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Anna Anzani *Editor*

Mind and Places

A Multidisciplinary Approach to the Design of Contemporary City

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Foreword

Thinking about the design of the contemporary city in relation to "mind" and "place" is in many ways a new proposition. There are references and images of the city projected as a body where the heart and circulation become analogies that render human anatomy at an urban scale; where anthropomorphised cities possess a calm sense of inherent logic and controlled order that comes from proportion and symmetry. This metaphor of the body does not work so well for the twenty-first century city as more and more people move to cities and where there is a sense of mass and flow that problematises limits and borders.

Posing "mind" and "place" in relation to the contemporary city however is immediately provocative. Is it to affirm an individualistic, human-centric position or can it open up other possibilities? The different theoretical lenses and praxis presented here achieve the latter. They affirm that there is something timely and profound about foregrounding the importance of posing "mind" in relation to cities and the making of place. These essays also make apparent a genealogy concerned with subjectivity and the urban environment that can be mapped through the twentieth century. For example, the 1903 lecture by sociologist Georg Simmel titled The Metropolis and Mental Life that addressed the effect of the city on people's mental life and the blasé attitude that was created to reduce the stimuli and sensation of the city. Another connection can be made to the Situationists's experiments with different techniques and practices such as psychogeography to rupture and interrupt the affect of the spectacle and the effects of capitalism and consumerism on people's lives.

A discourse and concern regarding concepts of "interiority" in relation to the contemporary situation of cities is currently emerging. While interior design is rarely referred to or employed as an urban design practice, the question of interiority directly relates to the concerns of this design discipline. It therefore seems appropriate to invite the expertise and techniques of the interior designer into the urban realm to attend to how people might and can inhabit the urban environment. As a practice engaging relational conditions, interior design intervenes and transforms the relation between people and the surroundings. This foregrounds the design of cities as one of creating a sense of belonging somewhere and the

sensation of being in some place. This focuses on experience; on issues of emotion and affect, styles of living, conditions of memory, identity and heritage; cities as aesthetic, social, cultural compositions.

This collection of essays that address the conjunction between mind and place in relation to the design of the contemporary city maps a territory of concerns and conversations which have become increasingly critical to confront. Each essay opens up new possibilities and trajectories to consider how we might rethink and approach the design of cities in a world where it seems every record regarding weather, population, demography and disease is surpassed by unprecedented and, to a large extent, unexpected change. It is made both evident and compelling that there is significant potential in design to transform the conditions of the contemporary city through attending to "mind" and "place".

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Preface

Mass migration, abuse of nature, intentional destruction of works of art are different symptoms of a cultural crisis which is drastically transforming our ideas of place and environment; therefore, a radical rethinking of the human coexistence conditions is necessary.

Material destruction should be resisted through immaterial values, a new humanism that re-launches knowledge, memory, beauty and creativity as major cultural bases of human communities.

Grasping the complexity requires new perspectives, even new words as mentioned by Bonardi and Marini in chapter "Identity. Beyond Places, Beyond Identities, for a Cultural Redefinition of the Relationship Between Man and Nature", or the recovery of reflections that have not yet fully developed their potential. Jung reconnected the alliance between psyche, nature and culture that the classical scientific paradigm had torn apart. Bergson anticipated that the conceptualizations of body and mind, matter and mindfulness should be revisited, with the goal of a unified science that embraces both physical and psychic aspects, where consciousness has to do with generating and modifying boundaries, i.e. with creativity (Schinco 2011).

Chaos theory has drastically changed our world perception, distancing us from linear and mechanistic systems and orienting towards organic and complex ones, inviting us not to focus on individual parts but rather to observe the links and interactions within the systems, overcoming a discreet division between matter and mind (Peat 2001).

Findings in the neuroscientific field highlight how our ability to understand other people and what they materially realize does not depend exclusively on theoretical-linguistic skills but is strongly linked to our socio-relational nature, whose most profound structure is corporeity (Mallgrave 2013). Inter-corporeity is the main source of knowledge of the world and of the others, and the link with places assumes a fundamental value for our personality; according to Lingiardi (2013), in order to be in the world and have some hope of being ourselves, we should know the landscape and have many places within us.

In neuroscientific terms, contemporary architecture seems unable to design buildings on a human scale because of the exaggerated predooming attributed to formal and visual criteria, with an excessive importance given to sight and the consequent suppression of the other senses, and more generally of corporeity (Mallgrave 2013). Instead, recent philosophical studies and current neurological findings on mirror neurons help to understand that we can internalize external physical situations and experiences through embodied simulation, significantly valuing the power of atmospheres. In its very essence, the judgement of environmental characters is a "complex multisensory fusion of countless factors which are immediately and synthetically grasped as an overall atmosphere, ambience, feeling or mood" (Pallasmaa 2014).

Through a multidisciplinary approach, this book explores the contribution of psychological, neuroscientific and philosophical views to the design of contemporary city, trying to deepen the complementary role that science and art can play in an innovative perspective. The aim is to take up the challenge that a transdisciplinary approach poses to the project culture in the current post-industrial phase and trace a path for developing new paradigms of knowledge and languages that orient the design process towards an individual and community wellbeing.

Reflecting on the relationship between people and its environment means understanding that dwelling is a form of knowledge and reinvention of reality that involves both the tangible dimension of physical places and their mental representation. Interior design can play a significant role in understanding the complexity of contemporary society, the revolution of working conditions and human relationships, giving value not only to a functional, but also to an experiential use of places, emphasizing how the space liveability is based also on immaterial values and meanings.

The book addresses scholars, academics and practitioners that are involved in the process of planning, designing and building places and fosters an international exchange of research, case studies, and theoretical reflections to confront the challenges of designing conscious places and enabling the development of communities.

Organization of the Book

Starting from Gregory Bateson's (1979) invitation to develop an aesthetic sensibility and to recognize the interconnected totality of the world, the volume is formed by two distinct and kaleidoscopic parts.

Place in the mind aims to bring the contribution of different disciplines that have dealt with the spatial dimension from a theoretical perspective. According to Hartmann, no matter how we think of the content of our minds (thoughts, feelings, perceptual processes, semantic processes, memory processes, etc.) we are speaking of parts, regions, dynamics, which in some sense can be considered separate from one another, which yet are obviously connected. The boundaries between them are

not absolute separations. They can be relatively thick or solid on the one hand, and relatively thin or permeable on the other hand (Hartmann 2011). Hartmann also worked on the "central image" of the dream, emphasizing the continuity between "nocturnal" and "diurnal" states of consciousness. His work led him to conclude that, in its fundamental processes, the creative function is always the same, whether it is expressed in the generation of dreams, works of art and literature, or other human activities (Schinco 2011).

Mind in places aims to propose some reflections useful to promote an integration between the aesthetic and the cultural dimension in the space design. The practice of reuse will be discussed, which was initially adopted to preserve historically relevant buildings from demolition and which today is not only a sustainable strategy in the current consumer society, but also an opportunity to enhance the potential of existing buildings, as carriers of meanings and memories. A reflection will also be developed to promote beauty, identity and memory both as public goods and as indispensable dimensions of collective and individual wellbeing.

Chapters Description

Besides a sequential reading of the two parts of the volume, a crosswise reading is also possible, following ten key words which give respectively the titles to couples of chapters and are recalled throughout the whole book, of which create a conceptual framing structure. The environmental issue is a specific focus of Bonardi and Marini's chapter "Identity. Beyond Places, beyond Identities, for a Cultural Redefinition of the Relationship between Man and Nature" but it is also dealt with by other authors. The concept of leftovers, to denominate abandoned assets diffused in urban contexts and carrier of stratified memories, as well as the neo-nomads' profile are outlined by Crespi in chapter "Borders. The Design of the Unfinished as a New Transdisciplinary Perspective" and then it is mentioned again throughout the second part of the book. As an expression of human creativity, sometimes music also intertwines the two (theoretical and design oriented) parts, offering some contributions that help understanding the relationship between body, space, emotions, renegotiation of the past.

Chapters "Borders. Dwelling in the Borders" and "Borders. The Design of the Unfinished as a New Transdisciplinary Perspective" deal with borders with different perspectives. In the light of philosophical, anthropological and psychiatric theories, Piselli explores the theme within both the mind and the material world, with particular attention to the way borders are "dwelled". Through a transdisciplinary approach, the need to observe reality through a systemic, complex, ecological approach is highlighted, welcoming the influences of dreams, art and emotions as helps to pure rationality, in order to understand the deep interconnected world nature. This aesthetic vision of relationships has very important ethical implications to anyone, whether a therapist or a designer, who deals with human beings and their dwelled physical and relational spaces.

Crespi starts his chapter on space and its borders by thinking what science tells us about vulnerability and precariousness of the human condition, as a reflection of cosmic precariousness. Concerning the border issue, he then reminds that among the cities there are more and more roads and bridges, and between the continents there are seas continuously sailed by boats full of humanity in search of safe landing. The chapter identifies neo-nomadism as a characteristic of this century beginning and as a challenging field for the project culture. The meaning of living in post-industrial cities of contemporary world is questioned, considering the number of available spaces no longer used, which are named leftovers. A new form of transdisciplinary approach to their regeneration project is proposed, defined as "design of the unfinished", addressed to rethink the disciplinary status of the project and positioned between architecture, design, scenography, restoration, exhibition design.

Chapters "Perception. Perceiving Space in Pictures" and "Perception. The Representation of Space, from Bidimensionality to Tridimensionality" treat about perception and its relationship with space representation. Throughout history, humans have used pictures to convey information about the three-dimensional layout of the environment and the volumetric structure of objects.

Bruno stresses that two-dimensional form of visual communication can be useful, aesthetically pleasing, yet dimensionally limited, and constrained in intensity and chromaticity. In the chapter, he questions how we can perceive space in pictures and proposes a conceptual scheme for understanding visual information about space based on the key idea that information is available in space-time for an embodied moving observer. Useful insights into the spatial understanding of pictures are provided, and overlooked factors affecting aesthetic experience in perspective and art are identified.

Guglielmi focuses on an overview of different forms of space representations, from the Neolithic, through the introduction of the geometric perspective, until the complete "destruction" of the traditional relationship between form and content in the abstract image. Also in the light of the scientific acquisitions of recent decades, the chapter proposes a historical and theoretical reconstruction of the process that brought human thought from topology to three-dimensionality, towards a greater awareness of the geometries and physicality of a habitable and visible place, to ascertain the relationships that can exist between surfaces and spaces, even in everyday life.

Chapters "Dreams. The Relational Link between Nocturnal and Diurnal Creativity" and "Dreams. The Cultural and Creative Conversion of Abandoned Buildings as a Driver of Urban Regeneration" develop the dream and its relationship with creative thought. Schinco investigates creativity language as typical of primary processes and explains that in order for such language to generate shared fruits in the domains of science, technology, work, politics and decision-making processes, complex translation problems should be faced. Knowledge, conscience and affections visions allow to achieve this and are pertinent with a full enhancement of reuse practices of environments, spaces and buildings. The creative nature of human consciousness, the metaphorical nature of knowledge, the continuity

between nocturnal and diurnal states of consciousness constitute an ideal experiential and conceptual framework to understand the creativity practice as something oriented to the future, to the full exercise of responsibility characterized by wholeness rather than fragmentation.

Di Prete considers creativity as a driver for urban regeneration and social reactivation of some abandoned factories. Thanks to reconversion processes, based on (analogical and digital) creativity and sharing, these buildings now find a sudden redemption, becoming cultural and creative hubs, respectful of the productive vocation of places. The leftovers prepare themselves to new lives and become a means through which a new collective social, economic, productive, architectural and urban dream can be shaped.

Chapters "Body. Sound Spaces and the Embodied Musical Mind" and "Body. Spatial Transitions in the Scene Architecture between Space, Event and Movement" explore the body and its interaction with architecture and music. Chielli considers the constitutive character of sound in its reference to the "primitive sound bath" in which the Self, since the first months of intrauterine life, was formed. It is the sound world, the expression of the continuous maternal–foetal interaction, that defines the space where the foetus is immersed and determines the close relationship that will occur during the whole life between the body, its feeling, and sounds. Music and architecture start both from the research of a synthetic idea, consigned to a sketch or to a short sequence of elements or notes. Starting from a need, architecture and music seek an idea from which a project is created, aimed both at a functional and at an emotional goal. Before emotion, at the base of the emergence of the Self, we have our body that characterizes the very quality of musical experience and today increasingly appears inextricably connected with cognitive processes.

Crippa makes an incursion into the rock world, ranging between the music that marked an era and the architectural spaces that witnessed this cultural revolution. He shows that the musical performance is made not only by sound, but also by a deep study of one's image and occupied space. Considering music as pure art, almost fluid, the way it is conveyed is virtually accessory and, at the same time, necessary to express all its facets. Three reading codes (*background*, *set-up* and *object*) are introduced to understand different styles of stage occupation, and four main attitudes are identified. The Beatles were all focused on the music power; David Bowie managed to project the scene on the singer using himself and his music as the only vehicle for the show; the Genesis adopted some of Bowie's strategies mixed with the scenography; the Pink Floyd created their musical storytelling tool through the use of scenography connected to the background code.

Chapters "Memory. Places and Communities Memory in 'Powdered Modernity' between Literature, History and Anthropology" and "Memory. Dwelling in the Leftovers" deal with memory and its connection with communities and abandoned places. Bailo spotlights an unprecedented contemporaneous pestilence: the shattering of individual and collective memory, which alters its being and itself perception as a community. Foreseen by writers, thoroughly researched by historians and analytically investigated by anthropologists, the memory deafening is now

perceived and experienced with dismay by the most aware part of public opinion. A possible, albeit partial, antidote, already widely practiced and with broad margins for improvement, consists in the creation of "mnestic granaries", museums and educational displays that, punctuating the territory, protect its memory. When rigorously collected and creatively proposed, they consign to the future a cognitive heritage that otherwise, being originated and in many ways confined to the past, risks being extinguished forever.

Invernizzi concentrates on memory layered in dismissed buildings, multiple stories, forgotten beauties and human absence. Society should use what is already built because it is enough, should think of it in a new, more flexible, sustainable and ethical way. By combining knowledge from architecture, interior design, exhibition design, art, anthropology, abandoned buildings can find a new way of being part of the contemporary urban fabric. In the chapter, environmental issues are addressed, as well as aesthetic aspects, photographic storytelling and urban exploration; finally, best practices in Sicily region are presented. Towards restoration and conservation practices, the interior design approach to architectural leftovers brings with it a new way of thinking, seeing and considering the interior spaces, allowing a maximum enhancement of the characteristic anthropological and spatial stratifications. These buildings represent an extraordinary resource, not just able to carry out new functions without producing further soil consumption, but also as caretakers of human memory and stories that otherwise would be lost. Cross-disciplinary approach, short-time and low-cost interventions are the clue solution to make those abandoned architectural leftovers live again.

Chapters "Landscape. Expressive Landscapes, Perception and Design" and "Landscape. Bottom-Up Approach for Cultural Landscape and Local Identity Mapping" discuss about landscapes, in their expressive and cultural meaning. In the light of the psychological research on expressive qualities, Sinico's chapter deals with the landscape in terms of design. In particular, the phenomenological-experimental approach excludes physicalist and subjectivist prejudices in the study of immediate experience and allows the experimental investigation of tertiary-expressive qualities. After introducing the phenomenological landscape philosophy by Georg Simmel, a forerunner of Gestalt Psychology, the tertiary-expressive qualities are defined as design tools. Subsequently, the communicative mode which uses signs is put in contrast with the communicative mode based on expressive qualities. In conclusion, the benefit of the second mode of communication is discussed in its innovating the landscape in a cross-cultural way, adapting to the contexts.

Amoruso and Battista frame their chapter within a bottom-up approach and address the plot, sometimes hidden or elusive, which, in the everyday ways of life uses but also in memory, rituals and oral traditions, makes a landscape cultural. The case of Puglia Region is presented, where the *Law on beauty of the Apulian territory* introduced the innovative scenario of "landscape community", deriving the practical definition of what is "beautiful" from participatory processes and the mediation with the communities. A collaborative design methodology is presented

to search for characteristic landscape and territory elements belonging to the reference community and those meanings that can emerge from the local dimension of "identity".

Chapters "Metropolis. Sensory Ethnography Paths in the City of Differences" and "Metropolis. Urban Mindscapes" discuss about metropolis from an ethnographic and a design perspective. Briata looks at the "city of differences" as a place where people increasingly live together in a radical condition of pluralism, the only element they have in common being their presence in the space. The reference theoretical horizon is the one that looks at the everyday aspects of multiculturalism, observing the diversity experience in some specific places and paying attention to the conditions that generate openness, without denying those that lead to intolerance. Through ethnographic research, the author focuses on how "being together" in contemporary cities is also a body exercise, a habit (and indifference) to sounds, smells, different skin colours, heterogeneous way of understanding what is proximity or distance. The role of multisensory perception in urban cohabitations is highlighted, as a research perspective still little explored outside sociological and ethnographic research, but which should be considered in observing, describing, designing and planning the spaces of the contemporary city.

Lonardo aims to offer a contribution to the debate on the project of contemporary cities, through a transdisciplinary approach, starting from a central point of view that often, when dealing with a project of urban space, is taken into marginal account: the psychological one. Is the psyche of contemporary human beings sufficiently prepared to live well in the cities we have built? Does it make sense to talk about smart cities, if people are still expecting to see their basic individual and collective needs resolved in the urban fabric?

Chapters "Reuse. Re-contextualization and Re-signification in Art and Care" and "Reuse. Urban Heritage and Liveability" give an interpretation of reuse as re-contextualization, applying the concept to different fields: music, therapy, design. Through a comparison between the field of music and that of cure through speech, Giuliani illustrates a common practice in human creations: instead of being cancelled, more often the past is reused, put back in a frame, restored. As we proceed in our history, we renegotiate the role of past elements, transform ourselves and the world around us. In various knowledge fields as well as in our biographies, past stratified experiences do not vanish nor are replaced by the new, but rather receive new meanings as the stratification process advances.

Caramel considers the functional reuse of the built heritage as a necessary action for the conservation of the assets but also as a renegotiation activity, an opening to new possible interpretations, deriving from deep changes in our way of living. In the chapter, the meaning that reuse can assume in relation to those architectural elements widespread in the urban fabric which are not subject to protection by public institutions is questioned. In most cases, they form an integral part of our daily scenario and, if properly enhanced, they can generate a renewed sense of place belonging, helping the citizens to develop new awareness about the identity value of the built heritage, in the presence of profound ongoing social changes.

Chapters "Time. The City as an Event of Time and Space" and "Time. Hybrid Spaces for Users-Bodies between Work and Hospitality" confront with time from a philosophic and a design approach. Leoni argues that we think of space and time mostly as containers, impassive and indestructible coordinates in which things are located and events take place. Instead, we should start thinking that space and time are things, go together with things; more precisely, they happen with events. In other words, space and time are the way in which events themselves, in their happening, intercept and intertwine the happening of other events. Space and time are the memory triggered by every event starting from itself, remembering every other in itself and, so to speak, being remembered by every other.

Scullica and Elgani discuss about hybrid spaces for bodies-users between work and hospitality, highlighting that time turns out to be a fundamental factor in their spatial, finishing and service identities and characterizations. In fact, the way of travelling and the consequent stay in accommodation structures appear to be increasingly influenced by time: not only are the journeys faster, but often the stay in some contexts/destinations is concentrated in a lower number of days than in the past. Therefore, time assumes an important role in defining the new identities of both hospitality places and workspaces.

Chapters "Identity. Beyond Places, beyond Identities, for a Cultural Redefinition of the Relationship between Man and Nature" and "Identity. Place Identity between Preservation and Innovation" investigate identity and its relationship with places. Marini and Bonardi consider that the current moment in human history is unprecedented, unique, probably unrepeatable; the climate crisis that the Earth is experiencing requires a cultural redefinition of the relationship between man and nature. The urgent redesign of human dwelling (Heidegger 2015) should be based on a philosophical and geographical re-founding of the relationship between man and the world, with new terms, concepts and words that can understand the complexity of the world situation. An essential basis for such a reflection will be the concept of "hyperobject" produced by Timothy Morton (2013).

Anzani refers to a formidable challenge that human coexistence in post-industrial cities poses to the interior design. According to an ecological view, the human habitat should take account of people primary needs in their complexity, including their right to memory, beauty, interiority and to change themselves by changing their city. In the chapter, the concepts of place, identity, innovation are discussed and some reflections on the possible intersection between different fields (interior design, psychology, anthropology, preservation, neurosciences…) are proposed. The issue for interior design is to understand what kinds of space can be made so that people can practice a reflexivity in which the work of memory can occur, where the real relationship between interiority and the exterior can take place (Attiwill 2018).

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Mind in Places

Places in the Mind

Borders. Dwelling in the Borders

A. Piselli

Abstract In the light of philosophical, anthropological and psychiatric theories, the present contribution aims to explore the theme of borders, within both the mind and the material world, with particular attention to the interaction between men and space, to relationships, to autonomy and to the way borders are "dwelled". A transdisciplinary approach has been chosen, which reflects a precise epistemological position. While avoiding dangerous syncretisms and maintaining the necessary theoretical rigor, a reflection will be carried out about the need to observe reality trough a systemic, complex, ecological approach. An approach that welcomes the contributions of dreams, art and emotions as helps to pure rationality, in order to understand the deep interconnected world nature. In fact, the ecology of mind proposed by Gregory Bateson was an epistemological revolution that led thinkers and clinicians towards a systemic, interconnected vision of reality, according to which relationships come first, precede, are inevitable and ineludible. Together with dwelling, they are the way we are in the world with others. This aesthetic vision has very important ethical implications to anyone, whether a therapist or a designer, who deals with human beings and their dwelled physical and relational spaces.

Keywords Borders · Dwelling · Autonomy · Relationship · Humanity

1 Introduction

> Daddy, why do things have outlines?
> (Bateson 1972).

With this question from a child began one of the metalogues contained in *Steps to an ecology of mind* by Gregory Bateson. In his answer, her father cites William Blake: "Wise men see outlines and therefore they draw them" and, shortly after "Mad

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men see outlines and therefore they draw them". The child, just like all of us, remains rather disconcerted. Therefore, is it foolish or wise to see and draw boundaries?

Science task, it is said in the same passage, is to clarify. Sometimes, making clarity complicates things a lot. This is what happens when we approach Gregory Bateson's thought.

If I had to answer that child, I would probably use Ernest Hartmann's words (Hartmann 2011): boundaries are everywhere. Borders, as we shall see, are separations, but also connections and their characteristics can be observed and described.

Borders exist in the material world, they have a consistency, dimensions; they are precisely made of materials: men's skin, trees' cortex, cells' membranes, buildings' covering. We can recognize the margins of a building, a cell, a tree or a man. We can distinguish one man from another, one cell from another and so on, according to their individual characteristics contained within their borders. In many cases, whatever our discipline (design, biology, psychology…), identifying the precise boundaries of our object of study and interest, and considering it in isolation, will be extremely useful and important.

On the contrary, when interactions are observed and studied between one cell and another, between a man and another, between a building and another, or between very many cells, very many men, very many buildings, or even between men and buildings, between men and trees and so on, then, in these cases, we must rethink the way we consider boundaries. And draw different boundaries, which consider and include relationships.

All disciplines include projects that, if considered in isolation, were perfect but that, once declined into a real context, composed of multiple complex interactions, did not lead to the desired results, or worse. Consider, for example, in the urbanistic field, the projects of some residential neighborhoods in large English cities (La Cecla 2000). Neighborhoods that had been carefully designed and were considered the best of urban planning have been vandalized by the inhabitants, especially in those parts intended for socialization. In some cases, the inhabitants themselves had set up other very popular relationship places with materials that were certainly not noble or precious. We can hypothesize that, behind the refusal by a large part of the resident population, there had been a design that, while irreproachable from an architectural and a urban point of view, did not take sufficient account of the interaction with the inhabitants, and of the relation between the inhabitants and their own spaces.

