, by sharing the language of Making. The workshop results should evidence this. The results that I observe are of two types: one concerns the *students' professional and personal growth*, the other one relates to the *value of final concepts* they produce, embodied by experiential prototypes.

Students' growth in awareness

The Department of Industrial Design of the Eindhoven University of Technology has a unique combination of focus (designing highly intelligent or highly dynamic systems, products, and related services) and education model (competency-centred learning). A competency is defined as “*an individual's ability to select, acquire, and use the knowledge, skills, and attitudes that are required for effective behaviour in a specific professional, social, or learning context (...) It gives equal weight to knowledge, skills and attitudes, and stimulates students to learn by doing*”. The acquired competencies depend on the person and on the context (Hummels, Frens, 2009). The context I provided with the RtM workshop, is characterised by the content of task, theme and assignment, by the multiculturalism and by the combination of diverse approaches to design.

It especially boosts these competencies:

- ▶ Teamwork and Communication;
- ▶ Integrating Technology;
- ▶ Social cultural Awareness;
- ▶ Form and senses;
- ▶ Ideas and concepts.



Fig. 23. After the final presentation of WS 3 - Bionic Wearables in Eindhoven, outside the Town Hall

The competency **Teamwork and Communication** aims at “*working together towards a common goal, using all the strengths within a team and communicate opinions, ideas, information and results clearly and convincingly*” (Hummels, Vinke, 2009, p.61). This is a focal educational aspect in our RtM approach. Students had to realise, in a short time what the respective strengths of each participants were and how these could be used and emphasized along the workshop, in a context of respect. As already said before, this aspect was supported by coaches, through preparing students beforehand with a short presentation of the other schools’ overall design approach. Very often it happened that students decided to divide tasks. Sometimes it was a positive choice, aimed at optimising the schedule and at using individual strengths for a team purpose. Sometimes it was a negative choice, as a consequence of bad communication, so that people could be parked (or park themselves) in a corner, soldering or preparing a flash animation as an ultimate solution to stop endless discussions. Thus, bad communication was at times compensated by project management. Teamwork and communication is a competency that was triggered in an unusual way and was a unique experience for all the participants. Internal communication, which is and issue that I already broadly discussed, was meant to work through Making.



Fig. 24. Exercise of Choreography of Interaction, during WS 5 - Urban Light

Integration of Technology was a competency pretty new to all participants, not affiliated to the Eindhoven University of Technology. Italian students (industrial design, fashion design and architecture students) were not familiar with this aspect at all. The same goes for Nigerian students from the Federal University of Akure, since the majority of them works in the ceramic design department and their Making skills are related to form giving of that material. Brazilian students' skills were similar to the Italian: used to sketching and form-giving, acquainted with communication strategies and business processes, but technology fast. Building the experiential prototypes was a very formative experience for all of them, including students from Eindhoven. Each of them would see were the accent of different educational approaches was: form, interaction, functional or narrative aspects. Too often, time limitation, did not allow students that did not know about technology, to actually learn. In the workshops where Eindhoven was not involved, at least one of the students per team was compelled to acquire basic notions of programming the technological platforms were chosen (mostly Arduino). This happened in WS 4 – Cultural Waves, in Florianópolis and it happened in WS 6 – Metamorphic Fashion, in Florence. In these cases there had to be a coach who was supporting the students' first steps in the world of Arduino and would be available for several iterations of trouble-shooting. The introduction of this technological aspect was an eye-opener for many students in all workshops. Various continued programming and getting acknowledged with this world, after our RtM workshops, using them for further design, such as final Master projects. This is indeed a success. How to combine new technologies with local crafts still remains a very difficult issue that few students understood and will be able to master. It remains a challenge for the future to prepare frameworks to empower the design fur

such an integration and I believe that embedding the presence of craftsmen in the process will be a facilitator for such a direction. By merging different *skilful points of view*, solution spaces are created, eliciting shifts of meaning and therefore new designs. This aspect is deepened in part 3, when describing the workshop “1 Designing for *Points of Views*”.

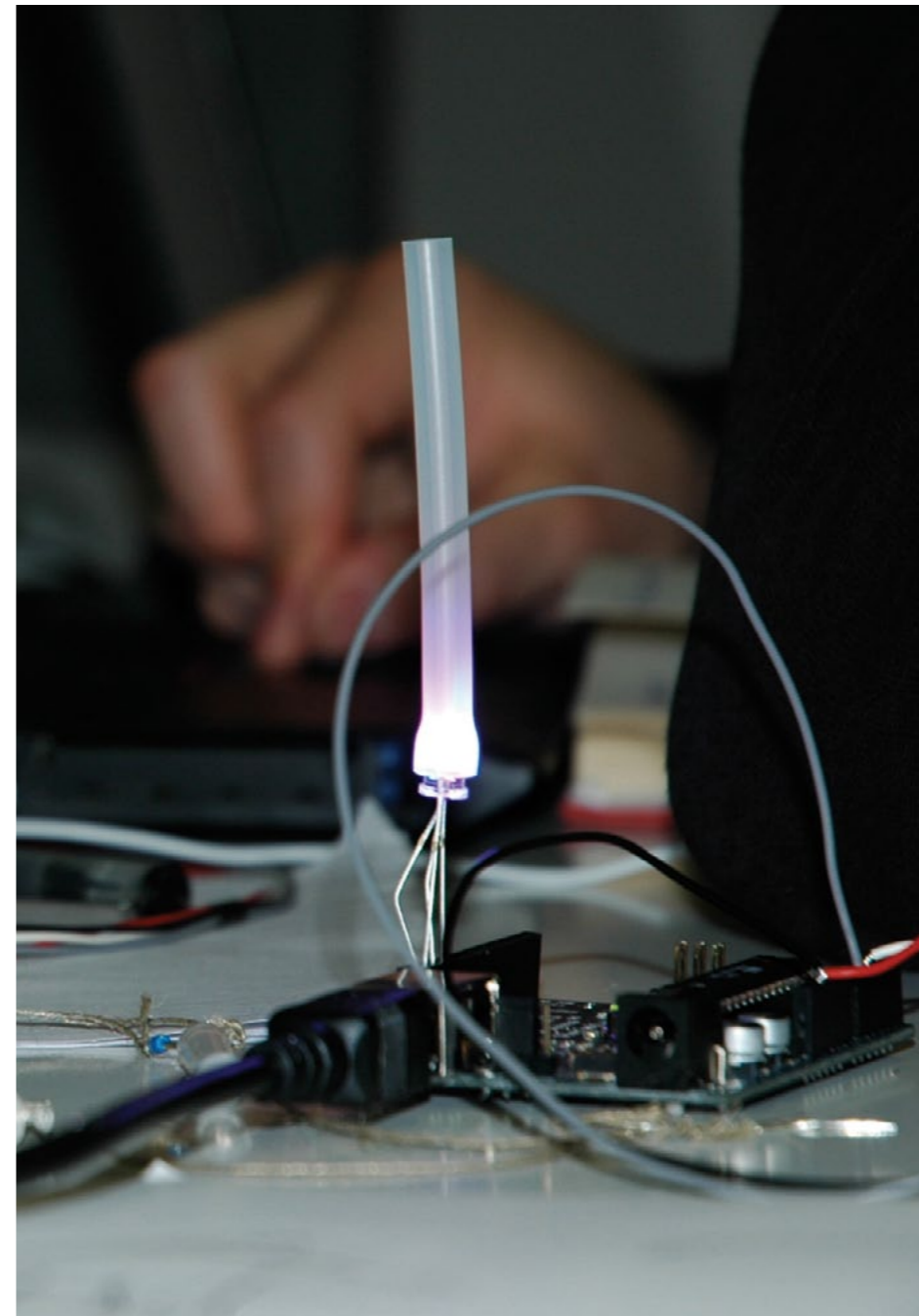


Fig 25. Images of integrations of different technologies in the making process of experiential prototypes; these are pictures taken during the different workshops.

In a context that aims at preparing designers able to cater for social and societal transformation, **social cultural awareness** is yet another fundamental competency to be acquired. Envisioning changes requires the ability of understanding the societal consequences of newly designed products and systems. The ethical question is focal in this competency *“related to taking responsibility for society and the notion of “good” in design”* (Hummels, Vinke, 2009, p. 59). This evidently also includes the necessity of a clear understanding of the past. The social cultural awareness competency is fully addressed in the RtM workshops, in which ethics is both a means and an end and the combination of past and future is inherent to it. It is a means because, through Making together, designers actually change their praxis towards a new way of Thinking and Making, which is ethical and moves towards pervasive ethics. It is an end, since the task the students have is to materialise the values expressed by an article of the Universal Declaration of Human Rights. It combines knowledge deeply rooted in the past with the transformation that will shape our future, because it capitalises on local saper fare and integrates it with new technologies, creating new meaning, rooted in local identities. What emerged is that students generally started the workshop with a low awareness of cultural and societal aspects. Very often, especially when their discussion remained at an abstract level, they showed to have a simplified and inconsistent view on societal matters. This is comprehensible, since it is difficult to be properly prepared on the subject of human rights, where a philosophical background is needed, it is necessary to constantly be well informed on contemporary socio-political mutating geographies and a solid preparation on the historical evolution of these matters is also desirable. This kind of specialist knowledge is hard to find in the designer’s house. What designers must have, is a *“keen bird’s eye view on this continually changing*

cultural (and social, I add) landscape, turning observations and knowledge into intelligent systems which match the needs of societies and cultural communities, as well as enabling social transformation” (Hummels, Vinke, 2009, p. 59). Designers are required to develop the ability of gathering a bird’s eye view and the ability of synthesising its essence into intelligent systems. I have noticed, by reflecting on the workshops’ results, that not knowing societal issue into depths, i.e. having specialist knowledge, is a small problem, if students manage to make a shift from the abstraction of the UDHR article and their personal experience.

I further elaborate on this aspect, when evaluating on the final results. This competency also relates to the increase of awareness of students as individuals and citizens and not only as designers. People participating in RtM workshop face, maybe for the first time, the extreme situation in which working in a multicultural environment compels and at the same time, they realise what kind of opportunities this offers. This kind of awareness is catalysed by the coaches' support, but this competency, more than the others, shows how much students learn more from each other, rather than from us. We, as supervisors, provide a platform for them to flourish both as individuals and as designers. The "form" of this platform, can surely make a difference in terms of complexity, depth and richness, but is often less incisive (education-wise) than the cohabitation/collaboration of students.

As explained in the previous chapter, in section "2.4 The evolution of creative techniques", sub-section "Living Together", in the RtM workshops I even required students to share private spaces and time: hosting institution's students provide housing for the guest students and are responsible for providing them with information and conditions for survival during the whole experience. These aspects intensify the absorbing of the social cultural awareness competency.



Fig. 26. students working in close (physical) contact during an exercise of Choreography of Interaction, in WS 5 - Urban Lights.

The following competency, **Form and Senses**, refers to aesthetics, both about form (static and dynamic) and interaction. It concerns meaning, because according to our phenomenological stand, meaning emanates from interaction. This competency was surely addressed and improved by having students from Eindhoven and from Florence designing together: the first department is focused on interaction design of intelligent system and the second's primary strength is on formal quality of complex products. It was clear that interaction matters were limited to ergonomics for the Florentines and formal qualities generally not considered very relevant by students from Eindhoven. Their collaboration, together with the strong and explicit requirements from the supervisors' side to design towards a unity of form, function and interaction, improved drastically their awareness on the matter. One-week workshops, in this sense, showed to be too short for them to be able to reach depth and to acquire real expertise. Their ability of mastering this competency had a great leap forward, thanks to multiculturalism (different school provenance) within teams.



