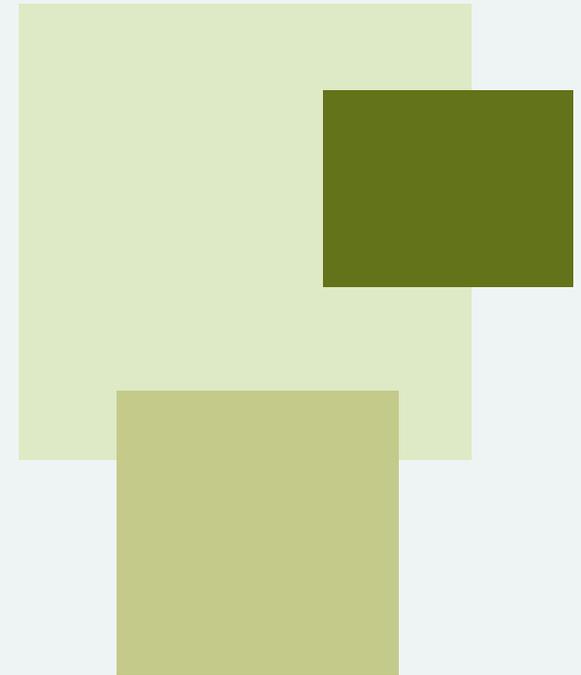


TOWARDS

**ECOSOPHICAL
ACTION DESIGN**

**BUILDING BLOCKS
FOR A NEW AWARENESS
IN DESIGN EDUCATION**



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BUILDING BLOCKS FOR A NEW AWARENESS IN DESIGN EDUCATION

GRADUATION THESIS

Marina Martínez García

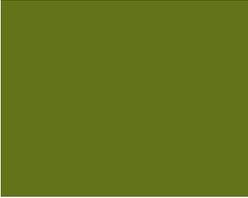
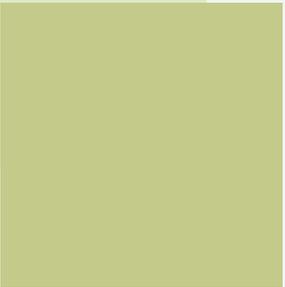
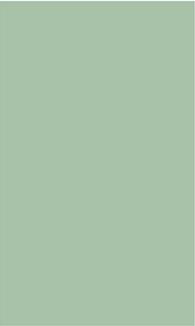
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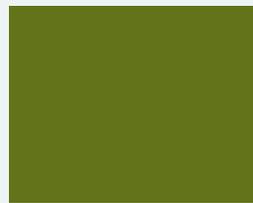
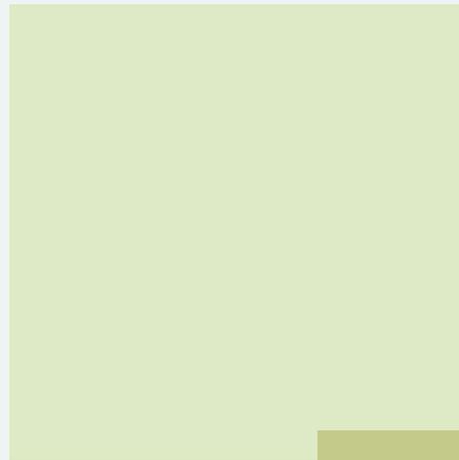
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This study is an investigation in and through Design Education and praxis. It set out for a call in Ecological awareness build upon the principles of Ecosophy and the Three Ecologies from Felix Guattari; Ecology of Mind, Social and Environment. The rationale for this research was based upon my observations and concerns as a designer and educator that existing Design Education and praxis is largely lacking awareness of its Ecological implications.

This Thesis begins with an introduction to the context of the Anthropocene and the urgency for a new consciousness. It then outlines the thinking of contemporary theorists who suggest that the crisis of Ecology is indicative of a more general crisis of human subjectivity proposing a shift from Ecology to Ecosophy. It underpins a new way of thinking transversally and embraces Action as *modus operandi*.

This Thesis dives into the current situation of Design for Sustainability education in Europe, with a closer look at Design Academy Eindhoven, my educational context. It highlights Ecosophical awareness as a competence for future design students and the relevance of Ecological literacy in curriculums.

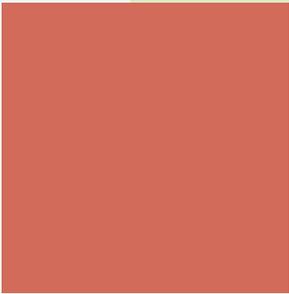
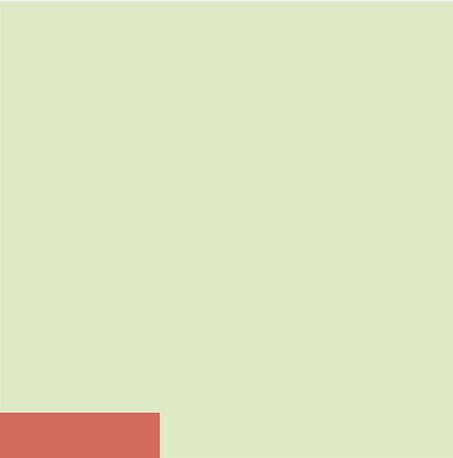
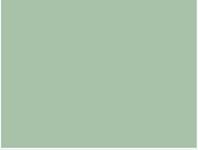
As a result a hypothesis is drawn to translate the philosophical theory of Ecosophy into a pedagogical framework and tangible tools. This Thesis describes this translation through the experience and outcomes of the educational project with students at Design Academy Eindhoven. The educational Project “*Building Blocks for an Ecosophical*” awareness is based on experiential learning and explores the Ecology of Mind and Social fundamentally, testing the developed pedagogical tools.

The study employed a methodology based on Action / Design research to focus on the improvement of my practice and on the encouragement of design students to embed Ecosophical awareness as a competence.

The Thesis concludes with brief recommendations for Design Education to enhance Ecosophical awareness among students and suggesting the potential to develop a growing curriculum embracing Ecology.

ABSTRACT





Thank you to the Universe for giving me the opportunity to learn, grow and evolve.

I don't believe in causality, I believe that every place, situation and people that come across in our lives are given to us by the Universe for learning and growing and ultimately for evolving. One of the outstanding achievements of this study is the refinement of my own Ecology of Mind. For a very long period of time I have been struggling with conflicts created by the confrontation of my being, doing and living. Incoherence with feelings, emotions, thoughts and actions were leading me to a state of disconnection and blocking. Diving into my own Ecology of Mind has been the first step to Awareness. Without this Awareness this study would have been simply not possible. Critical Consciousness and trust in the power of design were the motors of this study.

There are many ways and paths to awaken, which can be done by oneself or accompanied, leaving it to a question of resonance. I like to learn from others and bring their experience into my own, as to mention my last companions; I explored a conscious evolution with the writings and teachings from Paloma Cabadas through her experience and research of consciousness (*La Energia de Amar, 2015*). I practice and experience everyday the yogi teachings and wisdom from Yaggi Vasudev, Sadhguru (*Inner Engineering; A yogis guide to joy, 2016*). I dare to walk with bare feet into new grounds and try to experience the language of trees and nature, *The Hidden Life of Trees : What They Feel, How They Communicate* (Wohlleben, P. 2016).

An exploration in the Ecology of Mind is a *transformative learning process* (Mezirow, 1991). New subjectivity, values and relations drove me to a different state of Mind, which made me connect to life, people and nature with a new awareness.

I don't believe in suffering but in levels of experience. I don't believe in fear but in love. This study was made out of trust, love and connectedness with life, with gratitude to our hosting planet and our resources and with gratitude to all the people that made this possible for me....

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TO MY FRIEND AMAIA



INTRODUCTION

“ Today the purposes of consciousness are implemented by more and more effective machinery, transportation systems, airplanes, weaponry, medicine, pesticides and so forth. Conscious purpose is now empowered to upset the balances of the body, of society, and of the biological world around us. A pathology – a loss of balance – is threatened.” (Bateson, 1972)

This thesis aims to define an approach in a framework within design education with specific focus in Ecological awareness based on Ecosophy. In this study I am trying to define not only a theoretical frame, but also educational tools and methods that can be implemented with bachelor design students in the classroom.

The topic of this thesis emerges from my personal experience as a professional active designer and as an educator. For about 15 years I have been designing exhibitions, products and concepts for diverse clients. For personal and ethical reasons I stopped producing such work, the fact that design production was contributing to an increasing ecological crisis brought me to a personal conflict and into a reconsideration of the role of designers and specially my role as a producer of experiences, habits, products and waste. For the last 10 years of my career within design education I had many opportunities to work with students in projects related to social / environmental development and my increasing personal interest towards what design can do and how can contribute to such a development has shifted my pedagogical methods, projects content and practice. My own urgency as a designer and educator to respond to the current Ecological crisis brought me into this study.



[1] Q-Drum, Design for the other 90% (2007)

“The majority of the world’s designers focus all their efforts on developing products and services exclusively for the richest 10% of the world’s customers. Nothing less than a revolution in design is needed to reach the other 90%”.
(Polak P. 2006)

Platforms such as *Design other 90 Network* and the travelling exhibition *Design for the other 90%* (2007) initiated by Smithsonian, Cooper – Hewitt National Design Museum (New York) have inspired me and convinced me that design as a potential discipline to create alternatives needs to be supported with network structures and within the educational frame.

Industrial capitalism, economic power, and technological development have contributed to bring design products to every corner of our living environment. Design services have facilitated the lives of 10% of the world’s customers, but also have increased environmental pollution, social inequality, labour exploitation, ethical disorientation and sensibility decay, contributing to the imminent Human and Ecological crisis that we are facing now within the Anthropocene.

[2] LifeStraw, Design for the other 90% (2007)



After some years of working, exploring, reading, listening and observing I came to the conclusion that what I have considered as an increasing number of designers *apparently* concerned with social and environmental development was missing from some fundamental pillars. What I mean by “*apparently*” is what I have experienced as a shift in design focus as a reaction to the emerging situations of Ecological and Humanitarian crisis, which I will call *Reactivity*. What I propose in this study is not a call for *Reactivity* but *Responsibility, the ability to respond* (Vasudev, J. 2016). Responsibility has been very wrongly understood in the world, and it does not mean to take the burdens, nor guilt or blame for things you have done or not. It is simply to wake up to reality, be conscious of your entire existence, your environment and social relations and the Universe and to respond consciously to the present. Conscious response brings you to a profound state of connectedness with life. This can only rise to positions of possibilities and power.

Harney, S. and Moten, F. (2013) argue in their essay *Debt and Study*, that the “*bad Debt*” within the *black radical tradition* is the unconsolidated Debt that humanity owns and that will never be paid off to people of African descent, also known as “*the one that can not be forgotten*”.

By analogy the questions is; What is the *Debt* that design has created through out history, is there only an ecological/ environmental *Debt*? Has design elaborated a *Debt* with humanity as well? I assume that there is an accumulation of *Debt* created by designers and industry that cannot be neglected. Yet how are designers responding to this accumulation of *Debt*? Is there a conscious responsibility taking place? My aim as educator is to encourage design students to become a “conscious-responsible” community of designers, a community that is not willing to continue elaborating bad *Debt* and I would also like to address a **new awareness** as main focus for design pedagogy methods. Already 45 years ago Tomás Maldonado stated ‘...*designing that is devoid of a lucid critical consciousness (both ecological and social)...will always...evade contingent reality*’... (Maldonado, 1972).

Arne Næss (1973) first defined *Ecosophy* as the state of ecological consciousness, a philosophy of ecological harmony or equilibrium. I draw my attention in this study to the philosophical approach of *Ecosophy* from Félix Guattari (2000) in *The Three Ecologies; Ecology of Mind, Ecology of Social and Ecology of Environment*, as a potential theory to open up a discussion in the field of design.

Developing an ecological conscious community of designers is a complex process, and it needs to be integrated within the design curriculums. Ecological consciousness should no longer be targeted for an Eco-dedicated group of designers, and I advocate it as an urgent embedded competence to develop for students in design education. David Orr (1990) defines *Ecological literacy* as “a quality of mind that seeks out connections”. Joanna Bohner (2013) states that “*Ecological literacy needs to expand and deserves its own curriculum*”.

This study has been conducted within different levels of complexity; from the complexity of my personal positions as a designer, educator and researcher, to the complex conditions for those who study design, and to the complexity of the system of the educational institution. All being part of one ecosystem I have adjusted my position and approach to operate within the system and make this study possible.

Nature transformed through industry is a predominant theme in my work. I set course to intersect with a contemporary view of the great ages of man; from stone, to minerals, oil, transportation, silicon, and so on. To make these ideas visible I search for subjects that are rich in detail and scale yet open in their meaning. Recycling yards, mine tailings, quarries and refineries are all places that are outside of our normal experience, yet we partake of their output on a daily basis.

These images are meant as metaphors to the dilemma of our modern existence; they search for a dialogue between attraction and repulsion, seduction and fear. We are drawn by desire - a chance at good living, yet we are consciously or unconsciously aware that the world is suffering for our success. Our dependence on nature to provide the materials for our consumption and our concern for the health of our planet sets us into an uneasy contradiction. For me, these images function as reflecting pools of our times.

[3]WATER: *"While trying to accommodate the growing needs of an expanding, and very thirsty civilization, we are reshaping the Earth in colossal ways. In this new and powerful role over the planet, we are also capable of engineering our own demise. We have to learn to think more long-term about the consequences of what we are doing, while we are doing it..."*

Edward Burtynsky



[3] *Colorado River Delta #2 Near San Felipe, Baja, Mexico.* Edward Burtynsky (2011)

AN INTERPRETATIVE LEXICON

All the keywords used in this thesis can be read from different perspectives, and I propose to read these concepts from the artist/designer/educator perspective. I borrowed other peoples` voices and brought also my own. The following are the travelling keywords in this text:

ACTION: *Action is "the only activity that goes on directly between men without the intermediary of things and matter, corresponding to the human condition of plurality, to the fact that men, not man, live on Earth and inhabit the world". (Hannah Arendt ,1958)*

ANTROPHOCENE: *A thesis that defines Earth's most recent geologic time period as being human-influenced, based on overwhelming global evidence that atmospheric, geologic, hydrologic, biospheric and other earth system processes are now altered by humans.*

AGENCY: *Everyone and everything has agency, that is, the capacity to change what happens next.... (Fuad-Luke, A., Hirscher,A., Moebus,K., 2015)*

AGENTS: *They are independently minded, but share a critical awareness of our social, ecological and economic condition; They have a vision but it is adaptive to changing circumstances; they are open and transparent, showing their processes and sharing their expertise; they start their journey with the (often meagre) resources at their disposal and show perseverance; they believe their voice counts and encourage others to add their voices too; they turn rhetoric into action; and they reveal opportunities and possibilities. They 'make things happen', they are active not passive, caring not distant, and different not conformist. (Fuad-Luke, A., Hirscher,A., Moebus,K., 2015)*

AWARENESS: *knowledge that something exists, or understanding of a situation or subject at the present time based on information or experience. Is the ability to directly know and perceive, to feel, or to be cognizant of events. More broadly, it is the state of being conscious.*

DEBT: *Debt cannot be forgiven, it can only be forgotten to be remembered again. To forgive Debt is to restore credit. It is restorative justice. Debt can be abandoned for bad debt. It can be forgotten for bad debt, but it cannot be forgiven. Only creditors can forgive, and only debtors, bad debtors, can offer justice. (Harney, S., Moten, F., 2013)*

COMPLEXITY: *Complexity science investigates how relationships between parts give rise to the collective behaviours of a system and how the system interacts and forms relationships with its environment. Most natural systems are complex. Ecological complexity; One way to even think about the ecosystem is to characterize the complexity, studying the different interactions and figuring out how the interactions work together (system thinking).*

CRITICAL CONSCIOUSNESS: *is a popular education and social concept developed by Paulo Freire (1972), grounded in post-Marxist critical Theory. Critical consciousness focuses on achieving an in-depth understanding of the world, allowing for the perception and exposure of social and political contradictions. Critical consciousness also includes taking action against the oppressive elements in one's life that are illuminated by that understanding.*

EXPERIENTIAL LEARNING: *is a learning Theory first developed by John Dewey (1938/1997). Dewey's theory is that experience arises from the interaction of two principles; continuity and interaction. According to Dewey good education should have both a societal purpose and purpose for the individual student. Building upon Dewey's Theory, American educational theorist David A. Kolb (1984) believes "learning is the process whereby knowledge is created through the transformation of experience".*

ECOSOPHY: *A philosophy of ecological harmony or equilibrium. A philosophy as a kind of sofia (or) wisdom, is openly normative, it contains both norms, rules, postulates, value priority announcements and hypotheses concerning the state of affairs in our universe. (Arne Næss, 1973)*

ECOLOGY OF MIND: *one of the Three Ecologies proposed by Felix Guattari; targets the modes of production of subjectivity. Knowledge, culture, sensibility and sociability that come under an incorporeal value system at the root of new productive assemblages.*

ECOLOGY OF SOCIAL: *one of the Three Ecologies proposed by Felix Guattari rebuilding human relations at every level of the social. From the mass-media age to the post-media age, create New systems of valorization.*

ECOLOGY OF ENVIRONMENT: *one of the Three Ecologies proposed by Felix Guattari ; an Environment on a process of being reinvented. Anything is possible from disasters or the most flexible evolutions; much more than the simple defense of nature.*

FRAMEWORK: A “conceptual” framework is used in research to outline possible courses of action or to present a preferred approach to an idea or thought. Conceptual frameworks are a type of intermediate theory that attempt to connect to all aspects of inquiry and can act like maps that give coherence. In this thesis my framework defines

FLEXIBLE: not fixed or established systems. Adaptable and evolving. Organic.

GENTLE AESTHETICS: refer to the new aesthetics generated in design practice by the integration of critical consciousness and ethical positions.

POSITION: it frames my educational approach to the Ecology of Society: condition to reference in social context and scenarios. A “role” in society, and within a design process a way to understand the social context as well as the economic and political forces in which the students are moving and working in.

RESPONSIBILITY: Ability to respond. Responsibility is not reaction but it is not Action either. Responsibility and action belong to different dimensions. The ability to respond gives you the freedom to act. It also gives you the freedom not to act. It puts you on the drivers seat of your life. It empowers you to decide the nature and volume of action you want to undertake. Responsibility is not compulsive action; it offers you the Choice of Action. (Yaggi Vasudev, Sadhguru, 2016).

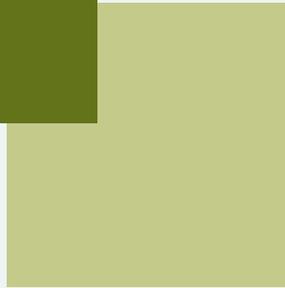
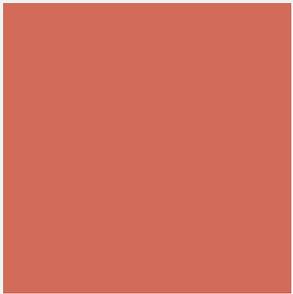
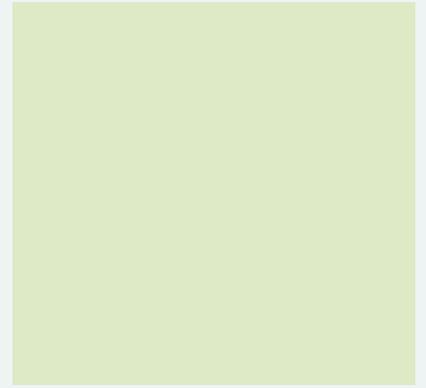
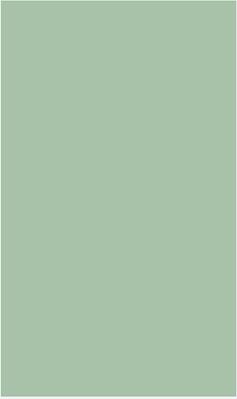
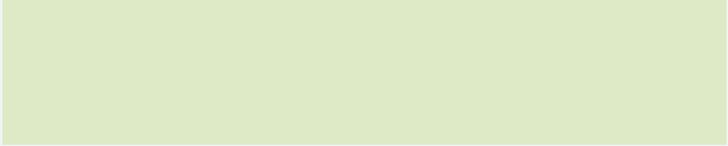
SCALE: it frames my educational approach to the Ecology of Environment: refers to impact, measure and level as a relative concept which can influence the environment.

SOCIOUS: A synergic wholeness in which the actions of humans go under exchange and circulation. Socious is a concept that sees the existence of the communication and definition network that launches after we are done with our actions. It is a conceptualization of human gathering that exists because of, and owing to that network. Socious is expanded to a wider time and space than the society.

TRANSVERSAL: A non-lineal-hierarchical system. Transversal means fluidity, flexibility and adaptability. Nature cannot be separated from culture; we must learn to do it in this way in order to comprehend the interactions between ecosystems, the mecosphere and the social and individual Universes of reference. (Guattari, Pindar, and Sutton, 2000).

TRANSFORMATIVE LEARNING: is about learning experiences that transform our perspectives leading to a changed understanding of the self, the revision of belief systems and changes in lifestyle. (Jack Mezirow, 1990)

VALUE: it frames my educational approach to the Ecology of Mind: refers to ethics, actions and aims. I draw my attention towards Human Values and how to relate to them from the global, local and personal perspective.



1. RESEARCH OBJECTIVE

1.1- Research question.

How given the educational situation in which the training of **Ecology** is almost absent can I develop a pedagogical situation that is both aligned with **Ecosophical awareness** and encourages design students to take **Actions**?

Subquestions

- What is Ecosophical awareness and why is it relevant for design education?
- Why is it important to bring Ecosophical awareness to Action?
- How can I convert the abstract philosophical frame of Ecosophy into a practical and flexible pedagogical approach for design education?
- How does this flexible pedagogical educational approach function within the framework of value/position/scale?

1.2 - Research methods and tools.

According to my research question and theory and my aims with this study I propose to use mixed methods of Design/Action research:

Design research: because I am developing and testing an educational method to bring Ecosophical awareness and Actions to design students and design education.

According to Blessing and Chakrabarti (*DRM, a Design Research Methodology*, 2009) Design research integrates two linked main strands; the development of **understanding** and the development of **support**; the formulation and validation of models and theories about phenomenon of design with all its facets, and the development and validation of support founded on these models and theories in order to improve design practice, including education and its outcomes.

Action research: because through this educational model and study I challenge my self to develop my own Ecosophy as a researcher and educator in order to explore and improve my educational practice in coherence with my aims.

Action research includes **participatory action** aiming to social and community orientation and it focuses on research that contributes to emancipation or **change in our society**. Dick & Swepson (1997) suggest that Action Research is suited to situations where you wish to bring about Action in the form of change, and at the same time develop an understanding which informs the change and is an addition to what is known.

Action research is “ a useful way of doing research if you are a practitioner who wishes to improve your understanding of your practice”. (Dick & Swepson, 1997)

The methods I employed throughout this research were in alignment with Ecosophical principles, which means that I did not use linear, hierarchical or horizontal methods. Instead this study was conducted as a “rhizome” model (Deleuze and Guattari) through different settings of cross-collaborations with other experts, educators, designers and students, using flexible tools as the “Cards” (see chapter 3.4) which allows multiples entrances and exits, and suggests exploration of subjectivity and new aesthetics of connectivity and relationality. In this setting I explored different positions myself as: the researcher, the connector, the instigator, and the visualizer.

METHODS

1- Literature review.

2- Notes and observations.

A reflecting diary with observations during the process including keywords, quotes, references and plans.

3- Visual documentation.

Photo and filming material was taken during the pedagogical project and presentations of the students.

4- Reflective surveys.

During the educational project, in different occasions, the students were asked to answer some questions and write their reflections on the introduced subjects and notions.

5- Conversations.

Inspired by the Condorelli’s reinterpretation of friendship and the form of conversation as such in her book ‘*The Company She Keeps*’ (2014), I included conversations with students and experts in my research and educational project.