Even natural sciences are full of such accounts. Consider, as an example, the introduction of predatory insects to chase pests away, which in a short time becomes a major problem for the ecosystem.

Psychology itself has tried, and in part still does, to explain many human phenomena, including individual suffering, by using "objects" with very narrow boundaries, such as the body or the mind of a single individual and "things" kept within.

When we want to observe, describe, understand (and even more when we want to intervene in!) complex phenomena, the field of observation needs to be widened, the boundaries of our study object modified.

This change is not only formal, but responds to a precise epistemology. It is not the observer who creates the connections, it is our reality that is interconnected.

Then of course, each observer traces outlines around his own object of interest, from his own point of view and according to what he is allowed to see at a given moment. But, going back to Blake, it would be just as crazy not to see the connections as to deny separations.

This is a difficult epistemological step, which needs prepared and rigorous guides.

Gregory Bateson showed us the interconnection of systems and mental processes (Bateson 1972). Ernest Hartmann taught us that the borders qualities can be observed (Hartmann 2011). Arno Gruen (Gruen 2007) reminded us of the value of love and compassion. Heidegger (1971) and La Cecla (2000) offered us a reflection on dwelling and getting lost, on the relationship between man and space. Therefore, two psychotherapists, two anthropologists and a philosopher: each one is aware of the borders of his own discipline, and therefore also of the closeness and the need for the others, when we want to investigate and understand man.

This work is crossed by another common thread. Humans have lived together, side by side, for thousands of years. We are relational animals and it is precisely this that has allowed us to survive as a species. Yet, we live in a world that, with the blessing and the complicity of large portions of the scientific world (including the so-called social sciences), emphasizes a competitive vision of evolution, a vision requiring that, to survive, a species must necessarily overwhelm another (Gruen 2011). Such a vision has important repercussions on the ways we mean our living together, from how we teach children to how we think about our cities and the spaces we dwell. We need to refresh an ecological thought in a Batesonian sense, a complex one, which observes relationships and recognizes again the value of the creative potential of every human being and of cooperative practices.

2 The Ecological Mind: Gregory Bateson

Gregory Bateson (1904–1980) was a grand and transversal figure of twentieth century thought, an authentic pioneer of transdisciplinarity, which he literally embodied, by studying and dealing with different disciplines, at his time and still today considered rather distant. After studying biology and natural sciences, he devoted himself to cultural anthropology, ethology and finally arrived at the Mental Research Institute in Palo Alto. There, with his observations from other disciplines, he helped developing a new epistemology to understand human systems and, albeit with some criticalities, a new way of approaching suffering and even mental illness. The common thread that connects his research is the overcoming of Cartesian dualism, of the separation between mind and body, between mind and nature. In his words: “I have studied the area of impact between the abstract and the formal philosophic thought on the one hand and the natural history of man and other creatures on the other” (Bateson 1972, 454).

The ecological and aesthetic perspective he proposes envisages a systemic, cybernetic, interconnected vision of reality. A vision that places, at the center of observation, relationships and feedbacks between different parts of systems, and that deeply

questions the intuitive and widespread ideas about the boundaries of mind and of what we commonly call "I".

In Western countries, we are used to match the boundaries of the mind, of the ego and of the conscience with those of the body. Psychology as it is commonly understood, and as it frequently presents itself, confirms this premise with constructs such as the character and the personality, which refer to individual properties of each distinct human being, are situated within him and in various ways are connected to the biological functioning of each individual.

Bateson proposes a radically different view, a vision that expands the mind boundaries to include the total interconnected social system and planetary ecology (Bateson 1972, 467). A mind which is not enclosed within the boundaries of an organism, but which is made up of messages and channels, ideas and information, relationships and feedbacks external to the body. An ecological mind, and an ecology of ideas.

What emerges is a definition of mind as a cybernetic system (i.e. based on feedbacks): an enlarged, holistic system that works out information and carries out processes by trial and error. An immanent mind, within a wider system: man plus environment. Within the broader mind, there are differentiated and hierarchically organized interacting subsystems that can be defined as individual minds. Each subsystem must be considered as a part, not as a piece on its own, or even worse in opposition or competition with the wider system. No part of the system can actually control unilaterally the whole system, because the properties of a mental system are immanent in the larger one and each part responds to the relations messages that govern the system itself.

So, what are the mind boundaries? Bateson's answer is surprising and counterintuitive: "I suggest that the delimitation of individual mind must always depend upon what phenomena we wish to understand or explain" (Bateson 1972, 464).

In *Steps to an Ecology of Mind* (Bateson 1972) two famous examples illustrate the mental system: a man who cuts a tree and a blind man.

The average Occidental says "I cut down the tree" (Bateson 1972, 318), assuming that there is something like a circumscribed "I" that performs a finalized and circumscribed action on a delimited object, the tree. Instead, Bateson suggests that we should consider the whole "self-corrective (i.e., mental) process is brought about by a total system, tree-eyes-brain-muscles-ax-stroke-tree" (Bateson 1972, 317). In fact, every ax stroke given by the man is calibrated according to the marks left by the previous stroke. Along the circuit, information about the differences (transforms of differences) is transmitted (differences in the tree bark, in the man retina, in his nervous system, in his muscles…) and these transforms of information are ideas.

"Consider a blind man with a stick. Where does the blind man's self begin? At the tip of the stick? At the handle of the stick? Or at some point halfway up the stick? These questions are nonsense, because the stick is a pathway along which differences are transmitted under transformation, so that to draw a delimiting line *across* this pathway is to cut off a part of the systemic circuit which determines the blind man's locomotion" (Bateson 1972, 318). Therefore, to understand the way the blind man walks, we must consider the holistic system that includes the man, with all his sensorial channels involved, and the stick (and the ground on which they move, and

the passers-by around the blind man, and the noises around…). Any border we want to trace around a mental system, we must trace it so as no information channels are cut in a way that would make the phenomena incomprehensible. Understanding the blind's walk would not be possible without considering the information transmitted by the stick. Recalling the blind man's example later, Bateson points out that if we looked at the blind sitting at the table, and would like to understand how he eats, then the stick and its messages would no longer be so relevant; whereas, I will add, we would have to include in our observation other information channels and other sense organs (for instance the fork and the sense of smell).

Furthermore, to define the individual mind, also the involved memory parts and "data banks" must be included (Bateson 1972, 500). Human beings move as naive philosophers that is, they observe reality and organize their actions based on premises, i.e. ideas of a general and abstract nature which have repeated with greater frequency. These premises are learned, or rather deutero-learned, through a process that Bateson calls "habit formation" (Bateson 1972, 509), which selects those ideas that are repeated or confirmed in different learning, in different contexts, and places them in a separate category. "These trusted ideas then become available for immediate use without thoughtful inspection, while the more flexible parts of the mind can be saved for use on newer matters" (Bateson 1972). Both premises and process of habit formation are out of immediate awareness, and therefore beyond the possibility of being subjected to a critical examination. Over time, these premises tend to become rather rigid and, due to the same process through which they had formed, they become "nuclear or nodal within constellations of other ideas" (Bateson 1972, 510). Since ideas are also related, they can confirm or contradict each other, staying more or less easily together, therefore these nodes will organize subsequent learning. However, the fact that an idea is repeated and confirmed over time does not mean that it is true or useful. Therefore, human beings can possibly organize their knowledge on the basis of untrue, even pathogenic, premises. The good news, which has been revolutionary in the psychotherapy world, is that a change in a fundamental premise, in a node, can lead to a change in the whole constellation of connected ideas, and therefore in the way we move in the world. Hence, systemic therapy began to become interested in the world of ideas and premises, in how they are formed and shared in a group, in how they can be modified.

Theoretical and ethical repercussions of this epistemology, of this ecology of mind, are considerable and cross many knowledge fields, not only that of therapy. Here we will focus only on some aspects. First of all the ego, as we are commonly used to think of, is profoundly reduced. Bateson suggests that "A certain humility becomes appropriate, tempered by the dignity or joy of being part of something much bigger. A part—if you will—of God" (Bateson 1972, 468).

According to Bateson, the survival unit is not the individual, or the family, or the society, but the *organism-in-its-environment* (Bateson 1972, 457). An individual who does not take account of his profound and vital interconnection with his environment (physical and anthropic) risks to treat it without any ethical consideration and to act only for the survival of his own unity, or his own people (family, community, country…), in contrast and in competition with other individuals, other people,

with nature. Inevitably, this attitude leads to considering the other an enemy and to destroying the environment. The topicality of this observation is evident.

However, the survival unit "organism-in-its-environment" also becomes the observation unit. To describe and understand an individual behavior, Bateson suggests that we broaden the observation field, including all those communicative channels that transmit and to which are transmitted information, just like the blind's stone. In the field of clinical psychology and psychiatry, this has opened a new and very prolific research and intervention line, which has changed for many clinicians the way of understanding and treating mental illness. The research conducted by Bateson himself with others at the Mental Research Institute on schizophrenia, for example, has extended the observation field to the communicative exchanges within the family, up to the elaboration of the double bond theory (Bateson 1972).

Therefore, also mental suffering is not enclosed in the suffering person's skull (or neuro-transmitters, or personality), but emerges in a wider system that works like a mind, has its own ecology of ideas and shares a series of premises. Since then, families have been observed and studied as systems: all members are considered as individual minds, interconnected and interdependent as described above, each with his own body boundary and his own functioning, but all involved in the information exchange process, although with different roles (Minuchin 1977).

Of course, this process does not exclusively concern families. Every time you participate in a human system (a school class, a work team, a condominium meeting…) you become part of a systemic mind, which you influence and which you are influenced by. Therefore, describing the behavior of a single individual who participates in a group by referring exclusively to intra-psychological characteristics turns out to be not only anti-ecological, but also not very useful.

Finally, it should be emphasized that, like the blind man's rod, even man built environments are part of information channels that make up the systemic mind. Tiles of different colors on the floors of railway stations convey information about the best trajectory to follow and reach the track. As well as the removal of benches from large railway stations will force me to find another way to wait for the train (Piselli 2015).

Therefore, Bateson redefines our mind boundaries, which expand beyond our body and also beyond our biological life. Bodies follow their biological destiny, but ideas survive within the ecological mind, such as books or works of art, as information within a wider circuit. He warns us against arbitrary separations between individuals and their context, between body and mind and, as we will see, between emotions and rationality. Yet, he reminds us that borders exist and that, as we have seen above, tracing distinctions is an act to understand the phenomena, which is necessary to the wise and the mad. Provided we remember that some distinctions are arbitrary and, when we observe an arc of the circuit, we keep in mind that there is a wider circuit.

3 Borders and Autonomy: Ernest Hartmann and Arno Gruen

Ernest Hartmann (1934–2013) was an Austrian-American psychiatrist and psychoanalyst. Having studied dreams for a long time, he dedicated the last years of his professional life to the development of the boundary theory. His theory assumes that borders are everywhere (Hartmann 2011). Whether we observe phenomena internal to the mind or in the external world, parts, portions, arcs separated from each other can be identified. These parts are separated and connected by boundaries that are not imaginary or one-dimensional lines, but have observable characteristics both within the mind and in interpersonal relationships.

Borders can be thin or thick. Hartmann places them on a continuum that goes from the focused vigil, where the boundaries are very thick, to daydreaming or dreaming itself, where the borders are very thin. Thick boundaries have to do with separation, with well-defined margins between one thing and another, with precise distinctions. Thin boundaries, on the other hand, relate to connections, blurred margins, permeability. Thick borders divide the world into black and white, me and not me. Thin ones evoke nuances, proximity. Thick boundaries concern autonomy and independence, thin ones closeness and intimacy. Thick borders allow focused attention, concentration on a task. Thin ones favor creativity, reverie, daydreaming. Too thick borders can lead to excessive rigidity, even pathological closure towards the external world or some parts of the self, to cold and detached relationships. On the contrary, too thin borders can make individuals feel overly defenseless, vulnerable, in need of fusional relationships. It should be emphasized that Hartmann does not attribute a different value to thick or thin borders. Indeed, although each of us tends to develop a prevalence of more or less thin or thick borders, a harmonious development includes a mix of both, and consequently the possibility of thinning or thickening borders according to the activity and the circumstances in which one finds oneself involved. In this regard, the author coined the expression "Amoeba principle" (Hartmann 2011, 115). Amoeba is a microscopic unicellular being that, in normal circumstances, extends its pseudopodia to the external environment. When it feels threatened, the amoeba withdraws its pseudopodia, which go to thicken the outer membrane and protect the amoeba itself. Human beings react in the same way. When we feel threatened, we thicken our borders. This not only implies a closure, but also the use of a very rigid dichotomous thought: us against them, white against black, right against wrong. When we feel threatened, we want precise answers, we want certainties. Hartmann emphasizes that this is not only an individuals' answer, but also a groups' one (communities, countries, nations…). In the face of a threatening sensation, space for a complex thought, for nuances, for connections is dramatically reduced.

According to Hartmann, borders have a biological basis in the brain and begin to develop from early childhood. Besides, most of children's development probably has to do with the boundaries perception and maintenance. The first boundary that a child must trace is between "me" and "not me", which is between himself and his mother. Somehow, much of our education system provides for a progressive

borders thickening in view of a greater autonomy. However, our needs of relationship, closeness, intimacy remain throughout our whole life. Hartmann hypothesizes that the child can progressively find a balance between his (internal and external) pushes to autonomy and his need for relationship; in this tension, one can build and maintain a separate individual identity, but in relation to the others. We must observe that, unlike Hartmann, we live in a time which is greatly in favor of thick boundaries and, since childhood, attributes much value to autonomy. This is identified with having less and less need of adults, of others, with managing on one's own in any circumstance, with being masters and artisans of one's own destiny. Needing the other is considered a symptom of weakness, and weakness is simply unacceptable. Clearly, this vision has important repercussions in the way we consider our frailties, we relate to each other and to our weaknesses; consequently, in the way we individually and collectively take care of children, who are helpless creatures by their very nature, as well as of anyone who is perceived as needy.

In the light of a long clinical experience, Arno Gruen (1936–2015), psychologist and psychoanalyst, emphasizes the inherent dangers of this type of vision. Mothers, together and after whom all the adults who take care of the children, when do not accept their own impotence, weakness, fragility, risk not to accept even the children's one. This will lead her to reject any expression of weakness, any request for help and comfort from the child. Then, the child will learn, Bateson (Bateson 1972) would say deutero-learn, to limit his own requests for help, to deny and suffocate his own emotional needs, denying and suffocating at the same time even a large part of his humanity. Growing, this will make him less and less sensitive to his internal states, less and less available to those of others, nurturing a vicious indifference and ruthlessness circle, of which now we can all observe the effects. According to Gruen, true autonomy has nothing to do with acquiring practices or doing things by one's own. Instead, true autonomy arises from being able to freely experience one's internal states, perceptions, feelings and needs. Being able to express emotions such as pain, despair, but also euphoria and joy, and seeing them welcomed by the other, allows us to build a bridge (a border) between our internal and external world. Only in this way, is maintained the access to our humanity, which is so powerless and fragile, but also vital and creative and joyful. When ties with this humanity are severed, when too thick mind boundaries are generated, Hartmann would say, we actually move away from painful sensations, but we also lose the possibility of experiencing joy, vitality and ultimately closeness and participation with other human beings. According to Gruen, it is love and compassion, meant as sharing a common human feeling, which allow an authentic and autonomous self to develop and unfold. The result is a view of autonomy that is far from the current one, with important implications both on psychotherapy and on the way we think about human relationships. An autonomy emerges that has to do with being deeply connected with one's own humanity, as well as with humanity in an extended sense. An interconnected and interdependent autonomy, which resonates much with Gregory Bateson's ecological mind.

3.1 Borders in the Mind. Risks of a Too Rigid Separation

Although Hartmann reminds us that thick boundaries are necessary for many aspects of everyday life, it is clear that too thick mind boundaries involve a series of dangers, both for the individual and for the relationships system.

Gruen warns us against inherent risks of excessive abstraction (Gruen 2007). An excessively abstract, hyper-rational thought takes us away from a real understanding of the world and of the other. Indeed, abstraction allows us to transform reality into ideas, which take the place of the real they originally intended to reflect. If we move in a world made up only of abstract ideas and disconnect the link with the needs that generated them, our ability to understand the world diminishes. But not only that. What lose are openness, enthusiasm and passions. A world only made of ideas is an inhuman world. In fact, excessive abstraction is destructive, both at an individual and at a collective level. If also human beings become an idea, then we can take inhuman decisions, which treat people as means and not as purposes.

Gregory Bateson also inveighs against an overly rational mind, his prose not being as delicate as Gruen's. In fact, he maintains that the separation between emotions and the intellect is "monstrous and dangerous" (Bateson 1972, 470), and that purely purposed rationality is by its very nature "pathogenic and destructive of life" (Bateson 1972, 146). According to Bateson, emotions, like dreams, are a form of "thought", of "reasoning", i.e. information on issues such as love, hatred, dependence, authority: relationship issues that are of vital importance for the very survival of human beings. According to Bateson, considering them as obstacles or interferences with a rational thought and therefore ignoring them, cutting them off from decision-making processes is a harmful attitude, with terrible consequences, like separating mind from body, the individual mind from the collective one. Decisions taken by a mind isolated both from the collective mind and from its own emotions (conscious purpose), have as a consequence a dehumanization of other people and potentially the environment destruction, implicate both of them being seen as separate, unconnected, as abstractions, ultimately as not alive.

Bateson uses the expression "unaided consciousness" (Bateson 1972, 145). The aids he mentions are art, religion, dream and similar things. Consciousness without aids cannot "appreciate" the systemic and interconnected mind nature, since it can only see small arcs of circuit with which it can interact (and on which it can intervene directly). This mind without aid will inevitably tend to hate, not only for the reasons expressed above, but also because, seeing only arcs of circuit and never the whole, complex, interconnected system, individuals will always be surprised, frustrated and angry to see their finalized strategies failing or turning against them. "That is the sort of world we live in—a world of circuit structures—and love can survive only if wisdom (i.e., a sense of recognition of the fact of the circuit) has an effective voice" (Bateson 1972, 146). Therefore, a rational mind needs the help of art, dreams and religion to remain wise, that is to say profoundly aware of the systemic mind that connects. According to Bateson, art is not an expression of the unconscious, but it rather deals with the relationship between different levels of the mental process.

Art has to do with the search for grace, which is basically a question of integration between different parts of the mind. (Bateson 1972, 129). Therefore, we can assume that creativity resides in the ability to access and cross different parts of mind, separated by thin and permeable boundaries, which allow us to bathe in emotions, in our own humanity, but also to use technique and rationality that allow us to translate connections through the tools of art.

Finally, we can hypothesize that art, dreams, religion can help to thin very thick borders, because they stimulate shared and sharable experiences with respect to one's own emotions, to one's humanity, and ultimately to a deep connection with the real.

4 Dwelling: Martin Heidegger and Franco La Cecla

Dwelling is a human faculty: we are physically and biologically placed in a space and with this we develop some form of relationship having individual, affective as well as socially and culturally elaborated characteristics.

The German philosopher Martin Heidegger (1889–1976) in a 1951 conference devoted to the relationship between man and space titled *Building, Dwelling, Thinking* explores the theme of living and building, that is, of how spaces become places and how men relate to them. "Dwelling is the manner in which mortals are on the earth" (Heidegger 1971) and its fundamental characteristic is taking care (sparing and preserving). Heidegger argues that dwelling is given by the convergence of four dimensions, which he calls Squaring (fourfold): earth, sky, god and man. Earth and sky represent the natural environmental aspects, while the psychological, relational, ecological and spiritual aspects are god and man. Men live in the Squaring and take care of the Squaring. How? According to Heidegger, taking care of the Squaring means preserving, sheltering. Men shelter the Squaring since they always live near things, the things they build. Therefore, building, i.e. transforming spaces into places, is a subsequent moment than dwelling. We can build because we can dwell.

In different ways, he says, both building and thinking are indispensable for dwelling. However, as long they remain separate "without listening to one another", they are also insufficient (Heidegger 1971). Building and thinking can listen to one another when, while remaining distinct practices, they remember that they belong to the broader framework of dwelling, therefore of being in the world, on earth, under the sky, connected to other men and in front of the divinity. So, even the German philosopher somehow warns us against separations and too thick borders.

According to Heidegger, using the expression "the relationship between man and space" is itself misleading, since it presupposes a separation. Space is not something separate, nor an external object or an experience (though we know that it can be all these things). There are no men on one side and space on the other, because in the definition of men the idea is embedded of men who dwell in the Squaring and close to things. "The relationship between man and space is none other than dwelling, strictly thought and spoken".

His intervention ends with a reflection on the housing crisis (it is 1951), which according to him has different causes from wars and destruction, different from changes linked to the population increase and to industrialization. According to Heidegger, it has more to do with feeling oneself uprooted, with searching for a way of dwelling, that is, of being in the world. Men seem they want to keep this "plight" away, not wanting to reflect on their homelessness. Yet, it is precisely the recognition of this lack that can call human beings to dwell, and therefore to build, starting from dwelling and thinking to dwell.

"We are flesh and geography" (La Cecla 2000, 128) writes Franco La Cecla, an anthropologist and architect, in a volume dedicated to losing oneself and feeling uprooted, to the relationship between man and the environment. According to La Cecla, in affinity with Heidegger, the separation between man and environment is arbitrary: "environment as 'surroundings' is an interaction between two presences, the inhabitant's and that of the place. The two presences are similar because the body, our body, is not in the space, but it dwells the space; it is made of the same substance, is an integral part of it" (La Cecla 2000, 88). Therefore, "getting lost" implies a discrepancy, a sudden distance between us and the space, a perceived gap between an expectation of familiarity and a series of indecipherable messages that cause a "vertigo", a "disorientation" (La Cecla 2000, 89); according to La Cecla, a similar state to that described by Gregory Bateson as the double bond situation (Bateson 1972). Referring again to Bateson, the author affirms that "getting lost", with its implied bewilderment, may also be an opportunity to re-settle: therefore, to activate a process of deutero-learning about our relationship with the environment, which had become a premise, an abstract idea taken for granted; therefore, to form new habits. La Cecla calls this process "local mind" and defines it as the "reconstitution of interactions, the re-contextualization of a relationship. It is the subject that makes up its mind but, from time to time, this local mind is formed differently; indeed, we would better say "differently from place to place" […] but it is in the nature of this process that a distinction between subject and context is *inextricable*"[1] (La Cecla 2000, 92–93). Thus, our knowledge, our learning vary from place to place, and places are modified by those who become familiar again with them. In fact the "local mind" is a space perception and definition, but it is also a use, an appropriation of space itself. The more we distance ourselves from the space manipulation, the more we distance ourselves from our identity, which becomes less defined and less interesting even to ourselves.

Therefore, dwelling means to be, and to take care of, the natural environment, together with other human beings and in the presence of the divine. Living connected to Gregory Bateson's ecological mind and to Franco La Cecla's "local mind". Beautiful. But also incredibly complicated, if not impossible since, as we have seen above, human beings can perceive and interact directly only with portions, with arcs of the scircuit and never with totality. We are "condemned" to the margins, to the borders. There, human beings live and relate to each other.

[1] Italic by the Author.

5 Conclusions

There is a well-known expression of the British pediatrician and psychoanalyst Donald Winnicott (1896–1971), very dear to developmental psychology students, who reads "There's no such thing as a baby" (Winnicott 1947, 88). Winnicott meant that a child does not exist except in relation to someone else. Indeed, it is known to anyone that a newborn could not survive alone, neither physically nor psychologically. Not only that: as we have seen, Bateson reminds us that to understand and describe the behavior of a child we must also include in our observation his mother with her emotions (Bateson 1972). And to understand and describe their interaction, we will also need to include the father, the families of origin, the context in which they live, their premises and the socio-cultural ones on the mother-child relationships. This is the basis of the family therapy: widen the observation context to describe and explain the individual behavior, even the pathological one.