Fig. 27. This slideshow shows one example of every workshop, where the assignment was to design a wearable product. They are presented in chronological order. Intouch (WS 2 – Wearing Quality), Freefalla (WS 3 – Bionic Wearables), Yyripigua (WS 4 – Cultural Waves) and La Flo (WS 6 – Metamorphic Fashion). While it is possible to track a steady improvement of formal qualities along the workshops, the quality of interaction had better and worse examples in each workshop. To get a glimpse of the quality of interaction, the videos of each project can be found in the first chapter of this part: 1, “The workshops’ overview”.

The competency **Ideas and Concepts** concerns the ability of developing visions, innovative ideas and concepts thanks to creative techniques, experimentations and the translation of research activity into design (Hummels, Vinke, 2009, p. 57). Creative techniques used by students in the RtM workshops, have been described and reflected upon in the previous chapters. The choreography of interaction is the technique that has characterised our workshops the most, obtaining good results in terms of boosting expressivity vs. representation in design. It has generated an improvement in merging Thinking and Making, which worked at very different levels in the different teams. Definitely, this way of facing design was new to most students, and the assignment of designing products and systems empowering people towards pervasive ethics was also new. This determined a massive development of this competency.



Fig. 28. Byou, a result of WS 3 – Bionic Wearables, is a skirt to discourage indiscreet or annoying looks, responding to the right to privacy. It swells when the wearer walks faster and deflates when she walks slower. It creates a feedback system: by looking bigger and bolder, it makes also the wearer feel as such. The choreography of interaction focused on exploring how the bodily expressivity could induce respect in other people. The outcomes were successfully transferred in a concept that embodies the same principles.

Evaluation of the final design concepts

In order to use the final design concepts resulting from the workshops to evaluate the RtM model, I chose some examples. Some examples, which fulfilled the initial RtM assignment and some other examples that, on the contrary, failed to do so¹. First, it is necessary to define what criteria I use to evaluate the quality of a design result. Quality must characterize form, function and interaction:

- ▶ interactions must be rich, expressive, beautiful, enticing;
- ▶ the form must trigger visceral sensations, must have a strong character and express the same underlying values to interaction and function;
- ▶ the function must be plausible and has to look to the future, must aim, together with the other two aspects of the product or system (form and interaction) to envision the future, transform it and create opportunities.

Since the future must be designed in an ethical direction, the values expressed by the Universal Declaration of Human Rights (UDHR) have to be materialised. This process of embodiment must move towards meaningful interaction, staying away from cognitive representations.

The project of the *Sound Experience* system², outcome of the sixth workshop (WS 6 – Metamorphic Fashion) expresses a good balance of all these aspects. The theme of the workshop was “*new Made in Italy*” (see *Annexes*, chapter 2, section “2.1 *The evolution of introducing theme and assignment*” for a detailed explanation) and the assignment was to design for the right of privacy in new urban tribes. Students selected recognizable groups of people, characterized by the same sub-culture and designed for them, reflecting on what Privacy means today, for new generations, in an urban context. They phrased the right of Privacy as right to control one’s own data. By means

Art. 12 “No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks”.

¹. Most of the projects have been critically presented in the prior publications about RtM (Rights through Making, 2008, Wearing Quality, 2009 and Bionic Wearables and Urban Lights, 2010). All concepts are presented in the internet platform www.rightsthroughmaking.org.

². The project Sound Experience was designed by Michele Tittarelli, Giulia Pavanelli, Riccardo Roggi, Federica Francini, Elena Vangi and supervised by Ambra Trotto, Stoffel Kuenen and Elisabetta Cianfanelli.

of sensitising people on the issue of data control, they aimed to promote interaction between urban tribes, fighting prejudices and unfounded discrimination. To play with the idea of control, they used a kind of data that all tribes share: music. The way they did it was by finding inspiration from the biological concept of a virus.

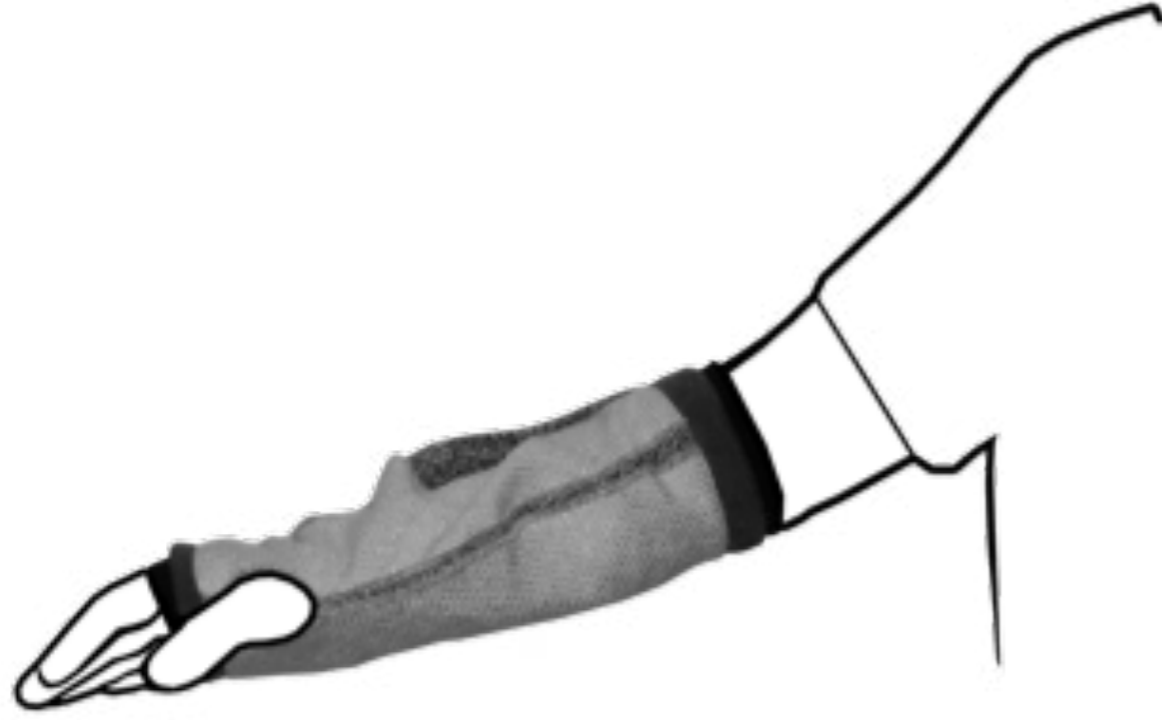
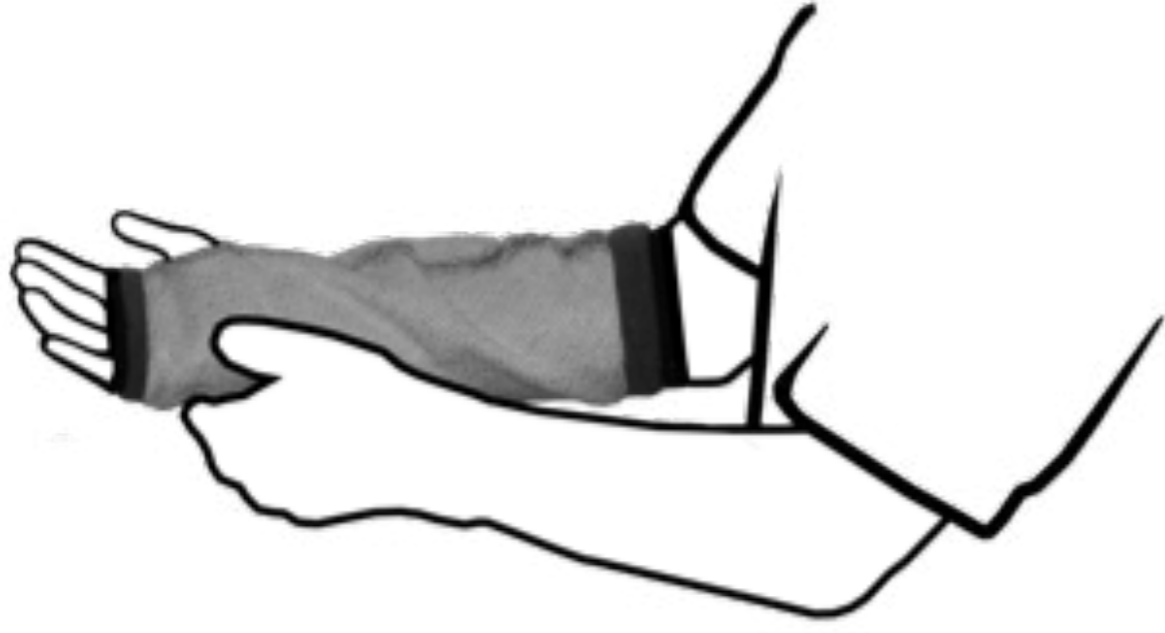
They designed fashion accessories controlling their mp3 devices and they picked 4 urban tribes to try the accessory out: a hood for hip-hoppers, a muff for emo, a scarf for fashion victims and a armband for fashion brand addicts. The use scenario is as follows: if people wearing an accessory of the same family meet in the street or pass by each other, their music would contaminate the other's by interfering with the beat rate. People therefore experience a new hybrid kind of music and, only then, decide whether to accept it or not. The accessory is the interface of acceptance and/or refusal and it responds to a corporeal literacy made of movement qualities belonging to that specific sub-culture. Both form and interaction relate to the group they belong. For instance, they designed a muff for emo. Wikipedia defines the fashion of emo as follows:

"Today emo is commonly tied to both music and fashion as well as the emo subculture. Usually among teens, the term "emo" is stereotyped with wearing slim-fit jeans, sometimes in bright colours, and tight t-shirts (usually short-sleeved) which often bear the names of emo bands. Studded belts and black wristbands are common accessories in emo fashion. Some males also wear thick, black horn-rimmed glasses.

The emo fashion is also recognized for its hairstyles. (...) Emo has been associated with a stereotype that includes being particularly emotional, sensitive, shy, introverted, or angst-ridden. It has also been associated with depression, self-injury, and suicide."



Fig. 29. The project Sound Experience was illustrated in association with the "gestural culture" of the urban tribe it had been designed for.



A common feature of people belonging to this urban sub-culture, is this boasting a depressed attitude and the meaning of wristbands appears to be that of covering real or presumed cuts on the wrists.

The music they listen is indie rock, hardcore, electronica, dub and drum'n bass. Wristbands, ripped gloves and muffs are recognizable accessories of emo. A long muff was designed; it controls the music that the wearer is using with gestures that are part of the emo gestural vocabulary: melancholic, introverted and slick. To accept the external music's intrusion, the wearer clasps his other wrist, as if he is holding something precious (see Fig. 30) and to refuse, he just sadly shakes it off (see Fig. 31).

The object formally plays with the emo attitude: it looks like a ripped layer of skin or a broken bandage (made of beautiful mixed paper and silk cream-colour fabric) that shows underneath a tight brown muff, on which several filaments are embroidered, as if muscle strings were visible under ripped skin or under the bandage. The look does only lightly evoke the biological analogy, playing with it with grace a subtle irony (see Fig. 32).