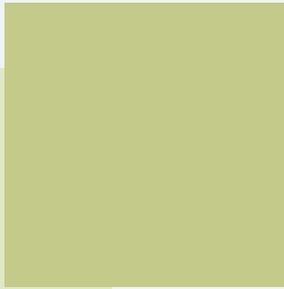
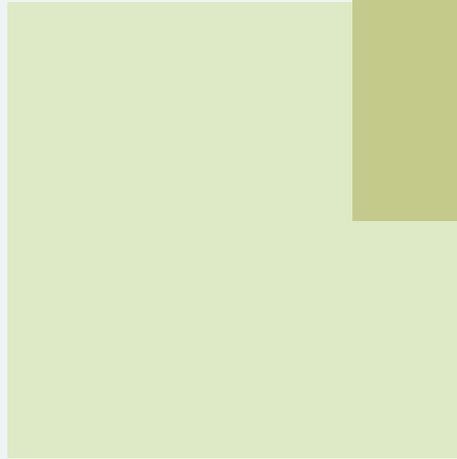
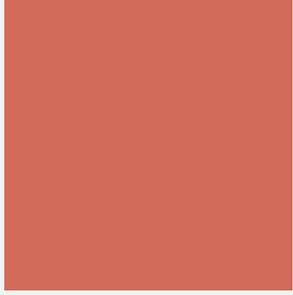
6- Flexible tools.

As a flexible tool I used the “Cards” in different occasions.

The Cards is a pedagogical tool that I elaborated in order to bring theory to practice with the students within their design thinking process (see chapter 3.4) .

7- Testing and evaluating.

During the research the cards have been tested as a potential pedagogical tool in diverse interventions and contexts. Also I have evaluated students work and outcomes of the educational project.



2. A NEW CONSCIOUSNESS

As an introduction to a New Consciousness I would like to draw my attention to the current conditions of our reality described within the Anthropocene. I highlight the urgency of an Ecological awareness as an attitude going beyond the environmental concerns. I propose that ecological state of mind, social relationality and environmental connectedness (*Ecosophy*) are fundamental pillars for transforming the world we live into a sustainable one. Transversal connections and assemblages between them and Actions are essential in my proposal to understand how *Ecosophy* in theory can be implemented in practice as a response to the current urgencies.

As we live in a “designed” world, I assume design practice playing an important role in influencing human behaviour and attitude, though an appropriate design response to the urgencies, in my opinion, depends on the level of Ecological awareness of designers.

What I propose in this study is not only naïve conscious response, but a **Critical Conscious response** which can lead to transformations in the way we live and act. In *Education for Critical Consciousness*, Paulo Freire (1972) stated that “*Critical Consciousness represents things and facts as they exist empirically, in their casual and circumstantial correlations...naïve consciousness considers itself superior to facts, in control of facts, and thus free to understand them as it pleases*”. As Freire argues “*Critical Consciousness is integrated with reality*”, and I intend in this study to integrate the reality of the Anthropocene to bring a new consciousness in design education and praxis.

2.1- Anthropocene; reality, urgencies and agency.

The Anthropocene is a thesis that defines Earth's most recent geologic time period as being human-influenced, based on overwhelming global evidence that atmospheric, geologic, hydrologic, biospheric and other earth system processes are now altered by humans. The beginning of the Anthropocene remains a discussion between scientists, some considered to start with the Industrial Revolution others link the new term to earlier events, such as the rise of agriculture and the Neolithic Revolution. Nonetheless and considering the geological time scales, the short existence of humans on earth has left enormous impact evidences too relevant to be ignored. The Anthropocene can be treated as a geological phenomenon, but from my point of view it also indicates what kind of power relationship human history has establish with our living/hosting environment, others and its own existence.

Terminological and ontological discourses are relevant in this field as they offer alternative perspectives and interpretations to the Anthropocene. In *The Capitalocene, On the Nature & Origins of Our Ecological Crisis* (2014), professor and sociologist Jason W. Moore states that *"human activity not only produces biospheric-change, but relations between humans are them-selves produ-*

ced by nature. This nature is not nature as resource but rather nature as matrix: a nature that operates not only outside and inside our bodies (from global climate to the micro-biome) but also through our bodies, including our embodied minds". Capitalocene differs from the dualist perspective of the driver force of the "Anthropos" and nature, and proposes the power force of Capitalism as a way of reorganizing nature and as the cause-effect of the present problems. Donna J. Haraway speculates with the *Chthulucene* as a concept that states what the world is, in which the human should be understood as a multispecies relationship; that *"making kin"* is a way of being in and caring for that multispecies world; and that *"staying with the trouble"* is a way to understand it.

The alternative narratives to the Anthropocene, *Capitalocene* or *Chthulucene*, reveal important issues of our human history, nature and condition which I take into account during my study. And I agree with Dona Haraway that whatever this period is named, the reality is that the way humanity has lived until now brought serious consequences on earth and it is no longer sustainable, and taking this reality as it is now we might repond.



[4] Shipbreaking #27 Chittagong, Bangladesh. Edward Burtynsky (2000)

[5] Shipbreaking: Recycling #10 Chittagong, Bangladesh. Edward Burtynsky (2000)





During the symposium “*Agents in the Anthropocene; Trans/disciplinary practices in Art and Design Education Today*” (Rotterdam, January 27-28, 2017) proposals and ideas addressing agency came to me as suggestive indicators of needed Actions. I consider it important that the Anthropocene discourse should not stay only circulating on academics, ecologist, activists and educators spheres. It is time to bring the discourse to the classroom; students might develop the ability to respond with actions. I believe and witness that the seed of a new consciousness and awareness is already there, but it needs a fertile terrain to be planted. Preparing the terrain is the task for education. Design Education is my terrain. Fertilizing my terrain and preparing design students to respond consciously to the urgencies of the Anthropocene is what I propose.

[6] *Silver Lake Operations #16 Lake Lefroy, Western Australia.* Edward Burtynsky (2007)



[7] *Rock of Ages #26 Abandoned Section, E.L. Smith Quarry, Barre, Vermont, USA.*

Edward Burtynsky (1991)

2.2 - Mentality: Ecosophical Awareness

From Ecology to Ecosophy; The 3 Ecologies

The word Ecology was used for the first time in 1866 by biologist Ernst Haeckel. An understanding of Ecology (*from the greek "Oikos": household or living-place "Logos": science-knowledge*) as a science to study the interrelationship of organisms with their environments and the totality of such patterns and relations moved to the Ecology as a dynamic field of critical, cultural debate. The key concern of Scientific Ecology remains with the integrity and diversity of natural systems while Critical (philosophical) Ecology is concerned with the links between how we think and act as humans, and therefore how we act towards each other and the broader natural systems of which we are a part. Philosophical Ecologies most generally consider humans, along with all other animate and inanimate things, to be partners within the broader system of nature. Since the late 60's where evidences of environmental degradation were noticeable, Ecology principles both Scientific and Critical have resonated in the fields of art and design (Ecological Art, Eco-design).

After reviewing literature and research papers in the philosophical movements of *Deep Ecology* (Naess, 1973) *Social Ecology* (Bookchin, 1980), *Radical Ecologies* (Merchant, 1992) and study different proposals of Ecology theory in design practices such

us; *Design for the real World* (Papanek, 1972), *Cradle to Cradle: remaking the way we make things* (Braungart and McDonough, 2003), I would like to draw my attention in this study to the theory of Ecosophy, "a state of Ecological Consciousness", from Félix Guattari (1989) published in his book *The Three Ecologies*, 2000.

For Guattari, Ecology is an understanding of connectivity, of balanced systems, and network topography and complexity. In contrast to a capitalist system based on economic growth, Guattari's Ecosophy seeks balance allied with a re-evaluation of what we value. Creating an Ecosophical society requires a reorientation of thought, so that we understand ourselves, the society we live in and the ecosystem we inhabit as three different scales of Ecology. Guattari argues that the only true response to the ecological crisis is on a global scale, and it calls to a political, cultural and social revolution. *This revolution grounded into molecular domains of sensibility, intelligence and desire and concerned with visible relations of forces on a grand scale will reshape the objectives of both material and immaterial assets.* (Guattari, Pindar, and Sutton, 2000)

In this theory Guattari proposes a concept of three interacting and interdependent Ecologies of Mind, Society, and Environment.

- **ECOLOGY OF MIND:** targets the modes of production of subjectivity. Knowledge, culture, sensibility and sociability that come under an incorporeal value system at the root of new productive assemblages.
- **ECOLOGY OF SOCIAL:** rebuilding human relations at every level of the **socius**. From the mass-media age to the post-media age, creating new systems of valorization.
- **ECOLOGY OF ENVIRONMENT:** an Environment on a process of being reinvented. Anything is possible from disasters or the most flexible evolutions; much more than the simple defense of nature.

I consider this one of the most complete understandings of Ecology and practice and from this theory I propose to develop the fundamental pillars for an Ecosophical awareness in Design Education. From my perspective as a designer and as educator I like to draw my attention to the **Ecology of Mind** as a starting scale to explore with students, although the three Ecologies are essential for transformation, Social Ecology and Environmental Ecology will not function without previous exploration of Ecology of Mind.

“ Ecology must stop being associated with the image of a small nature-loving minority. Ecology in my sense questions the whole of subjectivity and capitalistic power formations”.

(Guattari, Pindar, and Sutton, 2000)



[8] Graphic #1 Ecosophy (2017)

2.3- Modus operandi; Transversality and Action

As a response to the Anthropocene I advocate the urgency to establish new ways of thinking, therefore new interactions, speculations and alternatives can emerge. Taking as reference my “*modus operandi*”, I understand *Transversality* as the way in which I move between concepts, ideas and words. When it comes to creativity, I consider that intersection between divergent ways of thinking and concepts are fundamental to develop alternatives to the regular established systems. I position myself as a connector, and in the same way that nature does, I see myself connecting ideas in an organic way. Transversal model for me means fluidity, flexibility and adaptability and I regard this as essential to understand Ecosophical practices. I propose a non-linear-hierarchical system, an organic model as a *Rhizome* (Deleuze, Guattari, and Massumi, 1998).

.. “In this model, culture spreads like the surface of a body of water, spreading towards available spaces or trickling downwards towards new spaces through fissures and gaps, eroding what is in its way. The surface can be interrupted and moved, but these disturbances leave no trace, as the water is charged with pressure and potential to always seek its equilibrium, and thereby establish smooth space.”

(Deleuze, Guattari, and Massumi, 1998).

Guattari also emphasizes the importance of a new model of thinking transversally as now more than ever, nature cannot be separated from culture; and he states that we must learn to do it in this way in order to comprehend the interactions between ecosystems, the mecosphere and the social and individual Universes of reference (Guattari, Pindar, and Sutton, 2000). A transversal way of thinking is needed to respond to the urgencies of the Anthropocene, *Ecosophy*, though theory in and of itself will not be enough, **Action** is also needed. Design practice is already dealing with human action and therefore I assume that “**Ecosophical Action design**” should ultimately be a goal.

According to Hannah Arendt (1958) Action is “*the only activity that goes on directly between men without the intermediary of things and matter, corresponding to the human condition of plurality, to the fact that men, not man, live on Earth and inhabit the world*”. The human condition of Action is plurality and that Action is closely related to speech in a way that it cannot exist without it. A life without speech and Action will be literally dead to the world. Naess (1995) describes *Deep Ecology* as a movement built both around thought and Action, hence not limiting it to remaining only as a philosophy or ideology. He supports Action as a means for continuing its evolution, outlining some fundamental steps and stages for establishing a movement.



[9] Graphic #2 Ecosophy in Action (2017)

The way I frame my research here is to talk about different kinds of actions including: research actions, design actions and social actions which will lead to different kinds of practices, including: research practices, design practices, and social practices.

The same way as I am taking Action as an educator when I see the urgency to bring Ecosophical awareness to the classroom, designers must also move from the speech to the Action.

2.4 - The design response; The new role of designers, Gentle Aesthetics.

Everything that surrounds us is designed, and the world we live in is designed. The fact that every human activity its fundamentally designed leaves enough evidences and traces to point out that the challenge should no longer lay in the production of goods or commodity, filling the earth with poor objects, structures and services but on the creation of sustainable ways of living. In all pollution, meaning mental, social and environmental pollution, design is partially implicated. As Victor Papanek stated already in 1971 *“design must become a responsive tool to the true needs of man and it can and should become a way in which young people can participate in changing society.”*

When looking at the evolution of Design for Sustainability (DfS) starting with Buckminster Fuller (1969) to nowadays we can already appreciate a shift in the understanding of Sustainability towards interdependencies between social and ecological systems (Ceschin and Gaziulusoy, 2016). Although the first response to the ecological crisis was mainly addressing environmental issues and focusing on the technical aspects of Sustainability (Green Design, Ecodesign, Biomimicry, Cradle to Cradle), design practices have also progressively expanded from social behaviour, product innovation to complex service-systems, the importance of the users and resilience of communities (Sustainable Product-Service, Systemic Design, Emotionally Durable Design, Design for Sustainable Behaviour, Design for Social Innovation, etc..). The most important shift in Design for Sustainability is that no longer has been understood as a *“green”* goal but as a human-centred vision, as a complex process property, multi-scale and systemic approach. The present view suggests that Design for Sustainability needs a radical transformation which requires not only technological interventions but also social, cultural-behavioural, institutional and organisational change (Ceschin and Gaziulusoy, 2016).

Transition Design (Irwin, T. 2015) acknowledges that we are living in ‘*transitional times*’. It takes as its central premise the need for societal transitions to more sustainable futures and argues that design has a key role to play in these transitions. *Transition Design* challenges existing paradigms, envisions new ones, and leads to radical, positive social and environmental change. This radical change in my opinion should be based on ecological awareness and must lead design towards conscious Ecosophical Actions, embracing new aesthetics and encouraging designers to play new roles in society. According to Guattari, “as soon as design steps out of the Paleolithic Era it could become a “major art” of Ecosophy”. In *Design et écosophie*, Manola Antonioli (2013) underpins clearly how Guattari’s Ecosophy is re-contextualized in the framework of design, and how this discipline is a potential agent for the action of Ecosophical practices. Moral, ethical and aesthetical values may evolve in order to respond with counter narratives.

Design Activism is a practice that embraces the counter-narratives and engages designers towards transformation processes. In *Design activism: Beautiful Strangeness for a Sustainable World*, professor Fuad-Luke (2009) defines the design activist as “a person in Action who uses the power of design for the greater good of humankind and nature, a person who is a free agent; a non-aligned social broker and catalyst; a facilitator; an author; a creator; a co-author; a co-creator; and a happenner” (Fuad-Luke, A., 2009).

I advocate for **Design Activism** as a fertile ground for Ecosophical actions and new aesthetics. The design activist plays a new role in society by understanding and implementing design as a disruptive way of thinking, hacking systems, engaging with the commons and activating alternative mechanisms and relations. The **Ecosophical design activist** in this case is a person with a level of Ecological awareness and a mindset based on ecological values, social empowerment and interaction, and environmental sustainability.

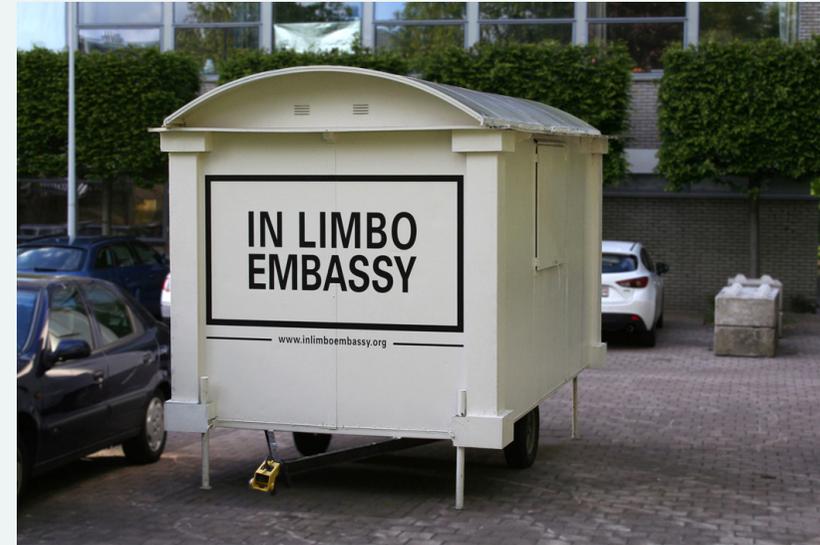


[10] *The Boyscout Designer*, DAE_Man & Leisure graduation. Bouke Bruin (2017)

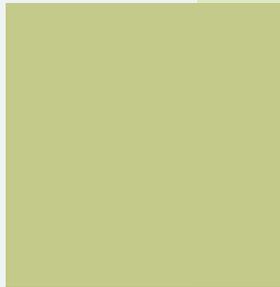
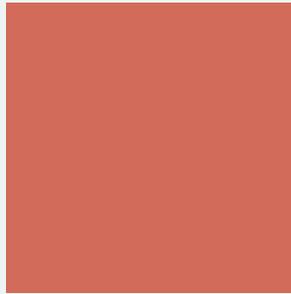
The new aesthetics generated by Ecosophical design activists are no longer based on the relationship between problem-solution leading to a certain shape-material-function aesthetics. Instead, the relationship between **awareness-action-impact** will drive the shape of material and function more than any other criteria. Designing as “problem-solution” defines design as “product”, while designing as “awareness-action-impact” defines design as “process”. These new aesthetics may disrupt the traditions of design culture, may develop new relations to materials and function and new subjectivity.

Ethics and Gentle Aesthetics.

One of the main questions of this study lays in one of the fundamental ethical concerns about design production. How much longer will design practice contribute to increase the environmental and human crisis? At this stage a Critical Consciousness may lead to ethical responses leaving no doubt about the necessary shift that design practice must take. An ethical position in design practice invites to a re-consideration of production. An ethical re-consideration of production leads to a re-orientation of values and actions proposing new narratives (counter narratives). These counter narratives may suggest a transformation of the way we live and relate to the world and in consequence to the traditional production of design. Therefore the new production of design may be generated by ethical positions and actions and suggest a new type of **Gentle Aesthetics**. This Gentleness embraces; care, activism and sustainable development.



[11] *In Limbo Embassy; Embassy of the Undocumented.*
Manon van Hoeckel (2015)



3. DISCOURSE IN DESIGN EDUCATION

The urge for a new “awareness” and a future conscious community is a priority in the educational systems from developed to developing nations, from primary to higher education. The UNESCO together with UNICEF, the World Bank, UNFPA, UNDP, UN Women and UNHCR organized the *World Education Forum 2015* in Incheon, Republic of Korea (2015). The Education 2030 Framework for Action was adopted, which sets out a new vision for education for the next fifteen years. The renewed attention to the purpose and relevance of education for human development and economic, social and environmental sustainability is a defining feature of the Education 2030 agenda. UNESCO aims to improve access to quality education on sustainable development at all levels and in all social contexts, to transform society by reorienting education and help people develop knowledge, skills, values and behaviours needed for sustaina-

ble development. It is about including sustainable development issues into teaching and learning. Individuals are encouraged to be responsible actors who resolve challenges, respect cultural diversity and contribute to creating a more sustainable world. **Education for Sustainable Development (ESD)** is a broad approach in education which empowers people to change the way they think and work towards a sustainable future.

A discussion about the changes needed in professional design culture and Design Education, to be able to remain socially relevant in the Anthropocene, is urgent in order to avoid intensifying social and environmental crises. During the last years I have witnessed in my educational terrain at DAE an increasing number of students stepping out from the traditions, claiming agency for transformation.

Design proposals in the classroom are no longer only concern with function and form, but with new alternatives, new consumer behavioural proposals, circular economical systems, empowerment of communities, and environmental solutions. Though there is a clear demand for sustainable design, the real problem becomes when design students react to ecological urgencies without understanding consciously why they need to do it. Most of the times these reactions end up in failure or even worse they contribute to the increasing ecological crisis. This happens when there is lack of awareness, basic knowledge and understanding of Ecology, systems and complexity. This demand for sustainable design needs to be supported with a curriculum providing basic knowledge, framing and understanding. Criticisms in design have been also raised about the *naïveté of designers proposing superficial solutions and the high cost of design services* (Ceschin and Gaziulusoy, 2016).

A broader scope of literacy is needed in Design Education which is aligned to the new paradigm. There is a real potential for curriculums to embrace Ecological awareness and integrate it as a competence. Ecology must be understood as a potential to build up agency in design practice. The need for a new responsible generation of designers with an ethical position must be encouraged and ecologically informed by the curriculums. Ecological literacy is fundamental in the current reality for design schools, though not yet emphasized in bachelor programs.

3.1- Ecological literacy in Design Education

David Orr (1990) defines Ecological literacy as “a quality of mind that seeks out connections”. Knowing, caring, and practical competence together can be regarded as the basis of Ecological literacy. It implies a broader understanding of how people and societies relate to one another and to natural systems, and also how they might do so sustainably. *If Ecology could be considered a new science, it will be the basis of a broader search for pattern and meaning and it cannot avoid a reconsideration of values and ethical questions.* Design education in my opinion must embrace Ecological literacy in the bachelor programs. The understanding of Ecology not as a sustainable design goal, but as a conscious connection to complex natural systems that humanity inhabits, and must be of the utmost importance of design students. A broad theoretical and praxis program developed from the first year must grow

developed from the first year must grow in the curriculum to the final years. Ecology must be embedded and experienced in every project and in every student, in every level that attend the blind spots covered by the traditions of design that ignore the ecological realities. Without taking this seriously the future design generations will not be able to transform our ways of living in the direction of sustainability. Ecological literacy is disruptive for curriculums, as it requires a re-definition of what constitutes a “good design”. It also supports a radical shift of human perception to facilitate understandings of interdependence with the natural world.

In *Ecological literacy in Design Education, A Theoretical Introduction*, Joanna Bohner (2013) states that Ecological literacy in Design Education can be achieved by teaching practices such as *experiential learning, critical pedagogy and transformative learning*, as they create possibilities for deep learning. Bohner argues

that once this learning is made possible, learners will develop a greater awareness of ecological issues. Ecological learning is the basis for sustainable design, and without it sustainable solutions are simply not possible. Participation and co-creation are essential elements in making design sustainable. According to the six principles developed by Capra, F. (2013) and the *Center for Ecological Literacy (CEL)* it is essential for designers to understand the principles of organization, common to all living systems and the web of life, those are; networks, nested systems, cycles, flows, development, and dynamic balance. Bohner shows in her paper how linking these patterns and processes to design concepts such as; resilience, epistemological awareness, circular design, energy literacy emergence and ecological footprint, ecological literacy can inform design education.

The project Fire & Cook (2016) developed by Thomas Woltman during the 2nd year in one of our modules of Man and Leisure at Design Academy Eindhoven is a good example of an ecological informed project. Fire & Cook is a 0-Waste cooking toolbox based on ecological cycles. The concept highlights the urgency to SLOW DOWN food consumption and proposes a more conscious behaviour in the way we cook, eat and treat resources available to us. Thomas had explored ecosystems, the influence and impact of time, the over food production side effects and its ecological consequences. As a response to the current food culture he designed a consumption cycle based on natural resources, in which cooking time and preparation becomes more relevant than the food consumed. By doing so he is not only suggesting conscious consumption behaviour but he is also re-establishing a healthy relation to one of our fundamental needs: Food.

Fire & Cook is a project addressing the Three Ecologies; Mind, Social and Environment and relates to values, position and scale as is questioning the intrinsic value to food, positioning the user into a central conscious consumer and scaling down the macro food chain production into a meso-micro cycle.

Though conceptually this project is ecologically informed, the material cost and production needs to be brought to a sustainable level. One of the discussions it came across during the assessment addressed the financial production condition of Fire&Cook, and may also contribute to create awareness, moreover, highlighting the environmental and health side effects of the mass food production chain used to lower price and increase profit.

Thomas as a designer is also positioning as an activator.



[12] *Fire & Cook, 2nd year, Man & Leisure_DAE.*

Thomas Woltman (2016)

3.2- Committed Design education in Europe: A bigger picture addressing urgencies.