Yet, we must recognize that a child exists as a separate individual (the umbilical cord, the vital biological link that connects him to his mother is cut a few moments after his birth), who has his own boundaries. Hartmann tells us that these borders are very thin, just like his skin; still, they exist (Hartmann 2011). The mother gets in relationship with her child through his boundaries and her own. She cannot access his inner world (and she will not be able to do so even when the child has acquired the language, unless the child wants to communicate his own internal states), but she can touch his skin, console his crying, sing a song to him while she is feeding him. But the borders remain (when these borders are denied it is serious trouble).

Let's go back a second to the example of Bateson's blind man (Bateson 1972). We have seen that, if we want to understand the blind's walk, we observers must include the stick in our observation. But what if we asked the blind man? I believe he could tell us where the boundary between himself and the stick is; and I believe he would place it in the hand that holds it. Probably, in Hartmann's terminology, it is a thin, permeable boundary that allows the blind to receive all the information transmitted by the stick. But, even in this case, there is a border.

We relate to each other and with our surrounding environment across our borders. We dwell, in Heidegger's sense "we are in the world", in these boundaries. We are separated from the others, yet we have a formidable possibility of contact, almost always. In this regard, La Cecla's observations on thresholds appear very suggestive. Thresholds divide and together unite two different spaces that overlook them. They sign a border, an impossible obstacle or a possible passage. But, says the anthropologist, the passage is allowed only on the condition of dealing with the other (place, individual…), of accepting its influence on our identity. "A threshold is a place where two identities settle, expect, compare and reflect themselves in the space. It serves to confirm differences" (La Cecla 2000, 110).

On a threshold, we ask permission to enter. On a threshold, we let the others enter. On a threshold, we hesitate before leaving, or before actually entering. On a threshold, we welcome and greet. On a threshold, we say goodbye to those who leave

forever, and the threshold will never be the same. The house will never be the same. Thresholds are boundaries.

Things, people, environments, touch us on our borders and we cannot avoid to react. We react according to individual, biological and psychological characteristics, but also according to culturally learned and socially shared behaviors.

Gregory Bateson, Arno Gruen and, in his own way, also Martin Heidegger remind us, in different words, that there is a humanity that joins us all: a mortal, sorrowful, but also joyful, vital and creative humanity. A humanity that unites us, to which we can all participate and which we can recognize in ourselves and in others. Dreams, art, religion can be powerful tools for self and mutual recognition.

Acknowledgements Mom, are there boundaries between disciplines? Of course they exist, and it is good that often they are thick, both during training and during practice. But, as we have seen, information cannot be stopped, some communication channels cannot be cut off, without losing the possibility of understanding reality. Then, a meeting and a dialogue between different disciplines become necessary, indispensable. The present work stems from the reflections born four years ago, during the preparation of *Alteridentità* (Piselli 2015). Once again, I thank Durango publishing house for having entrusted me with the curatorship, it was a precious opportunity. On those pages, people met who came from different disciplines, exchanged ideas and continue to do so in many ways. I believe that in these years these exchanges have enriched everyone. They certainly enriched me. I would like to thank Professor Anna Anzani and Professor Luciano Crespi for hosting me at Politecnico di Milano, Department of Design, to talk with their students. I have always come home richer. I thank Massimo Schinco and Massimo Giuliani for their friendship and our exchanges of recent years. They have already read many of these words, and it is a privilege. I would also like to thank the Centro Milanese di Terapia della famiglia (Milan Family Therapy Center). Teaching there is an ongoing stimulus to study and reflect, on therapy, but not only.

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Perception. Perceiving Space in Pictures

N. Bruno

Abstract Throughout history, humans have used pictures to convey information about the three-dimensional layout of the environment and the volumetric structure of objects. There is little doubt that this form of visual communication can be useful practically (e.g. in technical drawings or maps) as well as aesthetically pleasing (e.g. in artistic paintings, prints, or photographs). Yet, pictures are two-dimensional, dimensionally limited, and constrained in intensity and chromaticity. By construction, visual information in pictures undersamples visual information available in the three-dimensional environment. This being the case, how can we perceive space in pictures? In this chapter, I propose a conceptual scheme for understanding visual information about space. The scheme is based on the concept of ambient optic array developed by J. J. Gibson, and on the key idea that information is available in space-time for an embodied moving observer. I then show how this scheme can be used to identify key differences between spatial perception in the actual environment and spatial perception in pictures. These differences provide useful insights into the spatial understanding of pictures, reveal the fundamental role of viewpoints in interpreting spatial ambiguity, and identify overlooked factors affecting aesthetic experience in perspective and art.

Keywords Space · Perception · Pictures · Information · Ambient optic array · Viewpoint

1 Introduction

Our species has used pictures to convey visual information about space throughout history. It could be argued, in fact, that attempts to represent spatial relations with

English version of the chapter provided by the Author.

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pictures began as early as prehistoric cave art. Thus, perceiving space in pictures may justly considered a fundamental process of human cognition. Yet, pictures are two-dimensional, typically cover only a small portion of our visual field, and are severely limited in the dynamic range of light intensities they reflect to a human eye. Pictures undersample visual information about space in several ways. This being the case, how do we perceive space in pictures? In this chapter, I offer a theoretical framework for approaching this question. This framework is rooted in two fundamental assumptions: (i) when viewing pictures, we engage the same brain mechanisms for depth perception that we developed for perceiving the three-dimensional layout of the environment during the evolution of our species; but (ii) the outcome of these mechanisms is fundamentally different when perceiving pictures, in comparison to perceiving the three-dimensional environment, because the optic information normally available in front of a picture differs in fundamental ways from the information available when perceiving the environment. In these informational differences, I argue, lies one important specificity of the pictorial perception of depth, and from the appreciation of outcomes in the corresponding psychological processes result key insights about our psychological reactions to pictures.

2 Information About Space in the Three-Dimensional Environment

The process of visual perception may be conceived as a chain of events. Light rays emitted from the sun or an artificial illuminant is reflected by the surfaces of objects in various ways that depend on the material composition of these surfaces, on the direction of the illumination, as well as, critically, on the three-dimensional geometry of a given scene. An organism endowed with biological light sensors samples the spatial structure of these light rays to obtain information, which can then be used to form internal representations of the three-dimensional layout of the environment and to guide actions. In our species, this sampling is performed by the *retina*, a thin layer containing a mosaic of *photoreceptors*, neural cells specialized in the *transduction* of electromagnetic energy into a neural code that is then passed on to several other retinal, subcortical, and cortical processing centers. For the purposes of the present chapter, I will not discuss the nature of the neural processing of depth information but will focus instead on understanding the nature of information about depth which is available for this processing. To understand the nature of such information, a useful formalization of the structure of ambient light to a potential viewpoint is provided by the notion of the *ambient optic array* developed by James J. Gibson, one of the most influential perception theorists of the past century.

2.1 The Ambient Optic Array

An illustration of the notion of the ambient optic array is provided in Fig. 1. Gibson (1979) developed the notion as a theoretical construct for describing how manifolds of light rays are structured by interactions with objects in the environment. To do so, he started from an analysis of the environmental layout we need to perceive. This is, he argued, best described as a cluttered arrangement of objects and surfaces at various sizes (but within an overall scale compatible with our bodies), in various spatial relations such as inclusion, support, or adjacency. For this reason, our visual environment is rich in spatial structure. For instance, an observer may be behind a desk, and the desk may be placed in front of a blackboard which hangs on a wall (see again Fig. 1). In addition, the environment is filled with ambient light, that is, with light rays which are emitted from one or more light sources and then bounce around the environment in a complex pattern of reflections. Selecting a potential viewpoint within this dense medium of ambient light defines an ambient optic array. Each surface in the environment can be conceived as the base of a solid angle with its apex at the viewpoint. The set of these solid angles is the ambient optic array for the given viewpoint and scene.

Critically, Gibson pointed out that this array also has a spatial structure, and this structure will depend causally on the structure of the environment. For instance, the solid angle with the base at the blackboard will be nested with the solid angle with the base at the wall, and will be adjacent to that of the desk but above it. Given this causal dependence, the spatial structure of the optic array is bound to preserve, at least in

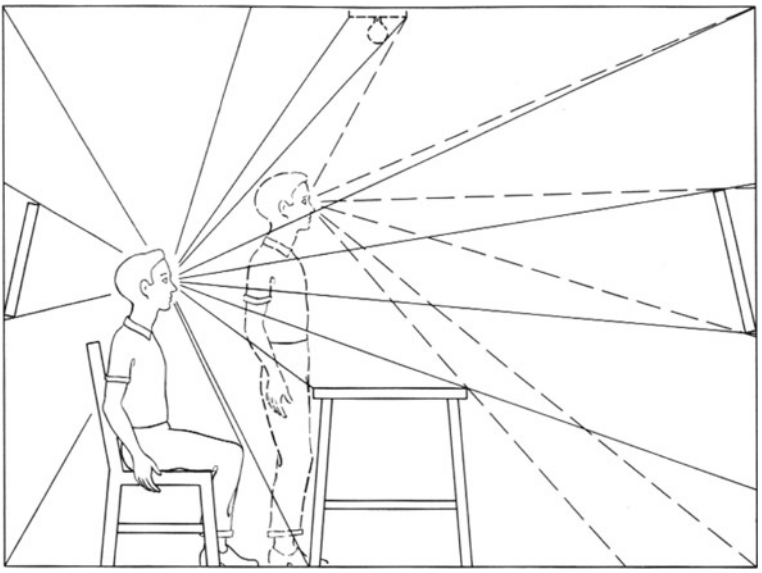

Fig. 1 The ambient optic array from two successive viewpoints, as illustrated in Gibson (1979)

part, the spatial structure of the environment. More precisely, specific features of the spatial structure of optic arrays will map to specific aspects of the spatial structure of the environment. In this sense, these features can be considered as *sources* of optic information about space.

In addition to his analysis of optic information in an optic array, Gibson also made an extremely important point. He noted that humans, like many non-human animals, are mobile organisms. This implies that information is not only potentially available in the spatial structure of optic arrays, but also in their temporal structure. As the viewpoint changes position relative to the environment, the solid angles subtended by objects and surfaces change over time and this change also maps to depth relationships in a ruly manner. Finally, Gibson also noted that humans, again like many non-human animals, have two eyes. This implies that under ordinary conditions we obtain information from a *dual* optic array, which in turn undergoes a set of transformations as we move.

The above considerations suggest a tripartite distinction between sources of information for depth: information derived from the spatial structure in a single array, in a dual array, and from temporal structure. In what follows, I will illustrate them in greater detail starting from the last (motion parallax) then moving on to the second-to-last (binocular parallax), and ending with the first (pictorial information). This order is justified merely by convenience. Although it seems to me that the underlying geometries are most clearly explained in this way, the order does not reflect any implicit ranking in importance or relevance. In natural vision, all three kinds of depth information are usually available and potentially useful. Moreover, and for the sake of completeness, it should be added that although they will not be discussed here other potential sources of information are also available in specific conditions. For instance, information about space is often obtained from auditory or somatosensory information, giving rise to complex multisensory interactions that also affect how we perceive space (Bruno and Pavani 2018). As argued in the final part of this chapter, there are reasons to hypothesize that such multisensory interactions, especially with regard to somatosensation, may have an important role in how we appreciate pictures especially when we look at art in a museum or exhibit.

2.2 Information from Motion Parallax

Rich information about spatial relations is contained in transformations of the optic array that occur over time. Such transformations can be due to changes in position of the viewpoint for a moving observer, relative to stationary objects; to movements of animate or inanimate objects in the environment for a stationary observer, relative to a stationary viewpoint; or to both at the same time. For simplicity, I will limit my discussion to the first of these cases. This simplification is justified on two grounds. First, when viewing pictures one is typically in the first of these situations as pictures are usually stationary when we observe them. Second, even in the presence of moving objects there will be large parts of the environment that do not move as objects

move against the stationary terrain and relative to surrounding stationary objects. That specific optical transformations may be due to either observer or object motion relative to the viewpoint poses specific problems for brain mechanisms that must encode such information to perceive the layout of the environment. A discussion of these mechanisms is however outside the scope of the present chapter.

Optical transformations that occur in the optic array as a consequence of a change in position of the viewpoint are usually referred to as *motion parallax* (or, alternatively, in some contexts, as *optic flow*). To understand how motion parallax provides information about spatial relations, consider Fig. 2, left panel. Suppose the eye is a sphere (this is also a simplification but an adequate one for the purpose of this description) and that the retina covers the inner back part of this sphere, and suppose further that this eye is fixating object F (black disk) in the environment such that the projection of this point falls on the *fovea*, the small central part of the retina which has the highest optical resolution (whenever we fixate an object, we bring its projection on the fovea). Farther from the viewpoint than F lies another object D (red disk), and closer to the viewpoint lies another object C (green). Thus, at time $t0$ the three objects fall on retinal points f0, d0, and c0. Now suppose the eye belongs to a moving observer and that the observer changes position from time $t0$ to time $t1$ while keeping fixation on F. As a consequence of movement, the projections of D and C will change positions (Fig. 2, right panel) on the retina from d0 (desaturated red) to d1 (saturated red) and from c0 to c1 (green). The projection of F however will not change its retinal position as fixation keeps it on the fovea.

As shown in Fig. 2, the positions of D and C relative to F in the optic array change as a function of their position in depth, according to two rules: (i) objects closer to

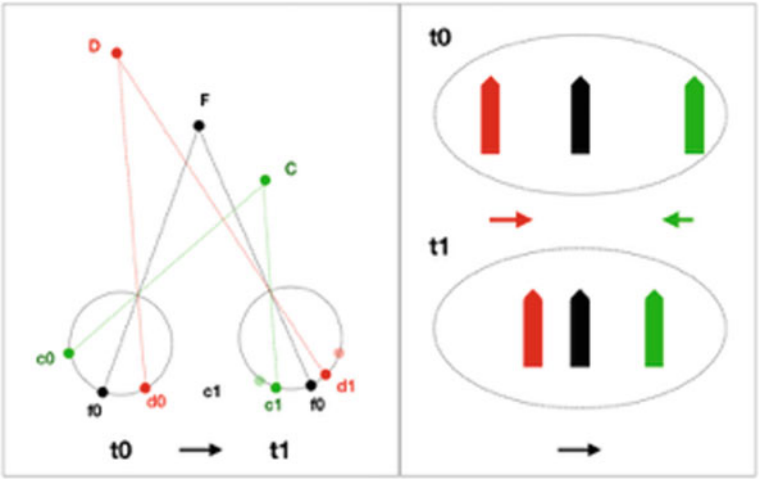

Fig. 2 The geometry of motion parallax as a source of depth information. Black arrow: movement of the observer in the environment. Red and green arrows: displacements of D and C, relative to F, in the optic array

the viewpoint than fixation, such as C, displace optically in the direction opposite to the direction of movement of the observer, whereas objects farther away from the viewpoint, such as D, displace in the same direction as the movement of the observer; (ii) the velocity of the retinal displacement in both directions is proportional to the distance in depth of the object relative to fixation (note that the change of position of C, which is closer to F than D, is less than the change of D as indicated by the length of the green and red arrows). Thus, motion parallax provides information about distances in the environment, relative to the position in depth of the point of fixation, up to a scaling term that depends on the distance of the viewpoint from fixation. This is potentially sufficient to specify the three-dimensional layout of the three points relative to each other (exocentric or object-relative depth), which is useful for perceiving environmental structures. If the distance of fixation from the viewpoint (egocentric or observer-relative depth) is known from other sources of information, motion parallax fully specifies the metric distances of the points. Readers interested in delving deeper into the brain basis of depth perception from motion parallax are referred to the recent review by Kim et al. (2016).

2.3 Information from Binocular Parallax

Humans as well as several non-human animal species have two eyes with partly overlapping visual fields (that is, a portion of the outside environment projects to both retinas). This means that, even for a stationary observer, there is depth information in the differences between the optic arrays to each eye (*binocular* parallax). The geometry of binocular parallax is analogous in many ways to that of motion parallax. Instead of exploiting the temporal changes of the optic array over two successive viewpoints, the brain can extract spatial information from the differences of two simultaneously available arrays. When expressed in relation to retinal locations, these differences are called *disparities.*

An illustration of how retinal disparities convey information about locations in depth is provided in Fig. 3. The analogy with motion parallax should be apparent. Both eyes fixate object F, such that the projection of F falls on the left and right foveas. Retinal locations lf and rf are said to be on *corresponding* points on the two retinas. In fact, given a point of fixation, there is a set of external points that will fall on corresponding retinal points. The locus of these points is called the *horopter* and has an approximately circular shape. All the external points that lie on the horopter have zero retinal disparity. Conversely, both object D, which is farther away from fixation relative to the two viewpoints, and object C, which is closer, have projections that fall on *non-corresponding* retinal locations. Objects with projections that fall on non-corresponding points are said to have non-zero disparity. Note further that the projections of object C fall to the left of fixation on the left eye, and to the right of fixation on the right eye. Because you would need to cross your eyes further (converge) to fixate it, object C is said to have a *crossed* disparity. In contrast, the projections of object D fall to the *right* of fixation on the left eye, and to the *left* of

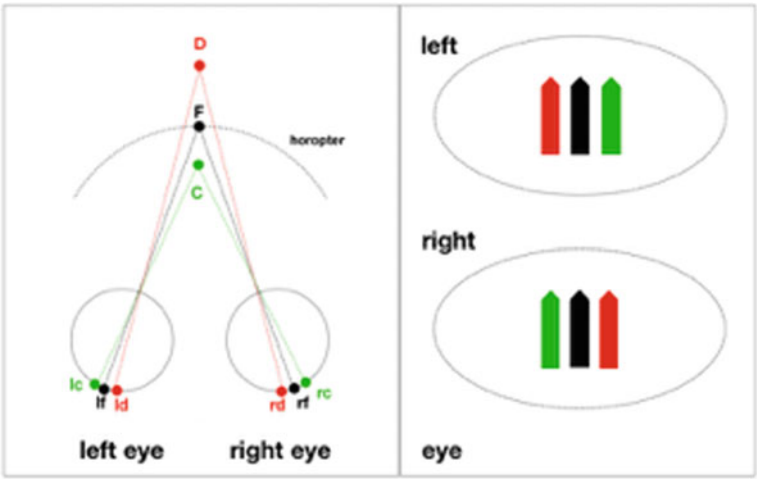

Fig. 3 The geometry of binocular parallax as a source of depth information

fixation on the right eye. Because you would need to uncross (diverge), object D is said to have an *uncrossed* disparity. In general, objects with crossed disparity are closer than the horopter relative to the viewpoint, whereas objects with uncrossed disparity lie farther away. Thus, the sign of the disparity contains information about the order in depth relative to fixation. In addition, the magnitude of the disparity contains information about the relative distance of the point from fixation, up to a scaling term that depends on the distance of F. Again in analogy to motion parallax, if this distance is known, disparities can provide information also about metric distances. Readers interested in the brain basis of depth perception from binocular parallax are referred to reviews by Parker and Cumming (2001); for an updated version see Parker (2019).

2.4 Pictorial Sources of Information

Information about depth relations is also provided to a monocular stationary observer by the structural features of single optic arrays. These features are customarily referred to as the *pictorial* sources of information, because they correspond to the features of a drawing or painting that an artist can exploit to convey a sense of depth in a picture.

The textbook list of pictorial sources usually includes the following features: *height in plane, relative size, occlusion* (sometimes also called *interposition* or *overlap*), and *aerial perspective*. These are exemplified in the simplified scene in the left panel of Fig. 4, which should appear as a set of similarly shaped grey elements receding in depth, seen through two windowpanes mounted on a black frame. Height

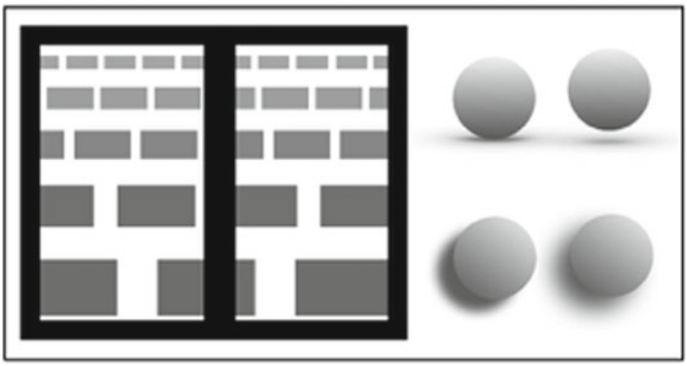

Fig. 4 An illustration of six pictorial sources of depth information: height in plane, relative size, occlusion, aerial perspective, shading, and cast shadows

in plane refers to the fact that elements that are higher up in the optic array are farther away from the viewpoint, assuming that they all rest on the terrain and that the terrain is approximately flat. Note that the rectangles near the top of the windowpanes tend to appear farther away than those near the bottom. Relative size refers to the fact that the projected size of elements in the optic array is proportional to the distance from the viewpoint, assuming that all the elements have the same physical size. Note that the smaller rectangles tend to appear farther away. Occlusion refers to the fact that elements that hide parts of other elements are in front of these hidden elements. Note that the black frame, which hides parts of some rectangles, appears on a nearer depth plane. Aerial perspective, finally, refers to the fact that the contrast in light intensity between an element and its background tends to reduce as a function of the distance from the viewpoint. In a colored scene, the reduction in contrast also correlates with a change of chromaticity towards the blue end of the spectrum. This is typically observed in a panoramic view with mountain peaks in the background, where more distant peaks have less contrast and appear increasingly similar to the sky.

In addition, information about depth relations is provided in a static monocular optic array by *cast shadows* and by patterns of *shading* on surfaces (sometimes called *chiaroscuro* by painters). These are exemplified in the figures in right panel of Fig. 4. Note how the contact relations between cast shadows and the supporting terrain provide information about the position of the sphere relative to the support, how shading patterns provide information about the three-dimensional structure of the spheres, and how both shadows and shading provide information about the direction of the illumination.

In contrast to parallax-based sources, pictorial sources provide probabilistic information about depth as they rely on the validity of assumptions about the statistics of the natural environment and of typical viewpoints. In addition, they often provide only information about depth order (i.e., what is in front and what is behind) rather than relative or absolute distance. Information from pictorial cues can nonetheless

have important consequences on perceived depth, most notably as constraints on the processing of binocular or motion parallax. As an example, readers can find a thorough discussion of neural interactions between disparity and pictorial sources of information in the recent review by Welchman (2016).

3 Optic Information about Space in Pictures

When we look at a picture, the same sources of information become available that are available when we look at the three-dimensional environment. This I take as a given: the picture, be it a painting, a drawing, or a photograph, is itself part of a physical object in a given position in the space surrounding the viewer. For instance, a painting is typically a flat surface (the canvas), mounted on a frame which in turn hangs on a wall. On this flat surface however is an arrangement of elements (lines, forms, colors) which are meant to depict a different portion of the environment. This arrangement will vary, naturally, depending on the nature of the picture. In a landscape or city view, the arrangement explicitly aims to depict in fact a portion of a three-dimensional environment, as seen from a given viewpoint. Think, for instance, about one of the many views of Venice painted by Canaletto. In an abstract, non-representational picture, what is the aim of the painter is less obvious, but some depiction of spatial relationships is still present to some degree. An example that comes to mind are the mature works of Vasilij Kandiskij, where variously colored lines and geometrical figures overlay in different positions on the canvas. Whatever the style of the painting, the arrangement of visual elements on the picture itself has a spatial structure, which is mirrored by the structure of a portion of the optic array available to the viewer. However, as noted again by Gibson (1979), this portion of the optic array is conceived as "frozen" in space-time—it is meant to capture, at least to some extent, a unique potential array available from a viewpoint. As a consequence, the sources of depth information that are available when viewing the picture are indeed the same as those available in ordinary vision. However, as a whole the *information they provide* to the visual system of the viewer presents some crucial differences with respect to viewing the three-dimensional environment. In what follows, I will discuss information from parallax and then move on to pictorial information.