Fig. 30. Top: to accept another beat's intrusion, one clasps his hand
Fig. 31. Bottom: to refuse an external beat's intrusion, one shakes his hand off



Fig. 32. Muff: the external cream layer opens to show the internal tight muff, on which filaments are embroidered.

Another example of a product belonging to the *Sound Experience's* system is *Collar Hood*, designed for hip hoppers. See Fig. 33 for the person-product interaction and see Fig. 34 for a better image of the formal characteristics.

This is to be considered a successful result because it responds to all the requirements I set. The concept constitutes a meaningful reflection on the right of privacy, tweaking its relevance to a contemporary use. It creates awareness and entices gentle interferences and consequence mutual knowledge and hopefully acceptance among people belonging to different urban cultures. There is a consistency between form and interaction -although the function is not that outspoken - functionality is triggered by natural gestures; but this is not a minus: in this case it was a designer's choice not to show the function. All these aspects are treated with subtleness and driven by a vision of a better future. The experiential prototype is a beautiful wearable object, which can be tried in front of a screen, on which an interactive movie is broadcast. The movie simulates the real situation of meeting a person with an object of the same family, but belonging to a different tribe. The wearable is the interface with which the movie's audio is controlled: by interacting with it, I can accept or refuse the intrusion of somebody else's beat. The concept, after a proper engineering and strategic design positioning, can find its way as a plausible marketable product.

Now, the next question, relevant for the research purpose of this thesis, is: *why was this project successful?* Why is it a good example for the RtM approach?

In WS 6 – Metamorphic Fashion, I did not provide creative techniques. What was guaranteed was a constant presence of the supervisors and a spread-in-time inspirational support, consisting of discussions, consults with experts of wearable technology, of strategic design for Made in Italy and of production processes for





Fig. 33. This hood, dedicated to hip-hop / street urban tribe. The first two images show the sequence of movement to accept somebody else's beat intrusion and the third and fourth image illustrate how to refuse it. The movements are bouncy and loud, typical of this group's corporeal literacy.

confection. The choreography of interaction session, although planned, was not possible for organizational reasons. Because of this, it was more difficult than in the workshop in which the choreography of interaction was actually used, to convey the force of expression, vs. representation. It is hard for the students to combine Thinking and Making. They tended to work in a 3rd person perspective, instead of a 1st person perspective. What emerged is that students had a hard time in understanding that they had to start from concrete issues, with which they directly resonated, rather than from the abstract cloud of the Universal Declaration's article. Some teams did not make the step, some eventually managed. Those, who managed, made it because they could empathise with the envisioned situation and were able to tune the transformation that they were trying to realise with their sensibility, as shown by the questionnaires' results.





Fig. 34. Collar Hood is thought for hip-hoppers and controls the influence of external beats with sensors integrated in the hood's rim.



Experience sensitises people, it entices towards the creation of tools to deal with things in the world. These tools are skills. Skills are the tools I use not only to deal with the world but, as designers, to transform it and to generate new meaning in our acting in the world. By means of skills, our experience is again transformed, in a feedback system. Our design activity can only be meaningful/generate meaning, if it goes through the filter of experience. Otherwise it remains at an abstract level of ideals and it cannot relate with the concrete reality of people, talk to their flesh and bones, vibe with their joys and sorrows, tackle their strengths and weaknesses, foster their dynamics and strive for balance.

Students managed to materialise the values expressed by an article of the Universal Declaration of Human Rights when they poured their (social, emotional, perceptual-motor) skills into the design process.

This contributed to the awareness that the use of one's own skills is fundamental to design for ethics, i.e. to design for people. One can remain in the cloud of abstraction, but it is impossible, from there, to design for a real transformation in an ethical direction.



Looking at this issue from a team dynamic perspective, I observed that when a student brought his personal experience into the shared design space, it triggered respect towards him and towards his underlying motivations. When students started to talk about abstractions (as language, dialogical and oppositional), clashes between the team members were at hand.

From this aspect I can draw the conclusion that the big issue was not enticing students towards Making together, but rather to use their skills in the shared design process. It seems a nuance, but it is actually a “sensible” change of perspective that works as an eye-opener.

This is confirmed by other design results of the RtM workshops, where students could not empathise with the assignment and failed. An example is the project “*Brooch of Belief*”, result of the second workshop (WS 2 – Wearing Quality). Failures mostly happened when the assignment required materialising articles, whose content was far from students’ personal experience and sensibility. When students were asked to design for freedom of religion or for the right to obtain political asylum or the right for every human being to fight slavery, they found it extremely – and understandably – difficult. They sheltered in representations: the choreography of interaction became a theatre play, and not an exploration of meaning and expressive qualities of the given article. During the final concept’s presentation, students show the experiential prototype by acting out a situation that is clearly unfamiliar. They are talking in a 3rd person perspective, instead of a 1st person, and it does not resonate with them. In the project “*Brooch of Belief*”, the assignment was to entice people towards the realisation of the freedom of religion. This article is one of the most complex and hard to design for and it raises several contemporary social issues on which it is so easy to have borrowed opinions and to yield to stereotypes and pre-



Fig. 35. Images of the project “*Brooch of Belief*”, a project that aimed to materialise freedom of belief.

packaged ungrounded prejudices. In this case, students did not manage to get out of the cloud of abstraction. The context of use they imagined was an ideal situation, not a real one. They imagined brooches on which people could have the symbol of their belief light up. It would light up only when touched by other people wearing an analogue brooch and willing to listen to their religious position. Just listening to this description, several flaws appear: why would you design for people that are already prone to listen to your religious opinion? Why a symbol, which is the sign that synthesises all the nuances of the belief and flattens them, being the first target for prejudice to be triggered? Why would I walk around with *stigmata*, if I were looking for comprehension from other people? The fact of using symbols summarizes and embodies the difficulty that these students have in facing such a complex issue, as freedom of religion.

Interestingly, when the project was weak, the stories told by students to justify their design were long and complex, cerebral and hard to understand. Successful projects were easily explained and their essence quickly conveyed, because of their realism and their concreteness.

During the RtM workshops, students successfully managed to face topics that are remote from their sensibility if they twisted it towards a context they were more familiar with and resonated with their experience.

Art. 18 “Everyone has the right to freedom of thought, conscience and religion; this right includes freedom to change his religion or belief, and freedom, either alone or in community with others and in public or private, to manifest his religion or belief in teaching, practice, worship and observance”.



Art. 4 “No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all their forms”.

This happened for example for the project *Glowve* (WS 2 – Wearing Quality), in which they elaborated article 4 in a context they were able to handle: they tweaked freedom from slavery into education to fight slavery, starting from their childhood. They designed a cuddly toy to get rid of enslavement by fear of darkness (see Fig. 36). It can seem far-fetched, but growing with the idea that nothing can enslave you and every slavery can be fought (be it by oppressors, by drug addiction, by fears) is not as widespread as one would think. They succeeded in focusing on the interaction, without falling into representational elements.

Fig. 36. The glove *Glowve* lights up when the kid wearing it clamps his hands in the darkness, when he gets scared.

3.4 THE RIGHTS THROUGH MAKING WORKSHOP'S MODEL.

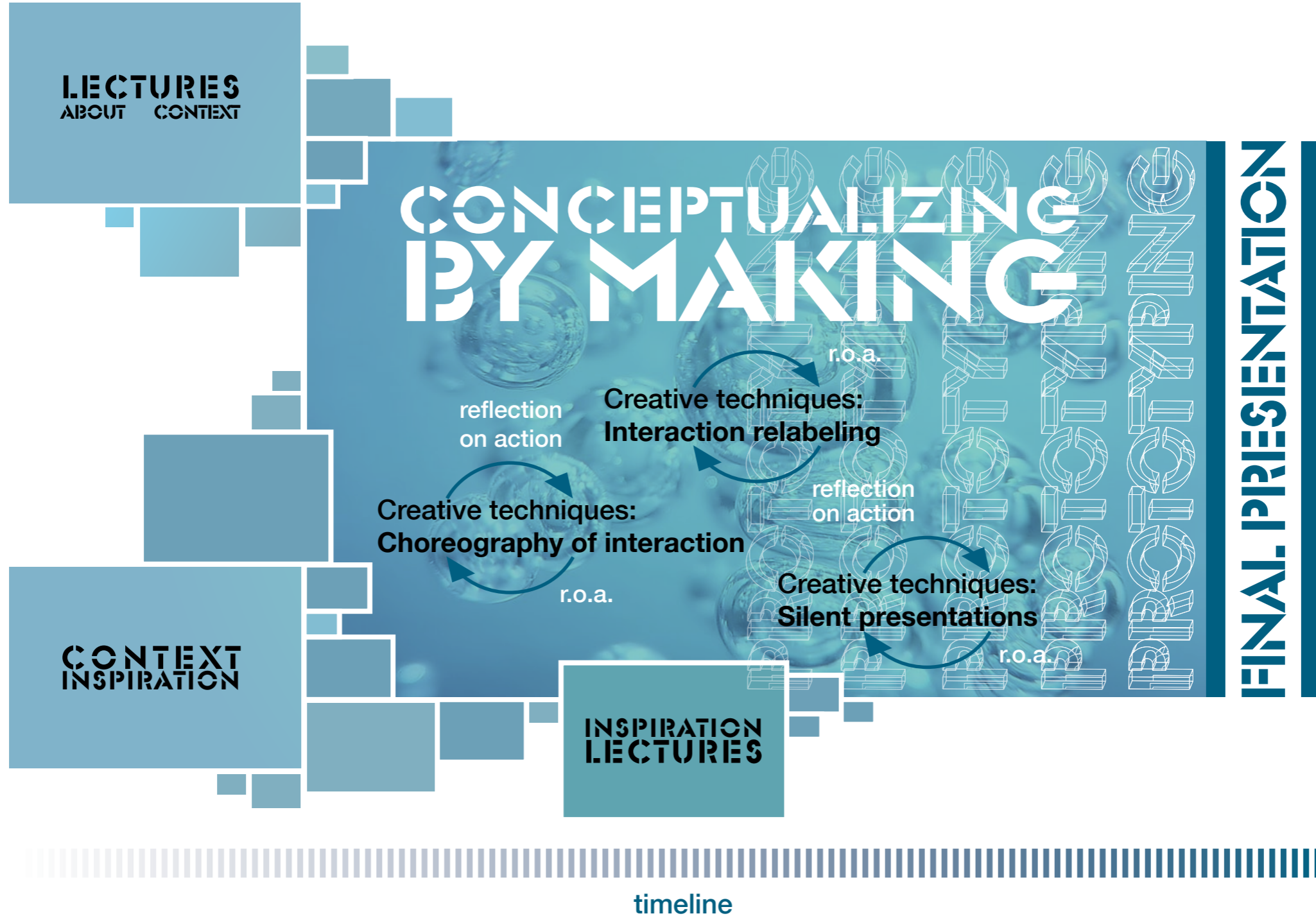


Fig. 37. The Rights through Making approach of a design process. The main phase is “conceptualising by making”, constituted by cycles of reflection-on-action, triggered by creative techniques and boosted by the construction of low-fi experienceable prototypes.