In the field of Design Education in Europe new educational programmes and courses committed to social and environmental sustainable development embraced by the increasing support from the public and private realm are emerging.

DEEDS Project (DEsign EDucation & Sustainability, 2007-2008) funded by the *European Union Leonardo da Vinci Programme*, comprised a partnership of five institutions from the European design and sustainable development communities, embracing Higher Education, research and practice; ICIS (International Centre for Innovation & Sustainability, Hornbaék, Denmark), SERI (Germany e.V., Sustainable Europe Research Institute, Cologne, Germany), BEDA (Bureau of European Design Associations, Brussels, Belgium), University of Brighton (Brighton, UK) and Academy of Fine Arts (Poznan, Poland). DEEDS began as a platform of mutual learning by engaging diverse members of the design communities to create a participatory platform for embedding '*sustainability into design and design into sustainability*'. As for outcomes and proposals they included a set of core principles, SCALES, diverse resources available via a website, an evolving Teaching & Learning landscape of 'pods' (the Pod-cape), new student projects, and more.

SCALES is a generic systematic way of creating themes reflecting the complexity and multi-dimensionality of the sustainable development concept. Unfortunately DEEDS Project has dissolved leaving almost no trace. The potential of this project and the diversity of results and educational Tools developed have not reach a larger landscape of Design Education in Europe.

Finding a consolidated program addressing this field within bachelor curriculums is difficult. Very often the programs and courses emerge as optional projects-programs, satellite academies, minors, research programs, but rarely Ecological awareness and sustainable thinking is considered one of the fundamental basic skills for design students during the foundation years of their curriculums. Changing curriculums in Universities and Academies is complicated, and many of them choose to integrate Sustainability and Ecology across the development of specific projects or lectures in the projectual area. Across the bachelor studies, though this brings design students to understand what sustainable design means, it is not guaranteed that Ecological awareness will enter the curriculum at this stage at all.

Some of the relevant design schools and Universities in Europe with rich curriculums embrace Ecology and Sustainability in post-graduate, research and master programs;

- **SustainRCR** is a satellite academy from the **Royal College of Art in London** (UK) with an interesting program addressing a transformative way of thinking and designing focusing in MA students.
- **The Sustainability Network** of the **University of Brighton** (UK) supports ecological and sustainability research projects such as DEEDS, or Handbook for Sustainability literacy, an educational research project.
- **Creative Sustainability** at **Aalto University** (FI) offers a multi-disciplinary Master degree in architecture, business, design and real state and water management with an holistic approach to activate students to create new sustainable solutions for human environments on purpose to build a socially responsible and sustainable future.
- **EsMOD Berlin** (DE) launched in 2011 the International MA Sustainability in Fashion. The programme takes a holistic and interdisciplinary approach to design positioning itself as ecologically, ethically, socially and economically sustainable.

- **Free University of Bolzano** (IT) offers a MA in Eco-Social design, which envisions design as a catalyst for social development by promoting change of lifestyles, consumption and production by making them more sustainable.
- **TU Delft** (NL) runs the Design for Sustainability Research program challenging design for sustainable futures in the field of science. In the Netherlands though a design bachelor program that incorporates Ecology and Sustainability as a competence in the curriculum is still not visible.
- **IED-Madrid** (ES) is one of the few design school in Europe that offers a complete program developed by the Sustainability Department which is fully integrated in the bachelor curriculum.
- **Shumacher College** (UK) though is not framed as a design school offers a MA in Ecological Design Thinking, a trans-disciplinary program that brings together theoretical and practical discourses on ecologically inspired design, with methods of design thinking that are merged with the latest developments in anthropology, psychology and socio-political economics.



Case study: IED Madrid

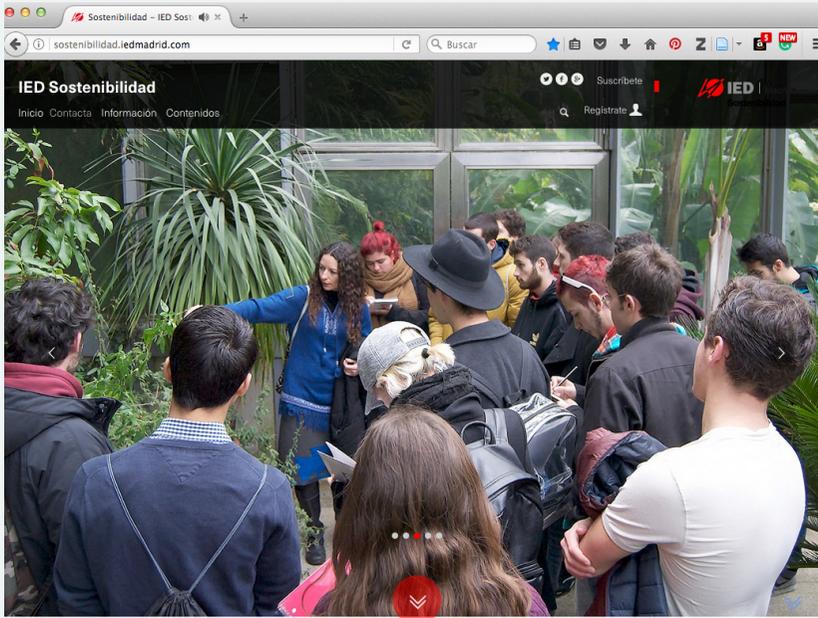
**Conversation with Victoria de Pereda,
Head of IED Madrid Sustainability Department.**

The economic crisis in Spain has contributed to create the scenario where re-invention and transformation has become a new condition of living. For young generations thinking about sustainability became the norm in a new reality and a new paradigm.

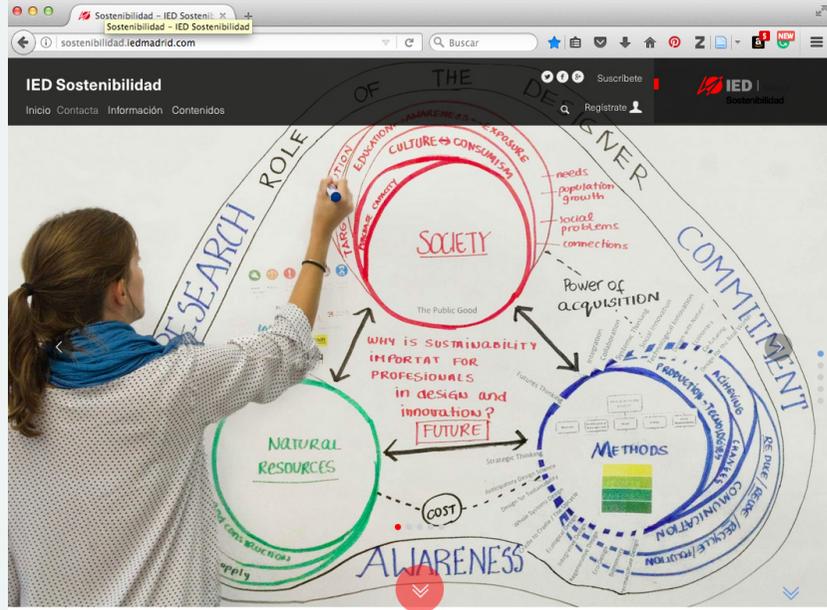
In 2011 Victoria de Pereda launched at IED Madrid a new department for sustainability as a transversal support to all the different design schools of IED. After 6 years this department has grown in hours, teachers, projects and budget becoming a fundamental body of knowledge for approximately 1500 students. The team of teachers is composed by a group of experts in Ecology (life cycles), biology (biomimesis), psychology (systemic thinking), economics (circular, sharing economies), architects (sustainable energies), and philosophy. Experts that provide a broad vision on what sustainable criteria are and might be implemented for a transformative process.

The curriculum is developed from macro to micro providing during the 1st year a global vision in understanding the planet and its Ecology, a 2nd year based on understanding systemic thinking, cycles and processes, a 3rd year providing sustainable tools related to their field of design, what it could be called Eco-design and impact, and during the 4th year the curriculum provides the students with expert tutorials to support their design projects and Thesis.

In summary this program covers from the understanding of our existence in this planet to the very specific approach in design practice. In 6 years this department's general goal has been "Educating for Sustainability", and has managed to provide every student with the basic knowledge towards sustainable design.



Bienvenido a la web del Departamento de Sostenibilidad IED Madrid
Green Campus. Think Out Of The Bottle. / Sostenibilidad / Valores / Nuestros Alumnos Opinan / Equipo



Bienvenido a la web del Departamento de Sostenibilidad IED Madrid
Green Campus. Think Out Of The Bottle. / Sostenibilidad / Valores / Nuestros Alumnos Opinan / Equipo

[13-14] IED Sostenibilidad, screenshots official website (2017)

3.3- A closer look at Design Academy Eindhoven.

Conversations with:

Jurriënne Ossewold / Irene Fortuyn

30th March 2017

According to Alice Morby (Dezeen), Design Academy Eindhoven (DAE) is considered as one of the most influential design schools in Europe, but what does influential mean? I was very curious about this statement and the scope of influence that Design Academy Eindhoven was entitled with. Jurriënne Ossewold, executive and academic director of DAE describes influential as the *“Traces of the Academy”*. DAE is an international design school with 67 nationalities meaning that the 70% of the students are international and 30% are Dutch. Ossewold argues that the influence of DAE lies in the people, as it is a globally extended community. The Traces of the people make it influential, the amount of alumni expanded into many countries, the teachers, ex-teachers,

and the work they make is influential, also the way in which DAE designs education itself is influential, and that means that students are not educated to become a “type” of designer but to give their own influence and form to their practice in order to add to the domain.

If influential means *“global expansion and re-definition of the design domain”*, it will be a challenge for DAE to integrate in the curriculum Ecological awareness as this will lead to a conscious Ecological community that will expand globally, and will also actively transform the discourse of designing and living. It is precisely in these manners that DAE has the agency to transform.

Currently at DAE “Ecology and Sustainability” is being explored by individual students, but it is not yet part of the curriculum, the subject deserves its own place, stage and time. According to Ossewold, Ecological literacy is one of the urgencies for DAE, and it is strange and unbelievable but is not there yet.

A further concern is the fact that it is exactly in the upcoming years’ agenda that a process of first emancipation needs to be implemented and interwoven in all the projects and departments. Currently there are 2 departments consciously addressing this subject; Man and Mobility focusing in industry, sustainable production, circular society- economy, and Man and Leisure, the department in which I am part of, focusing on building Ecological relations with the world that surround us.

Irene Fortuyn, head of the department Man and Leisure, argues that the department should be re-defined. A more appropriate name according to the content of the department could be, The Commons, as the focus is redefining the relationship towards our common nature. She frames design education as; “*you can make a tool out of the creature or a man out of him*” (*The Stones of Venice*, Ruskin, J. 1884). The aim of this department is to make a man out of the designer, not a design tool, furthermore, a man who is able to respond consciously. Therefore is important to understand that Ecology must be brought to a broader spectrum and holistic view, and that students must experience Ecology by being part of it.

Osssewold defines the Ecology of DAE as a living organism not only because is existing by humans but also because what is being created is always fluid, not rigid, not fixed and never finished.

I recognize his Ecology as the “*modus operandi*” that I address in this study; Transversality as fluidity and Action which is the way I propose to implement ecological awareness in the curriculum. But ecological awareness also needs to be present in the environment of the school. At this moment DAE is working towards a “*green school*”, which is a good start by creating and changing the workshops materials into bio material labs, and other programs around the building. Though this is an important step taken at the academy, making a *green* policy does not guarantee that the education provided is also ecologically informed. DAE aims to educate committed designers to create alternatives to the urgent needs of social, cultural, economic and political change, paying attention to the role of technology. Ecology and Sustainability should be embraced by this challenge as they represent a great potential.

Currently a new bachelor curriculum is being shaped, several meetings to define the skills and theoretical frames of each department are being organized. I was part of the development team of the new curriculum, as tutor and also as coordinator of the department Man and Leisure. One the main observations I came across during these meetings is that bringing Ecology and Sustainable design as an urgent subject is relevant for colleague tutors though it is not clear and easy to picture how this will be integrated in the new curriculum. During the last meetings on 19-20 may 2017 Jurriëne Osssewold introduced the frame of competences and signatures of DAE. The 3 core competences in the 4 year bachelor program are; *Poetics, Mastery and Resonance*. *Poetics* refers to the way designers use their own “language” to communicate and transform their intuition, values and commitment through

form and aesthetics. *Poetics* is a very distinct competence from DAE and maybe is the one that indicates DAE is an outstanding academy in Europe. *Mastery* relates directly to the skills designers learn, appropriate, control and master. *Resonance* refers to the engagement and awareness with the world that surrounds us and in the way designers' work have had relevance. In order to implement Ecological awareness in the curriculum *Resonance* needs to be focus towards an understanding of the current environmental, social, economical and political realities. DAE is emphasizing critical thinking and experiential learning methods but to empower students to take agency for transformation, designers must comprehend and master those skills which are not only concerned with form and aesthetics, but also with ethical, social and environmental relations. The tradition of the author designer might be shift to the one of the co-creator, facilitator and connector.

Though the discussion of the future skills of designers at DAE tend to circulate around the production of a “*good design*”, I suggest to redirect the discussion to the one of the production of “*relevant good design*” which is Ecologically informed. The yearly Graduation show at DAE plays an important role in this production of “*good design*”. Design students take this show as a reference market and it influences so highly their focus in design thinking, specially to the students during the exam period, that a re-consideration of “production” and “good design” is hardly recognizable. Though this is a general observation, and is very suggestive indicating that every year increasing projects from graduate students shine for their social and environmental relevance. Hopefully this increasing interest within diverse design departments and the demand of students in the subject will require in the near future to develop progressively a curriculum providing students

with the right knowledge and competences to become sustainable designers. For now a glimpse of awareness is arising between tutors and staff who consider essential to address this subject. In the last development meeting (May 20th 2017) a team of 13 tutors from different departments, years, and fields we discussed and worked in the development of a new project for the foundation year within the theme “Society and Change”. This session brought to discussion what is the knowledge, competences, strategies and methods that students need to learn in order to bring agency into Action and how this must conduct 1st year design students towards a new awareness.

3.4- Educational response: my hypothesis, methods and tools.

My concern and call for an urgent Ecological Awareness in design education proposes an exploration on the concept of **Ecosophy** (Guattari, F. 1989). According to the *Three Ecologies* I propose to explore these broad and complex scales of Ecology of Mind, Society, and Environment through three tangible design notions; Value (Mind), Position (Society) and Scale (Environment). In order to understand their features, co-relation and subjectivity, I first analysed what these three concepts mean within design education and for the students, and how students perceive them in a complex design process; These 3 concepts created a framework from which I initiated my pedagogical approach.

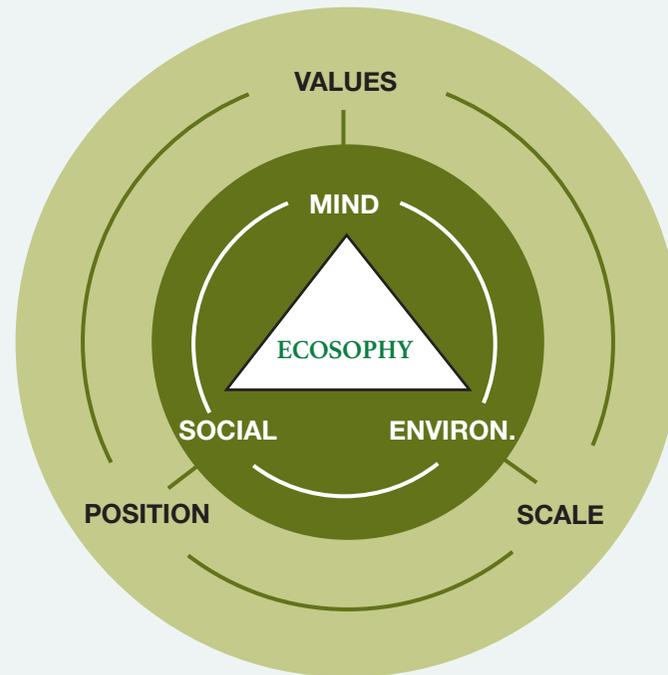


[8] Graphic #1 Ecosophy (2017)

- **VALUE (Ecology of Mind)**: Refers to ethics, actions and aims. I draw my attention towards Human Values. How students perceive values within the current human crisis (global), institution (local) and practice (personal) level. But also exploring how students move from anthropocentric values to ecocentric values.
- **POSITION (Ecology of Society)**: Condition to reference in social context and scenarios. I consider position as a “role” in society, and within a design process a way to understand the social context as well as the economic and political forces in which the students are moving and working in.
- **SCALE (Ecology of Environment)**: Refers to impact, measure and level. Changing and moving scales in design processes has a direct influence in the socio-environmental impact.

These concepts stand for the 3 Ecologies as a translation from the philosophical domain into a design discourse. The transversal connections create multiple possibilities and relations between the notions. Once specific relations are established then Action can take place in the design process.

- PHILOSOPHICAL APPROACH: ECOSOPHY
- EDUCATIONAL APPROACH: MY HYPOTHESIS



TOOLS

The “Cards” is a pedagogical instrument that I elaborated for my research to guide students in the development of Ecosophical actions. They are based on the three concepts of value, position and scale. Through these Cards the students can explore the relation between the three concepts and apply a transversal method in the complexity of a design process, by creating new understanding, relationships and directions. The Cards guide the students to think not in a linear system rather in an organic model where everything is connected. They stimulate discussion and critical thinking and enable the students to position differently creating new scenarios and counter narratives. The new relations built between positions, human values and scales generate new knowledge. Drawing on Piaget’s theory of cognitive development (Piaget and Cook, 1971) I question if the Cards will operate as an instigator for transformation by the process of Assimilation and Accommodation. Assimilation is how humans perceive and adapt to new information. It is the process of fitting new information into pre-existing cognitive schemas, how new experiences are reinterpreted to fit into, or assimilate with, old ideas. Accommodation is the process of taking new information in one’s environment and altering pre-existing schemas in order to fit in the new information. If so, will the accommodation of the new knowledge generated by the Cards create a new awareness?

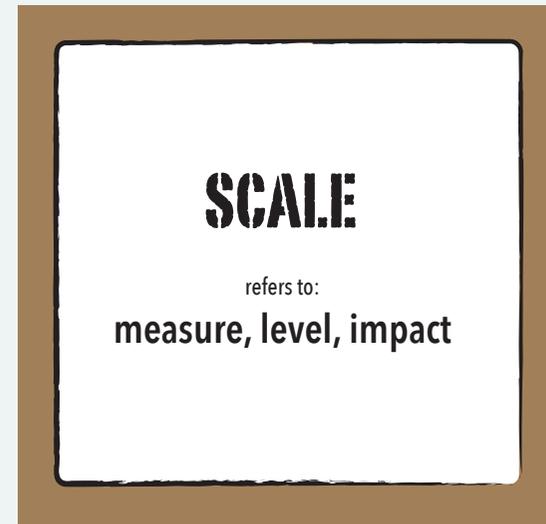
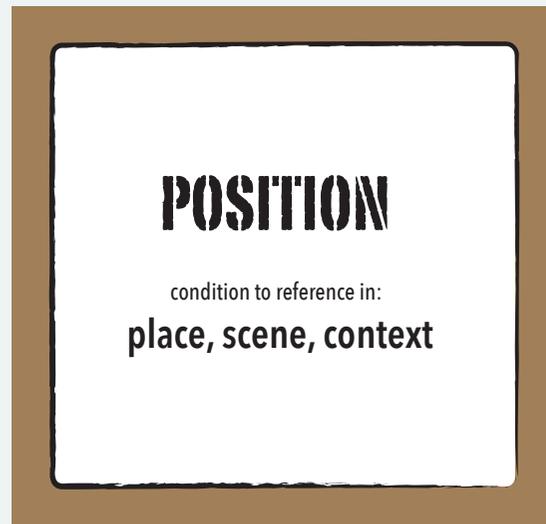
I elaborated different Categories and Subcategories to operate with the Cards:

CATEGORIES: they refer to the content and concepts derived from the Three Ecologies of Mind, Social and Environment and to the ones of critical reflection.

- **Values:** human values.
- **Position:** position in society.
- **Scale:** measuring impact.
- **Counter position:** the “non” socially accepted. The cards that provokes the critical thinking and the counter narratives.
- **Blank / black cards:** encourage students to generate new positions, values and scales.

SUBCATEGORIES: They refer to the “conditions” of the cards and on how they operate with in a design process. The conditions are not fixed and vary from one context to another.

- **Permanent:** the cards that will always remain during the whole process.
- **Transit:** the cards that will stay only in certain phases.
- **Collective:** the cards to consider in the Public realm.
- **Individual:** the cards to consider in the Private realm.