3.1 Motion and Binocular Parallax

When looking at a painting depicting depth relationships between objects, binocular and motion parallax will not specify depth but *flatness.* Said otherwise, they will signal to brain mechanisms information about the two-dimensional surface of the canvas. This is so because parallax information depends on three-dimensional geometry of the scene. Thus, retinal disparities will be consistent with all the elements

depicted in the picture being on the same plane, at some slant relative to the viewpoint depending on its position relative to the canvas. Similarly, when the viewpoint moves over time, the optic array will undergo optical transformations consistent with the position of the canvas in the three-dimensional environment. Neither source will be consistent with the depth relationships depicted in the picture. A simple example of this general fact is what happens when the picture depicts an elongated object pointing towards the viewer, such as, for instance, the barrel of a gun. Suppose you are standing right in front of the picture, and then move sideways to the right. If the barrel was actually pointing towards you in depth, the structure of the optic array should gradually reveal the left side of the barrel while the background elements on the right side of the barrel should be gradually hidden from view. But this of course will not happen, because the barrel is merely painted on the canvas—it does not actually have a three dimensional structure in depth. We will return to this kind of situations in the next section, as they often give rise to interesting phenomena of pictorial perception. Before doing that, consider first information from pictorial sources.

3.2 Pictorial Sources

When looking at a painting depicting depth relationships between objects, if the projective geometry of the painting is correct then pictorial sources *are* consistent with the structure of the optic array for the viewpoint appropriate for the projection, provided that one looks at the picture monocularly or that the distance of the viewpoint from the picture is large enough to make binocular parallax irrelevant. This implies that it is possible, in principle, to make a picture that, when viewed from the appropriate viewpoint by a monocular (or binocular if far) static observer, will approximate the structure of the actual optic array for the three-dimensional depicted scene to a sufficient degree that the approximation will be practically equivalent to the actual array. In this case, pictorial sources *in the picture* will provide information that will be equivalent to the information provided by pictorial sources from the three-dimensional depicted environment. It must be emphasized, however, that this will be true only if the location of the observer is consistent (or at least not too different) from the implied viewpoint of the picture. If this is not the case, then the optic array created by the picture will not be consistent with the intended optic array for the three-dimensional depicted environment, but with an array consistent with a different three-dimensional layout. This general fact also has generated interesting phenomena that provide insights into the brain mechanisms underlying the perception and appreciation of pictures, as discussed in what follows.

4 The Role of Viewpoint in Understanding and Appreciating Pictures

Having set the stage with our analysis of depth information in pictures, we can now turn to its psychological consequences. In this last part of the chapter, I will show how considering the potential conflict between depth interpretations engendered by different sources can lead us to fundamental insights about our understanding and appreciation of pictures. Given length limitations, I will limit my discussion to three key phenomena, *trompe l'oeil*, the *robustness of perspective*, and *reverse perspective*. I will conclude with a discussion of the role of the viewpoint in structuring the psychological dynamics of pictorial depth perception.

4.1 Trompe l'oeil

In a classic book about linear perspective, Edgerton (1975, discussed in Kubovy 1988) analyzed an intriguing anecdote about the celebrated Renaissance architect Filippo Brunelleschi. The story is more or less the following. According to Antonio Manetti, Brunelleschi's biographer from the fifteenth century, Brunelleschi had painted a perspective view of St. John's Baptistry as seen from the portal of S*anta Maria del Fiore* (the Florentine cathedral, at the time still unfinished). The painting was on a relatively small panel that could be held with one hand, and Brunelleschi had made a small hole in this panel exactly at the center of projection. Viewers were asked to hold the painting, its unpainted back facing them, with one hand, to hold a mirror in front of the painting with the other hand, and to bring one eye near the hole to look at the reflection. Manetti reports having tried the demonstration many times, invariably having the impression that upon looking through the hole he felt as if he were seeing the real Baptistry. Unfortunately, the painting has not been preserved and Brunelleschi himself left no statements about it. However, the story is generally held to be true and is often discussed in scholarly works on perspective and perception (see, for instance, Davis 2017). I take it as a prototypical illustration of the key principle underlying trompe l'oeil, the art genre that aims at making pictures that cannot be distinguished from the actual depicted object.

The trompe l'oeil genre itself is multifarious and spans most of the history of the visual arts, from Greek and Roman art to contemporary hyper-realistic paintings. The "fooling of the eye" effect may involve a single element of the picture, as the famous fly painted in the lower right corner of Carlo Crivelli's *Virgin and Child* (ca. 1480), or as in the inscribed piece of parchment at the bottom of Antonello da Messina's *Salvator Mundi* (ca. 1470). In many other cases, the effect may involve the whole painting, and viewers have the impression of looking at something three-dimensional rather than a picture. For instance, the effect may be a simulated bas relief, an object, or a whole scene. What matters for the purposes of this chapter, however, is that viewers are seldom in a situation analogous to Brunelleschi's demonstration when

they enjoy trompe l'oeil. In the Brunelleschi case, the viewpoint was constrained by the peephole on the surface of the painting, such that viewers were necessarily in the correct position for the virtual viewpoint of the perspective rendition. They were, in other words, monocular static observers sampling a single optic array, and the structure of this array contained rich pictorial information about the simulated three-dimensional scene. That they believed that they were seeing the real thing is therefore not particularly surprising. In typical conditions, in contrast, viewers of trompe l'oeil are not at the correct virtual viewpoint, they move, and they look at the trompe l'oeil with two eyes. There is information from parallax that the seen object is in fact flat. As a consequence, as argued also by Calabrese (2011), the effect is not *literally* a belief that one is seeing the real thing.

Thus, an analysis of depth information available when viewing trompe l'oeil suggests conflicting sensory signals, whereas an analysis of the phenomenology of trompe l'oeil suggests that behavioral responses are more complex than simply mistaking a depiction for a real object. Perhaps the most intriguing hypothesis about the psychological principle regulating these responses has been provided by Kubovy (1988). According to Kubovy, the key element underlying our fascination with trompe l'oeil is meta-perceptual rather than perceptual *tout court*. Viewers experience the painting as the possibility of an illusion of reality, rather than a full perceptual error of taking the painting for a real object. This possibility is rooted in the dynamics of different cognitive interpretations of the available depth information, some of which reveals the true three-dimensional geometry of the painted canvas, while other sources suggest an alternative depth interpretation and viewpoint. This very last element, which depends on the mismatch between the actual viewpoint of the observers and the implied viewpoint of the perspective, raises the issue of the psychological processing of such mismatches, a phenomenon which is often termed the robustness of perspective.

4.2 The Robustness of Perspective

The celebrated *Notebooks* of Leonardo da Vinci include an intriguing passage about depictions of depth in a painting. Leonardo stated: "If you want to represent an object near you which is to have the effect of nature, it is impossible that your perspective should not look wrong, with every false relation and disagreement of proportion that can be imagined in a wretched work, unless the spectator, when he looks at it, has his eye at the very distance and height and direction where the eye or the point of sight was placed in doing the perspective" (da Vinci 2008). Interestingly, Leonardo's claim is both right and wrong. It is right in terms of geometrical perspective, or, casted in the conceptual framework of the present chapter, in terms of the geometry of the optic array and the resulting pictorial cues. It is also wrong, however, because Leonardo claimed that the depiction of space will "look" wrong to a viewer. Readers can convince themselves of this with a simple experiment. Find a picture depicting a depth scene. For instance, a photograph, or a perspective painting, or the technical

drawing of a building by an architect. Look at it from a few viewpoints. Does the scene look distorted ("wretched with false relations and disagreements of proportions")?

The answer is, of course, that it does not. When looking at pictures, the human visual system is quite adept at giving us a satisfactory perception of a depicted scene even when not at the geometrically correct viewpoint. Kubovy (1988) has called this fundamental fact of pictorial perception the "robustness" of perspective, and a recent summary of the phenomenon can be read in Pagel (2017). The robustness of perspective is a remarkable fact with two important implications for our understanding of pictorial depth. The first of these is that the brain mechanism processing pictorial sources evidently does not perform "inverse optics". It does not attempt to reconstruct a metrically accurate representation of the represented three-dimensional space from its two-dimensional projection at the given viewpoint. Rather, it seems that information from pictorial sources is used, in combination with parallax information, to construct a behaviorally useful representation of the layout of objects in the environment. As argued by many contemporary theorists (see, for instance, Hoffman et al. 2015), this representation only needs to be as accurate as needed to support successful interactions with the environment. Such interactions seldom require perfect measurements in all dimensions of a three-dimensional structure. For instance, to support grasping an object estimates of distance from the hand and size relative to the size of the hand should be sufficient, in principle, to guide the movement. The second implication is that processing related to the brain coding of viewing position plays an important role in the perception of pictures. There is evidence, in fact, that the robustness of perspective entails a sort of mental compensation of the incorrect viewing position. Evidence for this hypothesis comes from analysis of cases when robustness fails.

The robustness of perspective is not perfect. Although in most cases we are not aware of distortions that one might expect based on Leonardo's reasoning, in some cases perspective views of photographs do appear distorted. These limiting cases are interesting in their own way, as they provide hints at the processing principles underlying the robustness of perspective. A much discussed example (see for instance Massironi 2002; Massironi and Savardi 1991) is found in the church of Saint Ignatius in Rome, where visitors can find a yellow marble disk inserted in the floor of the central part of the nave. While standing on this disk, a visitor looking up to the ceiling of the church will occupy a viewpoint consistent with the geometry of the central projection for the perspective of the fresco painted on the ceiling. The fresco, painted by Andrea Pozzo towards the end of the 1th century, depicts architectural elements that seem to extend upwards those of the real church, eventually leading to a central opening showing the sky with angels and cherubs hovering over the viewers. The striking realism of the painted representation, which has fascinated visitors of the church for centuries, owes much to the fact that the ceiling is in fact quite distant from the spectator's standpoint. The distance essentially removes any binocular disparity, and therefore binocular parallax provides no information about flatness. One has no awareness of looking at a picture rather than a real three-dimensional structure. As can be easily witnessed by any visitor to the church, however, if one moves away from the marble disk while still looking at the ceiling, striking distortions are immediately

perceived. That in these conditions distortions *are* seen as expected by Leonardo suggests an intriguing possibility: that a necessary condition of the robustness of perspective is that depth information must be available for perceiving the flatness of the picture.

The hypothesis that one must see the picture in order to see the depicted space is in fact supported by empirical evidence. In a classic study, Rosinski et al. (1980) obtained judgments of perceived orientation in depth for pictures that depicted a simple surface at various slants. In one experiment, participants looked at the picture from two constrained position binocularly, with their head held in a fixed position by an ophtalmic chin- and headrest. Both positions were geometrically incorrect, that is, they did not correspond to the geometrically correct viewpoint for the depicted surface, and corresponded to widely different projected surface orientations. However, judgements of perceived orientation closely followed the true surface slant, with little difference between the two positions. Thus, the results of this experiment were consistent with the robustness of perspective. In another experiment, participants looked at the picture from two peepholes, such that viewpoints were constrained and monocular. One of the peepholes coincided with the correct viewpoint for the depicted surface, whereas the other did not. Therefore, the projected surface orientation coincided with the true surface slant in the former, whereas it differed from it in the latter. In contrast to the binocular experiment, in this other experiment the judged orientation followed the true slant when the picture was viewed from the correct viewpoint, whereas it was systematically larger than the true slant from the incorrect one. In other words, in the conditions of this second experiment the robustness of perspective failed. Rosinski and collaborators suggested that participants compensated for the incorrect viewpoints (i.e., perspective was robust) when binocular information provided information about the surface of the picture, as in the first experiment. When this information was absent, no compensation was possible and therefore distortions occurred from the incorrect viewpoint. The results of Rosinski and collaborators have been replicated in later studies (e.g. Vishwanath et al. 2005).

4.3 Reverse Perspective

As readers have likely understood by now, a key tenet of the present chapter is that the specificity of pictorial perception lies in a conflict of information. Parallax-related sources of information, which specify flatness, conflict with pictorial sources (or, if you wish, perspective) which specify depth from a specific viewpoint. This conflict, I argued, engages a mental dynamics of compensation which only occurs with pictures. In the typical cases we have discussed so far, conflict rises between flatness and depth. But what about conflict between opposite depths? An answer to this question comes from a peculiar technique devised by the well-known British op-artist Patrick Hughes. In Hughes' works, perspective views of buildings or objects are painted on a corrugated, three-dimensional surface rather than a flat canvas. For instance, the surface may be shaped as a series of a truncated pyramids, with rectangular bases

sticking out towards the viewer, and trapezoidal sides receding in depth to meet at a location coplanar with the frame. On this *bas-relief*, Hughes paints a perspective scene, but the perspective is consistent with the opposite depth relations. For instance, on the nearer rectangular bases he may paint background surfaces, along with the horizon and the sky. On the trapezoidal sides, he may paint the sides of building, but using a perspective view which is opposite to the actual orientation in depth of the surface. Thus, gradients of relative size involve larger elements farther away, and smaller elements near the viewpoint. Parallel lines in perspective converge, instead of diverging, as they recede in depth. The resulting "picture" is difficult to describe in words, but readers can find online illustrations by searching for Hughes' name on platforms like YouTube.[1] Scholarly accounts are also available which include simple cut-out schemes for making your own Patrick Hughes in paper (e.g., Wade and Hughes 1999). Hughes termed his technique reverse perspective.

For the purposes of the present chapter, what is interesting are the perceptual effects that arise when viewing reverse perspective paintings. These can be seen, to some extent, on video as well as on small scale paper cut-outs such as those that accompany some of the scholarly papers. These are however poor surrogates of the actual experience of viewing one of Hughes' actual paintings, which are often done on very large bas-relief surfaces and fill most of the visual field unless one is far away. In what follows, I will attempt to provide a description. However, I recommend that readers do not miss the opportunity to see a real Patrick Hughes if they visit a gallery or a museum that has one. So imagine that you enter a large room in a museum, and on the wall opposite to the entrance you see what looks like a large canvas with a relatively conventional perspective view of buildings. At this point, the work looks like a regular picture, and a not-so-interesting one. As you approach the work, however, surprising phenomena enter the stage. At first something seems wrong. You are not sure initially, but you soon realize what it is. The scene seems to deform in a sort of orderly way, as if the buildings were swaying sideways. If you move around, they seem to rotate following you as you watch. In a sense, the whole picture comes alive. This continues to happen for a little bit as you continue approaching the wall, and then you have again a sense of something confusing, until distortions suddenly stop and you become aware of the true three-dimensional structure of the canvas. At this point, you may lose any awareness of the depicted space you had seen originally when entering the room, and the elements painted on the surface become essentially meaningless. As soon as you step back at some distance from the canvas, however, the motion of the building resumes. You can easily learn, in fact, to turn distortions on and off by changing your distance. Evidently, having discovered the "true" state of affairs does not prevent the distortions from occurring.

We can learn a lot from examining the perceptual effects of reverse perspective. They may be considered, in fact, a synthesis of most of the material presented in this chapter. Consider first the effect of varying your distance from the painting. When seen from far away, the visual system has essentially no binocular information about its true three-dimensional structure, and motion parallax is also minimized unless

[1] See, e.g., https://www.youtube.com/watch?v=HM76hK3N8Gg.

the painting is very large and you are not very far. Thus, the structure of the optic array is based on the pictorial sources, and what you see seems business as usual: a painting on a flat canvas. The robustness of perspective is fully operational, and residual distortions due to motion parallax, if any, are readily discounted. As you get nearer, the situation changes. Now binocular parallax is no longer negligible, although retinal disparities are not large, and a potential conflict arises. Pictorial sources win at this initial stage, and you continue to see the depth arrangement suggested by the (reversed) perspective. This however contradicts both binocular parallax and, most importantly at this stage, motion parallax. Objects closer to fixation should move, in the optic array, in the direction opposite to your own motion in space. In this peculiar situation, however, objects that appear to be closer to fixation (due to pictorial cues) move in the same direction as you (due to motion parallax). This is a perceptual paradox. The visual system could resolve it, if it could reconstruct the shape of the painted surface correctly. At the current distance, however, binocular information is too weak. So you feel that something is wrong, that your perception is not stable. Until of course the brain finds another way to resolve the paradox. The solution is the following: "Given the perceived depth arrangement, and given motion parallax, I cannot be looking at a stationary scene. It must be the buildings that are moving." Note of course that I am not suggesting that "you" actually believe that they are moving. At another level of awareness (call it "cognitive"), you know perfectly well that your visual system is being tricked. But this does not prevent seeing the illusory movements, and having fun at it too. Neither am I suggesting that you consciously reasoned that the buildings must be moving. Not only mechanisms for depth perception are independent of beliefs and expectations, they are also automatic and obligatory. You cannot but see what you see, given the appropriate conditions. Finally, consider what happens when you are really near the painted surface. Here the balance between binocular parallax and pictorial cues inverts in favor of the former. You see the true, physical depth of the bas-relief, but you lose the perspective.

Testing how perception works when sensory information conflicts is an age-old laboratory trick. With a bit patience, it is not hard to find descriptions of perceptual effects that are based on the same logic as a Patrick Hughes in monographs or textbooks on perception. What makes Hughes's reverse perspectives special is that they work for everyone and in naturalistic settings. The effects are so strong and obvious, that there is no need for apparatus, special procedures, or training. For the casual viewer, these effects are a source of marvel and a stimulus for one's intellectual curiosity. For the perception *connoisseur*, as well as, I hope, for readers of this chapter, they represent an extraordinary tool for exploring the perception of depth in a painting. But perhaps the most important aspect of Hughes' spectacular effects is that they provide a unique opportunity to directly experience the powerful psychological dynamics that can be unleashed from clashing sources of depth.

4.4 Spatial Understanding versus Presence

Visual depictions of space do not occur only in artistic pictures. Architects, designers, and engineers also routinely use pictures to communicate information about the 3D structure of buildings, cityscapes, and objects. These pictures are usually grouped under the rubric of technical drawings. While the main purpose of spatial depictions in art is expressive and hedonic, technical drawings aim at illustrating how something is constructed or functions. Thus, and in contrast to art, the key purpose of technical drawings is to engender an understanding of 3D structure by the precise communication of space. To facilitate this process, drafters of technical drawings integrate the visual information with a variety of tools for non-visual communication. These are codified by international standards (Technical Committee ISO/TC10 2003) and include symbols, units of measurement, notation systems, and layout conventions. These tools supplement the visual information provided by the drawings proper, fostering a conceptual understanding of magnitudes and ratios in the depicted 3D structure. Such understanding therefore can go beyond what is achieved by perceptual processing of the visual displays. Nonetheless, the spatial information provided by the drawings remains fundamental. As such, much of the analysis of sources of information for depth provided earlier applies equally well to the perception of space in technical drawings. Technical drawings will typically exploit pictorial sources to depict 3D structure, and the robustness of perspective will attenuate distortions in the perception of such structure. In addition, architects and designers typically need to communicate information about their work to nontechnical audiences during the development of a project—for instance, while discussing building options with potential buyers. To this aim, they often prepare drawings or diagrams aimed at enhancing not only the recipient's understanding of the project, but also his or her interest and appreciation. This form of technical drawing is called *technical* illustration. Given their purpose, technical illustrations are not merely functional but also expressive, such that the principles governing depictions of space in art become even more relevant.

With the development of relatively affordable hardware, the communication of space in architecture, design, and engineering is now increasingly done by computer-generated simulations. This manner of presenting visual displays is usually referred to as virtual reality (VR). VR technology has become widespread in architecture and design for both technical visualization and expressive illustration. For instance, a review of VR in engineering education and training is provided by Wang et al. (2018). In VR presentations, the geometry of a 3D structure is modelled by appropriate software, rendered on computer displays, and viewed while wearing devices that generate a vivid, realistic experience of volumetric objects in space. This property of the VR experience is often called *presence* (see Ferretti 2016; Schulze 2010). Although VR is often referred to as a single technique for visualization, different approaches and techniques can be adopted depending on the available software and hardware. Most importantly, these exploit different sources of 3D information and, as a consequence, engender different degrees of presence or of spatial understanding,

or both. For the purposes of the present chapter, the most relevant distinction is that between *non-immersive* and *immersive* VR. Non-immersive VR typically exploits devices similar to what is now commonly available in 3D movie theaters, that is, stereoscopes. The term refers to any device for the binocular presentation of a pair of separate images depicting the left- and right-eye views of the same scene. Given that these images will typically contain slight differences because of the differing viewpoints, retinal disparities become available between the observer's retinas. Thus, when the brain performs binocular fusion, the perception of a solid, three-dimensional scene (stereopsis, see Vishwanath 2014) arises. Immersive VR, in contrast, combines stereoscopic viewing with computer animation and motion tracking. In state-of-the-art devices, this is typically achieved by headsets fitted with two small OLED or LCD monitors that display computer-generated images to the left and right eye, and equipped with gyroscopes and sensors for tracking the position of the moving observer in space. Using data from such sensors, software applications continuously update the presented images to simulate changes of viewpoint in the virtual environment. In contrast to traditional stereopsis, immersive VR therefore does not exploit only binocular parallax but also motion parallax as the views are updated online as a function of the observer movements. In addition, and crucially, parallax information will always be consistent with pictorial information in each single monocular image. For instance, as the head rotates right, the appropriate elements of the right part of the scene are rendered in the images. As a consequence, novel information is not merely received by the observer, it is *obtained* by the observer as a function of his or her exploratory activity. It is widely believed that this link between information for space and purposive exploration is the key factor in fostering the compelling perception of depth and greatly enhances the experience of presence (Vishnawath 2014).

Thus, when considered within the framework of sources of information for depth, the process of space perception in technical drawings raises two important empirical questions. The first pertains to the *efficacy* of technical drawings in producing an adequate understanding of the depicted 3D structure in viewers. For instance, traditional technical drawings obviously can be used, and have long been used, in architecture and engineering. But how well do they really serve their purpose and, most interestingly, is there an advantage in introducing VR technologies? The second instead pertains to the *quality* of the experience itself. How does the experience of depth in traditional technical drawings compare to that in different forms of VR? And how do both compare with experiencing actual depth in a real environment? In the terminology introduced in the first paragraphs of this section, the first of these questions has to do with spatial understanding, whereas the second has to do with presence. Because both are related to how we perceive space, these two aspects are sometimes considered as a single psychological process. As we now see, however, at least some empirical evidence suggests that they should be kept distinct as they refer to different and potentially separable dimensions.

For instance, there is evidence that spatial understanding of 3D models experienced through immersive VR is enhanced in comparison to non-immersive VR (Paes et al. 2017) and that reactions to environments rendered through immersive VR can be equivalent to those resulting from experiencing the actual environments

that were rendered (Chamilothory et al. 2019). For instance, a series of studies by the Danish researcher in architectural representation Anders Hermund (Hermund and Klint 2016; Hermund et al. 2017, 2018) compared qualitative evaluations and metric 3D estimates of an actual physical environment (an auditorium of the Royal Danish Academy of Fine Arts), of immersive VR presentations of the auditorium, and of plan and section technical drawings of the auditorium. Three independent groups of participants filled a questionnaire designed to assess the qualitative and the metric responses, and state-of-the-art immersive VR technology was used for displaying the virtual environment. The results revealed much higher correlations between the actual and the immersive VR environments than between the actual and the drawn environments in both kinds of response. This outcome suggests that participants exposed to immersive VR experienced presence and achieved a degree of spatial understanding that were comparable to those elicited by the real environment. This outcome is consistent with the conclusion that the availability of binocular and motion parallax, and the lack of conflict with pictorial cues, provide an optimal way of communicating 3D structure.