This fundamental awareness about the role of experience and skills to integrate different points of view and Make together was not an exclusive result of the RtM workshops. At the end of these experiences only intuitively I perceived that I had to intervene in the RtM model to tackle this issue. Trusting this intuition, I set up the last workshop, which allowed me to dredge up this tacit knowledge and make it apparent. In part 3, I describe this experiment in “*1 Designing for points of Views*”.

SPREADING RIGHTS THROUGH MAKING



SPREADING RIGHTS THROUGH MAKING

In exploring how the Rights through Making approach can actually be implemented and induce the change of thinking wished for in the manifesto, I realised workshops, as explained in the previous part. This set-up, of course useful to test and fine-tune the approach, has shown to have limitations, especially as far as the sharing the language of making is concerned. I had to create ad hoc techniques in order to provide designers with a platform of tools and techniques, where they could be seduced to actually make together, input the sensitivity deriving from their skills and therefore enrich the design process with their point of view. Besides, organizational and financial reasons often imposed time limitations in the workshops. Although participants always built experiential prototypes eliciting effectiveness in communicating their design concepts, this time limitations often prevented to reach depth and refinement.

Apart from workshops' *pros* and *cons*, one of the main limitations of the Rights through Making approach is that it remains indeed an experience that is constrained within a specific circle of people and whose diffusion depends entirely on the current organizers and promoters. It is necessary to trigger a viral dynamics that would allow the project to become independent of its founders and, by means of making, operate the actual change in thinking in the society. The approach has to be spread, applied, polished, deconstructed, reconstructed, must breath new horizons and be permeated by new making cultures. And this has to happen in different cultural environments, using disparate local skills and

crafts; it has to involve companies as to actually impact on their praxis.

In “*The RTM Internet platform: showcase*” I report on what I did to spread the content of the Rights through Making approach: how I built the Internet platform that serves as an open showcase of the projects elaborated so far: I describe the concept behind it and how I realised it.

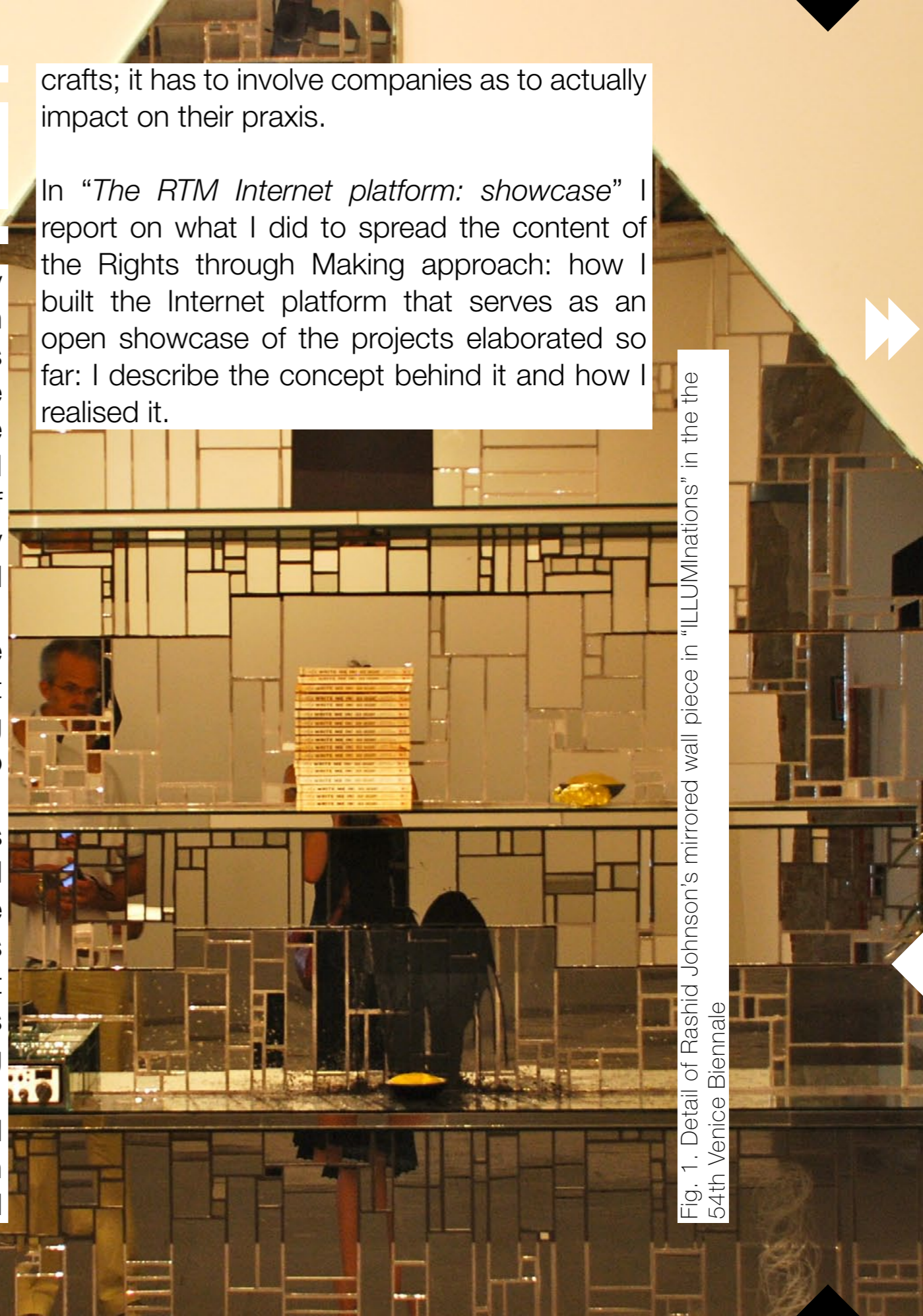


Fig. 1. Detail of Rashid Johnson's mirrored wall piece in "ILLUMinations" in the the 54th Venice Biennale

RIGHTS THROUGH MAKING

RIGHTS
THROUGH
MAKING
ETHICS IN DESIGN

MANIFESTO PARTNERS PEOPLE PROJECTS CONTACT
SEARCH ON



RIGHTS THROUGH MAKING

LANGUAGES

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SHARE IT

Fig. 1. Screenshot of the rightsthroughmaking.org site.

1 - INTERNET PLATFORM: SHOWCASE




1.1 What is the showcase

1.2 Internet and Human Rights

1.3 Representation vs. expression: the challenge

1.4 Rightssthroughmaking.org: graphic project development
Conceptual development
Implementation



1.1 WHAT IS THE SHOWCASE

To collect all the projects done in these years and make them accessible and sharable, an Internet Showcase was designed. Of course, this space has to respect and enforce the main values of the Rights through Making (RtM) approach. It also had to be an RtM product itself, "whose use would empower and entice people towards the respect of human rights" (RtM manifesto). Although all the other projects, resulting from the various workshops, were embodied in experiential (temporary) prototypes, this is the only "real" interactive product, completely functional and accessible to external parties, other than founding people and partners. The initial idea was to design an Internet platform that would serve as a showcase of projects and concepts, but also as a permanent space for confrontation, diffusion and growth of the RtM approach. The Showcase has been realised and is described in this chapter. The Collaborative Design Space will be the next step of implementation and I relate on it in the next chapter.

"In common with an increasing number of the general public, we have reached a saturation point at which the high pitched scream of consumer selling is no more than sheer noise. We think that there are other things more worth using our skill and experience on. There are signs for streets and buildings, books and periodicals, catalogues, instructional manuals, industrial photography, educational aids, films, television features, scientific and industrial publications and all the other media through which we promote our trade, our education, our culture and our greater awareness of the world."
First things First Manifesto, 1964; on the social responsibility of graphic designers.



Fig. 2. Images of the RtM workshops' outcomes.

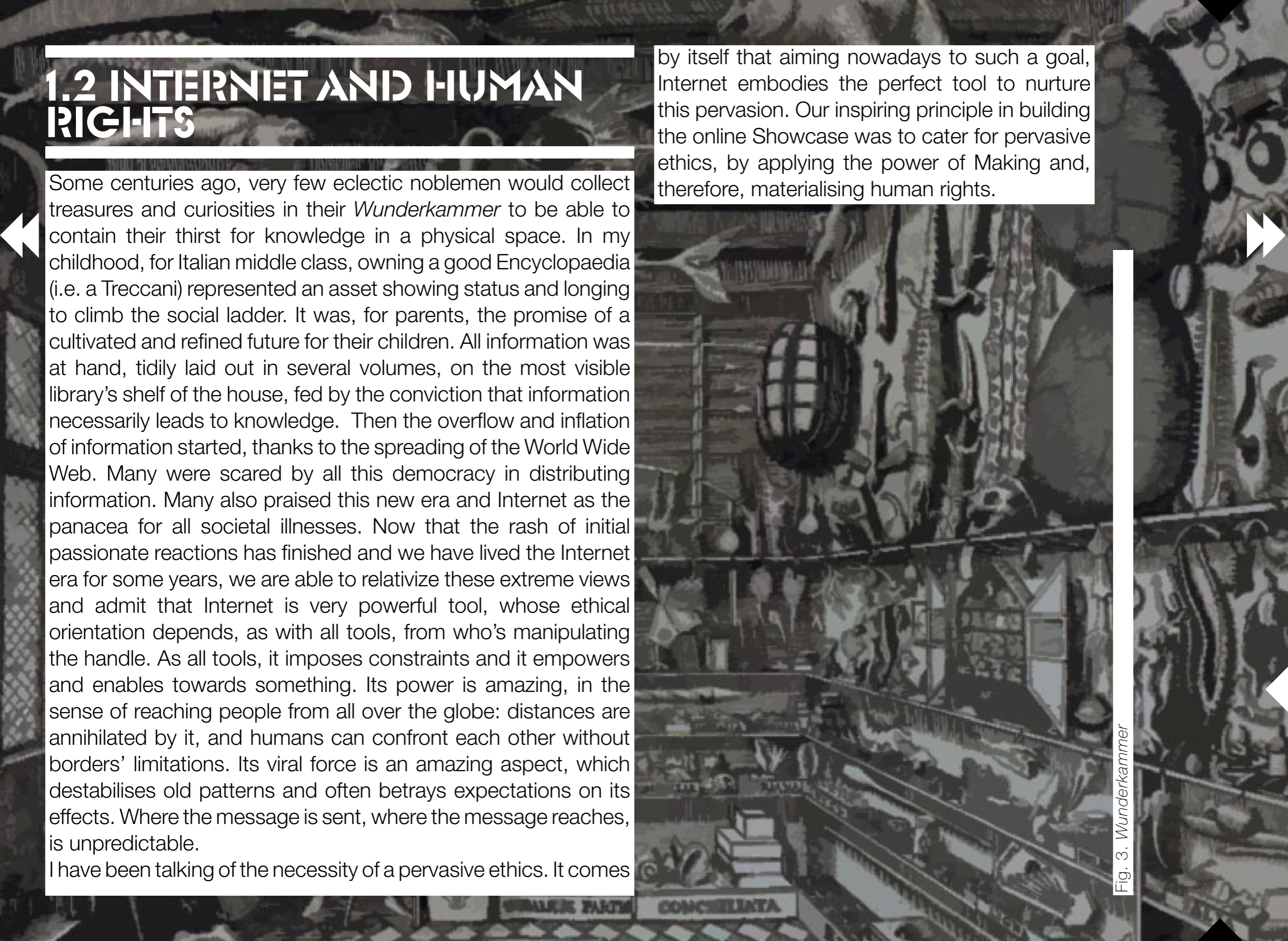
1.2 INTERNET AND HUMAN RIGHTS

Some centuries ago, very few eclectic noblemen would collect treasures and curiosities in their *Wunderkammer* to be able to contain their thirst for knowledge in a physical space. In my childhood, for Italian middle class, owning a good Encyclopaedia (i.e. a Treccani) represented an asset showing status and longing to climb the social ladder. It was, for parents, the promise of a cultivated and refined future for their children. All information was at hand, tidily laid out in several volumes, on the most visible library's shelf of the house, fed by the conviction that information necessarily leads to knowledge. Then the overflow and inflation of information started, thanks to the spreading of the World Wide Web. Many were scared by all this democracy in distributing information. Many also praised this new era and Internet as the panacea for all societal illnesses. Now that the rash of initial passionate reactions has finished and we have lived the Internet era for some years, we are able to relativize these extreme views and admit that Internet is very powerful tool, whose ethical orientation depends, as with all tools, from who's manipulating the handle. As all tools, it imposes constraints and it empowers and enables towards something. Its power is amazing, in the sense of reaching people from all over the globe: distances are annihilated by it, and humans can confront each other without borders' limitations. Its viral force is an amazing aspect, which destabilises old patterns and often betrays expectations on its effects. Where the message is sent, where the message reaches, is unpredictable.