VALUE
refers to:
ethics, actions, aims

V
EQUALITY

V
OPENESS

V
DIGNITY

V
EMPATHY

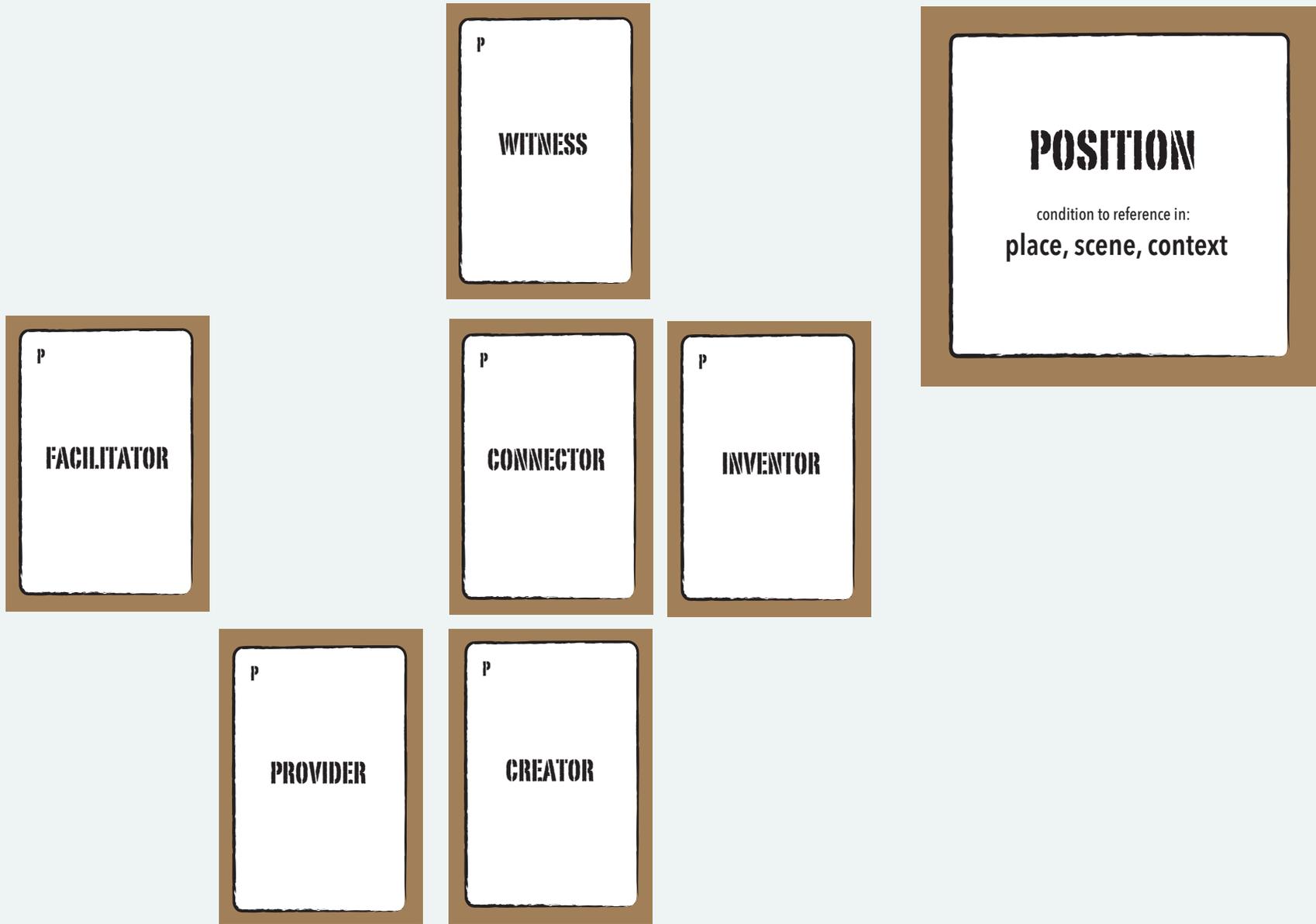
V
COMPASSION

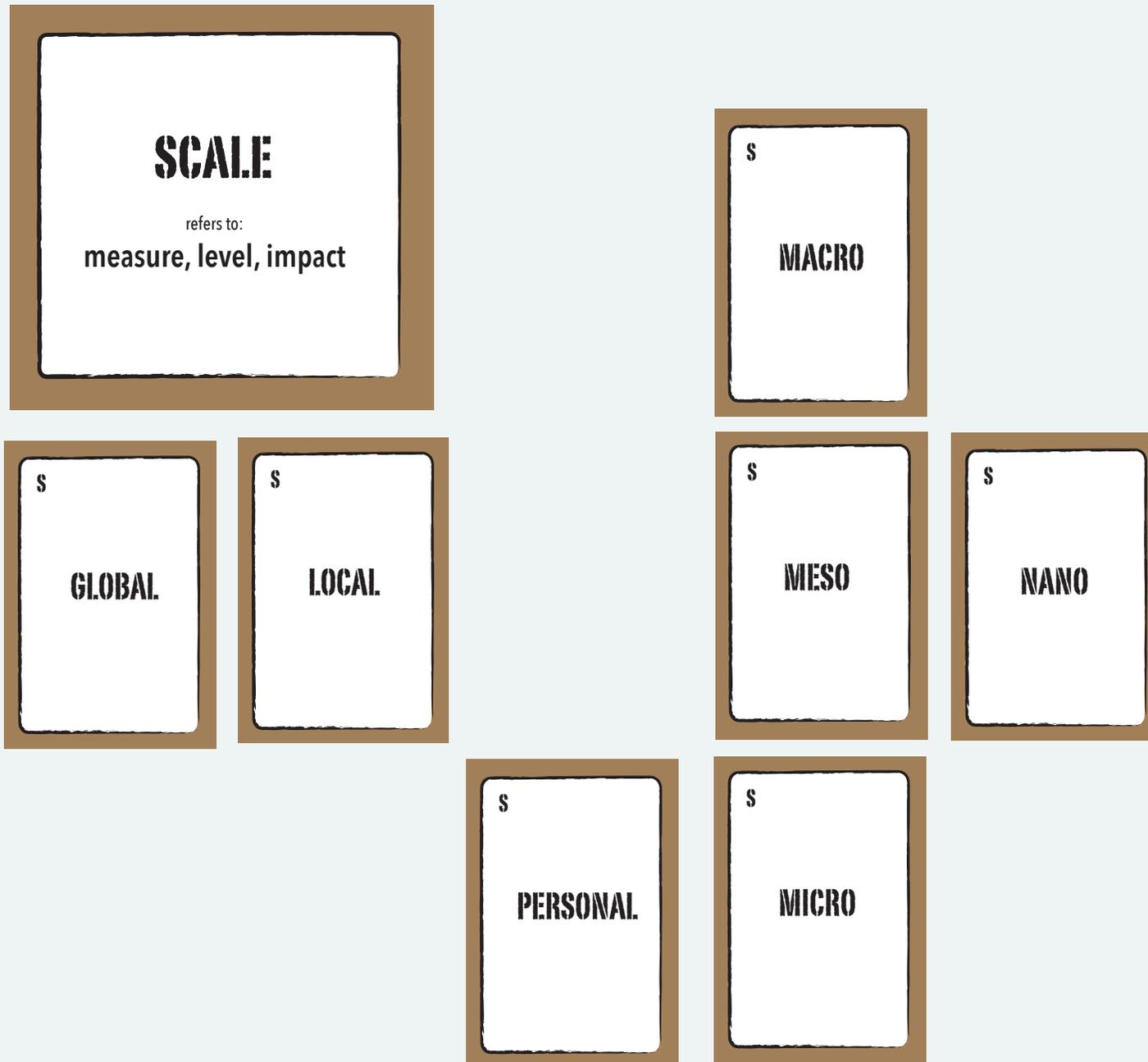
V
FREEDOM

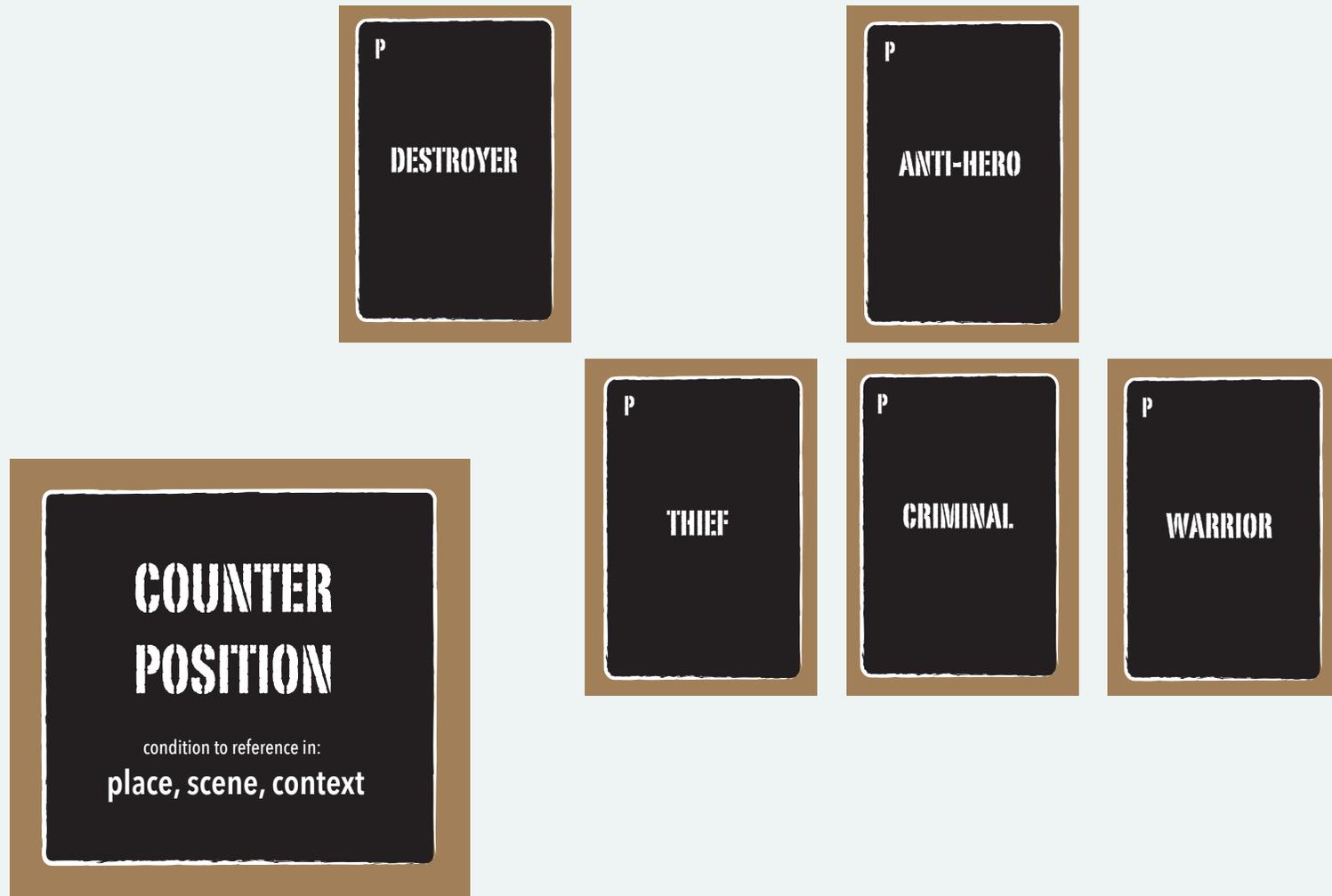
V
INTUITION

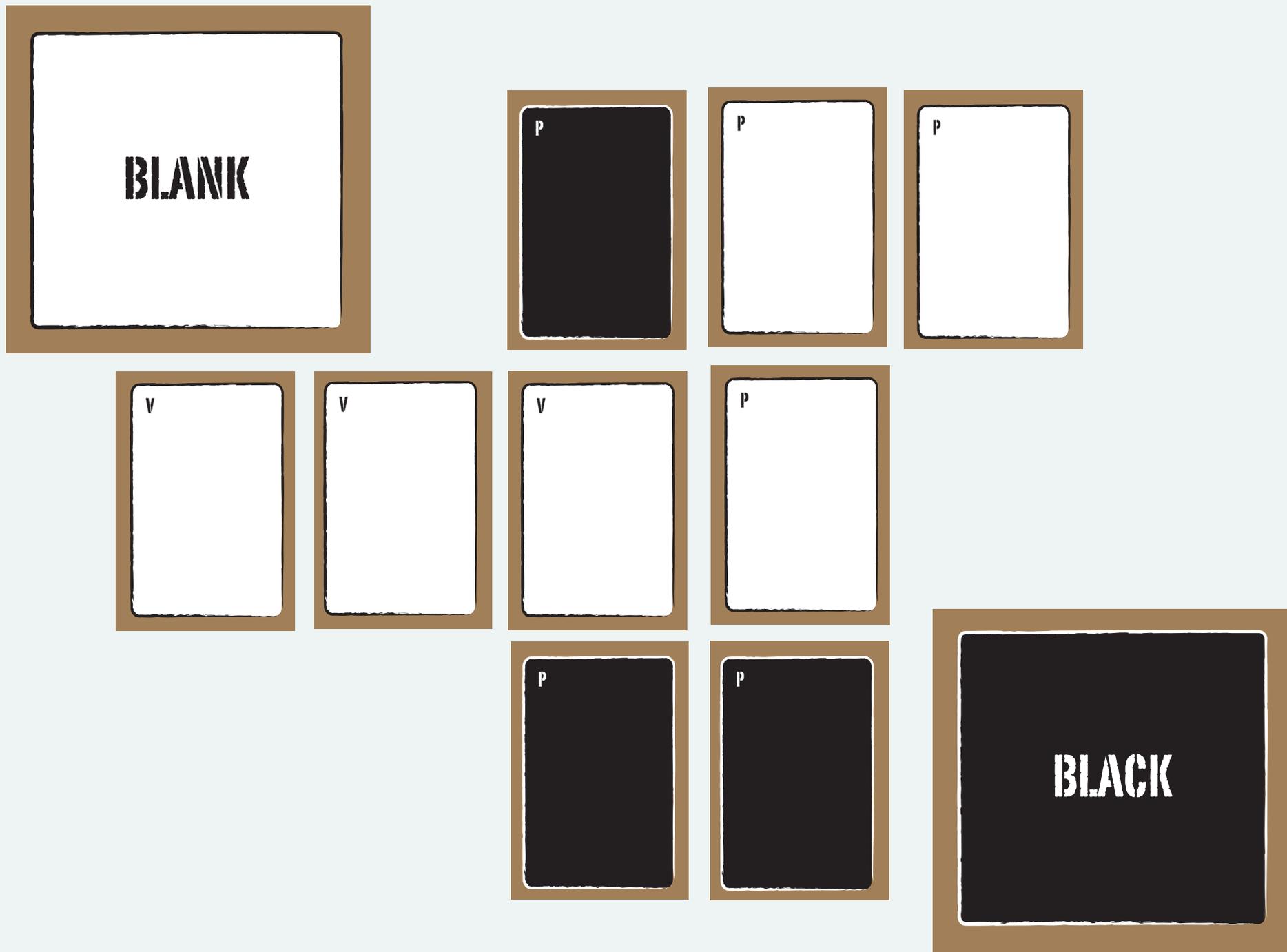
V
CARING

V
AWARENESS

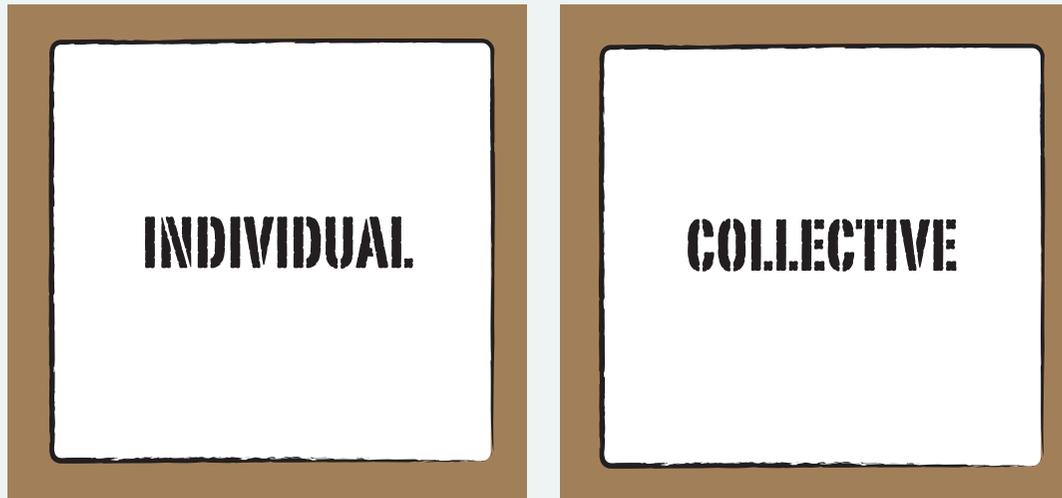


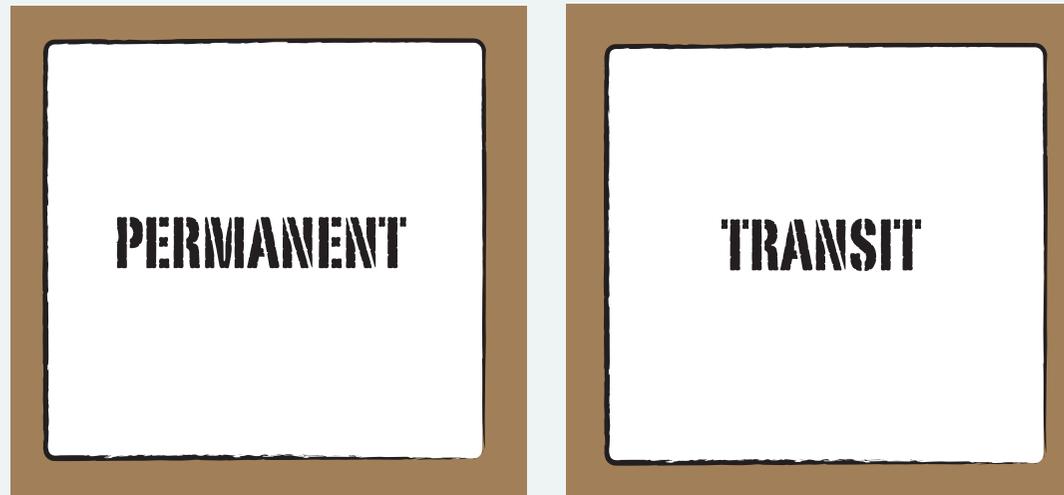






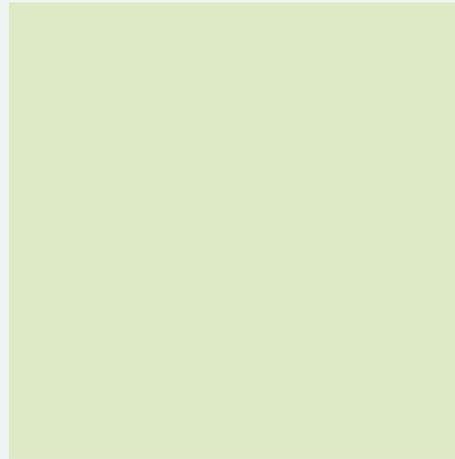
[21] Cards Blank/Black (2017)







[24] *Printed Cards* (2017)



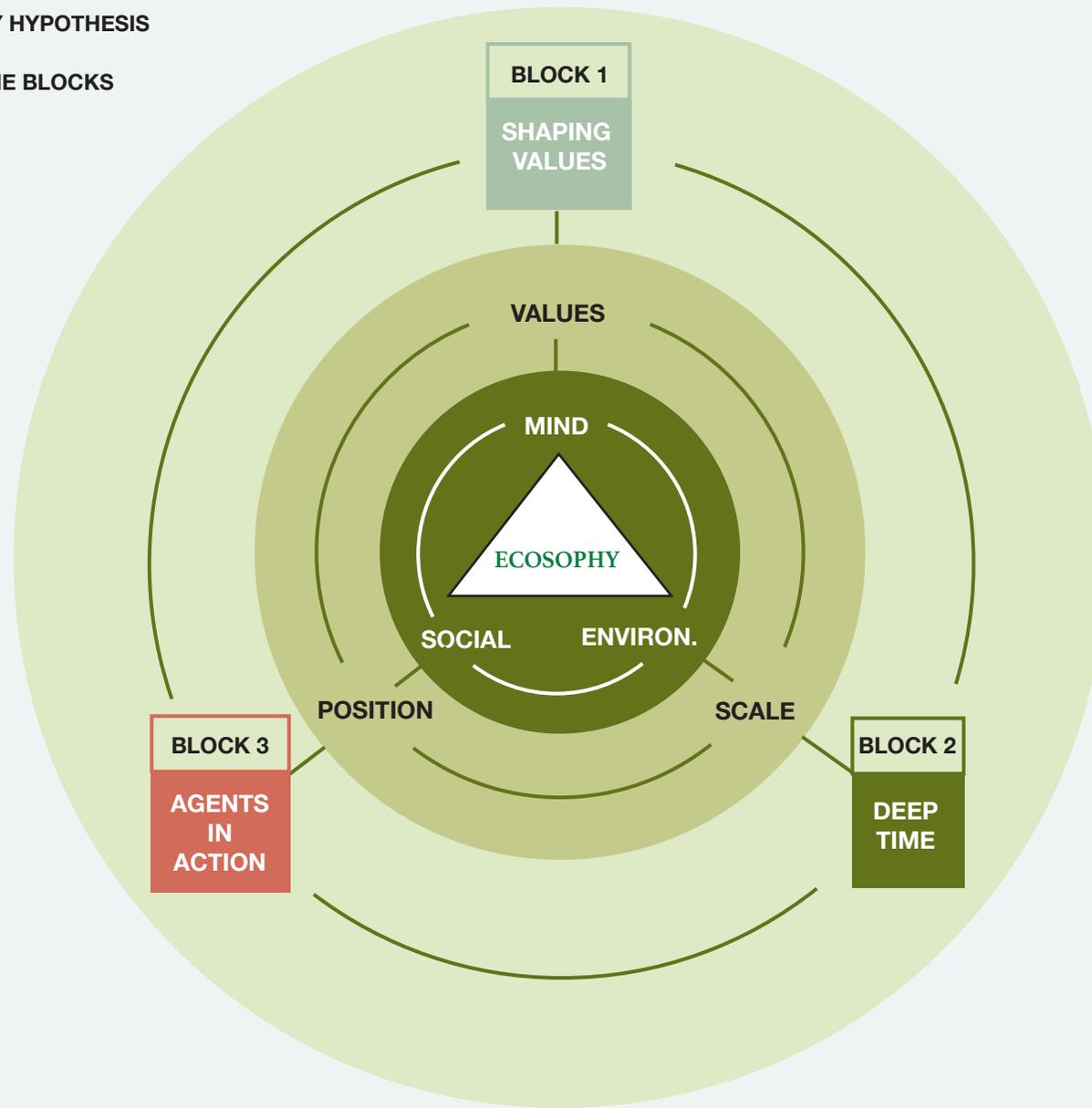
4. BUILDING BLOCKS FOR A NEW AWARENESS

The Educational Project and Results

The educational project was designed based on the fact that the students I worked with are not Ecologically informed by the current curriculum at the design school, not meaning that they do not have a certain level of social and environmental awareness, but assuming that there is a lack of basic knowledge and conscious experience of Ecology. My challenge with this project lies in creating Ecosophical awareness by experiencing the relation students build with their values, social and environmental local contexts and the way they operate with it. I address *Ecosophy* because as mentioned in this study I consider it a broad frame of Ecology to empower design students.

Building Blocks is a method to construct Ecosophical awareness in a short period of time with short assignments. The Blocks refer to the fundamental pillars of the Ecology of Mind, Social and Environmental, and provide students with basic knowledge, assignments, experiences and competences which can be aligned to the content and Theme of the curricular modules. Therefore the Blocks are also a flexible method and approach which can be adaptable to any situation, group and year.

- PHILOSOPHICAL APPROACH: ECOSOPHY
- EDUCATIONAL APPROACH: MY HYPOTHESIS
- PEDAGOGICAL APPROACH: THE BLOCKS



[25] Graphic #3 Educational project:Blocks (2017)

4.1 - Context.

The educational project was taking place at the Design Academy Eindhoven during the 2nd Trimester 2017 with a group of 12 students from the 2nd year bachelor department Man and Leisure, in which I work as project tutor. The project was developed in a period of 12 week-sessions (6h x session), with the first one starting on Jan 10th 2017, and the last one ending on March 28th 2017 with final assessments. The project was integrated into the bachelor curricular program, aiming to also provide the design methods, skills and tools that are required for the 2nd year students during this period, such as: visualization of concepts, translation of media, materialization and presentation.

Therefore the development of this project had 2 operational levels. On the one hand it had to provide the design skills required for the students, on the other hand it needed to experiment with methods to incorporate Ecosophical awareness through content and action. This situation evidences also the complexity I address when bringing Ecological literacy into bachelor curriculums. Due to these 2 operational levels I positioned myself in the projects as;

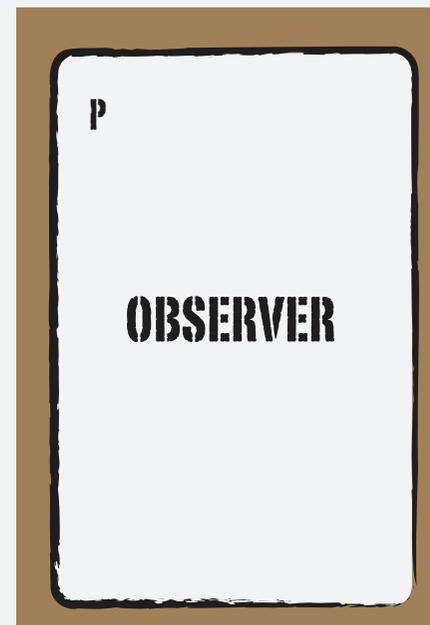
- **The facilitator**, as the design teacher.
- **The instigator**, as taking Action with students to enhance the relevance of Ecological awareness in an established design program.

- **The observer**, as a researcher by analysing the action-reaction of students, the outcomes and evidences.

4.2 - My modus operandi: Transversality and Action.

The theory of Ecosophical awareness based on the *Three Ecologies* (Guattari, F. 2000) and my hypothesis operating in the framework of Value, Position, Scale, was brought to the educational project not only with content but also in the way I operate. The methods I employed were used transversally, in the same way as I shifted from one position to another one in an organic fluid pace: from the facilitator, to the instigator or to the observer, agency was also brought in on 2 different levels;

- By my self exploring the 3 concepts of my own hypothesis; Values (openness/ connectedness), Position (facilitator/ instigator/ observer), Scale (from macro complex theory/context to micro scale applications)
- By students integrating new knowledge and experimenting *Ecosophy* through assignments and through collective work.



[26] *Cards: My position/* educational project (2017)

4.3 - Learning objectives and outcomes.

As mentioned in the *modus operandi*, this project operated in 2 levels, providing students with new knowledge on Ecology and also developing design competences required for this phase.