In contrast, Gîbacia (2012) assessed the efficiency (using response times) and accuracy (using a match-to-sample recognition test) in reconstructing the 3D structure depicted in engineering drawings created with CAD software. They found that binocular stereoscopic viewing of the CAD models enhanced the realism of the perceived 3D structure, but did not reduce times or increase accuracy in comparison to unconstrained viewing of the models on the display screen. This finding is consistent with the idea that presence and spatial understanding involve different psychological processes and are affected by different factors. Specifically, the results confirm that a degree of presence is achieved by stereoscopic viewing, but this does not necessarily entail improvements in spatial understanding. A similar result has been reported by Saleeb (2015). These reports are quite consistent with the analysis of sources of 3D information provided earlier in the chapter. During unconstrained viewing of the CAD models on the screen, participants used pictorial sources (see Sects. 2.4 and 3.2) to mentally reconstruct the depicted 3D structures. At the same time, their visual system processed binocular and motion parallax information (see Sects. 2.2 and 2.3), which specified flatness. These are the conditions that enable the robustness of perspective (4.2). Thus, one would expect that, other things being equal, understanding the depicted 3D structure should benefit at least to some extent. Under stereoscopic viewing, conversely, binocular information no longer specified flatness, but a conflict raised with pictorial sources (given that the viewpoint is ordinarily not correct, these were consistent with an incorrect and possibly ambiguous 3D structure) as well as motion parallax (unless the head-eye system was perfectly stabilized, this remained consistent with flatness). Given this conflict, it is plausible that the robustness of perspective was not equally engaged in these conditions, and that the participants' spatial understanding did not benefit. Nonetheless, binocular information did cause the CAD models to appear three-dimensional, engendering a perception of presence.

5 Conclusions

It is now time to wrap up and reach a conclusion. In this chapter, I have reviewed the most important sources of information for depth used by the human visual system. I have then shown how in pictures these sources of information involve a conflict. The nature of this conflict, however, is peculiar. When observing a picture, the brain receives information about the true three-dimensional structure of a physical object: the flat surface where the picture has been painted or printed. This information is provided by binocular and motion parallax (along with other, less important potential sources which I did not discuss), and it leads to a sensory-based awareness of the picture *qua* physical flat surface. At the same time, the brain receives information about a different three-dimensional structure, which can be almost any arrangement of surfaces and objects at different depths. This information is provided by pictorial sources, and it leads to a qualitatively different type of awareness. It is an awareness that the depicted scene *represents* a physical layout of surfaces and objects, but such arrangement is not actually in front of us here and now. This different type of awareness might be called cognitive (as opposed to sensory-based), or perhaps metaperceptual (the term favored by Kubovy 1988), and one of its components appears to be related to the fact that pictorial sources are calibrated for a virtual viewpoint which is typically *not* the viewpoint occupied by the viewer. Note, incidentally, that this hypothesis does not require that viewers are actually aware of the viewpoint discrepancy. Most likely, mechanisms underlying the robustness of perspective operate fully outside the reach of conscious access. Or, alternatively, they may enter consciousness only when adopting a specific mindset, which might require training or at least attentional effort.

Whatever one's preference regarding the awareness of viewpoint representations, what remains true is that perceiving depth in pictures involves a conflict between a sensory-based and a metaperceptual representation of what is in front of us. This is a form of *dual perception* and, I suggest, its features are what makes pictures unique. The conflict between the two representation provides grounds for a mental dynamics, but this dynamics is way more complex that competitions between sensory-based percepts. Consider, for instance, a laboratory set-up to present widely different shapes separately to corresponding retinal positions on the left and right eye. These conditions often generate a phenomenon called *binocular rivalry*. Because differences between the two optic arrays far exceed neural thresholds for binocular fusion and disparity processing, the visual system can only suppress one of the competing percepts, or, alternatively, endlessly alternate between them. It can never perceive both at once. Or consider *bistable patterns* such as the iconic picture of two facing profiles with the central background shaped as goblet (the face-vase bistable figure). Due to the workings of mechanisms for visual figure-ground segregation, such patterns are either seen in one way (e.g., the profiles), on in the other (the goblet). They are never seen as both at the same time. In the dual perception of pictures, instead, both representations are simultaneously available, and they conflict at a different level, a level that bridges across the perception of what is seen, here and now, and what *might* be

seen, by myself of by another observer, from a given viewpoint relative to a certain scene.

Thus, the analysis offered in this chapter has gradually veered readers from specific facts of projective geometry to the much larger territories of cognitive psychology and cognitive neuroscience. While a comprehensive theory of space perception in pictures is still ahead of us, it seems now generally accepted that this theory will need to account for at least two key aspects of pictorial depth: the mental dynamics engendered by conflicting information, and the mental simulation of taking another person's viewpoint. Both aspects encompass a variety of empirical questions and theoretical puzzles, and a full review of current research would be outside the scope of the current chapter. The role of conflicting sources of information for depth was emphasized, within different theoretical frameworks, in earlier analyses of pictorial perception by Gregory (1970) and Gibson (1979). However, debate about the nature of the resulting dynamics has continued in contemporary work (see, e.g., Millar 2006). A convincing theoretical analysis of conflict-related dynamics and viewpoint representations in pictures was provided in another classic by Kubovy (1988). The mechanism involved in imagining an environment as seen from a different point of view have been studied focussing on brain bases (Lambrey et al. 2012; Banaei et al. 2017), motor simulation (Muto et al. 2018), and multisensory interactions (Deroualle et al. 2015). Interested readers are referred to these works for more detailed information.

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Dreams. The Relational Link between Nocturnal and Diurnal Creativity

M. Schinco

Abstract Creativity language is that typical of primary processes. In order for such language to generate shared fruits in the domains of science, technology, work, politics and in general decision-making processes, complex translation problems should be faced. This translation is possible thanks not only to technical tools and personality endowments, but also to communication and human relations quality. Knowledge, conscience and affections visions that allow to achieve these conditions are considered by the author pertinent with a full enhancement of reuse practices of environments, spaces and buildings. They highlight the creative nature of human consciousness and the metaphorical nature of knowledge, as well as the need to take care of human relationships in order to valorise the transformative potential of affects, memories and images. Montague Ullman and Ernest Hartmann intend dream and dreaming phenomenology in the terms of a continuity between nocturnal and diurnal states of consciousness. Especially in the light of their contributions, this phenomenology is an ideal experiential and conceptual framework to understand the creativity practice as something oriented to the future, to the full exercise of responsibility and, finally, as characterized by wholeness rather than fragmentation.

Keywords Re-invention · Re-use · Dream · Creativity · Relationships · "Tangible dream"

1 Introduction

In ordinary conversations, re-use is usually mentioned with at least ambivalent affective connotations. Yesterday's leftover food does not immediately stimulate appetite, but we know that "vegetable soup is better the day after" and "how good was grandmother to reuse leftovers!" "Vintage" is fascinating but arouses nostalgia, and "what is more comfortable than a pair of shoes you have used for years"? If then the relational and affective sphere is addressed, things become even dangerous, starting from

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the "re-heated soups" up to other allegories sometimes witty some other times a bit sad if not of doubtful taste. Also in the aesthetic field, looking at a work of art which has been restored to an apparently "new" condition is certainly exciting, although it is always an illusion. In some areas, like in musical philology, it is patently impossible. We will never listen to the Brandenburg concertos as they were written by Bach, or the fifth symphony as it was performed in Beethoven's time. Not only have the instruments, materials, performance practices, training of musicians changed, everything has changed: from the physical and sound landscape, to both the musicians' and the listeners' ear and whole body. Besides, if we reflect briefly, we realize that this applies to any sensory and aesthetic experience, not only to music.

Are we therefore destined to struggle between a craving for what is totally new, relatively tempered by wisdom, and a more or less tormenting nostalgia for what has now passed, but once was new? The issue cannot be dismissed moralistically through the "pince-nez" of a talking cricket eco-systemically updated and, more than rightly, worried. According to Henri Bergson, the "urgency of creation"—and creation means novelty—is a characteristic of human consciousness (Bergson 1934). Today, the French philosopher's speculation is confirmed by the neuroscience field. Our nervous system is aimed to be constantly active and productive.

It is always Bergson who shows us a natural way out of the aforementioned dilemma, revealing its intimate nature of a "false alternative", through re-invention. "One can know and comprehend only what one can re-invent to some extent",[1] he writes in a famous essay (Bergson 1934). Let's take some time to calmly dwell on these few but intense words. By briefly and effectively declaring his own theory of knowledge, Bergson evokes epistemology, i.e. its underlying premises. Together with epistemology, his philosophical anthropology emerges, that is his vision of human beings. We start to realize that Bergson's position provides today creativity scholars with a framework that can lively interact with the most recent contributions from psychology and theoretical physics. Above all, beyond the fundamental speculative questions, from all this we can obtain new apertures and energies to create operational tools for teachers, students and professionals interested in the themes of re-use.

In a previous essay in the same field of application, dedicated to "playfulness" and its uses, Sara Schinco and I approached the aforementioned Bergson's statement in an analytical way in order to fully explain it's potential. "The author tells us that something to know exists (he is not a subjectivist, nor a radical constructivist) as well as there is a pulse to knowledge intense enough to be disciplined. Then, he states that "to explain" why and "to show how" it is not enough. We need to comprehend, that is, find the meaning of what we know, and meaning shall come out of a whole experience. What there is to know has been invented: a demanding statement! When we have an invention, we have an inventor, no matter how one wants to metaphysically define it. Bergson's stand is very clear: reality acts like a creative subject, not at all as an impersonal being, subjugated by rules, no matters whether they are mechanical or chaotic. He speaks as a philosopher and scientist, not going deeper into the issues surrounding belief: he just simply says that reality acts like this. Thus, the play of

[1] Translation by the Author.

knowledge, instead of that implying the trivial implementation of rules, requires a pledge to originality. However, just "to some extent". It is not allowed to re-invent anything without a criterion. On the nature of this criterion, on its definition and measure, the discussion may well never end" (Schinco and Schinco 2018, 1380).

Always with the aim of "freeing" the potential of Bergson's words, let us make a brief reference to the context in which they were written. We recall that, since the last quarter of the nineteenth century, the Western world has radically questioned itself from all points of view: economy, thought, religion, theories of knowledge, family, community and social organization. Nothing is destined to remain as before, both on a conceptual and on a practical level. Not only is the relationship between the subject and the world in crisis: we no longer know what exactly we are talking about, both when we talk about the subject and when we talk about the world. After the Second World War, the development of information sciences, systems theory and cybernetics had temporarily cast a new light, shifting focus to the relation, rather than to the nature of the interacting elements. Nowadays, the substantial freedom and therefore the responsibility of the subject, dealing with much bigger systemic variables, remains a largely unresolved question. Not only that: the very concept of relationship, under the pressure of emerging quantic and post-quantic knowledge paradigms, turns out to need a re-foundation.

Individual freedom and self-affirmation; possibilities, style and constraints in relationships; participation in the community life and the social tasks, primarily work; relationship with a place identity, its memories, its tension towards the future are not abstract themes, but challenges that city scholars, urban planners, architects and designers lively face every day (Anzani and Guglielmi 2017). Challenges that are becoming more and more urgent, since individuals and communities have at their fingertips technologies that can dramatically expand any signal received or issued, as well as displace people and things at great speed. In spite of often naive and sometimes interested expectations, all this does not seem to alleviate people loneliness and their communication difficulties. On the contrary, they seem to radicalize. Finally, ultra-technological but strongly dis-animated inhabitants of the richest and "most developed" countries are preparing to deal with history aspects that have long been denied and, at best, misunderstood. For instance, the relationship with the so-called "south of the world", its populations and the masses that move from there by aspiration, necessity or despair. This is also a critical situation, to date strenuously avoided, rather than really addressed. The reason for this avoidance, or at least one of the main reasons, is revealed by a side effect of the crisis itself. The massive and disharmonious manifestation in the territory of foreign people in need imposes on everyone's sight something from which, in the opulent societies, individuals and groups try to defend themselves with stubborn tenacity, almost erasing it from their imaginary. It is the same state of need which, as such, is a fundamental part of any human being identity, regardless of its economic and emotional situation. In decades of collective experience of wellbeing and lack of awareness, it has been relegated to invisibility, to strangeness, to the peripheries of places and existences, medicalized or subjected to different ideological forms of social and educational engineering, in a nutshell treated as "a problem to solve" (Schinco 2015a, b). From nothing, it now

re-emerges as a shadow, enthusiasts of Jungian thought would say, and as a shadow it is feared. But it is not a shadow, it is as real as all the rest, and cities and spaces scholars are called to respond to it in a new, creative and above all realistic way, recognizing its value. In fact, needing others is a value, and its recognition changes first of all the way we work with others, even before than in their favor.

The long and multiform crisis path which I have mentioned reveals, in a variegated and discontinuous unfolding of events, catastrophes, novelties, inventions and so on, some elements of continuity. One of them, which I have already cited, is the imagination and the imaginary emergence, with an increasing importance of their role, almost in geometric progression, in every area of human life. No longer can we conceive either growth, or crisis, or regression, both for individuals and for the community, without speaking of imaginary, be it personal, collective, social, political, religious, strategic, scientific. In knowledge theories, imagination has freed from an ancillary role that considered it as a reserved territory for artists, poets, dreamers or madmen in different gradations. Thanks to psychoanalysis and to Jungian analytical psychology, imagination has spread in typical territories of the so-called human sciences, then influencing, through more or less radical constructivist approaches, the theories of knowledge themselves. An illuminating example, close to the themes dealt with in this volume, is Gaston Bachelard, an epistemologist committed to overcome the contrast between empiricism and materialism. In the second part of his career, he devoted himself to study the imaginary, carefully exploring the relationship between imagination and thought: "Taken in its entirety, man is a being who not only thinks, but imagines first. A being who, when awake, is assailed by a world of clear images and, when asleep, dreams in a penumbra in which move unfinished shapes, shapes in motion in the distance, shapes deforming endlessly. Therefore, to completely determine human beings, nocturnal beings must be added to diurnal ones. We must try to find the dynamisms that go from one pole to another, between dream and thought" (Bachelard 1954).

In the research on the nature of these dynamisms, a special role is played by the biologist, anthropologist and epistemologist Gregory Bateson: in a famous article of 1956 (Bateson 1972), the research group he coordinated and inspired highlights the inseparable bond between thought forms and the forms of human relationship. His perception of the world and himself, the ideas that color and substantiate it, his emotions and affections, are not the result of mere individual characteristics but depend prominently on the relational context in which the subject is immersed. In later works, Bateson will develop his ideas from a frankly eco-systemic perspective. His contribution, and that of other scholars (Bohm 1992; Peat 2008) strongly encourage works in a specific direction: the enhancement of imagination through a constructive and fully human relationship between professionals and scholars of different fields.

2 Imagination, Creativity, Translations Problems

The language of imagination is that of the primary mind processes: an iconic and performative language, devoid of negations and indicators proper of formal logic. Dream is the most eloquent and narratively sharable example, being it generated in the protective frame of the suspension of voluntary motility, and therefore of action, typical of sleep. In waking life, the language of primary processes is revealed first of all in early childhood communications and behaviors, but also in more disturbing or even terrifying ways: in seemingly incomprehensible deliriums, in madness hallucinations, in the more or less profoundly dissociative forms of collective rituality, in regressions of any origin, in the uncritical acting of erotic and destructive rapture. An interactive contact with the primary mind processes is an indispensable condition for creative production, in order for this language to generate shared fruits in the domains of science, technology, art, work, politics and in general in decision-making processes. However, to avoid degeneration into chaotic disorganization and dissipation, complex and demanding problems need to be faced of direct action suspension as well as translation. The ability to suspend direct and uncritical action is a psychological competence that can be acquired thanks to a sufficiently good affective development. But also translation, let's remember, is a competence that can be acquired: it is human, above all, then technical. Stern (2010), psychoanalyst and researcher, shows us how this competence is primarily of maternal origin. In the earliest interactions between mother and infant, taking care of the baby and playing with him, the mother constantly "translates" all her messages, giving them back to him with all kinds of communication methods: musical, motoric, choreutic, theatrical. Then, the generated pre-verbal language will always accompany the life of the human subject, until its end. The verbal language itself will "rely on" this terrain, will be modeled and guided by it. Another scholar, also a psychoanalyst and researcher, Gruen (1988) showed how this process is substantiated by decisive emotional, relational and affective implications. If adults are not able to fully accept the infants' humanity, i.e. their being fully needy, at times painful and aggressive, "translating" activity can turn into "betraying" and falsifying what is exquisitely human. This has consequences in all the typical human domains, from affectivity to work, art, religion and politics.

Besides being a fundamental human capacity, translation develops as an ability that requires specific skills and work, i.e. study. Karl Jaspers, in his famous essay *Genius and Madness* (*Genio e Follia*, It. transl. 2001) considers this psychological and technical competence as the real distinction that separates creativity, in its interaction with primary processes, from delirious and solipsistic thinking. Studying the biographies of great artists seems to support Jaspers' hypothesis. Pushing oneself to the limit, sometimes even imprudently overcoming it, in the development of technical and artistic competence, seems to be a constant in the personality of great creatives (Schinco 2011).

Since its outset, the clinical psychology of primary processes has been particularly attentive to the translation issue. In very great synthesis, according to Freud, we can say that "translating" is mainly interpreting, making what is unconscious aware, i.e. bringing the primary thought manifestations back to the original truth that was partly removed, denied, deformed. Jung moves in a different epistemological framework, already in strong harmony with the emerging quantum physics. Since there is no knowledge without an influence on the known reality on behalf of the knowing subject, "translating" means mainly transforming, i.e. making such influence release all the generative potential of the primary processes themselves, without necessarily arriving at a direct knowledge of the contents of the unconscious mind. Jung invites the subject to allow himself be transformed by imagination, to let the language of day life and conscious mental work be "contaminated" and transformed by imaginative activity. Finally, in even more recent times, Milton Erickson focuses on the daily behavioral manifestations of primary processes, always interpreting them as skills, even when they disturb the subject, and inviting to re-use them, as competences and resources, in the direction of growth and natural development (see Haley 1973). Focusing on behavioral manifestations of primary processes implies an unprecedented enhancement of relational processes. Erickson, in his clinical activity, devotes himself to the "here and now" of his relationship with his patients. Bateson (1972), together with his research group, systematically observes families of which at least one member shows psychotic symptoms, devotes himself to the modeling of relational processes in systemic and cybernetic terms. This step is of utmost interest here. It makes it clear that, in contact with the primary mind processes, a honest translation and even more a creative and shared re-use cannot be carried out only thanks to personality endowments and technical tools: an adequate quality of communication and human relations is also necessary, with the consequent opening of value and meaning perspectives (Schinco and Schinco 2016).

3 Dream and Dreaming According to Hartmann and Ullman

There are authors who provided us with operational and reflection tools fully in tune with the perspective outlined above. They have constantly focused on the creative nature of human consciousness and on the metaphorical nature of knowledge, always adequately emphasizing the need to take care of human relationships to enhance the transformative potential of affects, memories and images.

The first we will consider is Ernest Hartmann (1934–2013). Psychoanalyst, researcher, scholar of dreams and dreaming, he privileged the continuity between nocturnal, diurnal, ordinary and altered states of consciousness. It should be noted that "continuity" does not mean "homogeneity". Certainly, the waking state of consciousness is different from that of sleep, and sleep itself is characterized by different phases. However, the boundary between these different states is not to be seen as neat

and as a marker of substantial discontinuity. Vigil and dream, logical-formal thought and imagination permeate each other, within orders similar to the mathematical ones that generate figures such as fractals or holograms.

Starting from a fairly traditional psychoanalytic vision of dream, Hartmann first of all worked on the central image of the dream itself, considering it as a privileged metaphor of the most important emotional content of the oneiric scene. As for our work, this implies that the dream translates affects and emotions into images. Enhancing the creative function that every translation work from one code to another requires, in the last part of his career Hartmann (2012) comes to the conclusion that, in its fundamental processes, the creative function is always the same, whether be expressed in the generation of dreams, works of art and literature, translations, myths, archetypes and, last but not least, of borders. This vision is strongly in tune with mine (Schinco 2011), in which I highlight that creativity itself is also active in the domain of human relationships and particularly in resilient behaviors. To iconically describe these characteristics of mind creative functions, Hartmann uses a graphic metaphor: the "Thymophor". In Fig. 1 (Schinco 2015b) Hartmann's original Thymophor and its performance are enriched in a relational key also including what Gregory Bateson intends as "sacred" (Bateson and Bateson 1988).

Hartmann's premature death in 2013 did not allow us to develop further collaboration on this and other issues, including the fundamental one of borders (Hartmann 2011). In his essay on the role and nature of boundaries in the mind and in social relations, Hartmann expresses himself in a language characterized by simple and effective metaphors, which shed light on territories that invite to an extensive and in-depth exploration. According to Hartmann, boundaries can be thinner or thicker, in terms of permeability between the characteristics of the spaces they divide and, at the same time, they join. Depending on its thickness, its rigidity or flexibility, the

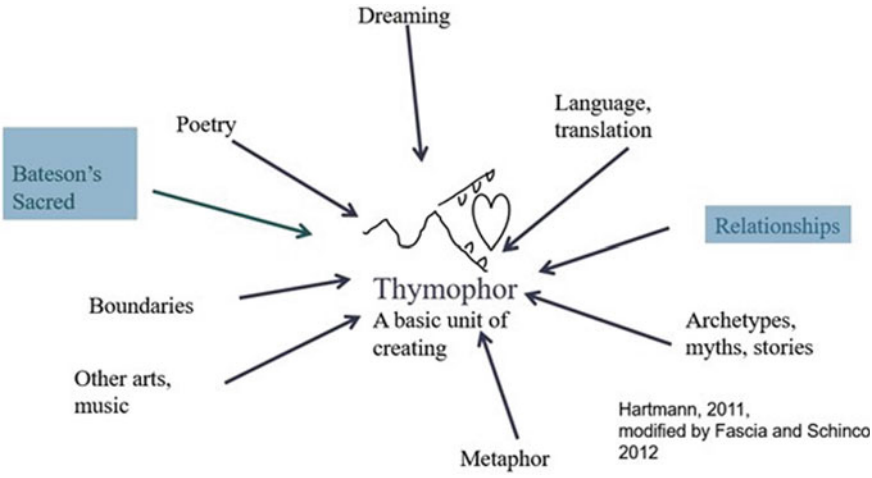

Fig. 1 The "Thymophor"

creation of a border is not to be seen as an act of exclusive separation. An adequate boundary allows not only to communicate and interact in safe conditions, but also to be differentiate in a creative and original way, keeping relationships. A boundary can be seen as the concrete manifestation of a generative order of development, organization, growth, differentiation. Therefore, in this sense, we can say that the most authentic function of borders should not be to separate territories of different identities, but rather to keep them as much as possible in relation. Especially since, as a creative act, the nature of boundaries is decisive in helping the nature of those identities be generated. Therefore, the generation of a border is an act of re-invention, in the full sense Bergson gave to this term. Ethical and political implications of this statement cannot escape this. The classic view that "politics is the art of possible" comes to symmetrically interact with a vision according to which "politics is the art of creativity". In summary, politics, at a macroscopic or local level, could be conceived as an art of continuous re-invention. Now I am thinking of Edith Stein, of her precious distinction between social rules and human interaction in the community (Stein 1922). In fact, only re-invention guarantees both knowledge, which is necessary to intelligently intervene on the level of social rules, and at the same time understanding, which is necessary not to offend but to enhance the communities. At this point, it becomes clear that the quality and the results of this re-invention are strictly linked to the quality and outcome of the relational context in which it takes place.