I have been talking of the necessity of a pervasive ethics. It comes

by itself that aiming nowadays to such a goal, Internet embodies the perfect tool to nurture this pervasion. Our inspiring principle in building the online Showcase was to cater for pervasive ethics, by applying the power of Making and, therefore, materialising human rights.

Fig. 3. Wunderkammer



1.3 REPRESENTATION VS. EXPRESSION: THE CHALLENGE

A problem immediately appears, when observing the context (screen-base interfaced internet), the means (graphic design) and the concept I want to empower (RtM, i.e. sharing the language of making) to create the projects' showcase. I state that skills, especially perceptual-motor skills are indispensable to trigger reflections and understanding; I also claim the primacy of action and making as the way to support designer's need for expressivity in their transformational processes. Meaning is achieved only when skills and making are involved: so how to deal with a context that is cognitive and representational? How to materialise the values expressed by the Universal Declaration of Human Rights in a virtual space? This is a project of graphic design, which is ontologically representational. What I aimed for was a representation as expressive as possible, which relied the most on non-cognitive skills of people using it. It should avoid metaphors, which are a common language for graphic designers. The necessity of delivering a real product certainly required some compromises, but created at the same time an extremely challenging environment to test our approach.



Fig. 4. The power of expression vs. the one of representation

1.4 RIGHTS THROUGH MAKING. ORG: GRAPHIC PROJECT DEVELOPMENT

The project has been conceived and developed by the research team I belong to and it started with the graphical explorations I did as part of the publication of the first workshop's (WS 1 – Rights through Making) results, together with Francesco Ciardi and Aimone Bonucci (see Fig. 5). (see Trotto et al. 2008).

These explorations were dedicated to design an RtM visual vocabulary. The first design step, explicitly meant for the Internet platform Showcase, were done when Ilaria Visca, a student from the University of Florence, started to work on it, as part of her bachelor graduation project. In order to do that, she spent some months at the Designing Quality in Interaction Group and together with her, I sketched a conceptual framework on which the actual implementation of the site was based.

This first step consisted in abstracting, expressing and embodying the essence of each article of the Declaration of Human Rights. This was an exercise of abstraction and concretization, useful to become more sensitive to the subtlety of the border between representation and expression. In a way it was a way to trigger reflection after making (searching, drawing and elaborating images), respecting one of the funding principles of RtM.

This exercise was carried out by Ilaria Visca (Visca, I. 2008) (see Fig. 6).

The abstraction process leading to the set of signs used in the site had to respond to the universality of rights, while, at the same time, empowering towards making and towards the integrations



Fig. 5. In the first publication of Rights through Making (2008), each article was accompanied by an image that would express the right's denial.

ARTICLE 29



HUMAN RIGHTS

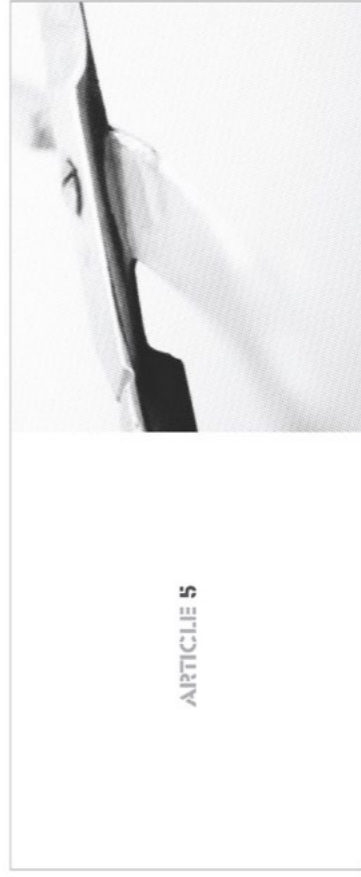
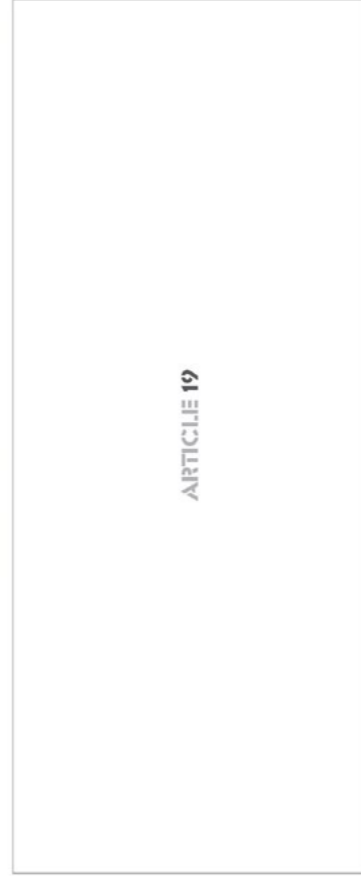
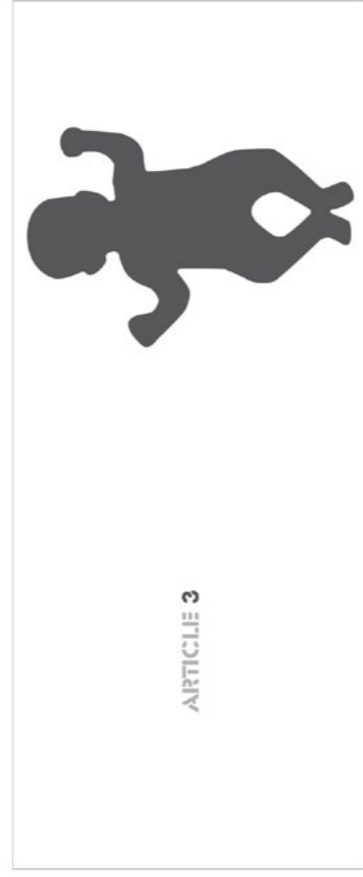
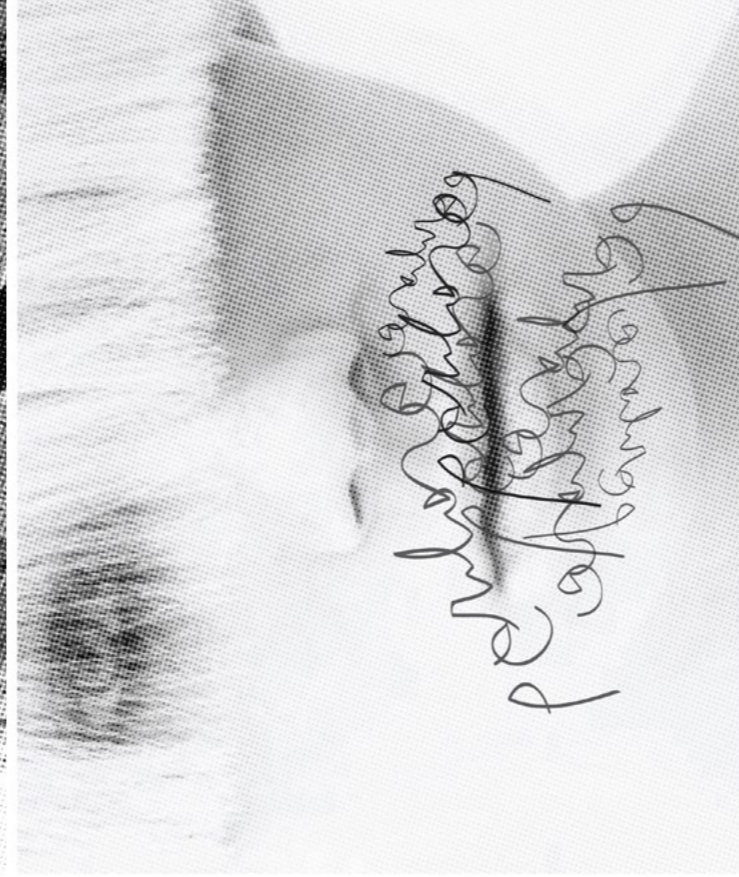


Fig. 6. Examples of exploration of the expressive character of each article of the UDHR, by Ilaria Visca

of points of view. The sign/form that was chosen to embody these aspects was the circle/sphere. A circle has no beginning and no end, it separates a portion of plane from its environment that is constituted by all those points that are equidistant from a central point, thus embodying the perfect geometrical form, universal symbol of harmony. This shape is suitable to convey the concept of universality, which characterizes Human Rights. The shape that has the same characteristics of a circle in the space is the sphere. This three-dimensional object allows looking at one side of it, but it is impossible to see its entire surface at the same moment. In order to do it, one has to move around it or the sphere has to move. It is possible to perceive its surface, while moving, with different points of view, to make sense out of it. My goal, in the Showcase, was to present a meaningful space, empowering towards the RtM principles. Because of my phenomenological stand, I praise creating meaning in interaction and the integration of different points of view. We chose to create a three-dimensional spherical space, where one moves around, observes the distinct points of view and plays with them. (see Fig. 7 and Fig. 8).



Fig. 7. Inspirational geometry of the internet site's graphic concept: the sphere

任何人不得加以酷刑,或施以残忍的、不人道的或侮辱性的待遇或刑罚。



Fig. 8. Graphic development from circle to sphere

Conceptual development

Content-wise, what the Showcase has to display is:

- ▶ people participating to the project, testing and enriching the approach;
- ▶ projects resulting from the various workshops;
- ▶ partners to which people are affiliated.

Starting from the geometry of the sphere, to find a way to use it and to allow the browsability of content, we moved to another meaning of the sphere: the globe, as in the world and its continents. Geographic maps have always been elements of fascination and dream. The necessity of exploring and mapping the unknown is a permanent characteristic of human nature. Furthermore, it has gone through tremendous development in the last years, thanks to the satellite technologies and Internet. Once we used to dream over a huge Atlas with thick pages, after dinner, together with the family, unleashing imagination and excite the need of exploration. Today we do the same, sitting around an iPhone, tilting it, to browse terrains on Google Earth. Browsing maps is not just a moment of individual fascination; it is endowed with a social value. This principle of visualisation – the sphere as the world - allowed to place projects, partners and people involved, according to their provenance. In Fig. 9 a first example of how content could be placed and explored on a world map is visible.