The learning objectives of the project focused in both:

- **Design learning competences:** visualization, filming, storytelling, mapping, concept development, presentation.
- **Ecosophical learning outcomes:** picturing their own Ecology of Mind by redefining values from the anthropocentrism to the ecocentrism point of view, establishing new relations by exploring the perception of time, understanding of complex systems, risk and cycles, experiencing agency and Action.

These learning objectives are interconnected and informed each other across the different blocks. One of the main learning objectives of the project is to create awareness on the fact that students may understand themselves as being part of one Ecosystem, and that they may also learn to move from the “me” to the “other” by understanding and experiencing collective work, as this is one of the principles of Ecology of Social. Experiencing and transforming owns Ecosophy was a challenge for his project.

4.4 - Pedagogical methods and tools.

The main pedagogical approach focused on **experiential** (Dewey, J., 1938) and **transformative** learning (Mezirow, J., 1991).

They were both implemented through out the project with different methods and framed in the context of the different Blocks (see chapter 4.5). In each Block the methods used were similar with the variation on the content which references to the *Three Ecologies of Mind, Social and Environment*. The concept of relationality is key in the transformative learning process. How students build new relations between them and with specific contexts and situations? How do they relate to the Mind, Social and Environmental Ecology? How do we build new relations to this? And how do these relations establish new alternatives? .

The order of the methods was not necessarily the same in each Block, as I adapted to the dynamics and demands of the group. An implementation of the methods within the three Blocks allowed me to review what tools/methods were more relevant than others and had more impact on the learning process of the students and therefore what things needed to be modified.

METHODS

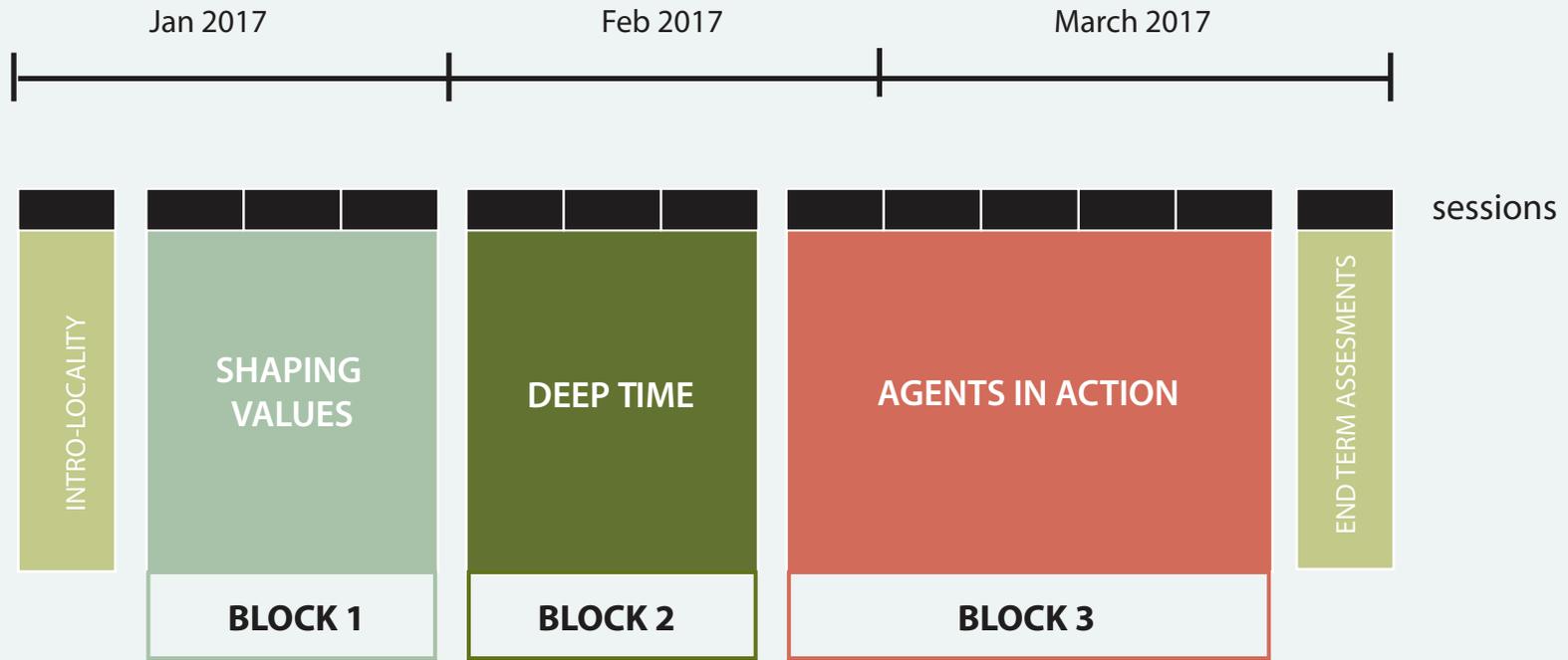
- **Informing:** introducing in each Block basic notions of Ecology to the students, screening some documentaries, debates and voices from different voices, perspectives and angles.
- **Reflecting:** first and after each Block the students were asked to write some reflections on the content and how they relate to it. I used reflective surveys at different stages of each Block.
- **Experimenting:** the students “practice based” experimented with the notions through a series of given assignments.
- **Co-Creating:** students had to work and create together in different stages of the project, as a fundamental understanding and experience of Social Ecology.
- **Practicing/Performing:** next to the assignments embedded in the Blocks, I proposed to perform Ecosophical pointers with the students during our weekly meetings. These practices were proposed, prepared and executed by the students themselves in order to bring Ecosophy to a personal experience.
- **Observing/documenting:** I observed the group, took notes, filmed and documented the process, debates and conversations during our classes.
- **Analysing:** I used the collected material to analyse and to draw conclusions on how they evolved towards Ecosophical awareness. The deliveries of the students also guided me to draw conclusions. I treated them as evidences for Ecosophical awareness.
- **Testing:** I used the “Cards” on a series of interventions as a tangible tool to guide the assignment proceses.

4.5 - Blocks and interventions.

The Leisure department works under trimester themes. During the 2nd Trimester the theme was LOCALITY. The concept of “Thinking globally, acting locally” was the link to Ecosophy. The project in the context of Locality was called; **“The Ecosophical design activist”** and it was developed in 3 Blocks; **Shaping values, Deep time, and Agents in Action.** They refer to an exploration of the Ecology of Mind, Social and Environment working on the framework of Value/Position/Scale. Each Block is developed in a minimum of 3 sessions, providing students with the required knowledge and competences to develop the assignments. A previous audiovisual introduction to the theme Locality and Ecology was given during the first session of the Trimester. As a reference I include the abstract of the introduction that was given to the student:

“From the scientific point of view we are facing an Ecological Crisis, and an urgent transformation in our human behaviour towards the planet its necessary. From the spiritual point of view we are facing a critical moment that is preparing humanity for an evolutionary jump of consciousness (Cabadas,P). From the philosophical point of view we need to question the whole of subjectivity and capitalistic power formations(Guattari,F.). From the “creative” point of view designers are potentially Agents of Alternatives (Fuad-Luke, A.). A transformation from fear to love, from the standard to the disruptive, from the idea to the action is therefore necessary. All new awareness starts from an individual (local) perception of energy, space and time.”

TIMELINE



[27] Graphic #4 Timeline Educational Project (2017)

BLOCK 1: SHAPING VALUES

ECOLOGY OF MIND / VALUES / 3 sessions

During this Block I prepared a brief audiovisual introduction to the concept of Consciousness on the basis of the notions Multi-dimensionality, Project Humanity and Energy. These notions were chosen to build up the content of the final assignment.

They were introduced from different perspectives of science, philosophy, and spirituality, because combinations of all three are relevant for the Ecology of Mind. After the introduction to the notions, the students were asked to use 15 minutes to reflect individually and write on paper what they understood by Consciousness and how they relate to it. After that, an open group conversation started sharing reflexions and thoughts.

During this Block as an experimental assignment and in order to bring Consciousness to a tangible application we focussed on the perception of Values. For this I used the “Cards “ based on Values to guide them. Students explored their core values and visualized them creating digital images. After that I asked students to re-interpret these values by shifting the perception from the Anthropocentric to the Ecocentric point of view (Ego-logic to Eco-logic) and by making kin connections between them.

- **Assignment:**

Individual: visualization of values.

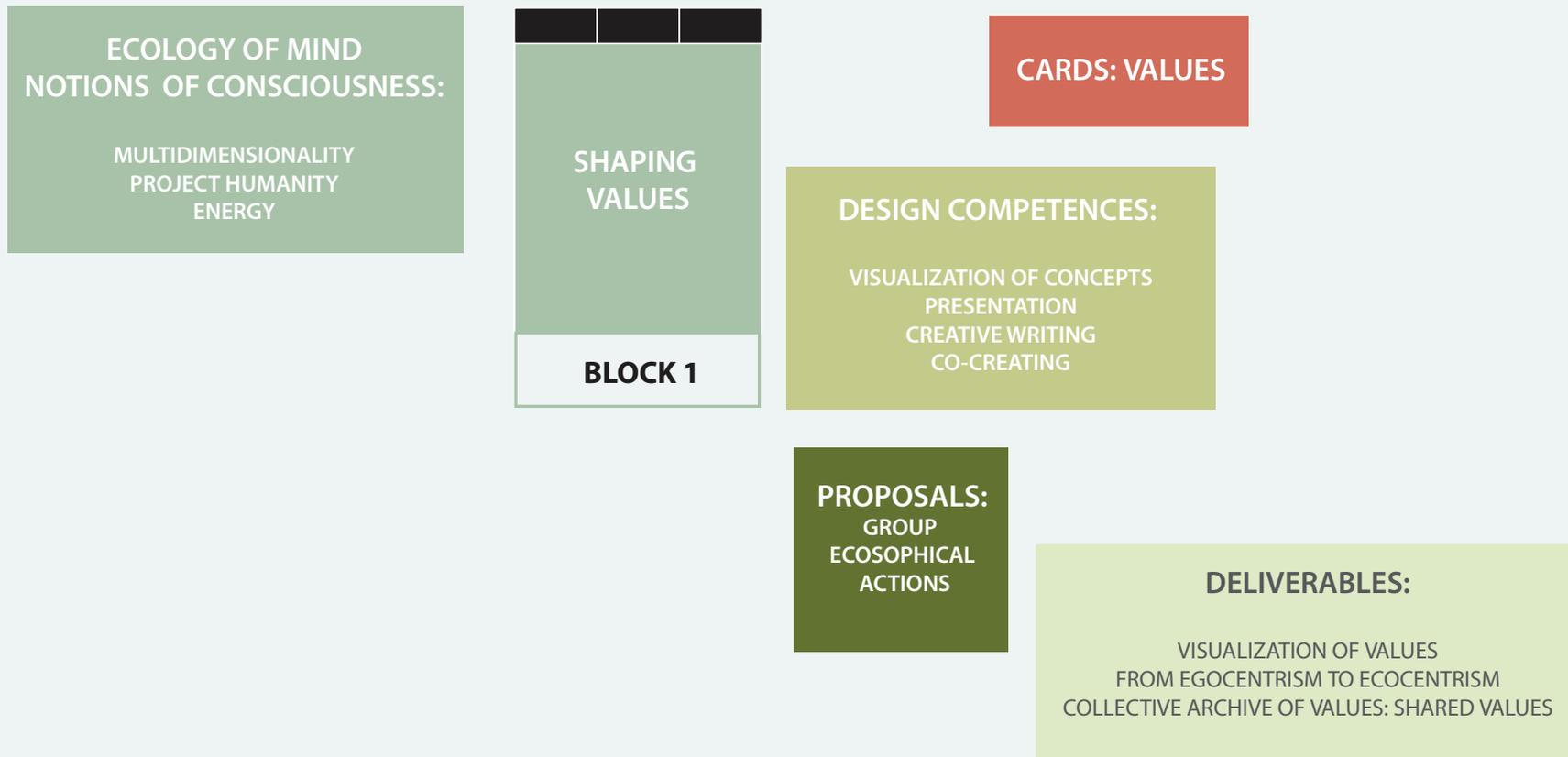
Collective: create an online collective archive of values with the contribution of the individual visualizations of each.

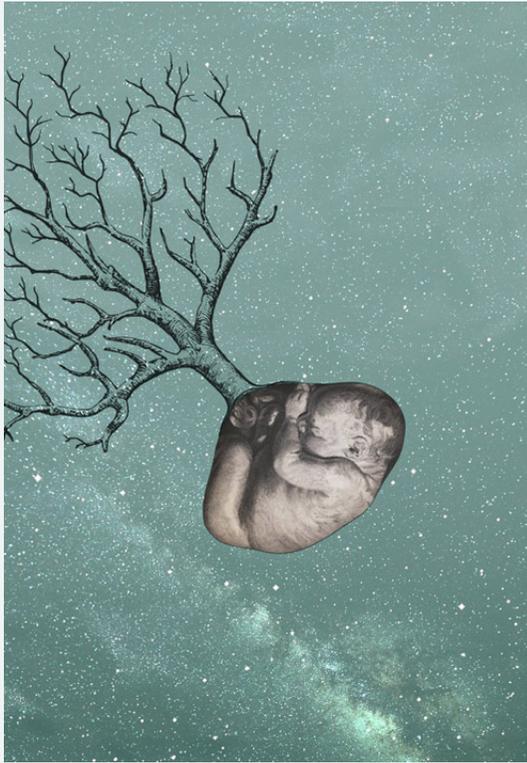
- **Design competences:** visualization of concepts- presentation-creative writing.

- **Ecosophical learning outcomes:** re-orientation of values, practicing co-creation.

A digital archive called “*Shared Values; Reveries, Realities*” was created. This assignment incorporated a creative writing exercise and brought the practice of co-creation into action. They worked in different working teams in order to make it happen; the art direction team, the graphic team, the editorial team, the coordination and the production team.

As an Ecosophical practice of building new relations, I asked the students to co-create part of their program by proposing different group activities related to their values and performing them during the sessions. During this Block the following group practices were proposed: sharing /making lunch, making a tableware for sharing the lunch, debate/defend an argument on a reading text, a *Trip to the Moon and back*/workshop collaboration with Anne-marie Piscaer, co-drawing, group meditation session, sharing/exchange a “secret/ hidden” skill.

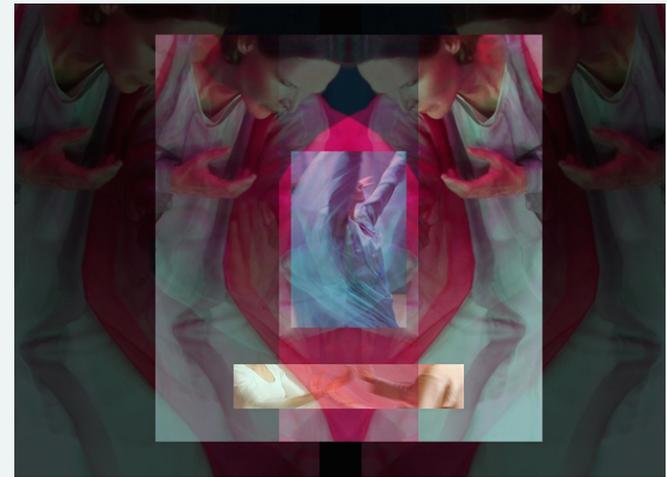




[29] *Oneness*, Irakli Sabekia (2017)



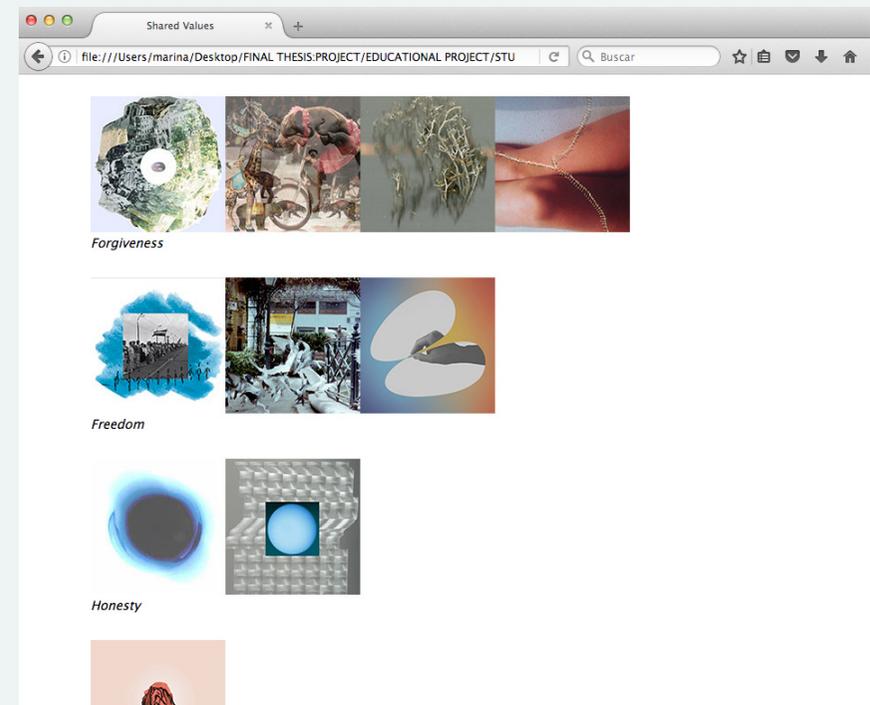
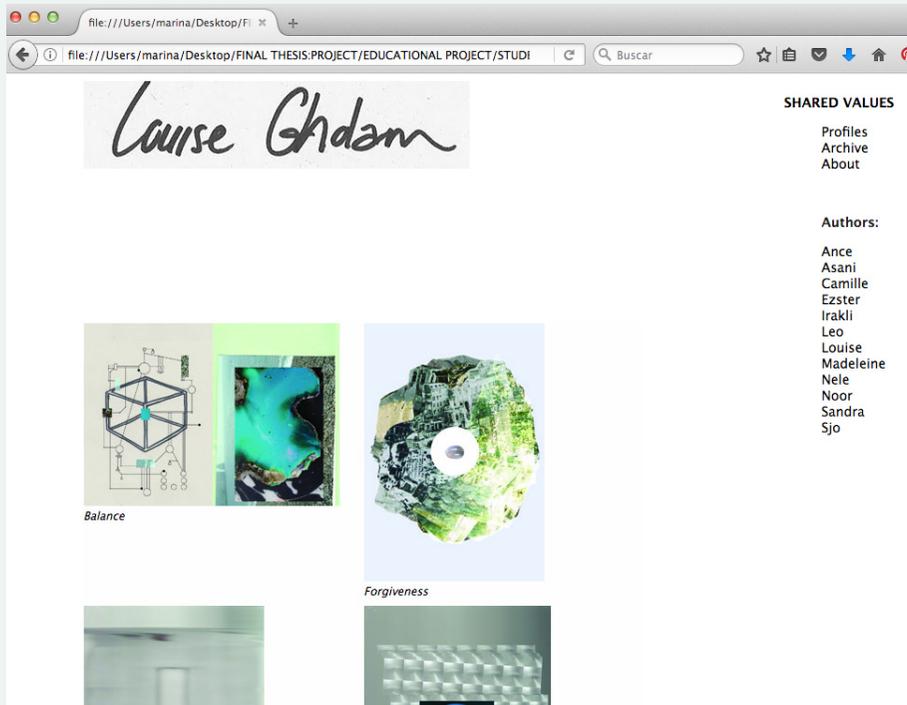
[30] *Forgiveness*, Eszter Dolak (2017)



[31] *Balance*, Eszter Dolak (2017)



[32] *Forgiveness*, Sjo Schütt (2017)



[33-34] *Shared Values; Collective Archive* [Online] screenshots website (2017)

Reveries and Realities						
Compromised let go	Accepting empathy	Feeling bodily awareness	Trusting lightly	Light freedom	Accepting achievement	Private letting
Compromised justice	Acceptance let go	Fascinating forgiveness	Light justice	Free balance	Active hope	Estimated care
Compromised bodily awareness	Accepting justice	Feeling ambivalence	Light democracy	Visible empathy	Private achievement	Compromised caring
Compromised awareness	Accepting democracy	Feeling justice	Coloured lightness	Visible trust	Estimated achievement	Active care
Compromised democracy	Estimated acceptance	Democratically forgiveness	Light compromise	Forgive visibility	Free achievement	Balanced caring
Compromised errors	Accepting carelessness	Feeling outsiders	Light attention	Passionately visible	Visible achievement	Fascinate purpose
Calm minded compromise	Accepting awareness	Compromised forgiveness	Light humour	Visible humour	Active lightness	Compromised purpose
Empathic awareness	Accepting bodily awareness	Feeling awareness	Lightly visible	Visible others	Active achievement	Feeling purpose
Awareness let go	Accepted attention	Attention lightness	Light and visibility	Aware achievement	Aware achievement	Purposeful ambition
Aware justice	Accepted readiness	Mindful forgiveness	Lightly visible	Active evolution	Achieving evolution	Purposeful achievement
Aware democracy	Accepted oneness	Feeling oneness	Lightly visible	Ambitious visibility	Mindful achievement	Evolution purpose
Estimated awareness	Calm minded acceptance	Calm mind forgiveness	Light passion	Let go visibility	Compromised achievement	Private purpose
Aware compromise	Accepting hope	Let go forgiveness	Lightly aware	Visible light	Balanced democracy	Visible purpose
Aware oneness	Ambitious acceptance	Passionate forgiveness	Mindfully light	Visible compromise	Balanced justice	Free purpose
Calm minded awareness	Fascinating empathy	Feeling empathy	Light oneness	Visible awareness	Body balance	Mindful purpose
Body awareness	Accepting fascination	Trusting forgiveness	Calm minded lightness	Visible freedom	Visible balance	Calm minded purpose
Attention	Free and forgiving humour.	Feeling hope	Private body awareness	The identity of our freedom, Incomparable justice.	Visible freedom	Visible freedom
Attention	Trusting steps towards honesty.	Accepting lightness	Accepted forgiveness	Our ambition unites us, we care.	Private oneness	Private oneness
Attention	There is hope.	Fascinating awareness	Evolved bodily awareness	The balance of our existence, we are one.	Calm minded privacy	Aware of purpose
Attention	Calm minded balance a visible lightness empathetically achieved.	Evolved oneness	Private others	We stimulate, learn to let go.	Private others	Light purpose
Attention	With attention to our bodies in oneness we have evolved to care and let go.	Private empathy	Private empathy	The visibility of our independency creates an evolution. We	Private empathy	Purposeful oneness
Attention	Privately and mindfully we accept our compromised democracy.	Light hope	Light hope	forgive, we are a compromised democracy.	Private trust	Purposeful empathy
Mindful	But still, passionate purpose drives our ambitions.	Private trust	Private trust		Body honesty	Helpful purpose
Mindful	Our esteemed fascinations give justice to awareness.	Private let go	Private let go		Honest democracy	Forgiving purpose
Democracy		Privately aware	Privately aware		Honest compromise	Visible balance
Estimated individualism	Accepting passion	Evolved democracy	Evolved democracy		Honest compromise	Freedom of balance
Mindful compromise	Hopeful passion	Evolved justice	Evolved justice		Honest oneness	Freedom of balance
Mindful awareness	Fascinating passion	Evolved justice	Evolved justice		Let go of honesty	Calm minded balance
Mindful bodily awareness	Ambitious passion	Estimated evolution	Estimated evolution		Accepting honesty	Mindful balance
Mindful attention	Let go	Compromised resolution	Compromised resolution		Forgiving honesty	Balanced attention
Calm mind	Fascinate justice	Passionate evolution	Passionate evolution		Light balance	Estimated balance
Mindful oneness	Democratic passion	Evolved fascination	Evolved fascination		Honest empathy	Aware of balance
Ambitious justice	Estimated passion	Honoured justice	Honoured justice		Empathic freedom	Empathic freedom
Ambitious democracy	Compromised passion	Democratic humour	Democratic humour		Empathic freedom	Empathic freedom
Estimate	Our alien kin, connected acceptance. The visible evolution of letting go.	Compromised humour	Compromised humour		Empathic freedom	Empathic freedom
Ambitious	How we balance each other, compromise, Exchanging solidarity.	Active humour	Active humour		Empathic freedom	Empathic freedom
Ambitious	We are one. The equal empathy makes us a unity.	Active humour	Active humour		Empathic freedom	Empathic freedom
Ambitious	The passion, ambition, drives us towards our purpose. Mindfulness, clear vision. Honest humour will be exchanged, being aware of independence.	Empathic freedom	Empathic freedom		Empathic freedom	Empathic freedom
Calm mind		Empathic freedom	Empathic freedom		Empathic freedom	Empathic freedom
Mindful		Empathic freedom	Empathic freedom		Empathic freedom	Empathic freedom
Ambitious		Empathic freedom	Empathic freedom		Empathic freedom	Empathic freedom
Hope let go	Trusting justice	Headful humour	Headful humour		Empathic freedom	Empathic freedom
Hopeful justice	Democratic trust	Honoured attention	Honoured attention		Empathic freedom	Empathic freedom
Hopeful democracy	Extremed trust	Calm minded humour	Calm minded humour		Empathic freedom	Empathic freedom
Hopeful others	Trusting compromise	Passionate humour	Passionate humour		Empathic freedom	Empathic freedom
Hopeful compromise	Free awareness	Free interest humour	Free interest humour		Empathic freedom	Empathic freedom
Hopeful awareness	Trusting bodily awareness	Ambitious humour	Ambitious humour		Empathic freedom	Empathic freedom
Hopeful bodily awareness	Attention trust	Evolved humour	Evolved humour		Empathic freedom	Empathic freedom
Attention hope	Mindful trust	Light bodily awareness	Light bodily awareness		Empathic freedom	Empathic freedom
Mindful hope	Trusting oneness	Light empathy	Light empathy		Empathic freedom	Empathic freedom
Calm minded hope					Empathic freedom	Empathic freedom
Hopeful others					Empathic freedom	Empathic freedom

[35] Reveries and Realities; creative writings for the Collective Archive,

Eszter Dolak, Sandra Jansen (2017)

BLOCK 2: DEEP TIME

ECOLOGY OF ENVIRONMENT/ SCALE / 3 sessions

During this Block I prepared a brief audiovisual introduction to the concept of the Anthropocene on the basis of the notions Time, Acceleration and Evolution.