The link between the enhancement of dream material, a privileged source for sharing the world of imagination and of primary processes, and the enhancement of human relations has been particularly highlighted by the contribution of Montague Ullman (1916–2008), psychiatrist, teacher and researcher psychoanalyst, founder of the Dream Laboratory at Maimonides Medical Center, Brooklyn, NY. In Schinco (2017) I presented Ullman's conceptions in greater depth. Here, I will only mention some fundamental concepts particularly pertinent to our discussion. Ullman, like Hartmann, also emphasizes the metaphorical nature of dream production, but with two major differences. First is the importance of the oneiric scenes mobile nature: dreams are defined by Ullman as "moving metaphors" (Ullman 1987). Second concerns the adaptive purpose of dreaming, which pertains *exquisitely* to the human species as a whole. Without denying in any way the importance of dreaming for individuals, Ullman maintains that its importance derives from its being not a private phenomenon but, by its very nature, a community one. As Hartmann already argued, dream images are metaphors of affects and emotions, but these affects and emotions reflect the conditions of a totality that includes both the community and the individual dreamer, being their expression. It follows that the most suitable technical tool for sharing the unavoidable affective and intentional truths that can be revealed by dream material is group work (Ullman 1996). In group work, a dreamer narrates his dream and the other members participate in the construction of shared narratives, comparing it with everyone's emotions, feelings and experiences; the aim is not to interpret a dream, but to enhance it. Enhancing means listening to a dream of someone else, treating it as if it were a dream of one's own and commenting on it, avoiding any unwanted and inappropriate intrusion into others' intimacy, letting oneself go

playfully to inventiveness on the imaginal and narrative level. In order not to slip into chaos and emotional or relational prevarications, Ullman puts group work under a rather strict discipline, and divides it into five different stages. The group leader becomes an active guarantor of the actual performance of the work according to the method. The experience of participating in an Ullman group is generally very intense and engaging on an affective and emotional level. Almost always the participants, whatever their role in the group, report positive and lasting feelings, linked to the flourishing productive activity on the symbolic and the imaginary level during the group work and afterwards, as well as to the sense of belonging, mutual understanding and acceptance that develops in the group itself. As a sort of side effect, the group work emotionally reinforces the ability to relate with acceptance and mutual respect on every occasion, not only due the wellbeing that has been experienced in a group behaving like this, but also due to the increase of creative capacity derived from it.

From a meta-theoretical point of view, Ullman's theories and techniques are based on conceptions of "frontier" human consciousness, of quantum and post-quantum derivation. In particular, the most obvious link is with the theory of implicated orders by the theoretical physicist and science philosopher David Bohm (1917–1992). Presenting Bohm's physical theories and philosophical visions (Bohm 1980, 1992; Bohm and Peat 1987) in a few lines would be difficult, and tiring for the reader. However, we can evoke from them the sense that is of interest to us through a musical example. Everyone knows at least some of the many sublime compositions by Antonio Vivaldi. The composer's ability to evoke landscapes and various kinds of scenarios through sounds has made him one of the most popular exponents of the so-called "theme music", where the theme can be a season, an atmospheric event, a pastoral scene, and the musical piece an allegory of the chosen theme. In reality, although most of Vivaldi's compositions are not inspired by a declared theme, their affective and emotional evocative capacity is extremely powerful. In particular, anyone who has spent a little time in Venice and the lagoon area, sooner or later would have the impression to feel in Vivaldi's sounds the languor, the atmospheric conditions, the melancholy and the joy, the human trait typical of those places and their inhabitants. In a "traditional" scientific and philosophical framework, so to speak, we could say that Vivaldi had an extraordinary talent in gathering information and sensorial signals that came from its original environment, in translating them effectively into sounds so that a listener, who had known that environment, would have been able to recognize its imprint, thus entering into an emotional and imaginal relationship with it. Bohm's vision is radically different. According to Bohm, the traditional explanation is only a narrative that serves in the explicit, perceived and known order of reality. On another level, that of the implicit order, which subjectively we live as an "elsewhere" with respect to the phenomenal world, no signal is collected, translated, transmitted, received and decoded, since ultimately no transmitter is separate from the receiver. The reality of this implicit order is virtual, i.e. not reified and actualized in objects separated from one another in time and space. In itself, it cannot be represented through words or images; even from a mathematical point of view, Bohm was in considerable difficulties, partly unresolved, in trying to formalize it. However, implicit reality is constantly updated in images, thoughts,

sounds, material realities, words, emotions and affections. The implicit order which the Venice lagoon actualizes and explains is the same that is actualized and expressed in Vivaldi's music and in the affective and emotional experience of both the musician and the listener. Through this shared affective experience, the common belonging of composer, listener and musician, otherwise implicit, is expressed into a unique and indivisible reality. The musical performance ends, the sounds and emotions subside, and the actualized order returns implicit, without ceasing its existence. The music performer and the listener fully recover their ego distinct boundaries, but this does not mean they are separated, though they may believe so. The continuous succession of implication and explication of the real is defined by Bohm "holo-movement", or movement of reality as a whole.

What is described by the musical example is completely analogous to what happens in sharing a dream within an Ullman group. The dream work, through an affective and imaginal experience, makes explicit and manifest a common belonging that already exists; it cannot cease, though the operational boundaries of the individual ego tend to hide it. Rather, from an ethical point of view, taking care of the good quality of these boundaries has a capital importance, since our responsibility when acting individually and collectively in reality will depend on it. Again, as Bergson (1934) reminds us, and as confirmed by the whole psychology of the states of consciousness, the limitation of our perceptive and thought field allows us to organize our actions and language without getting lost in an infinite degree of complexity, typical perhaps of a contemplative experience, but prohibitive if we want to act and communicate with others. The way we realize and dwell the border toward what, consequently, remains "elsewhere", "out there", or the way and the time we open and close "the doors of perception"—to paraphrase Huxley (1954) but also the doors of knowledge and understanding, are decisive. Otherwise, we would automatically behave like blind people who believe they are seeing, or with great arrogance and violence (Schinco and Schinco 2015). Approaches to reality analogous to the one just illustrated can be found in the thought of many contemporary artists and scientists. Evoking Schiller, the great conductor Sergiu Celibidache (1912–1996) believes that music is a key to access the "non-reified reality beyond thought and hidden behind beauty itself" (Schmitt-Garre 1992). The theoretical physicist Efstratios Manousakis refers to the knowledge of reality as to "processes of actualization in the potential flow of consciousness" (Manousakis 2006).

Beyond any possible difference in anthropological and metaphysical implications, we take for granted a very concrete fact. The boundaries movement of our perception, knowledge and understanding or, in other words, the quality of our re-invention of the real, is closely linked to the quality of the human relationships we undertake and cultivate (Bateson 1972). Recalling again Arno Gruen's contribution, we also take for granted that these relations are not realistic and inevitably, if unable to accept the hardships, needs, pains and even the anger of other human beings, they become falsifying. In this sense, our approach to others, to the world, to knowledge and understanding should be "eleogenetic" (Schinco 2015a, b, 2018), i.e. capable of doing the groundwork for human beings to be merciful with one another, oriented towards the future and constantly intrigued by hidden treasures of the human condition.

4 Conclusions

In the teaching activities of the Interior Design Studio at second year of the Design School, Politecnico di Milano, conducted by A. Anzani (team leader), B. di Prete and myself, with the collaboration of Ph.D. students, assistants and invited external teachers, in the A.Y. 2017–2018 and 2018–2019 we adopted an approach inspired by the concepts outlined above, implemented in a frankly trans-disciplinary key. In fact, each of us is fully trained and experienced in one discipline, respectively restoration, interior design, clinical psychology of creativity. Furthermore, each of us is able to propose her/his own personal style. However, our didactic objective was not to impose on students a mere "summation" of notions coming from different disciplinary fields and strands of interests. Through lessons and readings, we certainly provided them with the notions that we considered necessary and evaluated their assimilation through tests. Besides, we wanted the students to use these notions in a rather specific learning framework, i.e. as part of the necessary competence for developing their personal creativity. Through the reviewing activities of the projects being prepared by the students, we set out to activate as much as possible their own contact with their primary processes, with their imaginal and affective sphere, as individuals and as a group, always in the respect for the school context in which they found themselves (Anzani and Schinco 2018). To achieve this goal, we have followed some guidelines. First of all, we proposed ourselves to interact with them as much as possible as a team, in order to "expose" them to the collaboration we made between us, as a stimulus to deuter-learning, or to "learning to learn". In fact, in the awareness of our own as well as the other's authority in our respective disciplines, each of us teachers were also aware of the own and of the other's limits, in front of the solicitations of the concrete task to be carried out. Feeling safe in mutual relations, a safety powered by a constantly reliable behavior, we were able to establish subtle and flexible boundaries between us, incessantly practicing curiosity, inventive and imaginative playfulness; not rarely, we had to show ourselves frankly "needy" of each other: in need of information, clarifications, ideas, but also material help and mutual support.

In this way, we have also intended to constantly meta-communicate the idea that the individual and the group enhancement are not necessarily in competition with each other. Conversely, both the individual and the group benefit each other if competition is not only attenuated, but re-invented in a playful way.

All this has contributed to strongly characterize the context in which the students, divided into groups, worked on their dreams, according to the Ullman method. It should be remembered that Ullman's method is explicitly conceived without clinical or therapeutic purposes. It is simply a group aimed to sharing, so the use of the method is completely compatible with the university context. In some cases, the response of the participants was very intense on an emotional level; other times, it was prudent in terms of communication. However, rarely has it caused indifference or open rejection. Although several times, during the study course, students are required to work and produce results as a group, working in a group on dreams has been an unusual and

somewhat alternative experience. In fact, instead of the principle of performance, priority was given to encounter the other, to imaginative playfulness, to the capacity of welcoming one's own and others' emotions and feelings.

What effects did the continuous exposure to their "unconscious mind" and to the relational proposals they were addressed have on students? As a teaching team, we do not have objective indicators. Based on our teaching experience, we had the distinct impression that the fallout was beneficial and positive, both in terms of the quality of the work produced, and in terms of the requests received by us as teachers. These were very well defined, aimed at better focusing on this or that issue, better clarify this or that conceptual turning points, let go what had turned out to be redundant or not so fundamental.

In both academic years, the students' task consisted of the reuse and enhancement project of a vast area in a state of neglect and severe degradation, where today still stand the buildings of what once was a large and famous psychiatric hospital, progressively closed and disposed after the psychiatric reform of 1978. A really arduous task. In carrying out the inspections, aimed at a technical recognition and a survey as well as at the exposition to the "soul of the place", the students grasped the presence of a human suffering, in a sense multi-layered: one linked to the past and to the vicissitude of the sick who were hospitalized there and another linked to the present. In fact, although it is officially closed to the public, every night the area is frequented by homeless people, by teenagers in search of the most unfortunate imaginable experiences, drug addicts and marginal figures of all kinds. Around it, a small city lives its ordinary day and night life, apparently "as if" all this humanity degradation did not exist. A small part of the area has already been recovered and is home to rehabilitation facilities for drug addicts. Purpose of the valorization project is the expansion of these structures and the realization of a sort of fractal border with the town community life. The aim is that the world of discomfort and its care on the one hand, and that of ordinary everyday life on the other, would not deny themselves mutually, ignoring each other, but stand side by side and, in reasonable terms, interpenetrate each other. In concrete terms, this entails the construction in the same space not only of protected areas hosting clinics and hospitalization facilities, but also of areas destined for cultural life, socializing and sport open to all.

In our judgment, the quality of the produced works testifies that the students have succeeded in giving voice to the soul of the place and, in the obvious perfectibility of products made in a training course, it has at least confirmed the correctness of the chosen path. In the enhancement design of an area whose past has been particularly tormented from a human point of view, the accumulated and present pain can meet with new vitality and new community uses, not being denied, indeed being fully recognized and honored.

In the scientific, methodological and applicative path that made all this possible, a leading role has been assigned to the dream and its enhancement in day life. As a teaching team, we wanted this particularity not to end in the background, but be given a public representation, as a testimony but above all as a stimulus for the unconscious mind of potential users of the redeveloped spaces. Therefore, we conceived the "tangible dream", as an output to be produced by the students (Fig. 2).

Fig. 2 "Tangibile dream". Project by Brandi D., Mansueto F., Calgaro P., Cheroni E., Storti C., Capasso G., Correnti E. (Interior Design Studio, School of Design, Politecnico di Milano, prof. A. Anzani, B. Di Prete, M. Schinco, A.Y. 2017–2018)

Its immaterial quality is characteristic of the dream: a dream is made of images, sensations, emotions, sounds; nothing that can be measured in space or touched with the hands. We asked each group of students to choose a dream, preferably nocturnal but also a "daydream" if they preferred, to elaborate it in a group, "translate" and re-invent it in a "tangible" artifact and integrate it in their part of the project. The result, tangible on the material level, was in some cases truly "touching" even on the emotional level. Dreams are immaterial, nocturnal ghosts in which already lived day life remains, perspectives and desires for a future life interpenetrate with timeless fantasies, irreducible to any form of relative concreteness. These two aspects of the world, material and immaterial, feed each other, are inseparable. I close my chapter with a question that seems to me inevitable: with all the difficulties and the required assumptions of responsibility, isn't making dreams "tangible" perhaps the most qualifying and peculiar feature of every process of personal and community re-invention?

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Body. Sound Spaces and the Embodied Musical Mind

A. Chielli

Abstract Each sound refers to the prenatal intrauterine life in which the Self, since the first months of intrauterine life, was formed. It is the sound world, the expression of the continuous maternal-foetal interaction, that defines the space where the foetus is immersed and determines the close relationship that will occur during the whole life between the body, its feeling, and sounds. Language and music have as a common ancestor the vocal signals that characterized primates' communication, allowing them to exchange information as well as its related emotional content. Therefore, sound bears a wider meaning than that which can be expressed through words; it is able to embrace the same subconscious or unconscious dimension that characterizes both the individual being and its action. Apparently, music dynamics have direct access to the affective structures of our nuclear consciousness; therefore, sound becomes an expression of the deepest Self. Before emotion, at the base of the emergence of the Self, we have our body that characterizes the very quality of musical experience and today increasingly appears inextricably connected with cognitive processes.

Keywords Music · Sound · Space · Embodiment · Cognition

1 Introduction

Especially in the academic sphere, music is considered to not have meaning other than that expressed by its own structure. What seems important is the appreciation of what happens harmonically, melodically, and formally, as if the appreciation of a work of art could only be related to the recognized beauty and perfection of its musical idea. More often, in the amateur field, it is instead appreciated based on of how much its listening can be pleasant without searching for truth and beauty or posing an ethical or aesthetic problem. In both contexts, the concept of space is often reduced to a simple attribute devoid of meaning, except for the place where the concert takes place;

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this is of extreme importance, not so much because it allows for the best listening quality but, more frequently, as an expression of precise commercial, economic, and political choices. Thus, classical music concerts could be listened to in places where the architectural space clashes with the performed music and is unsuitable to spread the sound, which therefore loses its beauty.

Starting from the consideration that "a work of art is a structure whose interrelated elements are often qualities, or properties of qualities such as their degrees of intensity" whose "symbolic import permeates the whole structure, because every articulation of that structure is an articulation of the idea it conveys" (Langer 1950), I will not dwell on the structural and formal aspects characterizing musical composition and understanding; rather, I will investigate those areas of the Self that are involved in "making" music. When speaking about spaces, I think we must try to understand their meaning for those who dwell in them, paying particular attention to the affections and the body. In the same way, when speaking of making music, we should try to understand whether, how, and in what sense we can understand its meaning and how this changes and characterizes the sound space and the quality of the experience.

2 Architecture and Music

Analogies, reflections, and correspondences between architecture and music have always been recognized (Favaro 2011). Think of the importance that proportioning, "a constant, fundamental and essential parameter" (Ficarella 2011), covers in both music and architecture. The same compositional strategies can be found in both as well as frequent correspondences between theoretical-musical exploration and design experimentation in architecture. Visual and auditory capacity are closely connected and subtly correlated based on an ontogenetic process. "The intelligence corresponding to the eyes and their perceiving ability is also used in listening; the ears perceive the intervals between the notes in the same way that the eyes sense proportions" (Romagni 2018). According to Le Corbusier (1974), "it is the ear that can 'see' the proportions and 'listen to' the music of visual proportion." A code for reading architecture can be recognized in mathematics and Euclidean geometry; similarly, the tonal system, an expression of harmony and proportions, represented the *logos* that permeated music until the twentieth century. "Both music and architecture start from the research of a synthetic idea, consigned to a sketch or to a short sequence of elements or notes; immediately after, they question how to develop these elements in an articulated but ordered arrangement. Starting from a need, architecture and music seek an idea from which a project is created, aimed both at a functional and at an emotional goal" (Romagni 2018). In addressing Berio, Renzo Piano affirms: "Music is the most immaterial architecture that can exist. It is incredible how many elements of making music and making architecture are similar" (Berio et al. 1995). According to Giorgio Tedde (2005), architecture is "the art which, through an opportune disposition of volumes and forms in the space, puts itself at the service of the human

body and offers it a physical environment aimed at specific functions"; music is "the art which, through an opportune disposition of differently shaped energies in time, puts itself to the service of the human mind and offers it a psychic spatiality aimed at sensory purposes." Space is the reality container; in particular, both the perceptive aspect that reality manifests to man (Romagni 2018) and the space experience have been recognized as fundamental functions in listening to music—not only in relation to its structure in progress, but also in characterizing each tonality in a different and peculiar way (Kurth 1931).

3 Sound Space as the First Psychic Space

Each sound refers to the "primitive sound bath" in which the Self, since the first months of intrauterine life, was formed (Anzieu 1976). Sound, rhythm, and movement are the first and fundamental organizers (activators not only of skills but also of communication and exchanges between mother and foetus) of the foetus intrauterine life (Lorenzetti 1986), and the first psychic space is constituted by the sound space (Stein 2015). "Original acoustic experiences are to be considered formative of the first cores of the Self, of the first internal object representations and of the first mourning experiences, linked to the evanescence of sound signs" (Di Benedetto 2001). Already in the third gestation month, the foetus can perceive the low tones of his mother's heartbeat and breath; at the fourth month, thanks to the development of the cochlea, he acquires the ability to grasp even the medium–high frequencies, thus being able to appreciate the phonemes of his maternal voice. All the first experiences are assigned to senses—first of all auditory, but also somatic-aesthetic, olfactory, and gustatory; therefore, they are based on a continuous maternal-foetal sensorimotor interaction. "The auditory rhythmic experience will be essential for the development of the psychic functions that will participate in the formation of the mental category delegated to the definition of beauty; these stimuli will function as 'model objects' for the formation of a first rough representation and will constitute an *ideal container* for the foetus growth, physical and at the same time mental" (Mancia 2001). In this way, an indissoluble unity between sound and space takes shape. Sounds are the expression of the distinct and different psycho-affective states of the mother, the foetus, and their continuous interaction. They define the space in which the foetus is immersed and delineate the relationship between sound and body that, over time, will qualitatively determine many aspects and make conscious reflection possible. Music can also be remembered after birth. It has been observed that "one-week-old babies prefer the lullaby that their mother sang to them during pregnancy" and that "lullabies sung during pregnancy seem to have a greater calming effect than others" (Schön et al. 2016). Therefore, the child gives signs of recognizing musical phrases or words sequences if he had listened to them several times before birth (Fornari 1984). In terms of sound production, it is the first cry after birth that inaugurates the child's vocal sound expression. That cry soon articulates itself in weepings of the most varied tones, to "then diversify into gurglings, trills, vocalizations and stutters, up to

words" (Maiello 1993). According to Augusto Romano (1998), musical meaning can be found in the experience of the symbiotic union with the mother; reductively, music is nothing but that same experience variously disguised, "a form of re-creation of the primitive *external sonorous world*, which preceded the acquisition of verbal symbols: a rather sophisticated reformulation of the archaic perceptive experience of a language as pure sound. Jointly, it is a form of re-creation of one's own *internal sonorous world*, of bodily experiences related to the heart, breath, tissues" (Di Benedetto 2001). The musical experience was considered the *pontifex*, the "bridge builder" capable of uniting external reality with the internal world. According to some authors, in this bridging function, "music can be considered as a transitional object that allows to replace in fantasy an absent object, including the affective tone connected with this object. Indeed, music can get to represent the identity of a people itself, thus becoming a collective transitional object" (Mancia 2001). Thus, sounds feature the environment in which we are immersed, defining and characterizing it. Identifying a space not accompanied by the sounds that colour it is unthinkable, if not through a process of abstraction that removes this same space from our feelings, from the body and the affections that inhabit it. A space can present itself as lacking in sounds, but it will be featured by the absence of sounds—by a silence that, in an attitude of spasmodic expectation, characterizes even more musical space. Through the sounds themselves, man is able to communicate and change the space in which he dwells.

4 The Musical Language and Its Origin

According to Steven Brown of the Karolinska Institute (Sweden), a continuum can be identified from language to music, which have as a common ancestor a sort of "musilanguage" (Ball 2011). This characterizes primate communication, thus carrying information that could not be distinguished from its related emotional content. All this is reproduced during the development of the new-born, who begins to express himself thanks to the production of sounds, the physical connotations of which (e.g., height, timbre, and intensity) are correlated with his feeling. At the same time, they give rise to sound improvisations during which the baby experiences and expands his expressive and communicative possibilities. Sound is the bearer of a different meaning than that which can be expressed in words, but for this reason it is wider, able to embrace the subconscious or unconscious dimension that characterizes each individual being and action. It has a value of revelation in telling us something that lies under what we see and experience (De Mari et al. 2015) and in "drawing from that remote inner space that no telescope can reach" (Galgigna 2002), giving voice to the imaginary (Volterra 2002), to nocturnal counterpoint "deposit of unexplored or neglected potentialities" (Romano 1998), to the "kaleidoscopic range of psychic contents, to what could not be said with words" (Di Benedetto 2001). This reflection invests the meaning of sound; from a physical point of view, it is understood as a wave characterized by precise qualities, but in reality, it acquires its own identity when it

is perceived. Could we possibly think that, in the new-born, sounds can be distinguished from the space in which they are generated and spread? First of all, feelings and the whole psycho-affective life are expressions of the body; in the infant, they are initially expressed through smiling and crying with all their possible nuances and meanings; then, gradually, with the lallation and language that, even in the adult, is expressed and meaningful not only as a carrier of information but, above all, thanks to how its content is made explicit and communicated. Therefore, the accompanying tone and voice inflection, gestures, and facial expressions will be what make the communication of the whole feeling possible. How could we distinguish the space dwelled by the new-born from his feeling and from how he interacts with the space itself? Before gradual awareness and thought are slowly defined over time, this is a three-dimensional sound space connoted by the most varied shades of affection. The sound space that characterizes and defines the habitat assumes a precise affective-emotional uniqueness that is different in each individual and in turn is modified based on how and to what extent the individual interacts with this environment.