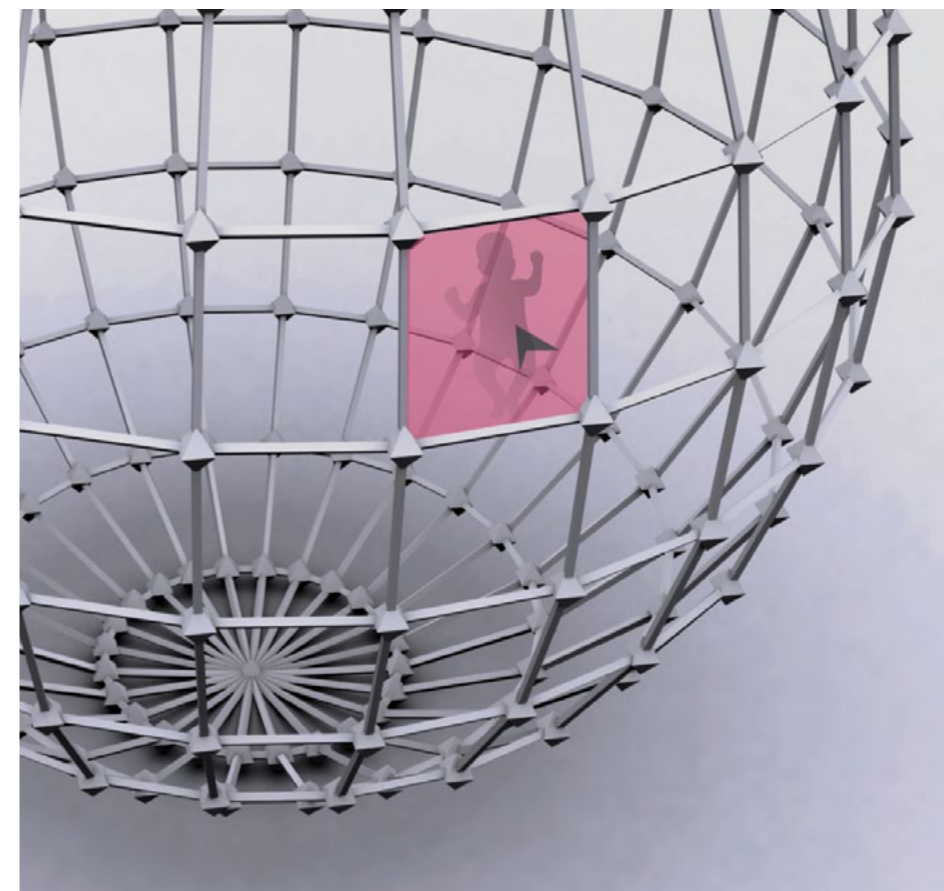
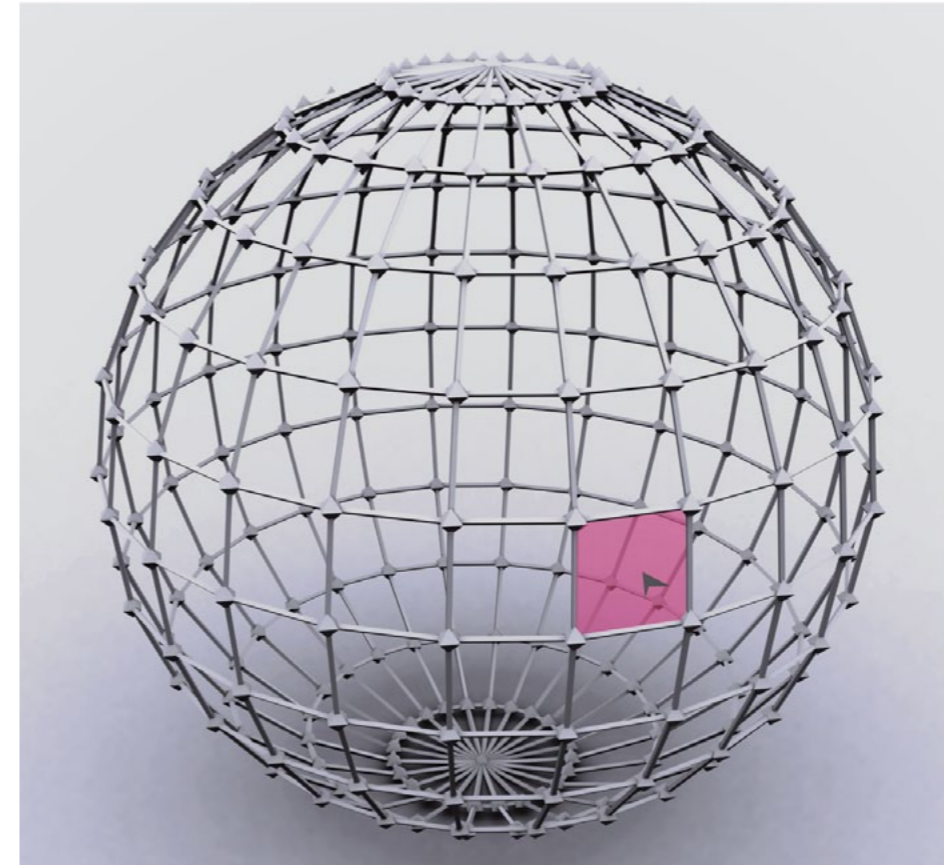


Fig. 9. Exploration on how to browse content



This concept evolved in the following steps, where content is distributed on the map with images, as shown in Fig. 10.



Fig. 10. The Showcase interface: distribution of content (projects) on a world map

These maps wrap the sphere of the world, according to the funding concept I assumed. (see Fig. 11)

This configuration imposed a limitation of the amount of uploadable content, since every square “pixel” corresponds to a project. This is contradictory to the idea behind RtM of an ever-growing approach. It also created computational issues.

In the following proposal (see Fig. 12) was designed to avoid the problem of upload limitation. Here, the content would not be accessible on the world’s surface, as in the previous version, but would be accessible by means of small sensitive arrows, positioned on the place on the globe. The tininess of these arrows did not contribute to the pleasurability of exploring the Showcase and the computational issues were not so much better than the previous proposal.

Besides ease of use and computational issues, we had to tackle yet another aspect: how to topologically represent hierarchy of contents. From the initial Manifesto, passing through partners and people, towards the core of RtM, constituted first by the realised projects and then by the Collaborative Design Space¹. How to express this hierarchy in the site? The decision was to create concentric spheres, concentric globes, leading to the core of the project: the place where RtM is ideally applied. Among these spheres it would be possible to move, by means of zooming in and out, creating a smooth interactive and fluid space (see Fig. 13).

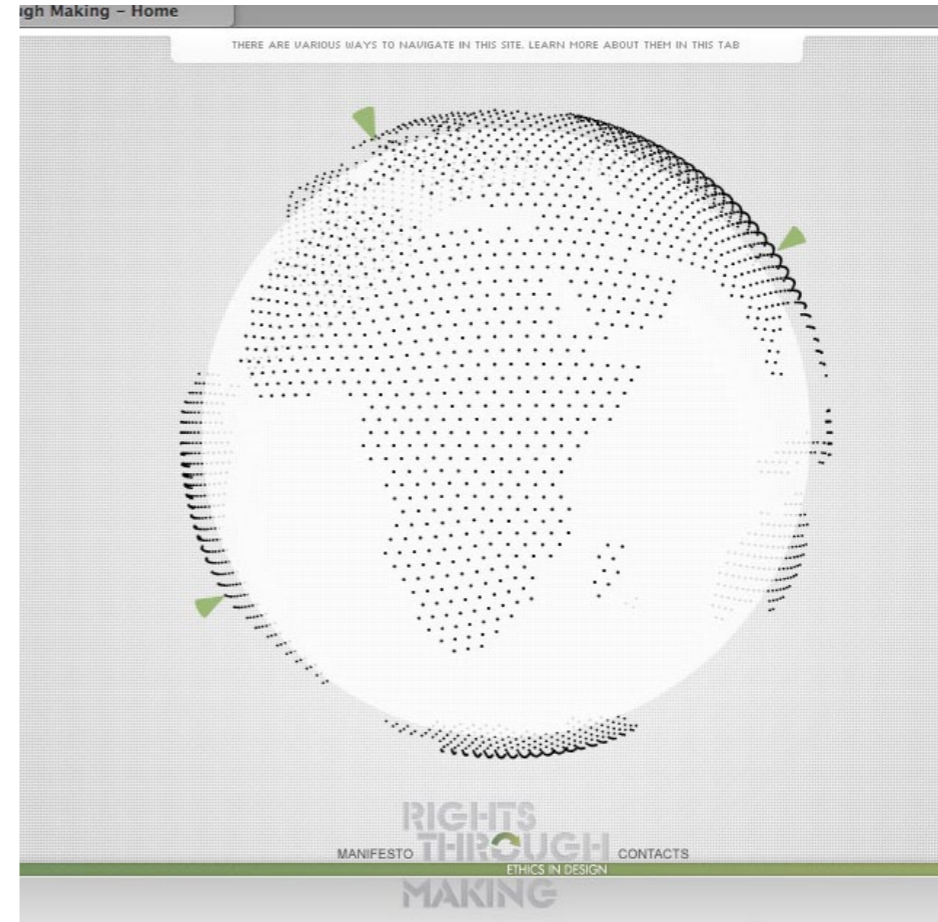


Fig 11 Top: how the pixelated map of the previous images would look on the sphere, base of the Showcase's interface principle

Fig. 12. Bottom: an option of interface, with content accessible through little green conic arrows, which showed to use too many computational resources and uneasy to browse.

¹.The topological representation of all parts had to be designed taking into account all the components, in order to establish the correct relationships between them. This is why, although the Collaborative Design Space was not part of the first step of realisation of the Internet Platform, it is already mentioned here.