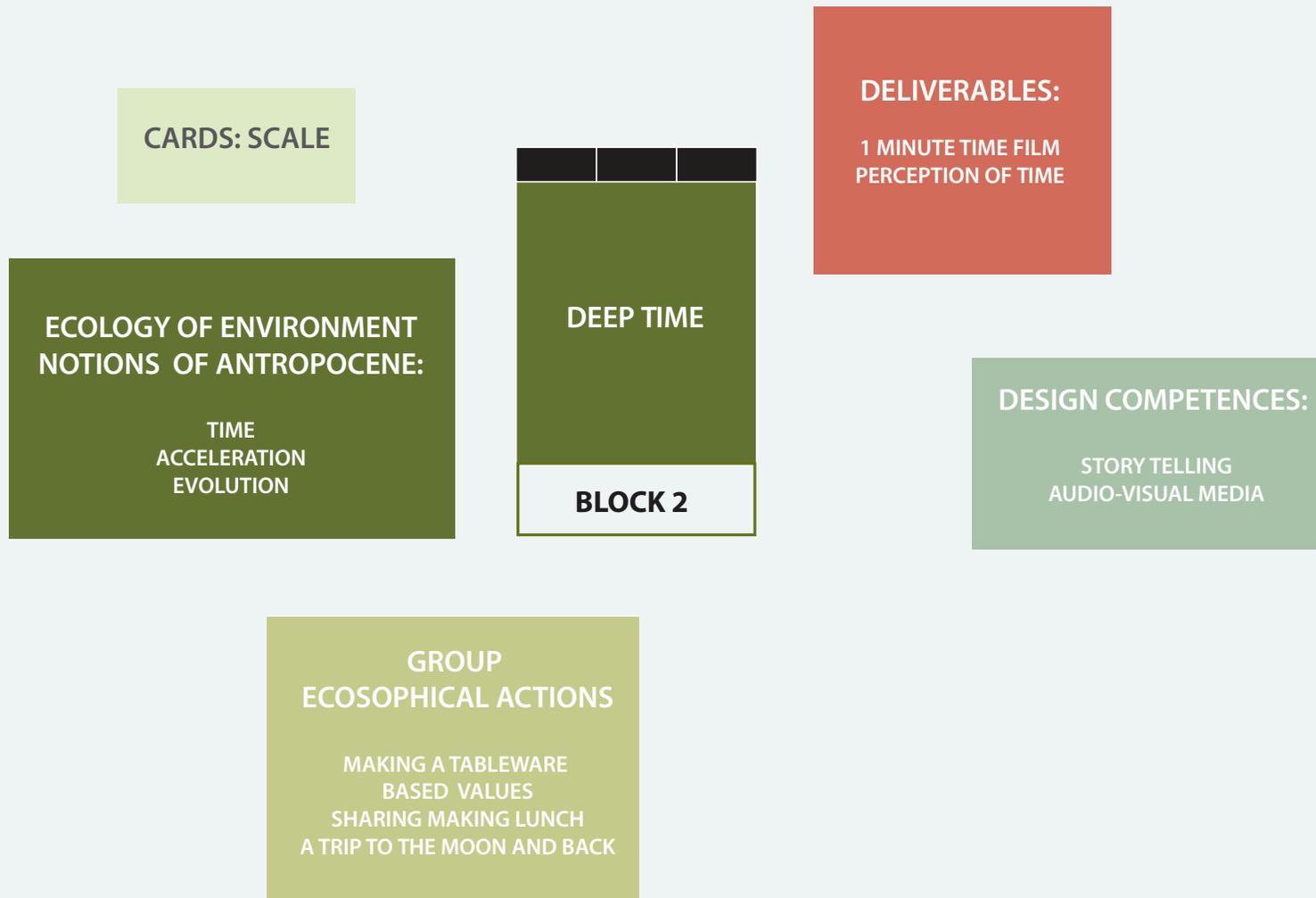
In the same way as in the Block 1 these notions were chosen to build up the content of the final assignment and were introduced from the scientific point of view. After the introduction to the notions, the students were asked again to take 15 minutes to reflect individually and write on paper how they understand Time and how they relate to it. After that, a new open group conversation started sharing reflexions and thoughts on the perception of Time. In this Block the intervention with the cards was based on Scale and through it we explored the concept of Time as a relative scalable notion and its relevance/impact within the Anthropocene.

- **Assignment:** 1 minute time, the students were asked to communicate audio-visually how they relate to 1min. time and deliver a 1 minute time film.
- **Design competences:** story telling and use of audio-visual media.
- **Ecosophical learning outcomes:** shifting relations and perceptions.

The abstract perceptions of time brought a quite diverse and interesting dialogue to the topic, as some of the students could not relate to 1 minute time, instead time experience was linked to emotions, space, rhythm, habits, cycles, etc. As an example I give the concept of perception of time from Eszter, exploring with her bike how to relate to time through feelings and emotions. Or the proposal from Madeleine becoming for 1 minute time a videogame character.



[36] *Presentation 1minute film*, Camille Brabant (2017)



[37] Graphic #6 Block2: Deep Time /elements (2017)

During this Block we performed the following group actions;

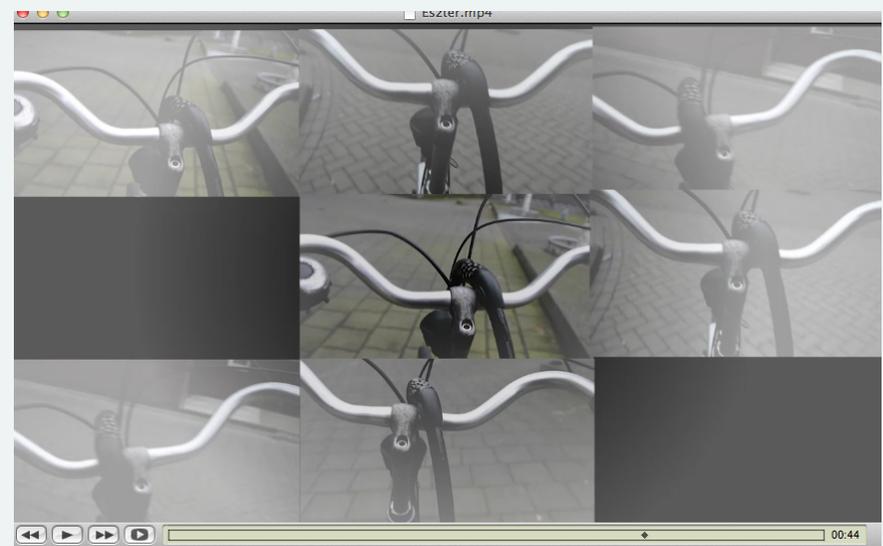
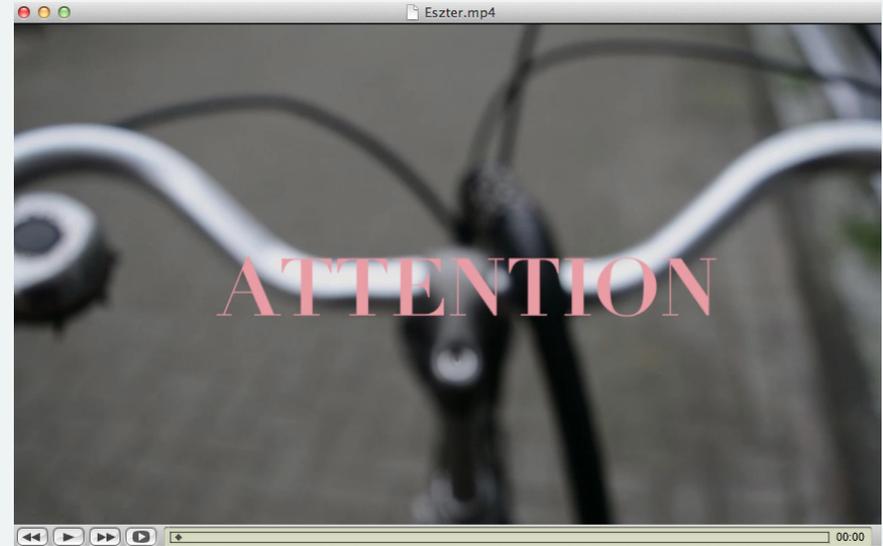
- Making a tableware for sharing a lunch, focusing on values, making and materiality. (0 cost-0 waste)
- Sharing /making lunch, focusing on the concept of sharing, and tradition.
- A *Trip to the Moon and back*, collaboration workshop with Annemarie Piscaer, focusing on the concept of time/space, and changing perspectives.



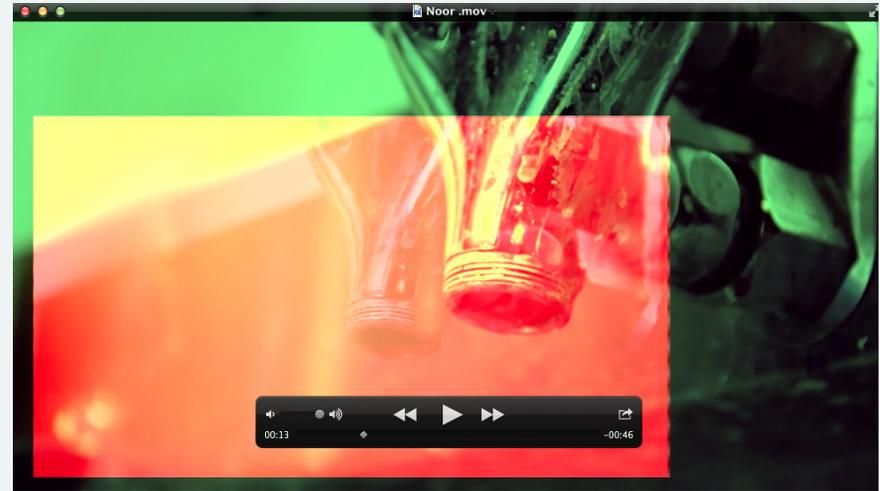
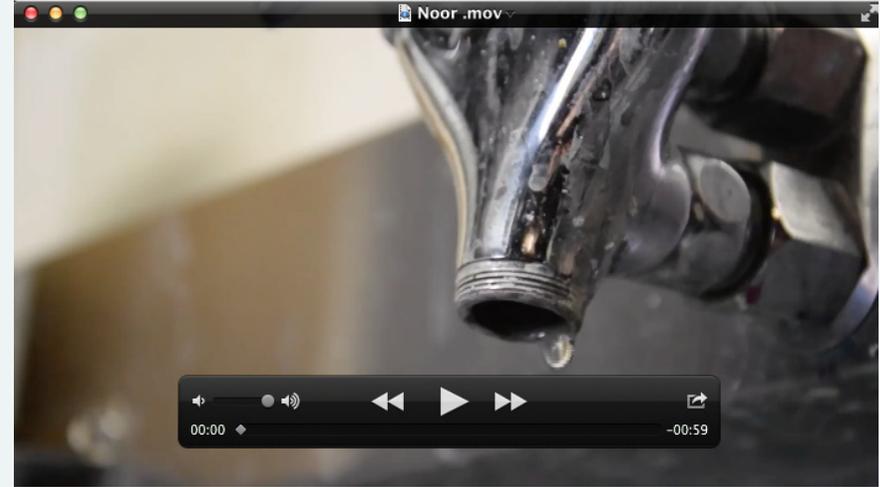
[38-43] Various group Actions; Tableware and Lunch (2017)



[44-46] A Trip to Moon and Back, workshop with Annemarie Piscaer (2017)



[47-48] 1Minute Film, Eszter Dolak (2017)



[49-50] 1Minute Film, Noor Bootsma (2017)

BLOCK 3: AGENTS in ACTION

ECOLOGY OF SOCIAL / SCALE / 4 sessions

During this Block I prepared a brief audiovisual introduction to the concept of Activism on the basis of the notions Risk, Capitals and Complexity. In the same way as in Block 1 and Block 2, these notions were chosen to build up the content of the final assignment and they were introduced from the design perspective. As a complement to this Block I organized a lecture and feedback session with professor Alastair Fuad-Luke (*Design Activism*, 2009) who introduced to the students the concepts of non-disciplinary design-ing, counter narratives, frictions and fictions, and otherising.

The cards based on Position were used to understand how a designer could have an agency, play a role and create new conditions, as well as exploring the counter narratives.

- **Assignment:** mapping of a local wicked problem, identify where, why and how an action could be taken. Develop a concept/ plan for an Action.
- **Design competences:** mapping, materialization of concepts, giving form to ideas and concepts and presentation.
- **Ecosophical learning outcomes:** understanding of complexity and system thinking. Positioning and agency.

The idea of this assignment was based in the understanding of complexity, capitals, and systems from a macro perspective to micro Action. The students delivered a plan for an Action, understanding that an Action in a design context could mean intervention, system, service, program, or even disruptive products. During this Block students also performed a group Action on debating/defending an argument on a reading text, focusing on action-reaction, responsibility and collective intelligence. The chosen text was the essay; *A collective Mind for a Just and Sustainable future* by Valerie A. Brown & John A. Harris in *Agents of Alternatives. Re-designing our realities* (2015).



[51] Presentation Mapping Wicked Problem, Irakli Sabekia (2017)

DESIGN COMPETENCES:

MAPPING
CONCEPT DEVELOPMENT
MATERIALIZATION

CARDS: POSITION**AGENTS IN ACTION****BLOCK 3****ECOLOGY OF SOCIAL
NOTIONS OF ACTIVISM :**

RISK
CAPITALS
COMPLEXITY

DELIVERABLES:

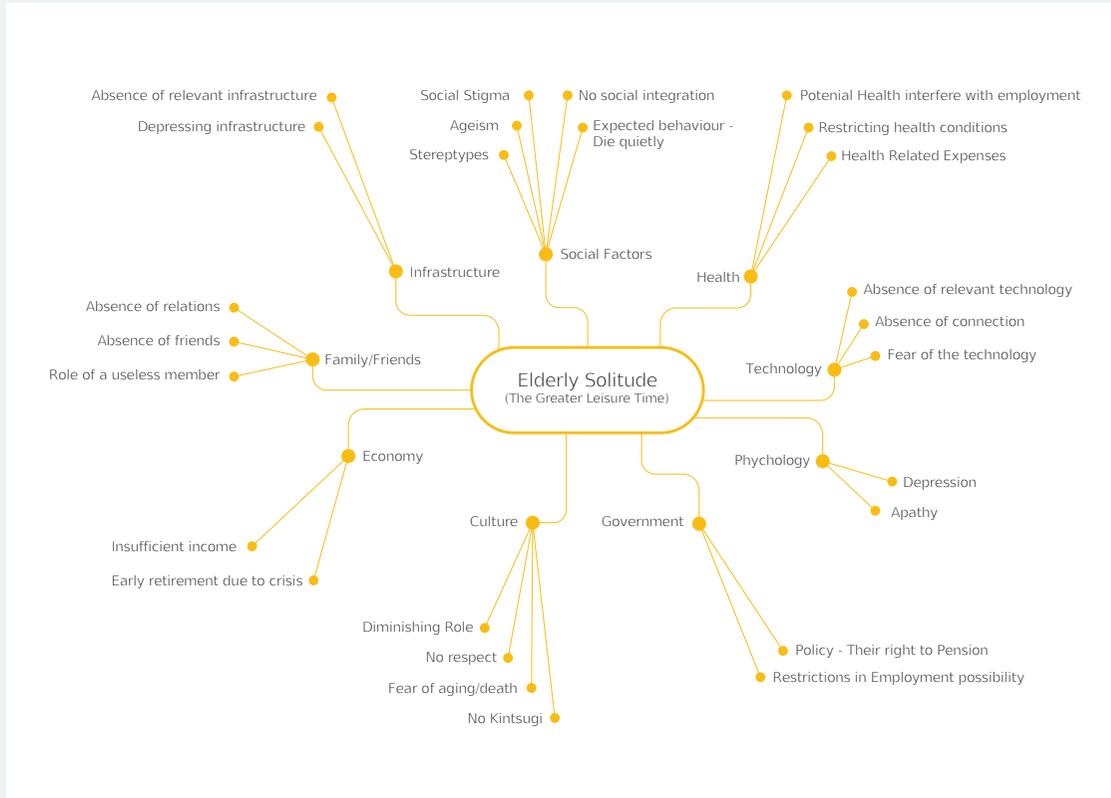
MAPPING A WICKED PROBLEM
CONCEPT FOR AN ACTION

**GROUP
ECOSOPHICAL
ACTIONS:**

DEBATING TEXT

LECTURE:

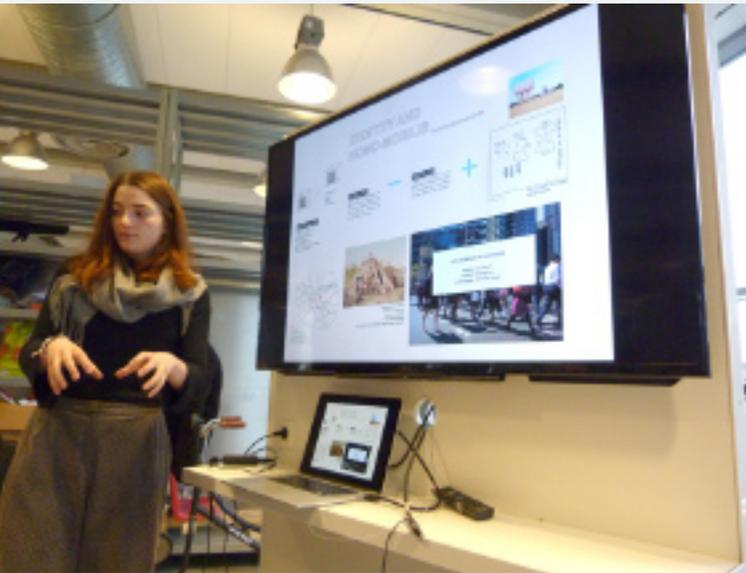
NON DISCIPLINARY DESIGN
ALASTAIR FUAD-LUKE



[53] *Elderly Solitud, Mapping Wicked Problem,*
Irakli Sabekia (2017)

[54] *Waste visibility, Mapping Wicked Problem,*
Eszter Dolak (2017)





[55] *Presentation Action*, Louise Gholam (2017)



[56-58] *Labeling the Other Action*, Louise Gholam (2017)

4.6- Results and Evidences.

As a starting point an introduction and discussion about consciousness was initiated in the classroom followed up by a written reflection. My intention to start the project with this discussion was to evaluate the level of understanding and connectedness of the students with the topic. This gave me the possibility to focus the project in a specific direction and also to evaluate progress and /or shifting directions. To analyse the results I defined different criteria of evaluation, which are described through the work of several students. The main criteria for my evaluation focuses on:

- **Relationality:** refers to the ability to relate to new knowledge, contexts and situations from their individual experience. The ability to establish new relations.
- **Critical reflection:** refers to the ability to analyse critically contexts, situations, readings, documents, images and others voices.
- **Agency:** refers to the ability to position themselves as designers and allocate themselves in complex system as potential activators responding with actions, to the ability to take agency.
- **Creative ability:** refers to the ability to translate ideas and concepts with and through design skills. Ability to develop design competences and to bring an aesthetic value to the Actions.

Through these criteria I evaluated students work looking at; the way they shifted values and shifted towards a new awareness, the way they related from values to time, the way they related from values to Action and how this Action was materialized.

1. Ance, From Forgiveness to Awareness, from Identity to Time, from Caring to Action.

Forgiveness

“One of the being which truthfully symbolises forgiveness is the tree. The whole tree, we imagine just the external part of the tree, but what is bigger than even that is roots. The whole unity can accept the changes of environment, external object, soak in their own body. They take over slowly and patiently. It is part of the forgiveness - patience. The most important keyword.” Ance Javenica (2017)



Ance is originally from Letland where she grew up in a community in which contact and connection to the natural environment was emphasized. Ance has a powerful relationship with nature, and her cultural and historical roots were grounded in all her work. The progress in Ecological awareness from Ance was how she gained confidence and strongly positioned herself as a designer concerned with environmental issues. The exercise from the first block Shaping Values, shifting from the traditional Anthropocentric values to the Ecocentric point of view, gave her space and freedom to activate and consolidate the focus of her work. The core values Ance worked with were; *forgiveness, caring, identity and freedom.*

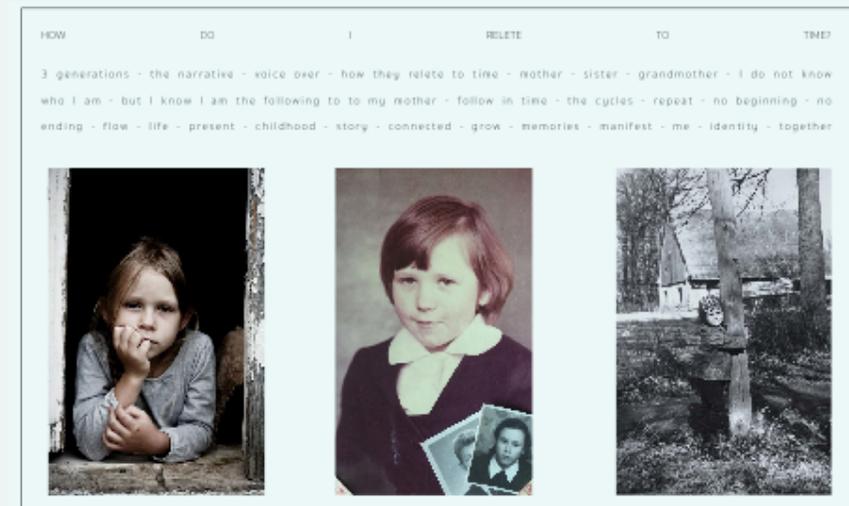
Time; An Elusive entity, identity and cycles .