5 Perception and Organization of Our Inner Sound World

In physics, "sound, cause of auditory sensations, consists of longitudinal elastic waves in the air of appropriate intensity and frequency" (Treccani 1996) whose acoustic characteristics often do not correspond to the listener's aesthetic experience (Siddiq and Reuter 2018). Each imagined, produced, or listened sound is placed in a well-defined interior space and in joining with other sounds, in creating harmonies, it defines auditory architectural structures that change perspective over time. The musician speaks of vertical or horizontal lines and structures, but in his mind, three-dimensional spaces in continuous evolution take shape. Reducing the sound space to only two dimensions flattens its communication. As perspective has radically changed the figurative arts, in musical performance and listening, it has the ability to give depth, timbre, and structure to musical figures that are drawn and vary over time, which allows for perceptive quality and communication. This is due to the first foetal experiences in which sound, and not sight, characterize the perceived environment. It would be interesting to use fMRI to investigate which brain areas are involved in the musician's experience when a sound, attentively perceived in all its qualities and characteristics, comes to define itself three-dimensionally, acquiring greater depth. "The form of a composition is the architecture through which it articulates, that reflects its subdivisions, succession, themes development, rhythmic and harmonic structures" (Romagni 2018). Today, we often talk about "timbre spaces" (Siddiq and Reuter 2018). In this way, there will be "sound narratives" related to the shape of a musical piece. Sometimes they will give a lines game, as happens in a fugue or in a contrapuntal piece that asks for the contemporary and distinct perception of independent voices. Sometimes, in complex wide-ranging musical forms, several harmonically and melodically distinct thematic ideas interact with each other; this is similar to what happens in one's inner world or in a theatrical or cinematographic work in which

the script corresponds to the music sheet. In describing music, Christiane Neuhaus (2018) speaks of *fluid architecture*. "On an epistemological level, musical forms and architectural types are equivalent notions. In this perspective, the form appears as a code that is inscribed in the subject. Studying the form and its properties, this code tries to be deciphered, i.e. the interpretative keys of the material world try to be grasped in view of its transformation" (Martí Arís 2007). Several artifices are applied in a similar way in architecture and music, as the architectural "typological principle" corresponds to the musical "formal principle"; in order for them to develop, both need an initial idea, an intuition on behalf of the architect/musician, and both must undergo continuous changes and transformations. Among them, the "overlap," the "concatenation," and the "variation" can be cited, which free them from a sterile geometry and from a compositional schematism (Romagni 2018). "The musical language, with its compositional rules, gives order to an unconscious material with no Gestalt, and tends to give it a manifest form, endowed with a Gestalt whose structures, in their logical forms, are isomorphic with our emotional life" (Mancia 2001), but this happens only when we are able to return to the original sound space that permeates all becoming. Of particular interest is the position of Neuhaus (2018), who speaks of different capacities of music processing, which are identified as corpocentric, topological (addressed to the object), or centred on the environment, each involving distinct brain areas.

6 The Musical Language as an Isomorphic Form to Affective and Emotional Content

The musical language can be considered an isomorphic form with respect to its affective and emotional content. Understanding the importance of the body is not so intuitive. In making music, attention is usually paid only to the body's instinctual component, which allows the expression of our most hidden and often unknown parts along with the motor one, which is capable of a superfine instrumental gesture. The affective area is generally distinguished and forgotten. In reality, we can consider that "emotions are complex, largely automated programs of actions concocted by evolution" and that "the actions are complemented by a cognitive program that includes certain ideas and modes of cognition," considering that "the world of emotions is largely one of actions carried out in our bodies" and that "feelings of emotion, on the other hand, are composite perceptions of what happens in our body and mind when we are emoting […]. Interoception dominates the process and is responsible for what is designated as *the felt* aspect of these perceptions" (Damasio 2010). Sound is an expression of the Self whose manifestation is the goal of any psychotherapeutic approach. Music can allow access to the deepest parts of the Self, which are often forced and sealed by social constraints and by those chains so skilfully built in the inability to deal with pain or simply with everyday life. Precisely in being permeated by the fear of expressing our true nature, in constructing "armours" that allows us

illusory and false safety, we can develop increasingly refined skills, defining a perfect and beautiful "other" world, but further and further away from a feeling that involves body and emotions, not only cognitive reflection. Considering how music has privileged access to the deepest parts of the self, to a memory that cannot be erased, it is amazing how patients suffering from Alzheimer's disease, which eradicates our memory and the meaning of our entire existence, can return to life in expressing themselves musically, regaining a dignity and memories no longer present (Sacks 2009).

7 The Embodied Musical Mind

"I feel, therefore I am" (Panksepp 1998). "The Mind-Brain (or Brain-Mind) is a unified entity lacking any boundary with the body—it is integral to the physical system as a whole" (Panksepp and Biven 2012). Today, we speak of an "embodied Self," which is a body-based Self. According to Damasio (2010) the self as object is "a dynamic collection of integrated neural processes, centred on the representation of the living body, that finds expression in a dynamic collection of integrated mental processes […] From the perspective of evolution and one's life history, the knower comes in steps: the protoself and its primordial feelings, the action-driven core self; and finally the autobiographical self, which incorporates social and spiritual dimensions." According to Panksepp and Biven (2012), "we may also be justified in considering affects as the original forms of consciousness—affects may have been the first sources of felt experiences that ever evolved within the brain. […] Raw affects may be the primordial source of anoetic consciousness—primary-process experience without understanding." Panksepp mentions a core Self, a "nomothetic" universal cerebral function that, after an interaction with tertiary higher-level cognitive processes, would promote the emergence of various "idiographic" selves (i.e., individually unique and refined by experience). The core Self would be supported by action. Physical behaviour determines survival; therefore, the purpose of sensory information and internal affective changes is to guide the motor systems. Instead, according to Damasio (2010), the primitive feeling would be a spontaneous product of the proto-self, since (unlike what was stated by Panksepp) it takes place regardless of whether the proto-self is involved or not by objects or events external to the brain; they just need to be related to the body and only to the body. Considering either Panksepp or Damasio, music dynamics seem to have direct access to the affective structures of our nuclear consciousness (Blood and Zatorre 2001). Also, "significant architecture makes us experience ourselves as complete embodied and spiritual beings" (Pallasmaa 2005). "The body, as a place of perception, thought and conscience, detects the functional and emotional architecture capabilities that arise primarily in its service" (Romagni 2018). Moreover, sound and music experience is multimodal and evokes vivid connections with body and space representations (Wöllner 2018). Movement itself is correlated to any musical element (Epstein 1995), as can be seen in the association between body movements and affective-emotional response to music

(Langer 1948; Wöllner 2018). In particular, paying attention to micro-movements that are not visible to the naked eye, it will be possible to understand the primary role of the body in feeling and making music. If we refuse to die, our body cannot be dissociated from doing or listening to music. Before emotion, at the base of the Self's emergence, the quality of musical experience is characterized by the body, which increasingly appears inextricably connected with cognitive process (Leman 2007, 2016; Leman and Maes 2017) considering its sensorimotor component, which (starting from Antonio Damasio's and Jaak Panksepp's work) is always involved, but also due to its capacity of eros and ecstasy. There is some music that induces body movement and that, in releasing sometimes unconscious chains, allows deep parts of our being to come to light, others that resonate with our inner affective world, encouraging its manifestation, and others that bring man closer to the absolute. Music influences the point of conditioning any gesture or action. The body's movement and its rhythm corresponds spatially and temporally to the musical expression through a process of synchronization (Leman et al. 2018). Numerous studies confirm these effects. For example, music can determine more vigorous movements that, in walking, give rise to wider steps and/or greater speed than their cadence; therefore, often in an unconscious way, a jogger adapts his race cadence to the time of the music he listens (Leman et al. 2018). Depending on time, rhythm, and harmony, it is possible to identify music that can induce tension release and relaxation and others that revitalize and reinvigorate the action (Leman et al. 2018). Music can restore freshness and attention to those who, tired and bored, are forced to do a repetitive job; it can allow joy and awareness to those who have forgotten the very meaning of living, and in a mysterious and astonishing way, it can temporarily bring back to action patients suffering from lethargic encephalitis, revealing "its power to 'awaken' them at every level to alertness when they were lethargic, to normal movements when they were frozen, and, most uncannily, to vivid emotions and memories, fantasies, whole identities which were, for the most part, unavailable to them" (Sacks 2009).

8 Gesture

"Making music," whether it is composed, performed, or listened to, accompanies and determines micro- or macro-movements and can become a social aggregation phenomenon with the involvement of many bodies in unison. The additional motor area would be implicated both in perceptual and in motor phenomena (Godøy and Leman 2009); the body movement would always be present in perception, helping to define its meaning. According to Truslit (1938), music itself would originate from the movement. In the execution, gestures that express the instrumentalist's feelings can be identified: in some schools they are considered superfluous and distracting for the listener's attention, in others they are admitted and recognized in their communicative value. They should be distinguished from those which, instead, are an expression of an intention or of one's own projective world, if not of a frankly theatrical attitude to the point of becoming a caricature, and not of one's authentic feeling, so affecting

the quality of the execution. In reality, each sound is already present in the gesture that allows it, and each gesture is the expression of a feeling and, at the same time, a pre-representative reflection. The body, even before thought, is the action creator, just as intuition can precede conscious reflection and often allows a more profound and true unitary knowledge. "Musical sound is what our body *knows because it happens* and not what it *knows because it is the product of its intention*" (La Matina 2017). Gustav Mahler affirmed, "I do not compose, I am composed" (Mezzanotte 1998), and Keith Jarrett, in describing his own activity, revealed: "If something begins to happen, I cannot make it continue. I have to let it happen" (Jarrett 1990). Any music allows the resonance of our whole being as body, affectivity, reflection, and intellect, while always situating itself, both the compositional event and the performance, in a pre-representative context. Thus, it is possible to understand how aphasic patients are frequently able to sing not only arias but also opera texts or song lyrics (Boulez et al. 2016). "Corporeity, not mind, is the place of music" (La Matina 2017). If a young performer is unable to listen and give space to his body and lets himself be guided by planning without affections, he can produce a technically impeccable execution that, at the same time, will resound inanimate in its being devoid of expressiveness and communicative ability.

9 Sound Spaces

Another aspect that I want to consider here is the space in which sound events happen. A sound wave propagates in the space assuming different physical characteristics depending on the environmental characteristics, which thus not only guarantees the best and most faithful sound quality but determines the quality of the perception itself. Therefore, the objective quality of sound should be considered but also distinguished from what can be perceived and experienced. Indeed, a cold and aseptic concert hall, in its purpose to abstract and idealize the execution itself, can inexorably distance man from music. Any music must be able to vibrate in the appropriate environment. The environment conditions music and the making of music itself, just as music permeates and characterizes the environment in a different way. On the other hand, listening to music through ear-buds allows the most radical decontextualization of the event, up to *ek-stasis*. Thus, a new aspect is determined that, at the same time, is also ancient: precisely in allowing a detachment from the self, it characterizes a tendency to the Absolute typical of societies that were historically and geographically very distant.

10 Music and Ecstasy

In making music or even simply listening to music, it is possible to reach states of ecstasy. Music, in particular percussion, as the most archaic instrument in the

production of sound, has always characterized sacred ceremonies during which man wants to draw on deeper truth. An "other" reality can therefore be attained, which is the expression not of an altered state of consciousness but of a wish to allow total and unconditional awareness. Music, states Wackenroder, is "the supreme mystery of faith, mysticism, completely revealed religion" (Dahlhaus 1967), "testimony of the aspiration to an impossible transcendence, of which it continues to bear the stubborn testimony, sometimes receiving in award the possibility to fleetingly contemplate traces of what is hidden behind the veil" (Romano 1998).

Usually, we are inclined to consider the body and spirituality as the expression of two antithetical dimensions, thinking on one hand to the liberation of our own instincts and on the other hand to a state that asks instead to forget our own body and tend to an "other" supra-corporeal and ethereal dimension. On the contrary, by listening to our body and allowing an inner silence that can give voice to the deeper Self, it is possible to access a state that allows us to become part of the entire universe. Lapassade (1996) defines ecstasy as a state characterized by the "undifferentiated unity of the subject and the world," with the loss of the usual or common sense of space and time and the acquisition of the sense of the sacred. This is what is described in the mystic experiences of any age and geographical area such as in the ecstasy of Teresa of Avila, Saint John of the Cross, or the Tibetan monks, in the Sufis state of *fana*, in the Buddhist state of *samadhi,* and in the Japanese mystical state *nembutsu*, up to contemporary Mindfulness and Transcendental Meditation. The latter, in modern Western society, takes up the same techniques that have always characterized the "mystical way" and explicitly refer to the same spiritual longing, an expression of man's need toward the Absolute. Only through the body is the *ek-stasis* possible, and music holds a preferential way, having direct access to the Panksepp core Self or to the soul mentioned in literature. A fascinating but still unproven hypothesis would be that trance, in many ways related to ecstasy, could be considered a psychobiological need, as formulated in the works by Dissanayake (1992), Duchniewska and Kokoszka (2003) and Killeen and Nash (2003). Thanks to the body, the sacredness of a place can be experienced, which becomes the gateway to another dimension. It is what happens in falling in love when the expansion of consciousness, invested by Eros, allows us to accomplish both the experience itself and the place where it happens with a sacredness not far from that experienced in the mystical tension. In some primitive cultures, music links the world of the living with that of the dead; in Japan, the beggar monks used to cross the islands walking and playing the *shakuhachi* in order to reach enlightenment through music (Koizumi 1974). Confirming how sacredness can bring light into the darkness of psycho-affective and existential anguish, "making music" can allow the patients suffering from mental disorders to unravel unresolved ancient knots, stabilizing their mood (Sacks 2009).

11 Listening to Music

The listener is not just a passive witness but an active participant in the creating or recreating process (Barenboim 2012). Art is therefore a dialogue between the artist and his creation and between his creation and those who observe it (Duchamp 2005). "The musical sense is *intentional*: it exists to the extent in which a listener perceives it" (Dahlhaus 1967). A final aspect to consider is how and why the listening quality is modified and, therefore, the meaning that a specific piece of music comes to have. Considering only the listener's experience and culture is trivial. "The musical work is both individual and universal" (Boulez et al. 2016). "The public should be able to alter his conscience and to welcome the music sense in the very moment of its physical production" (Barenboim 2012). McClellan (1988) states: "True hearing is fully receiving without judgement. In relinquishing control, our minds are still—free of expectation, free of verbal monologue, free of fantasies, free of fear. Hearing in the moment, ego is circumvented; future and past give way to continuous successions of present. We are drawn into the centre of the sound and to the sound beneath the sound." We then feel drawn into the centre of the sound and into its origins. In this way, as stated by Naranjo (2015), music, like a magic carpet, can take us through a labyrinth of distant and different worlds, allowing us to express a virtual and latent emotion if we engage our heart. Thus, beyond any individual, social, and cultural barriers, music allows two souls to get closer together, placing human beings in communion and connection (Cordoba De Parodi 1998). Again, here we have the concept of space that refers to multiple additional spaces and cancels out any delimitation.

Musical perception is syncretic. "By listening to music, the associative and coordination faculties that hearing has on other perceptions are exploited, starting with the most archaic ones, namely the kinaesthetic, the deep, the visceral, the static-kinaesthetic" (Rossi 1998). According to Franco Fornari, listening to music can create "soul rekindles," recall emotions, and arouse feelings or passions, as Bion would say. "Always adhering to the Bionian model, it is necessary, for an emotion to be experimented with intensity and warmth, that two minds are linked […] Passion is proof that two minds are linked and that, if passion is present, there can be no less than two minds" (Carollo 1998). As stated by Incisa della Rocchetta (1998), "what exists within each of us can almost be highlighted through the sensitivity of the others, and the unconscious emerges as it receives meaning from the others." The listener is called to complete the creative process, to reconstruct or construct meanings. "Perception arises from both the action of sensible qualities on the perceiver organ and the activity of the organ itself; therefore, the sentient subject and the felt object contribute to this process almost contemporarily" (Lumer and Zeki 2011). Whether or not music can impress us in its purity depends on how we listen to it (Naranjo 2015). The effect depends on the level of consciousness of the listener himself, as commonly believed in the East (Cordoba De Parodi 1998). According to Pinchas Noy (1993), there are three ways in which music can evoke an emotional

response in the listener, which are configured and differentiated not only as formulations of different theories but also as different and distinct paths. The narrative path identifies music as the place of an immanent and pre-coded narration to be transmitted to the listener; the direct path identifies music as in isomorphic agreement with the listener's emotions; the indirect path expresses the listener's emotional reactions as the result of an ego defensive activity. However, twenty years later, Noy and Noy-Sharav (2013) formulated "a fourth route […], based on the emotions produced by the listener himself as the result of his active attempt to process the musical input in his mind" that would come to be configured as 'meta-emotion' reflecting the sum total of all the disparate and opposing emotions conveyed or aroused by means of the other three routes."

According to the isomorphic school, a listener's emotions are "activated directly by the innate content of the message" (Stein 2015), and according to Pratt (1950), assuming auditory models that correspond to the organic and visceral ones in the body, music expresses what the emotion is experiencing. The environment and the context always have a part in this process, which is continuously in progress. "The work of art is a product of the observer's instability multiplied by variations brought about by the context and the artist's intentions" (Lumer and Zeki 2011). According to Whitehead, even before listening to it, music can be perceived as an expression of the environmental influence, although it must still be considered as the expression of an "original" emotion (Fregtman 1990). However, listening to music cannot be considered only as an auditory, emotional, and intellectual experience. Listening to music involves first of all the body. "We listen to music with our muscles," as Nietzsche wrote. "We keep time to music, involuntarily, even if we are not consciously attending to it, and our faces and postures mirror the 'narrative' of the melody, and the thoughts and feeling it provokes" (Sacks 2009). Listening to beloved music is a joyful experience that can lead to "getting the creeps," a phenomenon defined by Francesca Foti (2014) as a sort of "skin orgasm," consequent to the activation of the gratification limbic system. Ehrenzweig (2001) had already proposed a distinction between *fusional listening* and *separate listening*, which in recent times has been respectively associated with listening to tonal music (in particular to great classical and romantic compositions) and with serial and dodecaphonic music. The hypothesis is only partially correct, the quality of listening being associated mainly with the listener's affective and cognitive state rather than with the musical characteristics. As affirmed by Mancia (1987), "like in dreams organization, musical listening implies a *projective* experience that is connected to the state of our internal objects: gods and demons of our mental universe." "During music listening, metronomic time tends to be transformed into personal time, where past, present and future merge and make several things co-exist simultaneously. The diachronic development of a musical piece is continually denied by a synchronic fruition" (Di Benedetto 2001). According to Lévi-Strauss (1964), "Beneath sounds and rhythms, music operates on a rough terrain, which is the listener's physiological time; a hopelessly diachronic time, in its being irreversible, and of which music itself transforms the segment that was dedicated to listening in a concluded totality. Therefore, the audition of a musical work, by virtue of its internal organization, has immobilized the time passing. […]

So, listening to the music and while we listen, we access a kind of immortality." At the same time, in music aesthetics, objectivity does not manifest itself "in the instant in which it sounds but only if a listener, at the end of a movement or a section, turns to what has passed and remembers it as a finished whole. At this point, music almost takes on a form in space: what has been heard is consolidated into something external, into an 'objectivity that is in itself'. […] Paradoxically, being a form, it reaches a real existence just at the moment it is terminated. Recovered in memory it returns, but in a condition that it had never assumed during its immediate presence, and so, from a distance, it is constituted as a plastic form that can be examined. Spatialization and form, return and objectivity are interdependent: each element establishes or presupposes the other" (Dahlhaus 1967). At the conclusion of his *Poetics of Music*, Stravinskij (1942) states: "For the unity of the work has a resonance all its own. Its echo, caught by our soul, sounds nearer and nearer. Thus the consummated work spreads abroad to be communicated and finally flows back towards its source. The cycle, then, is closed. And that is how music comes to reveal itself as a form of communion with our fellow man—and with the Supreme Being."

12 Conclusions

In a social context necessarily conditioned by economic needs, each individual event is often quantified monetarily. When music aims to the true and the beautiful and not to seduction or manipulation, it is forced to a solitary and difficult research, not meeting the favour of those who prefer a passive fruition rather than an active one, often conditioned by the media, and struggles to find a physical but also an intellectual space where it can be accepted. On the other hand, when the artistic path proceeds giving space only to the intellect, moving so far away from the body and from the Self not to be understood or even perceived by our senses, unable to grasp all aspects, it is deliberately condemned to a destiny of solipsistic expression. In the same way, if the Conservatory or the Music Academy are no longer able to infuse love and passion for a study that is also and above all an inner search, not a sterile transmission of contents and interpretations that necessarily, in their strength and truth, are in continuous flux, instead of being a place swarming with students who converse with each other, playing and confronting their own positions and ideas, it becomes a place of useless suffering and exasperation. By investigating and recognizing which meanings are present in the sounds of language, it is possible to understand how much music, as well as the physical and psychic space in which we dwell, ask for the right to be again an expression of man capable of authenticity and truth. Music, often reduced to a sacrificial victim of a god who asks for success and money, today is still capable of unveiling the truest and most profound nature of the Self, whenever we are able to return to the awareness of feeling and the courage of being. Despite a social reality that unfortunately often uses and manipulates the body itself, degrading it to a needy object that implores a narcissistic appreciation, disregarding its true nature, it is precisely the body that allows for knowledge beyond

the ideal appearance, steeped in solitude and suffering in its vitrified beauty, bringing new life and new joy where it has been forgotten.

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Memory. Places and Communities Memory in "Powdered Modernity" between Literature, History and Anthropology

F. Bailo

Abstract Contemporaneity is bent and plagued by an unprecedented pestilence: the shattering of individual and collective memory, which alters its being and perceiving itself as a community, making the present dead and diaphanous. As highlighted here, the deafening of memory has been foreseen by writers, thoroughly researched by historians and analyzed analytically by anthropologists; it is now perceived and experienced with dismay by the most aware part of public opinion. A possible, albeit partial, antidote, already widely practiced and with broad margins for improvement, consists in the creation of "mnestic granaries", museums and educational displays that, punctuating the territory, protect its memory. Here "life stories" with a heuristic value sometimes unrecognized are stocked. When rigorously collected and creatively proposed, they consign to the future a cognitive heritage that otherwise, being originated and in many ways confined to the past, risks being extinguished forever.

Keywords Individual and collective forgetfulness · Life stories · Mnestic granaries

1 Introduction

> No one remembers the former generations,
> and even those yet to come
> will not be remembered
> by those who follow them.
> (Ecclesiastes 1, 11)

This we read in a desperate note of *Ecclesiastes*, one of the pins of Old Testament that Paul Claudel, with evident sympathetic inspiration, called "the immense vocabulary" of modernity (Tosto 2009, 105). That step has caught, with foresight, a dramatic turning point of "powdered modernity": the shattering of individual and community memory and the fraying of places memory where identities have been

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shaped (Appadurai 2001). Thus, *homo sapiens 2.0* floats uneasily among the waves of "broken memories", fearing the overwhelming storm of definitive forgetfulness (Campbell and Conway 1995).

2 The Shattering of Individual and Community Memory

This has been determined by various factors acting together: the disappearance of the traditional transmission model of cognitive heritage, the vanishing of local though questionable intellectuals, the consequences of internal and external migratory phenomena, the abandonment of traditional communities in favor of the metropolis. These changes have profoundly altered the "community being and feeling", almost undermining its very existence. This is a virtually inevitable situation when the places of community life fade away and, once deprived of their historical substratum and of a symbolic and concrete function, lose all meaning. As it is known, among the causes of the memory silence applied to physical spaces, a cognitive heritage that in many ways finds its *ubi consistam* precisely in the places of sociality, stands the lack of interest in the elderly, since "modern society has destroyed the sense of generations as it has destroyed forests" (Donati and Colozzi 1997, 298 and 303). Yet, men and women who have reached their last season, defined the "useless age" by someone who summarizes the prejudices in vogue, appear and are irreplaceable repositories of the memory of traditional time, a heritage rarely codified in written form, mainly oral and, therefore, by its nature, precarious and fragile (Burgalassi 1976). A famous statement by the Malian historian and writer Amadou Hampaté Ba, according to which "in Africa every elderly person who dies is a library that burns" also applies to the West (Aime 2004, 135). The same goes for a square that, reduced to a parking lot, ceases to be the beating heart of a community, or for a road that, having lost a secular (and singular) *permafrost* interwoven with gestures and words, becomes a simple asphalt strip.

3 The Silence of Places in Literature and…

As sometimes happens, it was literature that grasped the destabilizing consequences of this change.

Gabriel Garcia Marquez, in his manifesto-work of South American magical realism, *One Hundred Years of Solitude,* imagines that on the narrated microcosm, Macondo, falls the pestilence of forgetfulness, also called "memory evasion". Suddenly, memory begins to thin, and forgetfulness gradually spreads. Sinking into the vortex of an unnatural oblivion, every inhabitant loses the ability to recall childhood memories, how to use objects and the sense of being together in the streets and in the squares, even if only to laze about (Garcia 1974, 54–57).