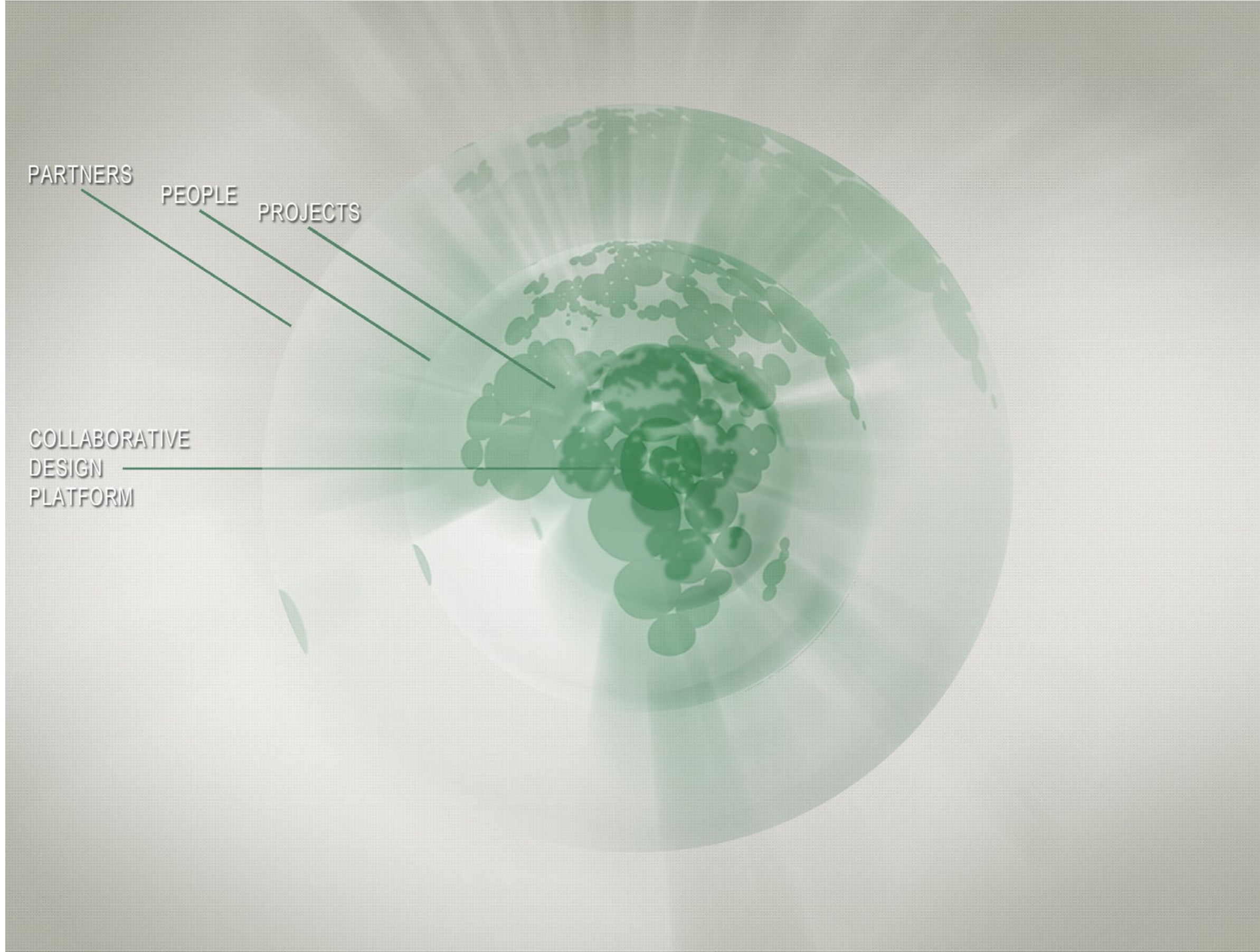


Fig. 13. Scheme of the content distribution within concentric spheres

Feasibility issues heavily constrained my idea: this proposal would risk a low navigability. Example: when in the inner core, i.e. the Collaborative Design Space, it would take too much time, clicks and memory to get to, for instance, the partners sphere only by navigating through zooming. This configuration would interfere with the freedom of movement I wanted to empower towards.

We therefore came up with an alternative proposal, in which navigation through partners, people and projects would be done in the same sphere, to improve usability and preventing the user from having to click in 4 different links to navigate between two places of interest. With the united globe, it would have been possible to go straight from one point to another. This solution was more of a literal representation of the sphere as the world, and the only layer of meaning would be the geographical connection between spaces and people/partners/products. The strength of the previous idea of concentric spheres was that it expressed several layers of meaning and their nesting within an explorable three-dimensional space.

We thus researched how we could maintain the same conceptual strength of the concentric spheres, in the single sphere. The first exploration played with the surface and it aimed to do it not by representing, but by creating different perspectives, for instance frolicking with the point of view from where the surface is looked at (see Fig. 14 and Fig. 15), for instance through making it embossed (see Fig. 16) or through changes of focus (see Fig. 17).

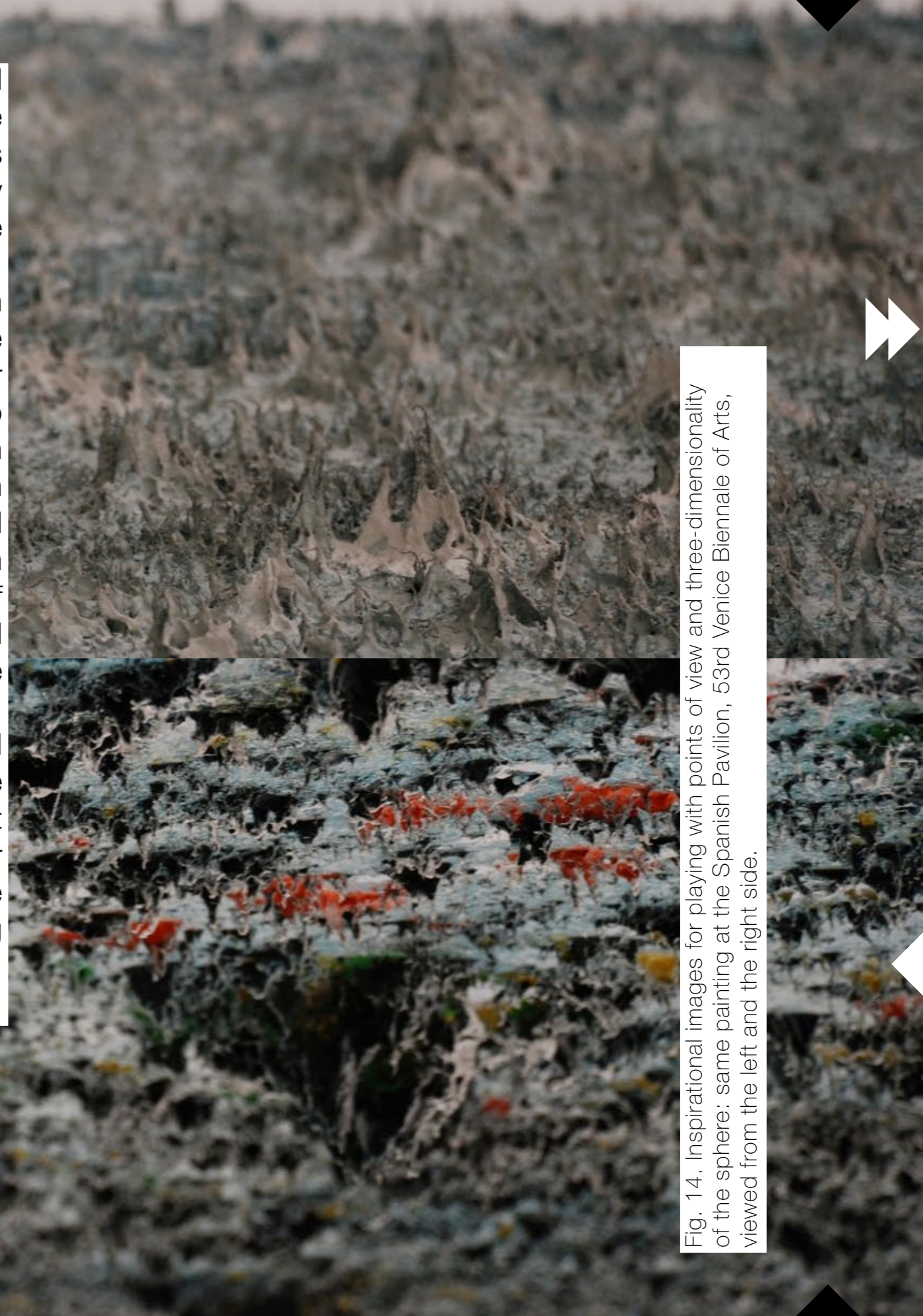


Fig. 14. Inspirational images for playing with points of view and three-dimensionality of the sphere: same painting at the Spanish Pavilion, 53rd Venice Biennale of Arts, viewed from the left and the right side.

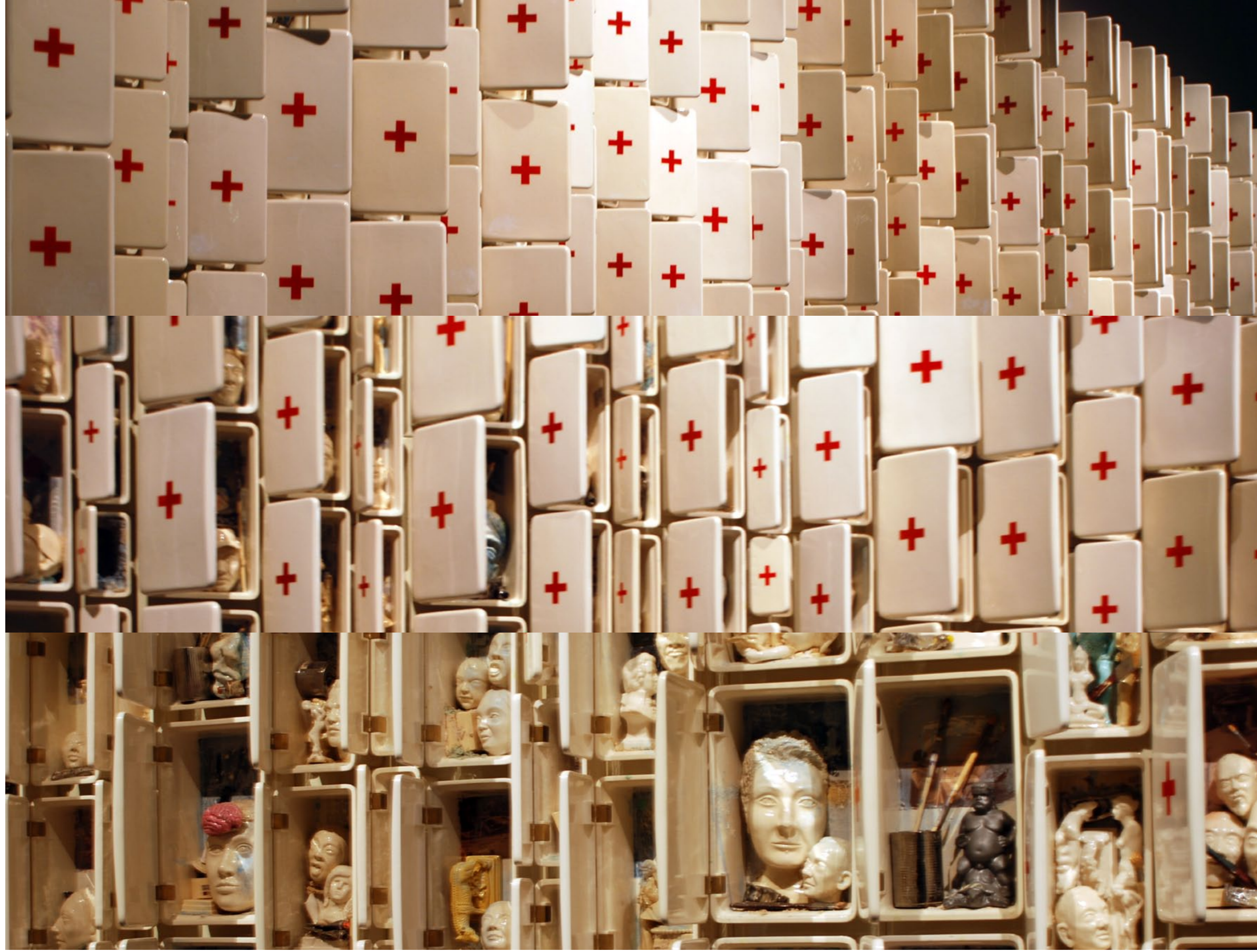


Fig. 15. inspirational images for playing with points of view and three-dimensionality of the sphere: art installation at the Arsenale, 53rd Venice Biennale of Arts, viewed from three different sides, from left to right.