Here Ance explored and reflected on the perception of Time as a natural cycle, refering to time as a flow with no beginning nor end, a process of being born but never dead. *1 minute Time* is a conversation of three generations of her family, in a frozen landscape in Letland this conversation talks about time. She managed to bring the value "identity" in different levels.



[59] *Forgiveness*, Ance Janevica (2017)

[60-61] *1Minute Film: An Elusive Entity*, Ance Janevica (2017)

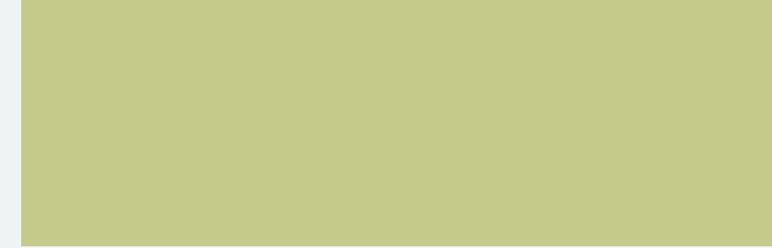




[62] *Tableware Action*, Ance Janevica (2017)

Tableware Action

In the next block Agents in Action, Ance looked at her local context in Eindhoven and observed the animals in the surroundings. She mapped the wicked problem created by the excess of meat consumption and its Ecological consequences and proposed an awareness Action in a form of a Tableware and dinner event. She designed and produced a set of plates with ceramic animal parts embedded and a tablecloth with key data printed on it. She brought to the table all the three Ecologies worked before. This Action talks about forgiveness, caring, identity, time and scale, from a macro global Ecological problem to a micro scale setting on a dinner table. As final Action she organized a dinner-debate on this topic and served food on these plates. In Ance's proposal, the “agency of the plates” plays an important role, as they act as disruptive objects, confronting and opening discussions. Looking at the aesthetics here again I reinforce that the shape-material-function are driven by the relationship between awareness-action-impact, and that these aesthetics respond to a process of “caring” rather than to a process of problem-solution. This Gentle Tableware is confronting the public with a real ecological problem.



[63] *Tableware Action objects*, Ance Janevica (2017)

2. Leo, from Compassion to Action.

..“I can not relate to compassion because I don't know what exactly means..”

Leo Orta (2017).

According to Hannah Arendt (1963) as compassion abolishes the distance between man the whole realm of human affairs then becomes irrelevant and without consequences. Compassion is understood as an emotion or as a sentiment, the sentiment that corresponds to the passion of compassion, is pity.

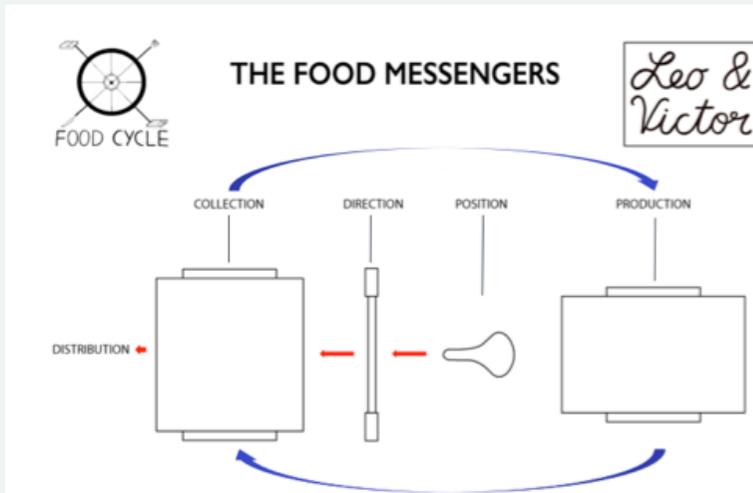
“Compassion, not unlike love, abolishes the distance, the in-between which always exists in human intercourse, and if virtue will always be ready to assert that it is better to suffer wrong than to do wrong, compassion will transcend this by stating in complete and even naïve sincerity that it is easier to suffer than to see others suffer” (Arendt, H. On Revolution, p.86-89).

If pity is the perversion of compassion, solidarity may be the alternative to pity. It is out of **solidarity** that mankind establishes a community of interest for the dignity of man. Terminologically speaking, *solidarity is a principle that can inspire and guide action, compassion is one of the passions, and pity is a sentiment* (Arendt, H. 1963).

Leo's struggle with relating to compassion was dissolving as soon as he brought into practice the principle of solidarity. If compassion is a passion, **experience** may be a way to understand it. “*The food messengers*” is a solidarity Action proposed and executed by Leo together with Victor, another student from FnF department. The local Action took place at the Woen-sel market in Eindhoven. Addressing the wicked problem of inequality of food distribution/supply and food waste, *Giving,*

Sharing and Receiving as core values, Leo and Victor developed a food cycle starting from collecting fresh food leftovers from sellers in the market, cooking, sharing, delivering and giving to food banks in the city. A bike was re-designed as an action object adopting the schema of the 3 core values; front (receiving), middle (sharing), back (giving). The bike became an action tool and object as the outcome of the process of awareness - action - impact, and once again gentle aesthetics were generated.

The process from Leo was an exploration of Ecosophy (Ecology of Mind and Social) through experiential learning.

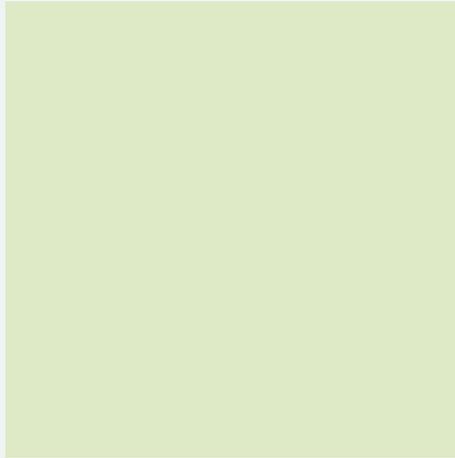
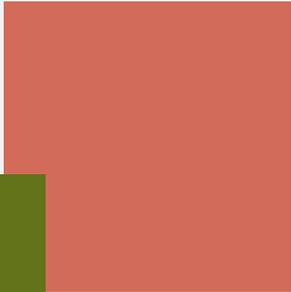


[64-65] *Food Messengers Bike Plan*, Leo Orta (2017)



[66-67] *Food Messengers Action,*
Woensel Market Eindhoven,
Leo Orta & Victor (2017)





4.7- Reflections

The student and the teacher perspective.

On short term is hard to evaluate if the group of students assimilated the relevance of Ecosophical awareness for design practice. They might intellectually understand the urgency but it is still hard for them to integrate the knowledge into a conscious design response. The project provided the students with a considerable amount of new information that needs to be explored more in depth. One project, in regards to the time limit, is not enough to reach collective Ecosophical awareness. Though I have been recently present during the midterm presentations of the follow up trimester module from this group and I can appreciate a shift in their approach to subjects, topics and environment, thus implying a long-term evaluation would be more accurate. From the students, colleague tutors and my observations, I would like to highlight these reflections;

- Students are very concerned with the quantity of “learning” during the modules in the design departments. The pressure of the study system and curriculum forces them to work compulsively, not paying enough attention to the quality of content. The tradition of “design production” from the Academy is evident in their anxiety for “making” design.

- The level of complexity of the project was maybe too high for the 2nd year students, so a simplification on the expectations and deliveries of the students would be reasonable. Though after seeing the results and final presentations of the project the whole density seems to have come to simple translations.
- After the Endterm assessments colleague teachers brought these questions to the project which I took into account for personal evaluation. Do the assignments provide enough translation and relation to Ecology? Do the students understand that the notions we worked with are Ecology? Do they need to understand it?

The Tool, the Cards

What happens when the framework of value, position and scale is introduced in the classroom with the Cards? Value, Position and Scale are three relevant notions in design processes. They represent not only my framework and approach of translation from Ecosophy to design but also key notions in design methodology in general. The question if Value, Position and Scale are a clear translation to the Ecology of Mind, Social and Environment is based on the content, approach and on the how the cards operate.

- **The Cards as a tangible tool** enable students to translate abstract concepts onto clear definitions. As for an Ecology of Mind is important to establish new subjectivity, a reconsideration of values is important, but very often students do not find the words/definitions to address certain emotions, feelings and values. The fact that the cards of Values refer specifically to human values also points the design question into the direction of Ecosophy. The visual and tangible confrontation to these values makes students to define and organise clearly their mind. One of the things that students struggle the most during design processes is on making choices. Making choices becomes easier when concepts are tangible. The cards facilitated students to do so and to create multiple scenarios.

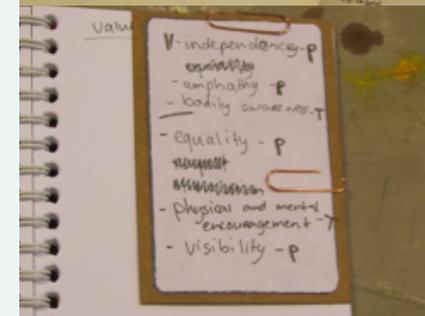
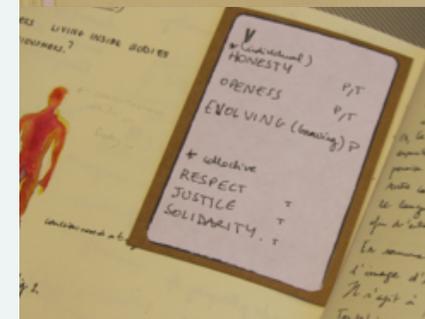
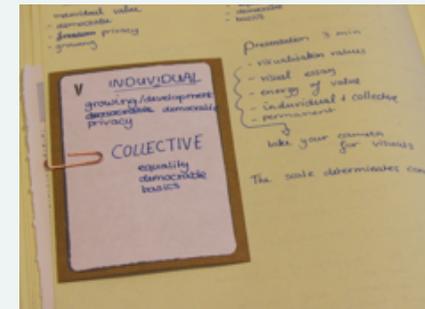
- **The Cards as a reflective tool** conduct students to think critically. Reflecting on their choices and on the new relationships build between choices is essential for students the take a sustainable path. Once they made choices of values, explored the relativity of scale and defined their position as designers, they were able to create different scenarios of actions and to reflect on them. The counter narrative brought by the “black” cards added the critical reflection that is needed in design activism, as they invited students to take disruptive positions and actions within the maps of wicked problems.

- **The Cards as a flexible tool** offer the possibility of different intervention settings and encourage students to think transversally. The connectedness between the three notions is not lineal instead it offers multiple entrances and exits (Rhizome). The “blank” cards also offers the possibility for students to expand their choices, and as an open tool integrates the new choices in the system. Students used the Blank Cards not only to add new values and positions but also as to reminder of their choices. As a remark on the flexibility of the cards I may decide whether they will have a limited frame or they will stay open and growing with no limitations

The Cards in the context of this study are linked to my translation from Ecosophy to a design framework, though they can also be linked to other pedagogical and educational frameworks and situations. In order to evaluate the cards with a broader perspective I tested them with a group of 5 students from Kabk Art Academy in Den Haag. Testing the Cards with a different approach of students, out of the context of the educational project of *Ecosophy* and out of the educational context of DAE, the Cards also operated as a reflective tool, facilitating, encouraging and activating critical thinking. Flexibility then refers to the ability to adapt and operate into different contexts.



[71-73] Blank cards students notes, Values- Block 1 (2017)



[68-70]
 Card intervention,
 Values- Block 1 (2017)



Social Ecology, from the “me” to the “other”.

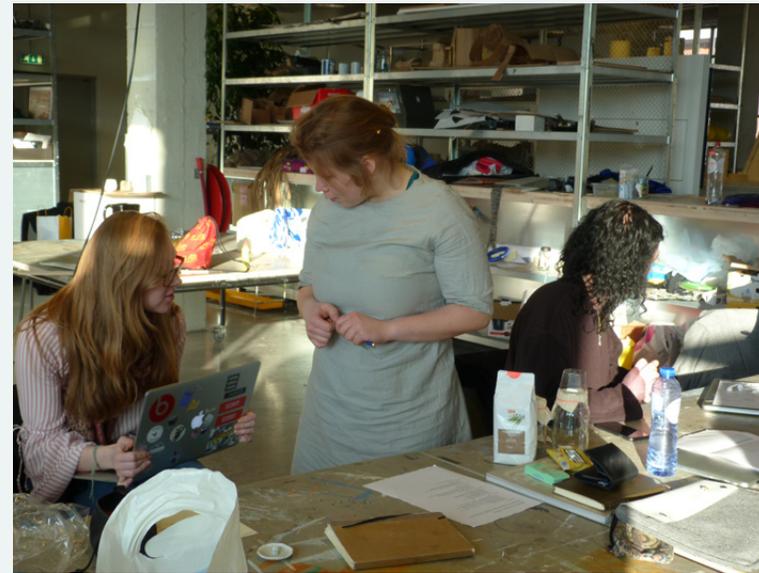
One of the main objectives of this educational project was to let students experience that they are part of one Ecosystem and in consequence their choices, actions and work have an impact and influence others as well as their environment. Being aware of the complexity of systems and positioning. From an individual exercise shaping their values (Ecology of Mind) students moved to collective work, not only by creating a collective archive of values (Shared values) and practicing diverse actions, but also by defining and being aware of their own Socius. Building new relationships among each other strengthen the ability to respond to different situations. The engagement in collective and participatory work is one of the key elements of Social Ecology.

The “Ecosophical design activist” is a person who does not work alone, is a person who shares, connects and gives to others, is a person who is able to engage people in his work and engages in others people work, and is someone who works in teams and peer to peer.

The traditional individualism of the “Author” designer reinforced at Design Academy Eindhoven during the last decades is a very strong present condition for the students. The “me” as definition of individual designers may shift to the “other”.

Design for Sustainability approaches the “other” as a focus condition of design, but in the Ecosophical approach the focus is put on how we design for and with the “other”, how we relate to the “other” (social relationality) and establish new relationships.

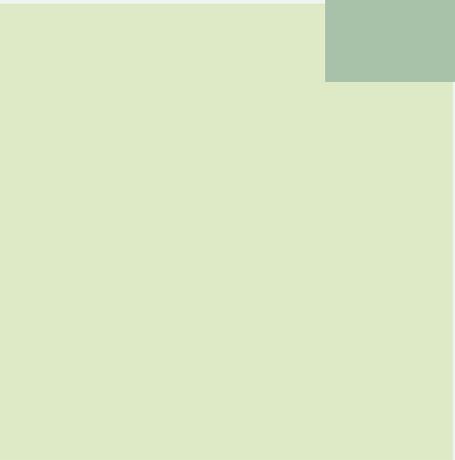
Bringing others perspective, input and experience is fundamental to my own Ecosophy. During the educational project I consequently brought my self to experience the shift from the “me” to the “other” by practicing participatory research with the students and collaboration with other professionals. The Ecosophical group Actions proposed by students was an exercise of participation which leads to new open learning processes. As an example of collaboration with other professionals to mention the collaborative workshop with Annemarie Piscaer “*A trip to the Moon and back*” (Feb.14th 2017) and the integrated lecture and feedback session with professor Alastair Fuad-Luke (*Non-Disciplinary design*, March 8th 2017).



[74-75] *Students working in the Collective Archive (2017)*



[76] *Lecture Non disciplinary design,*
Alastair Fuad-Luke, (March 7th 2017)



5. CONCLUSIONS

What learning is taken from this study telling us about reorientation of thought and action in design student's practices? Does the Ecosophical approach work? Can we talk about a new awareness and if so, how to position it in the pedagogical approach of design education?

Ecosophical awareness not only lays in content, but also implies certain level of commitment and attitude, which can be brought through out different pedagogical methods. The best way to learn Ecology is to experience it, thus as a pedagogical approach I regard to bring students to **Experiential** learning (Dewey, J. 1938); Mind experience, Social experience and Environmental experience must be the base of an Ecological educational approach.

As an educator and instigator for Ecological awareness I point that empowering individuals to take agency and action is fundamental to bring this subject into a collective attitude.

5.1 - Problems and Limitations

Implementing Ecological awareness in curriculums is complex and has its own limitations.

- **Barriers for teachers:** Lack of knowledge from current tutors and staff members.
- **Time:** a good curriculum needs time of testing, growing and integrating. Students have a limited time of study.
- **Budget:** educational institutions have limited budgets to finance and provide all the needed knowledge. A curriculum enhancing and embracing Ecological awareness needs to build up with the contribution of experts in the field; lectures, seminars and workshops are essential and deserve a specific budget.

The limitations I encountered during the execution of my own educational project are proof for the complexity of the process. As a designer and educator I had a limited knowledge of Ecology and therefore my preparation for the educational project was very intense. I worked with a limited group of 12 students in the limited time period of 12 weeks. I had a limited budget for the execution of the project and in consequence external lectures and workshops were difficult to arrange. As a condition of the limitations of the educational project I focussed more on an exploration of the Ecology of Mind and the Social than in the Ecology of Environment, as this last one requires specific scientific knowledge, which was not affordable and available.

It is important to mention that students also have a financial and time pressure dictated by the educational Dutch system that conditions their studies. This pressure creates certain level of anxiety among students who believe that every trimester of their study must be as “productive” as possible, in terms of acquiring knowledge, developing competences and producing results. “Productive” Ecological awareness as a competence needs to be developed and embedded across the bachelor curriculum from the first to the last year.

5.2- Personal and professional gains

This study has helped me to define clearly my personal practice as a designer, moving from a non-production attitude to understand production in other terms of actions. In this sense, I reinforce my position as a non-contributor of waste production but as a contributor of awareness production.

My experience taken from the Design Academy Eindhoven which is not only my current educational practice ground but is also my bachelor educational background, confirms this educational space to be open and supportive for experiential and transformative learning.

As tutor and now as coordinator of the department of Man and Leisure and being part of the development team of the new curriculum I realized of the value and the potential of my study not

As tutor and now as coordinator of the department of Man and Leisure and taking part of the development team of the new curriculum I realized of the value and the potential of my study not only on a personal level but also on a professional one.

Complexity is a very common context in which I operate, for many reasons my professional and personal life moves on diverse scales and dimensions, which makes it very difficult to be fixed to established systems and frames. Thinking transversally and moving with fluidity is for me a way of survival. Learning to simplify, focussing on essentials and defining my preferences has been a learning process during this study. According to the principle of relationality I tried to build up during this study my own personal but also sharable Ecosophy by exploring my own Ecology of Mind, Social and Environment, establishing new relations in my practice with students, colleagues, methods and space, and reflecting in my personal environment.

5.3 - Recommendations

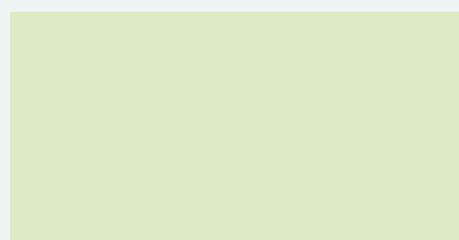
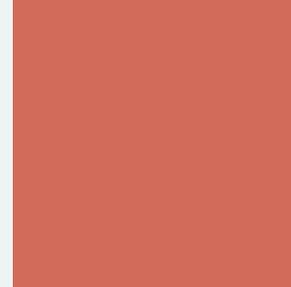
Design for sustainability should no longer be addressed as a discipline in design but it needs to be a condition for design practice in general, therefore Ecological awareness might become one of the fundamental competences for design students to learn.

Ecosophy, the approach to Ecology from the philosophical point of view, is an invitation to think and reflect on this topic, it opens a conversation that can be directed to many different fields, in my case to the field of design. Looking at Ecosophy from the *Three Ecologies: Ecology of Mind, Social and Environmental* in design education offers challenging explorations and the possibility for multiple translations of pedagogical methods and approaches. My translation with in the framework of Values, Position and Scale is one of the multiple translations. There is a real potential in the implementation and integration of Ecological awareness in the bachelor curriculums and in my opinion should be taken serious from the foundation year.

One of the main difficulties I encounter by doing the educational project is the lack of basic knowledge of students about principles and notions of Ecology. I suggest a curriculum providing a wide understanding of Ecology (macro) in the foundation year, which can lead to levels of experience through different projects and assignments in the follow up years. Though Ecological awareness for a sustainable future needs to be embraced by educational institutions from primary to high education, design education must start dealing with the subject from the base.

Design students at Design Academy Eindhoven have a pre-condition of production towards the traditional culture of “*good design*”. As mentioned in this thesis the yearly Graduation Show has a big influence. Though the increasing awareness among students on Ecological issues is demanding to pay attention to this subject, still remains as an individual interests rather than collective. DAE should pay attention to the focus of the Graduation show and embrace a shift of consciousness and production towards a collective Ecological interest. Students will take this as a reference and will be more encouraged to follow up.

To conclude this study I state that though limitations exist, we should start looking at them as a challenge instead of as a problem, as they activate creativity and instigate new approaches. **“Building blocks for an Ecosophical Awareness”** has already proof, in a short period of time, with limited resources how students are potential agents of actions and how from an individual interest we can move to a collective attitude.



6. APPENDIX

6.1 - Conversations

From the different conversations maintained during this study with experts in Design Education and Education for Sustainability, I selected extracts from 3 conversations which are key informing this paper.

Conversation with Victoria de Pereda

Head of Sustainability department at IED Madrid

Feb 3rd 2017 [Original spanish audio on request]

Conversation with Jurriënne Ossewold

Executive director from Design Academy Eindhoven

March 30th 2017 [Original english audio on request]

Conversation with Irene Fortuyn

Head of Man and Leisure department DAE

March 30th 2017 [Original english audio on request]

Conversation with Victoria de Pereda
Head of Sustainability department at IED Madrid
Feb 3rd 2017 [Original spanish audio on request]

Extract #1 Sustainability depends on people.

VdP: I realized that all depends on people...the integration of sustainability in any area depends on the people. I am now working with different companies and foundations with the RSC departments and they all say the same thing.. in order to introduce Sustainability or social, environmental or economical new criteria to change the way of thinking inside the schools or companies, you need of one person inside, only one. In the case of IED Madrid I was this person, and we were a big institution with 130 employees, and almost 1500 students. This person needs to be someone who activates, an activist who mobilizes ideas and people. And this next to a good strategy and a good program can make things happen, but if his person is not there deeply engaged and convinced it would never work. My experience at IED was very clear, from my perseverance and conviction and starting small (not in large scale) I build up with almost no budget a path which grew up into what is now. ... Sustainability now became one of the new educational values of IED and all the departments are on it . But they still don't understand that Sustainability as a value has a broader holistic approach which includes society, all the environmental issues hat have a direct impact on us and on all the rest of living spieces in the planet, and of course also includes the economical issues, because our activity as designers is linked 100% to the economical and industrial development of the country. After so much effort at IED to make this understood now it is a reality that is facing us, in Spain, and that you can not avoid.. everywhere, in every newspaper are articles about new economies, sustainability..

Extract #2 Reality in Europe.

VdP: what happen with almost the 90% of European Universities or design schools in Europe is that they don't want to address the reality of the ecological crisis in their curriculums. I had recently a meeting in London with with Carnegie Mellon and Royal College of Art, talking with Clare the director of SustainRCR, she was very impressed of the development of our area of Sustainability at IED as they almost don't have support. They are confronted with very strong Universities where doing a profound change of curriculum is almost impossible. It requires a level of "independency" which is one of IED advantages, and if you proof to be an experience professional and you are convinced on your ideas you get white cards to explore new projects. Most of the design schools and Universities in Europe address the topic of Ecology and Sustainability in the area of "project", but they lack basic theoretical frame and knowledge. You can not address sustainability in the projects if you don't understand why its necessary to address it. My first reflection during the development of this department was.. Why is necessary to address sustainability it in this paradigm? And then... what had happen in this paradigm that things are not working? These are the first questions you need to make in order to understand how do we live and what drove us to the current situations, and then you can understand why you need to

Extract #3 Educating for Sustainability.