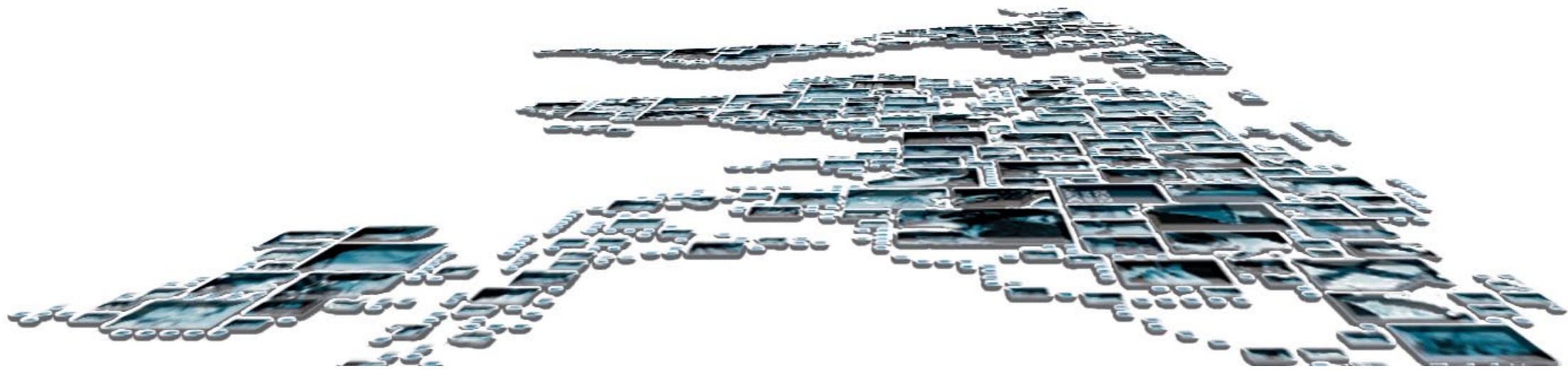
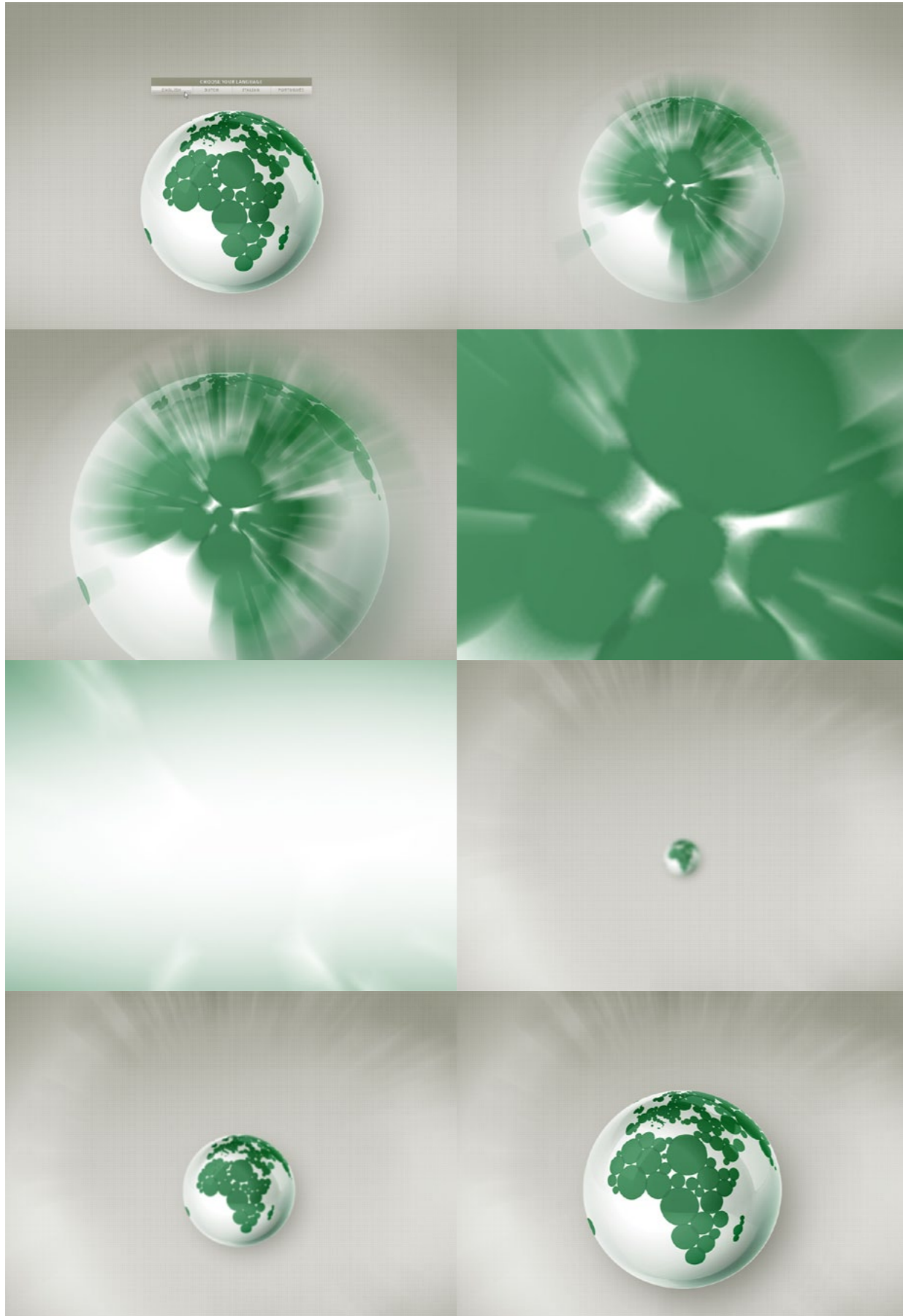


Fig. 16. Exploring the possibility of embossing the mapping of the globe, to empower the vision of contents from different points of view.

Fig. 17. Exploring the possibility of playing with focus and field of depth.



Implementation

This step has been done with the support of a group of young Brazilian graphic and media designers, Midiaeffects, met during the fourth workshop. Their role has been to bring to actual functioning the conceptual framework that we had designed before. They entered the scene once we defined the pixelated mapping of the world (see Fig. 10 and Fig. 11). The Internet Showcase that was eventually realised does not include, as explained before, the Collaborative Design Space. This part of the project and the plans for its future implementation is described in part 3, chapter 4 *Internet Platform: the Collaborative Design Space*).

Fig. 18. Progression of screenshots showing the transition between one sphere (e.g. partners) to the following, internal sphere (e.g. people).

From the moment this project exited the world of design research to enter that of implementation by a commercial company, several limitations started to heavily constrain it, jeopardizing the concept. The constraints imposed by the programming language that we chose and the amount of time of the implementers we could dispose of constituted the main two limitations. Flash was finally chosen as a programming language, for its versatility in handling dynamic content but certainly not for its accessibility features. The solution of the concentric spheres was eventually maintained and the exploration on playing with the surface abandoned. But the freedom of zooming in and out the concentric spheres is not left: the transition between one sphere to the other is done with a click and this, among all, was the harshest compromise I had to accept.

I find the final effect solid, also because the idea of getting to the core is reinforced by surrounding graphics and the change of the main colour, which become more intense, the nearer to the core (see Fig. 19).



Fig. 19. For each stage of the navigation (partner, people and project) a different layer is entered, which is deeper and darker than the previous.



Summarizing: the present RtM Showcase presents all the projects that resulted from the workshops I did, publications, the Internet site itself and the design collaborative space. Each project is described by means of a small text, images and videos. It lists people, who have participated in some way to the workshops, i.e. students, supervisors, contributors, lecturers, representatives of partner institutions. It lists partners: institutions that have supported the project, with content, material or funding. At the opening of the site, a globe appears. Each time it is a different colour. The globe can be dragged and rotated and labels showing countries emerge from its surface and are clickable. The first world one encounters, contains the partners (see Fig. 20). If one label is clicked, a lateral window opens, which lists the partners of the chosen country (see Fig. 21).

Fig. 20. Top: the initial page of the Internet site, showing countries that have partners. The country labels are clickable.

Fig. 21. Bottom: by clicking on a country label, a window on his left opens, listing the partners of that country.



Each partner can be clicked and a further window opens with a description of the partner, its Internet site url and contact email.

By clicking on the globe again, three possibilities appear beneath it, that permits to enter the globe and enter the following ones: from partners to people and from people to projects (see Fig. 13). Entering inner globes or exiting them can be done also by clicking on the menu on the top right part of the page.

The behaviour of the following globe (people) is analogue to the partners' globe. It offers a short curriculum of people, explaining also their involvement in the RtM project and it lists both related partner (affiliation) and related projects (the RtM projects they worked on).

The, by now, last sphere hosts the projects. Each of them is characterised by the date and the place it was done, the article of the Universal Declaration of Human Rights it materialises, a description and visual material (images of the final prototype and of the making process, video of the experiential prototype) (see Fig. 22).

Also in this case, once in the project's window, one can see who the people involved in the project were and the related partners.

The Internet Showcase's content is managed through a back-office area. Now this area is reserved and one needs a login username and password to be able to access. In the future I will consider whether it is possible to substitute this closed area into a wiki site, where contributions can be added and the community of RtM can grow thanks to people that believe in the approach and are willing to support it.

The RtM site will host, in the future, also the Collaborative Design Space and this area will be positioned in the centre of the globes, being at the pulsing core of the RtM approach. The first steps towards this goal are described in the third part of this thesis, in the fourth chapter "*4 Interactive platform: a collaborative design space*".

Fig. 22. The window that opens, when a project is selected; it shows available images and videos, a short description, date and place and partners and people involved.

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FIATV MULTICULTURAL



AMBRA TROTTO'S CURRICULUM VITAE

Ambra Trotto was born on 10.06.1978 in Bologna, Italy.

After finishing her Scientific Lyceum with the maximum of grades in 1996 at the Liceo Scientifico Niccolò Copernico in Bologna, Italy, she studied Architecture at the University of Florence in Florence, Italy. In 2003 she graduated with honors within the Department of Technologies of Architecture and Design "P. Spadolini" on a project for the design of a sleepdevice, allowing polyphasic sleep patterns. From 2003 to 2007 she collaborated both with the University of Florence, Italy and the Eindhoven University of Technology, the Netherlands, for research and education. From October 2007 to October 2011 she worked as a research fellow at the University of Florence, Department of Technologies of Architecture and Design "P. Spadolini". In September 2007 she started a PhD project at the Eindhoven University of Technology in Eindhoven, the Netherlands of which the results are presented in this dissertation. Since 2003 she is also self-employed and worked as a designer in the field of lighting design, product design and strategic design. Her research focus is on ethics in designing for intelligent products and systems, applying processes that focus on the sharing of making in multicultural environments. She has been invited to lecture and give workshops in several Universities, such as UNISUL, in Brazil and the University of Bologna, Department of Engineering, in Italy. She works as a consultant for international strategies of cooperation in the domain of design research and communication, for Italian manufacturing companies.

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