VdP: *Now we have designed a program which goes from the macro perspective to the micro and very specific. Is what we call Education for Sustainability. The first year has a broad approach.. is like if you will land in the planet Earth and someone will explain and show you how everything works in layers.. a second year focussing on systemic thinking, cycles, etc.. and in the 3rd year is when students start exploring some concepts that are related to their department.. and in the 4th year we do tutorial classes..we have like a pool of experts and the students can get their feedback and guidance in their personal projects. Manuel Quiros is the person with me at IED who has developed this program for the students. Now in the first year he teaches students from what is an ecological footprint, to the impact economies, to the source scene, materials, everything that has to do with environment... but the most important to the re-connection with nature, as this is the only way to understand cycles... so they go out to the nature and observe birds ..for example... In this way you implement with students a systemic thinking based on experience.*

Conversation with Jurriëne Ossewold
Executive director from Design Academy Eindhoven
March 30th 2017 [Original audio on request]

Extract #1 Traces of the Academy.

MMG: *DAE is considered as one of the most influential schools in Europe, what does it mean influential?*

JO: *That's an interesting thing, and actually it's the same question we are raising because in 2022 the Academy will be 75 years old and then we will have our big Anniversary. The theme we are building towards that moment is Traces, Traces of the Academy. So if you ask me.... , I don't know what Alice Morby means by considering DAE one of the most influential schools but I will say this influential its actually two things; One thing is the Traces; because we have so many alumni in so many countries, currently we have 67 nationalities in the School that I would say the influence is in the people and what people make, and our people is the alumni, but also the teachers and the ex-teachers, it's a big extended community, and if you see what these people do and also the work they make, for me, that is also influential, that's one thing.*

The other thing is because of our approach to design and design education, which actually its mixed with us, we look from the design perspective at education, which makes that we add to the discourse. We explicitly want to add to the discourse, so we not only say "this is design and we teach students for this practice", but we say "we want to train students to give form to their practice", to really add to the domain....and that its influential as well.. This means that you add defining what design is and creating new forms, etc..

Extract #2 The Ecology of DAE.

MMG: *How will you define the Ecology of DAE?*

JO: *That's interesting .. first of all we are a living organism, not only because we exists of humans but also because what we create is always fluid. Its not rigid, its not fixed, its never finished, its fluid. I think we have more problems with fixing things, lets say "sticking to one curriculum".. when this happens we start changing again.. its about imagination, that its always going on.. but sometimes we need to put a dot..*

But giving enough free space for the students and teachers needs to be balance with a solid administration that stays put. Otherwise the students have the feeling that they have to stay put... the clash between generations. If we keep on changing the students have to move with us.. The students as a new generation want to keep it easier, they want to feel safe. Sometimes for these new generations its hard not to be conservative as a response to the constant changes, its overwhelming for them. They demand security, they don't have a framework and they are very sensitive, of course.

MMG: *this is an increasing demand of students I see it in the last years with my students, they demand more structured programs, more security, theory and knowledge integrated in the projects..*

JO: *it's a big opportunity for us, because we don't have enough theory in our classes, our main courses are focus in projects and practice, but even in practice is not focussing enough in mastery.. and that's why we need to change deeply the curriculum.. we are really trying to make a profound change integrating the theory but also the skills within the departments, becoming One school.*

Extract #3 Towards a new curriculum.

MMG: *Does the Academy play an "influential" role within what is reflected in the current affairs in the context of the Anthropocene?*

JO: *I think we could do better, it's a new direction for the Academy. And I think that we started to see this direction last Graduation show because that was very much about engagement, about the world, and also addressing whats going on... and it happens, but by individual students, so it should be more a part of our curriculum, and we should do better in that sense.*

MMG: *how do you see a starting line at DAE? integrating Ecological awareness in the curriculum is part of the agenda?*

JO: *You could do 2 things; When is a new topic, which for us it is, not for individuals maybe, but for us in the curriculum is new... we could put a lot of emphasis on it in such a way that emancipates. It becomes a specific class and every students has to take this class, from the foundation year to the 4th year and in the end what you wish is that is interwoven, that is a part of all classes that its about an awareness that is implemented in everything. But to bring the awareness we should address it explicitly as a separate class, give it a place and a stage.. that's what it needs... For this we need experts to do it in the curriculum but also very important we need to do it in our environment, and we do have plans for that; already a team of staff and students are looking at possible actions to take towards a green school, how we can do better with the building, waste management, etc..The other possibility you we can do is to take a broader perspective at Ecology with a more holistic view and embrace that everyone is part of that Ecology, and even if you ignore it you are still part of it. This is what I like about the notion Media Ecology, this philosophical approach of Media, it is what it is.. and it moves around...*

JO: *The plan now is to address it explicitly, to put it in the agenda and from there on to integrate it into the classes.. Also in the workshops.. now the plastic workshop aims to have only bio-plastics, now is on the 60%..is working progress... and that's the way we want to do it.. also with textiles, we are going to have a bio-lab, a food-lab, so students are going to experiment with it .. and in the theoretical frame is going to be part of their lessons, should be there everywhere... Its very strange that its not there yet.. there are a lot of issues we should address, also the social diversity ... but I think the Ecological awareness should be part of the profession of the design. Individual teachers and departments are doing things but there is no long learning line within the curriculum.. and it should be. In the new curriculum starting in September 2017 is going to be, we are going to discuss this in the development meetings next weeks, but its going to be there as part of a long learning line from year one to four.*

MMG: *these are very good news for DAE.. are you working with experts on the field?*

JO: *not yet.....Until now we based our education on the Bauhaus principles; writers, architects, philosophers, etc.. Now we need to enhance the sciences as is becoming more relevant.. its going to be a different approach for a lot of people. Designers have an immense responsibility in this field and I just see a lot of departments that don't pay attention to this at all, also within the Masters. And its no longer sustainable. It also needs time, first bring it in, the awareness raises and then becomes integrated..and that's why we want to address it explicitly within the curriculum, that's the only way.*

Conversation with Irene Fortuyn
Head of Man and Leisure department DAE
March 30th 2017 [Original audio on request]

Extract #1 A Man out of the Creature.

*IF: When I talk about Design Academy and our department Man and Leisure I often talk about that there are two ways of educating, and they are both quite present in the different departments and maybe that's also Ok. It comes down to what John Ruskin, 19th century philosopher, in the industrial revolution times, stated in his book The Stones of Venice. He is a big lover of the Gothic and he tells about the difference between the Gothic and the Renaissance; In the Greek system a craftsman should make a perfect sphere and it will be perfect when the craftsman is not present in it anymore.. so it becomes a big abstraction, you cannot recognize the hand. While in the Gothic, and that's the beauty of Gothic Cathedrals, you recognize in every detail that a craftsman has been working in there, that there is a person behind every creation...and its expressed in a beautiful sentence in this book “ **You can either make a tool out of the creature, or a Man out of him**”, and I feel that what we are doing in the Leisure department.. we are aiming to make a Man out of the creature instead of a Tool. In some departments you become this perfect design Tool and not a Man, and then... what can you do when you are a Tool? You can survive with certain tricks but tomorrow your tricks are obsolete, so you have to develop a mind free to choose, of course you need to learn certain skills to express your mind, but for these 4 years that students are here they first have to become a Man/ Woman.*

The beauty of the Design Academy is that it happens both, in some departments they start with ensuring skills and then growing the students to become independent, in some departments they prepare them for industry to work in this world and field, which is also needed. But I think that DAE should take a stronger position in the way they want to educate, in this way or the other, because I think for the “Tool” there are schools which are even better.

6.2- Reflective Surveys

During the educational project students were asked to respond some questions on reflective surveys. I conducted 3 reflective surveys, each one during the first session of each Block;

Survey #1/ Block 1/ Consciousness

Survey #2/ Block 2/ Time

Survey #3/ Block 3/ Complexity

The first survey addressing Consciousness was the most relevant to me as it gave me an idea of where and how to start with students regarding their level of awareness. I include a summary of *Survey #1* and scanned copies of some samples from *Survey #2* and *Survey #3*.

[Original surveys on request]

Survey #1/ Block 1/ Consciousness/ Part 1

(January 2017)

Reflective survey #1

BLOCK 1: CONSCIOUSNESS

Date: 16.01.2017

WHAT DO YOU UNDERSTAND BY CONSCIOUSNESS?					
<p>IRAKLI: for me is a state, a property of mind.it is uppermost layer of our brains complicated functioning. Consciousness allow us to analyze the environment and respond to stimuli.</p>	<p>CAMILLE: Reception, perception of things.understanding without reflection.Considering that reflection either creates noise that cuts from perceptions. Raises judgements, feelings, opinions, which alter the consciousness</p>	<p>NELE: An entity that is part of my being, giving me the perception of being a unit. It is in every particle and makes me able to relate to it</p>	<p>LOUISE: A phenomenon that make us human beings perceiving things..A multitude of connections happening, both mentally and physically, a sort of network. It has different levels and it seems to be a step further than simple awareness.being conscious make us able to give a respons to what we are aware of.</p>	<p>ANCE: The unit of the soul, spirit ,mind and thoughts..the moving power of our inner life, the life which is not material but invisible..</p>	<p>SJO: The part of you that feels, realises, understands on a deeper level., puts information into context and its able to reflect on the things happening on different scales. I's able to collect but also to give information.It places you in time, happenings, environment.It makes you aware of your existance and affects on your decissions and actions.</p>
<p>MADELEINE: I like the definition of a "phenomenon", that emanates from our phisical body because it is part of our program as humans, or maybe our "capacities". Moreover the body also runs by this phenomenon, and follows the mind awareness.</p>	<p>NOOR: it is the realisation of things. Not only knowing about something but also knowing what can of impact has on your life and surroundings..understanding that "you" halso have an impact in the world.Its about feeling responsible and taking responsibility .</p>	<p>SANDRA: It is the unseen part of you, The realization of life. Something that makes you connect to the universe.The ability of constant changing.</p>	<p>ESZTER: A part of your whole which allows you to separate yourself from others(human, animals, objects..). Sometimes even making you think you are separate from your own body. An imagination..</p>	<p>ASSANI: Realisation of me still living in the moment, through the feeling of body with the several senses; hearing, smelling, touch, etc..</p>	<p>LEO: Consciousness is something growing, that you feed with experience from the moment you are born till you die..Its something individual within ourselves.It is connected to the external world, to the interaction with people, is influenced by education, politics, language..we have to be conscious of that information, be aware; be master of it.</p>

Survey #1/ Block 1/ Consciousness/ Part 2 (January 2017)

HOW DO YOU RELATE TO THE NOTION OF CONSCIOUSNESS?					
<p>IRAKLI: <i>I relate to my consciousness as a state of mind. The more my mind is calm and clear, the higher is my state of consciousness. The calm clear mind perceives the world in a more accurate way. Silencing the stream of thought allows the mind to achieve a more open, mindful state of consciousness.</i></p>	<p>CAMILLE: <i>I think it is a precious achievement that we should work on and feed for finding Peace(love?) and not being slaves of our thoughts and mental reflexes. For taking care of our consciousness we have to learn how to clear and clean our mind.</i></p>	<p>NELE: <i>Its important to loos it from time to time (dreaming). i might be part of an overall consciousness.</i></p>	<p>LOUISE: <i>A tool to get a better understanding of the surrounding environment, something we can train, what to what extend..i dont know. What are the limits of our consciousness? Does evolve depending on age?.</i></p>	<p>ANCE: <i>for me is in soul, spirit and the last one mind..My mind is small...in contrast to my soul keeping the information of my identity, follows me from different bodies, centuries and lifes. The spirit , the whole ultimate human-non human experience..part of something bigger.</i></p>	<p>SJO: <i>It seems a subject difficult to grasp, personal and subjective. Difficult to adress when you dont really get the definition of it. I struggle ..It feels like you are trying to climb a staircase but you dont have stable steps.</i></p>
<p>MADELEINE: <i>In my internal subjective vision, my consciousness is stronger than my body. I intuitively make a hierarchy. My mind(consciousness) can push my body. I am aware that this positions is maybe not the thruth, but thats the idea I am comfortable with..I would rather say both are intricated, interwoven, body and consciousness..</i></p>	<p>NOOR: <i>I am not conscious about life yet. I can live more in an imagination state than in a conscious state, and not notice it. I can also have a lot of trouble with reflecting on my life and actions, because sometimes its scary to be Conscious too.</i></p>	<p>SANDRA: <i>I never thought about consciousness, for me its more a soul. I feel very connected to my soul. Like a best friend.. We get along. It feels like I am two but one. Reliable but stubborn.</i></p>	<p>ESZTER: <i>It makes me question but also wish to withdraw from questioning and "be free" (from analysing) from thought. But also not in a way I am not empathetic or caring of the world or people.</i></p>	<p>ASSANI: <i>I got to understand it when I started my meditations which relate to Buddhism. Now I think about it once in a while as we need to pay attention to it.. We can get lost from awareness and consciousness pretty easy.</i></p>	<p>LEO: <i>Consciousness is how I grow, how I do make myself grow. The way I can become confident within myselfs, is helpful to live and not to be scared. Do you take care of own own life? Are we selfdestructie? Do you experience life? Do you care about the planet?</i></p>
FROM 1(LOW) -10(HIGH) WHERE DO YOU PLACE YOUR SELF CONSCIOUSNESS?					
IRAKLI: 7	CAMILLE: <i>it fluctuates a lot</i>	NELE: 7	NELE: 6-7	ANCE: 6	SJO: 7
MADELEINE: <i>I dont want to put numbers, its reductive. I measure it by learning and being in balance faithfull to my values.</i>	NOOR: 3	SANDRA: 9	ESZTER: from 4-7	ASSANI: 7	LEO: <i>I don't know, what is good? What is bad?</i>

[78] Summary Survey #1; Consciousness / Part 2 (2017)

Survey #2/ Block 2/ Time (February 2017)

Block 2
Deep time
Name: Louise GHOLAM

What do you understand by Deep time?

Deep time is the understanding of time in its whole. The effects it has upon us but most of all, its scale. Deep time makes you realize where you place various periods the planet went through and gives an external perspective on time that passed by.

What do you understand by time?

Time is often to me seen as a tool of measurement. Which period are we in, what part of the day/week/month we are.

How do you relate to time in your daily life?

I'm checking time all the time. On the phone, the clock, the computer. It gives me a sign on where I place myself in the day. For me time is organized in small periods that organize the "schedules" of the day. I do not conceive time far ahead but I go more from day to day and only realize all the time that I went through by "accident" (a happening or a sharing of a memory makes me understand how much time ago it was). I'd rather have no clock at all because the fact that you count it in number make me want to schedule everything and sometimes I wish I could experience my life more with a feeling of time than tangible numbers.

Evolution regression revolution acceleration

de-celeration compulsive

Block 2
Deep time
Name: ORTA Leo

What do you understand by Deep time?

I would say that it relates to how we live on earth. From the beginning of earth to future of it. It speak to me that we are nothing on earth, but we made so much change to life and future of the planet.

What do you understand by time?

How do you relate to time in your daily life?

As precious. Time passes, we live depending on the sun. What if the sun wouldn't be there? Make use of every day, sleep good to be efficient, live good/productive.

Which notion represents more your current state of being?

Evolution regression revolution acceleration

de-celeration compulsive

Survey #2/ Block 2/ Time (February 2017)

Block 2
Deep time
Name: Irakli

What do you understand by Deep time?

Time beyond my perception

What do you understand by time?

It is what separates different states of being.

How do you relate to time in your daily life?

The time is accelerating. The more of it flows by the less
Content it brings.

Which notion represents more your current state of being?

Evolution regression revolution acceleration

de-celeration compulsive

Block 2
Deep time
Name: Eszter Dolak

What do you understand by Deep time?

view of time on an immense scale, far larger than yourself or humankind.
a whole measurement of all time that we know of.
Back as far as we can imagine

What do you understand by time?

• A measurement or constraint

How do you relate to time in your daily life?

As a commodity

Which notion represents more your current state of being?

Evolution regression revolution acceleration

de-celeration compulsive

compulsively re-evolving
as evolution ~~is~~ is something that has happened until this point
you can only re-evolve (unconsciously for now)

Survey #3/ Block 3/ Complexity (March 2017)

28-03-2017

NAME: Leo Orta

WHAT DO YOU UNDERSTAND BY COMPLEXITY?

- Complexity for me first means understanding the complex. Sometimes that means learning about the system, a system.
- I see complexity in different systems, the economic, the body, the politics and many more.
- Complexity is also difficult, hard to.

HOW DO YOU RELATE TO THIS NOTION?

For me when something is complex I start wondering, asking questions but only sometimes pushing that curiosity to research.

By this I mean sometimes I or We can get lazy of understand. Ignorance is a way not to see complexity.

FROM low -high level, 1-10

HOW MUCH DO YOU USALLY CONSIDER YOURSELF TAKING RISKS ?

1 2 3 4 5 6 7 ⑧ 9 10

28-03-2017

NAME: ~~Eszter~~ Dolak

WHAT DO YOU UNDERSTAND BY COMPLEXITY?

a complication or issue with many causes and effects
hard to decipher or pin down

HOW DO YOU RELATE TO THIS NOTION?

confusion

FROM low -high level, 1-10

HOW MUCH DO YOU USALLY CONSIDER YOURSELF TAKING RISKS ?

1 2 3 ④ 5 6 7 8 9 10

Survey #3/ Block 3/ Complexity (March 2017)

28-03-2017
NAME: Louise GHOLAM

WHAT DO YOU UNDERSTAND BY COMPLEXITY?

By complexity I understand networks of informations / matters / notions that can weave with each other or intertwined. Complex does not mean nonsense, or impossible to get, but more a 'build up' of ideas that lead to more meaning. In complexity a thing triggers another and so on and that's maybe why sometimes the amount of thing involved impress us and seems overwhelming.

HOW DO YOU RELATE TO THIS NOTION?

I tend to have a contrasted vision of this notion. Either I'm challenging it and want to dive into complex facts and organisations or on the contrary I get 'scared' by it and tend to get away from it. But on a more general view I would say that complexity is a matter of awareness. Even what looks like absolutely simple, holds so much complexity.

FROM low -high level, 1-10

HOW MUCH DO YOU USALLY CONSIDER YOURSELF TAKING RISKS ?

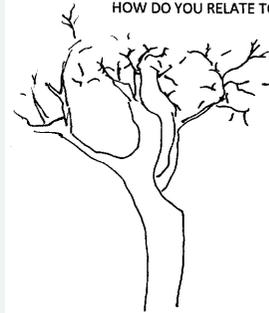
1 2 3 4 5 6 7 8 9 10

28-03-2017
NAME: NELE HARTMANN

WHAT DO YOU UNDERSTAND BY COMPLEXITY?

When there are a lot of different parameters to consider when dealing with a question.

HOW DO YOU RELATE TO THIS NOTION?



I'm trying to reach the end of the branches but the tree is always continuing to grow.

FROM low -high level, 1-10

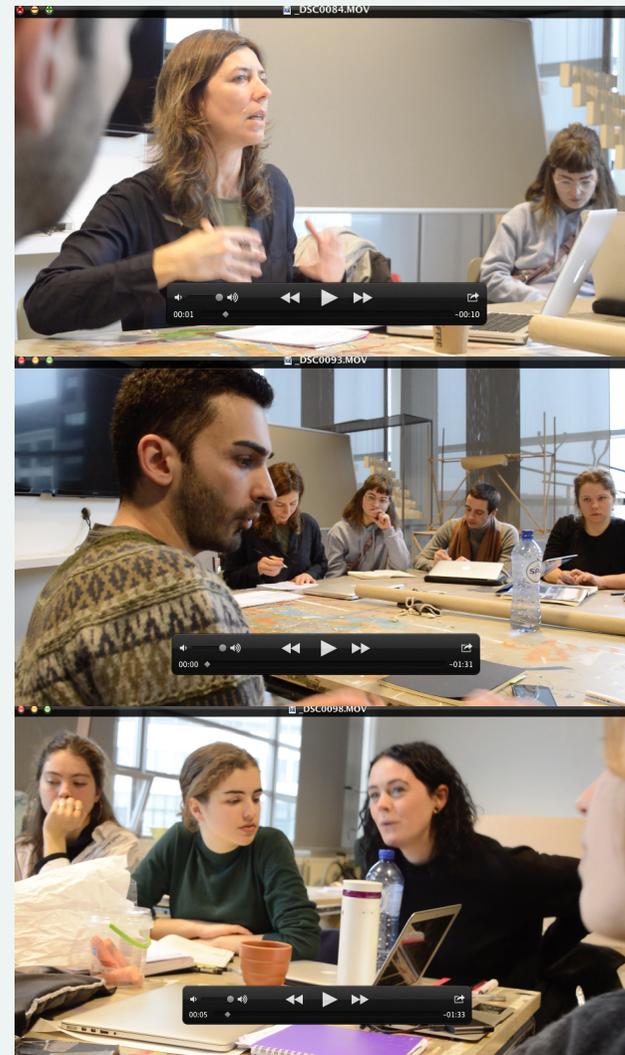
HOW MUCH DO YOU USALLY CONSIDER YOURSELF TAKING RISKS ?

1 2 3 4 5 6 7 8 9 10

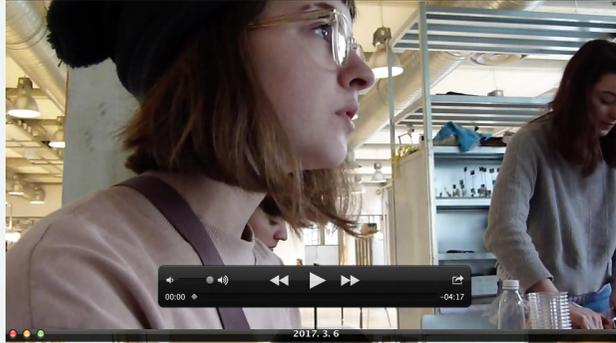
6.2- Audiovisual documentation

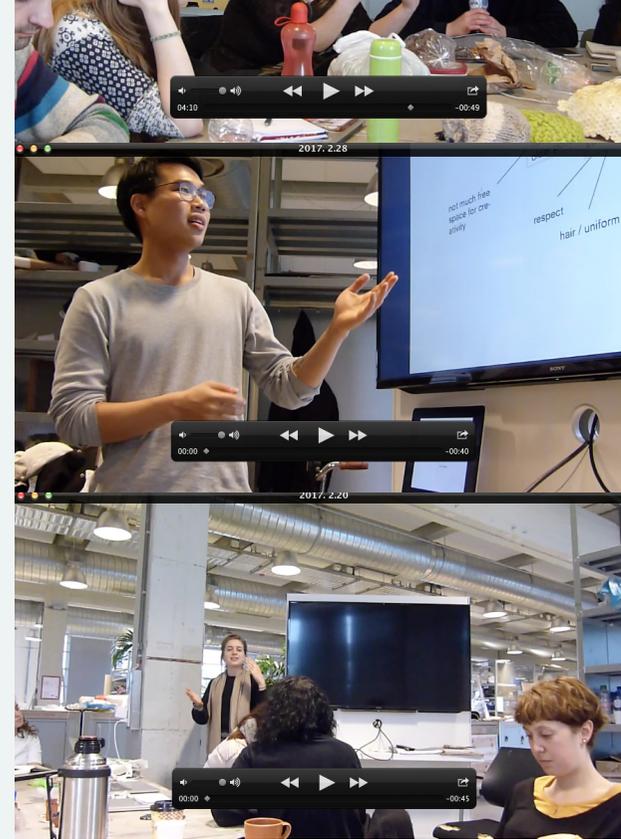
During the educational project audiovisual documentation was taken in different sessions specially during our group discussions, reflections, feedbacks and presentations.

[An edited film document will be provided]

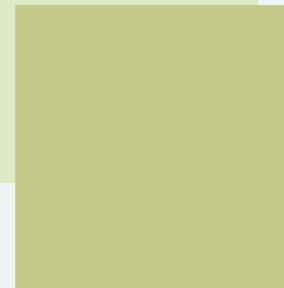


TOWARDS ECOSOPHICAL ACTION DESIGN
BUILDING BLOCKS FOR A NEW AWARENESS IN DESIGN EDUCATION





[87-96] Screenshots *Filming Documents* (2017)



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COLOPHON

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