The same drama falls on the community narrated by Consolo (1992) in *Nottetempo, casa per casa*.

"He felt he was tied to that village, full of life, history, plots, signs, monuments. But above all, its people full of the ability to understand and support the truth, to be in the heart of reality, in harmony with it. Until yesterday. Now it seemed that a large earthquake had created a rift, opened a gap between men and time, with reality; it seemed that a mania, a general torment pushed everyone into a phase shift, a confusion, an insanity. And corrupted the language, overwhelmed the words, their meaning—the bread became bad, the pasta plague, the peace pitch, the sense sleep… He too, Petro, knew he was often assaulted by the malicious attacks of a fever, he sunk into absence, into raving. But what happened, what happens? wondered he in fear" (Consolo 1992, 144).

"What happened?" asks Petro and, at other literary latitudes, ask the frightened inhabitants of Macondo to Josè Arcadio Buendia, the hero of Garcia Marquez's novel.

It happens that the razor hit of a misunderstood modernity, the so-called globalization, has severed many threads that connected past and present, men of today and their ancestors, public spaces and private contexts, making past voiceless and lives diaphanous. Here are the ultimate consequences of a time flow that is "no longer cyclical but casual, not recursive but incursive, in short a timeless time", difficult if not impossible to sustain (Castells 2002, 495).

After all, this is the conclusion one would reach, having left literature for the social sciences, applying with coherence and decision Christian Norberg-Schultz's theory about "the silence of the *genius loci*" (Norberg-Schultz 1981, 189), Paul Virilio's known notes on the "end of geography", and Marc Augé's reflection on "non-places" (Augé 1993).

4 … in Life Stories

It should be pointed out that the places abandonment and/or their meaning "spoliation", which is gripping the present, could be already recognized, though only *in nuce*, in the boom Italy, characterized by strong internal migrations, with a consequent mountain and rural depopulation in favor of hypertrophic and disordered urbanization. This emerges here and there in the immense production, at once scientific and literary, founded on orality, which in the Fifties and Sixties, "dilating the historiographical horizon up to the Matera Sassi" and "bartering dukes with tramps, the great world with that of common people, great men with little ones, important enterprises with everyday life", for the first time gave voice to the "losers" (Bermani 1999, 4; Furet 1985, 43). Whether they were Lucanian peasants inspected by Ernesto De Martino, Mantuan laborers highlighted by Gianni Bosio or Cuneo mountain dwellers investigated by Nuto Revelli, sometimes in their narratives emerges the issue of native places fallen silent. In those pages, and upstream in those voices, albeit barely mentioned, a discouragement peeks out for deserted and silent squares and streets. So

different from when, not too long ago, they were animated by noisy children or quieter players intent on playing cards in front of the shop of "colonial genres and monopolies", a sociality already declining, reduced to "vague, shadowy memories" (Wordsworth 1997, 135–147).

This sense of bewilderment is even more marked in the feverish contemporaneity where strikes the contrast between cognitive possibilities offered by communication media and arrived at an "informative bulimia", and the contextual loss of a widespread memory of our being and, before that, of our having been (Maldonado 1997, 88–89).

In the age of "a-chronic time" Mnemosyne is no longer able to adequately protect memory (Candau 2002, 110).

5 Memory as a Factor for Individual and Collective Re-orientation

In the era of prevailing globalization, "ideas, sociality places and ways of doing things are really lost; they are no longer used or even remembered, if the anthropologists do not note and record them" (Hannerz 1996, 32–33).

It should also be pointed out that the urgency to map and, therefore, to save what can be saved is shared and supported by a growing number of subjects, which goes well beyond the field of specialists. Which is not surprising, knowing that tradition has always fulfilled the fundamental function of responding to needs felt by a community that shapes and introjects it.

This is truer than ever in an era of swirling changes that shake the certainties of individuals who want and must find a foothold to anchor in; like sailors of the classical tradition, when the ship is at the storm mercy, desperate to land in a safe port, they huddle around the mast. Tradition, be it real or fictitious, is the mast-tree to which clings the contemporary man whose existential compass has been ripped out of hand and who, dismayed, is on Dante's "ship without boatman in great storm". It is the tradition that gives him identity and "revives his hope of contributing […] of responding to the need, which today is accentuated, of reconstructing a non-mutilated vision of human reality" (Passerini 1988, 64). Therefore, it is not surprising that we try to re-orient our blind present in the light of the past, even that from which we have escaped until recently. So, it happens that the fragments complex of the gone time presents itself like "relief against the suffocation produced by industrial society, inducing us to look for our 'roots', folklore, dialects, 'arts and popular traditions', cabbage soup, which, unlike for our grandparents, for us are no longer object of repulsion but of desire" (Duby 1986, 77).

In this sense, the famous parallelism that Ernest Gellner establishes between the past and the present on one side and between a Modigliani's and a Kokoschka's painting on the other is illuminating. The past takes on the features of a picture created by the Italian: very few nuances, clear and flat surfaces, plainly distinct from each other, little ambiguity or overlap. Here is the reassuring charm of the past that

many look at with uncritical nostalgia. Instead, the present resembles a painting by the Austrian painter: although the painting as a whole has its own precise structure, no element stands out in detail, at first sight a great plurality of elements dominates which seems to border on chaos (Gellner 1997).

6 The Spirit of the "Ghenizah"

Returning to our theme, not being able to fill the functional *vulnus* of places now definitively deprived of their identity but wanting at least to contrast the mnemonic one, in Italy (and not only) we are witnessing the mobilization of a growing number of "graduate" scholars, often supported by appreciable "Sunday historians", a well-known phrase used by Philippe Ariès to outline the ranks of amateur researchers, yet dedicated to serious divulgation (Ariès 1993). Supported by their relative communities, they conceive and prepare educational and museum installations which, although of unequal value and dedicated to different subjects, are joined by the same inspiration: saving the fragments of a broken community memory. These structures serve a function like that which the Jewish tradition attributes to *ghenizah* ("container") "a place in the synagogue where the worn-out pages of texts of all kinds are placed. Whether they come from liturgical poems, or old *haggadahs,* or children's notebooks, they are collected and placed in the *ghenizah* to be safe" (Battles 2004, 153).

However, not all the exhibits that dot our Peninsula, even if they are motivated by the *ghenizah* spirit, are made with the skills and rigor that the research would require.

7 Tears of the Past and Life Stories, Between Lights and Shadows

Some "collections", not always negligible or even despicable (at least because of the generosity of those who try to "rescue documentation from the 'tomb archives' under the obsession of having too little time before the final destruction and the disappearance of witnesses") sometimes convey a deformed, if not unfounded, image of the past (arriving at the "imagined communities" investigated by Benedict Anderson), even exerting a hegemony, albeit in a local context, on the highlighted subject (Passerini 1988, 37–38; Anderson 1996; Castelli 1977, 36).

In other cases, those on which we want to dwell, the exhibition, curated by scholars, responds to the research criteria and the correct communication of its results, albeit in inevitably synthetic and simplified (but not simplistic) terms.

Part of this second area, particularly important in the age of multimedia and interactivity applied to educational and museum installations, is the production, critical use and creative enhancement of what Nuto Revelli called "life stories". Every man,

by preserving in his memory and eyes a very personal fragment of lived time, is the depository of a unique heritage. Due to the interruption of intergenerational oral and gestural transmission mechanism, this fragment risks being lost forever. This threat can be thwarted or, more realistically, limited by collecting this "knowledge", i.e. drawing from the memory of witnesses who should be asked to reproduce it for future generations.

Saving the witnesses' memory traces and making them available to the community, to say it with the words that Marguerite Yourcenar attributes to the emperor Hadrian, is equivalent to "building public granaries, [where] to amass reserves against a winter of the spirit which, from many clues, in spite of myself, I see coming" (Yourcenar 1988, 121). To remain at the metaphor, the life stories collected and carefully scrutinized to fully unfold their heuristic value, together with other materials whose nature cannot be generalized, are the wheat grains destined to fill the granary which—perhaps—will allow to survive the famine of individual and collective forgetfulness. When the installations are critically rigorous and narratively happy, from the grains a complex warp arises, a connective outline of the local memories that, feeding on voices and faces, looks and gestures, words and often silences allows to outline an appreciable picture of what the analyzed urban and rural communities were in the recent past.

Therefore, these set-ups are "containers" designed to preserve and make available fragments of individual and collective memory related to the investigated realities. Overall, already today they constitute a vast, articulated documentary heritage, so much spread over the national territory, certainly of differing qualities but of undoubted historiographic and scientific interest. Among the number of experiences that could be cited, let me mention the online portal[1] to which the Author contributed in its auroral phase (Grimaldi and Porporato 2012).

Obviously, this kind of researches and installations do not claim to perfectly reconstruct their territory or their reference community. By the way, this ambition would impose recovering the memory of all the members of the community, a materially impossible and perhaps even useless enterprise, as well represented by Jorge Luis Borges in his famous story dedicated to some cartographers' dream of mapping the world on a 1:1 scale (Borges 1984a, 1252–1253).

Going back to the memory of places, in one of his famous divertissements, Marc Augé states: "I believe that our past is like an open hand, a rather particular hand, on which more than one lifeline can be read […]. A choice: the line of landscapes and that of faces, the line of songs and that of travels. Still, I omit some other, maybe better. Nor do I forget the line of the head and that of the heart. And yet, on the hand of the past, my metaphorical hand, the bistro line is transversal and intersects all the others" (Augé 2015, 26–27).

Bistro can be replaced by any of the infinite places of social life, the churchyard or the town hall square, the tavern or the sports club. All these worlds (and countless

[1] www.granaidellamemoria.it.

others) have contributed to shaping the witnesses' identity and, even when they have disappeared, continue to shine precisely in the gathered and critically investigated life traces.

8 Conclusions

Through what has been argued so far, I do not intend to weave a naïve, uncritical and unsustainable paean of the mnestic trace since the memories—transcribed or, hopefully, proposed through audiovisual media in the mentioned set-ups—are *never* the faithful photograph of the reality they want to reproduce. In fact, far from being etched in the brain with the clarity and immutability of a photographic film, memories are continually and creatively shaped by the mind, subjected to alterations and modifications; such that autobiographical narrative is sometimes defined as a "reality conjugated to subjunctive", thus underlining it's much more subjective than objective nature (Bruner 1988).

Noting that memories are not the copy paper of the past that they would like to recreate, nor the faithful mirror of experiences of the gone time, however, one cannot endorse the contrary thesis, equally extreme and unfounded, according to which memories are able to tell us nothing, being "memory a formidable forger" (Tabucchi 1987, 80).

Therefore, we can conclude that, so bounded, memories tell us much of what the witness was and of the places where he lived. Indeed, logically, memories are the only images of his past and of his relationships with people, things and places. After all, one of the main functions of autobiographical memory is precisely to confer continuity and individual coherence, i.e. to maintain the personal identity (Neisser and Winograd 1994). Autobiographical memories, the set of reminiscences that put a bridge between past and present, are so fundamental that even science fiction has noticed it and used it for its plots. In fact, in *Blade Runner*, the poignant obsession of the "replicants" of possessing an individuality passes through a meager collection of past episodes and personal experiences, which never happened (Stame 2004, 5–6).

Leaving the replicants and returning to the humans and the value of their memories, we cannot expect that the mnestic traces collected and proposed in the mentioned set-ups reconstruct the past of an individual or a place by defining it in detail. In this perspective, while Craig Barclay's notations remain topical, a memory is "true" if it correctly reconstructs the experience essence to which it refers and, in addition, it is "accurate" if it impeccably reproduces the details (Barclay 1986, 93–103). Having said that, science and experience show that memories are almost always true but almost never accurate since the perfect memory, non-existent in nature, is limited to peering out in literature, reaching its peaks in the balzachian *Louis Lambert* (Balzac 1984) and in the borgesian *Funes* (Borges 1984b, 707–715).

Of course, relatively to our theme, memories are just one of the tools available to scholars, to reconstruct the past and the salient features of individual and community identity, where places play a fundamental role. Among many others, they are a source

in some respects unique in its kind, due to the aforementioned reassuring and soothing power, being able to temper the hobsbawnian "continuous present", the cold linear and fragmented time conception that replaced the previous, circular and qualitative one, infinitely richer in meaning (Hobsbawn 1995, 15).

In this context, possessing a known past, virtually regaining familiar roads and functions associated with beloved places creates "the effect of a fire that heats up in that cold room which is history" (Wieviorka 1999, 85).

Perhaps, working in this direction will allow the bewildered man of the twenty-first century to find a travel direction in the otherwise whirling and uprooted powdered modernity. Being aware, to use the famous Carlo Levi's expression, that "the future has an ancient heart".

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Landscape. Expressive Landscapes, Perception and Design

M. Sinico

Abstract In the light of the psychological research on expressive qualities, this chapter deals with the landscape in terms of design. In particular, the phenomenological-experimental approach excludes physicalist and subjectivist prejudices in the study of immediate experience and allows the experimental investigation of tertiary-expressive qualities. After introducing the phenomenological landscape philosophy by Georg Simmel, a forerunner of Gestalt Psychology, the tertiary-expressive qualities are defined as design tools. Subsequently, the communicative mode which uses signs is put in contrast with the communicative mode based on expressive qualities. In conclusion, the benefit of the second mode of communication is discussed in its innovating the landscape in a cross-cultural way, adapting to the contexts.

Keywords Landscape · Design · Perceptual communication · Expressive qualities · Tertiary qualities

1 Introduction

The present chapter deals with the expressiveness of the landscape from a phenomenological-experimental perspective, an approach that has found its most fundamental theorization in Gestalt Psychology. For many scholars, Gestalt psychology has represented the election theory for design (Argan 1951) and, precisely in its phenomenological-experimental approach, still today it has the advantage of providing the designer with direct knowledge of what is perceived by the user, rather than indirect knowledge about the mechanisms related to the perceptual experience.

Firstly, this perspective warns against two epistemological prejudices fueled by the inertia of the positivist conception: the physicalist and the subjectivist one. The first states that Reality is physical reality; the second states that the qualities of experience,

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not physically measurable, are subjective projections. Put together, in their complementarity, these two prejudices offer an illusory explanation of the phenomenal experience.

The physicalist prejudice, if taken to the extreme epistemological consequences, becomes metaphysics. Here there is no space to deal with this drift. I limit myself to recall that when Galileo Galilei founded physical science, he distinguished between the qualities of primary and of secondary experience (indeed, these two terms were introduced later by the chemist Robert Boyle): the former (weight, shape, size, etc.) are objective, because they can be reduced to measurement; the second (color, sound, smell, etc.) are not objective because they require a contribution from the observer. However, Galileo did not have an ontological purpose, he did not want to say that only the first can be granted the title of Reality. It is no coincidence that Galileo, in many cases, justifies physical truths based on perceptive laws (Sinico 2012). Among the cases, in the letter to Prince Leopoldo dei Medici, *On the Moon whiteness*, he uses the law of perceptual contrast as a true premise to deduce a physical truth (that the Moon whiteness is not due to the lunar matter itself). The nineteenth-century science has forgotten that Galileo was interested in a methodological way of reading nature in the language of mathematics, but without ontological intent. This positivist interpretation is so rooted that even scientists without a habit of epistemological reflection often find it difficult to question it. The second prejudice, the subjectivist one, leads us to believe that the qualities of experience excluded from the physical-measuring scheme, such as the tertiary qualities, for instance visual heat and cold (Fig. 1), joy, threat, etc., are completely subjective, they are projections of the observer. Kurt Koffka writes: "And yet we may see a gloomy landscape, even when we ourselves are perfectly cheerful; may not a poplar look proud, a young birch shy, and has not Wordsworth immortalized the glee of the daffodils! Traditional psychology will retort: it is you who have projected these feelings into those objects of nature; you cannot seriously uphold that a landscape is really sad, that the daffodils are really gleeful. You yourself endow these objects with your own emotions by the process called empathy" (Koffka 1935, 326).

Fig. 1 Knowing that the desert is hot and the snow is cold does not affect the cold and warm expressive nature of the perceived colors

However, the theory of empathy rests on two inconsistent assumptions. First, writes Koffka: "when we ascribe sadness to a landscape we mean the geographical landscape. This of course would be absurd" (Koffka 1935, 326).

According to Koffka, the *geographical* environment as opposed to the *behavioral* one can be essentially described through a physical-measurable reduction. Now, there would be no reason to think that sadness belongs to the physical world. With the second assumption we fall into a vicious circle. The landscape appears sad and sadness is a projection of the subject. But empathy does not demonstrate this subjectivity, it is rather the consequence of the assumption that emotions are subjective. In short, the emotion, which is seen as a property of the landscape, is justified with empathy; but empathy is an implication of the assumption of the subjectivity of emotions. Then, we demonstrate what we have assumed (I do not go into the research on mirror neurons that have re-vitalized Theodor Lipps' theory of empathy. I just note that mirror neurons do not change the problem, and not only because between neural mechanisms and phenomenal experience there is an unbridgeable ontological leap, but because it is not established whether the "reflected" cellular behavior is the cause or the consequence of emotional perception).

The fact that emotions are usually experienced as belonging to our self does not mean that they are *always* of our self. It is a common experience that the state of mind is opposed to the emotion perceived in the environment. If we are sad on Carnival day, we do not see everybody sorrowful and phlegmatic, dull colors and waning sounds; rather, we feel annoyance because of the diffused joy, the bright colors, the cheerful sounds that generate us ego-dystonia. So, emotions can present themselves in objects in the phenomenal field, as much as in the self. In fact, Koffka concludes: "I should even be inclined to think that a field which contains no Ego organization may be highly emotional" (Koffka 1935, 327).

Before delving into this last observation, which is one of the goals of this paper, it is useful to clarify a key concept in the study of the landscape with a design purpose: the expressive qualities, starting from Georg Simmel, a predecessor of the Gestaltists.

2 The Atmospheric Unity of Landscape

Georg Simmel (1858–1919) wrote some classical texts on the landscape (see *Essays on Landscape*, 2006 and *The Philosophy of Landscape*, 1913). To give a historical framework, I recall that Simmel taught from 1901 to 1914 in Berlin where, in the early years of the century, also Max Wertheimer, the father of Gestalt Psychology, was forming. To Simmel, the landscape has two important specific aspects: the unity of its elements and a *Stimmung*. As we shall see, the *Stimmung*, which we could roughly translate with the term "atmosphere" (the meaning can be extended to the locutions "spiritual tonality" or "mood") is a conceptual tool that was later developed, with other theoretical nuances, precisely by the Gestaltists (but also more recently by scholars such as Böhme 2006).

As for unity, Simmel states that when we walk in nature we see "trees and waters, meadows and wheat fields, hills and houses, and all the thousand changes of light and clouds - but, though we observe these individual details or even see this and that together, we are not yet convinced that we are seeing a 'landscape'" (Simmel 1913, 53).

It is difficult not to notice the similarity of this passage with the incipit of the famous Wertheimer's article of 1923, on perceptive organization, without supposing that the Gestaltist was inspired by Simmel's text: "I stand at the window and see a house, trees, sky. Theoretically I might say there were 327 brightnesses and nuances of colour. Do I have '327'? No. I have sky, house, and trees. It is impossible to achieve '327' as such." (Wertheimer 1938, 71). But, going back to the substance of the quotation, according to the German philosopher, the landscape is not nature, which is without parts, as "uninterrupted birth and destruction of forms"; the landscape is constituted as a totality in nature:

> Our conscience needs a new totality, unitary, which surpasses the elements, without being tied to their particular meanings and being mechanically composed by them - this alone is the landscape. (Simmel 1913, 53)

Therefore, in the relationship with the observer, the landscape is configured as a unit that instead is not given in nature where everything is indistinct, without a criterion:

> Since what we embrace with a glance or within our temporary horizon is not yet a landscape, but at most it is material for it - like a quantity of stacked books is not 'a library', but rather it becomes such, without adding or taking away any of them, only when a unifying concept orders them according to its own formal criterion. (Simmel 1913, 57)

However, and here again Wertheimer's text is recalled, unity is not a subjective projection on nature. In other words, according to Simmel, there is a unique moment in which the ego forces and those of empiricism together determine the landscape as a unit. Differentiation is only a subsequent getting aware.

The second key concept to understand the landscape is the *Stimmung*. With this term, a sense of ensemble is meant, from which a specific character of the unity under observation emerges; therefore, it is a unitary *quid* that "although not precisely linked to the particular, nevertheless it is the universal in which all the details meet - so the landscape *Stimmung* pervades all its individual elements, often with no possibility to establish which of them is the cause; in a way that is difficult to define, everyone is a part of it - but it does not exist out of these contributions, nor is it composed of them" (Simmel 1913, 64).

So, a landscape can be: "serene or sad, heroic or monotonous, stormy or melancholic" (Simmel 1913, 67).

These are expressive qualities. Now, to Simmel, even the *Stimmung* is not separable from unity; it is not a different moment from the formation of unity: "the unity that the landscape realizes as such, and the state of mind that originates from the landscape and with which we perceive it, are only the subsequent breakdown of a single act" (Simmel 1913, 66).

Therefore, unity and the *Stimmung* are co-present and immanent, given within the limits of immediate experience. Consequently, the landscape is not an arbitrary subjective construction, rather it is to note an objectively present unity: "the landscape possesses all its landscape objectivity within the sphere of action of our formative activity, the mood, which is a particular expression or a particular dynamic of this activity, has its full objectivity in it" (Simmel 1913, 67).

Finally, it can be concluded that, to Simmel, the *Stimmung*, although not given in the absence of an ego, of a forming activity, is an objective property of the landscape.

3 The Tertiary-Expressive Qualities of the Landscape

A landscape can be described in physical-measuring terms, "geographical", to use Koffka's words, or it can be described in phenomenological terms (Calì 2017). The phenomenological approach brings out qualities of essential importance in man's relationship with the environment. Wolfgang Köhler writes: "While climbing once in the Alps I beheld, on stepping cautiously around a corner of the rock, a big dark cloud which moved slowly and silently towards me along the slope. Nothing could look more sinister and more threatening. Genetically this might have been a case of empathy; but for my awareness the menace was certainly in the cloud. I could perhaps persuade myself that a cloud as such is an indifferent percept. If, however, I had been a primitive, no reason whatsoever could have given me such sober consolation. The threatening character of the cloud itself would have remained just as objective as its ugly dark color. Similarly the ocean itself is 'wild' in a gale; and a mountain which appears high above the other tops in strange illumination is itself 'majestic' or 'forbidding'" (Köhler 1937, 279).

The qualities Köhler talks about are the tertiary-expressive qualities. The "tertiary qualities" locution is used to refer to pre-categorial qualities of immediate experience, not reducible to physics measurement (Sinico 2015). Gestalt Psychologists are the most important theoretical reference in the study of tertiary qualities, excluded from the physicalist conception (and it is significant to note that the Gestaltist Köhler had a physical education, attending scholars of the caliber of Walter Nernst and Max Planck). In fact, phenomenologists have argued that with measurement first the categorization is assumed and then it is superimposed on experience, consequently excluding qualitative aspects of remarkable importance of phenomenal experience itself (Husserl 1959; Gurwitsch 1978; Sinico 2012). The excluded qualities are referred to as "tertiary qualities" which result instead from immediate experience, as pre-categorial qualities encountered in the phenomenal experience. A paradigmatic example of tertiary quality is the melody, a higher order unit that cannot be reduced to the sum of the individual physical sounds. In the same way, the mountain majesty, of which Köhler speaks in the quotation above, is a landscape quality that presents itself with evidence but is not reducible to the extent or the volume of physical measurements (Bozzi 1999). Just as the cheerfulness of a landscape cannot be reduced either with an imaginary physical "joy-meter", or with hilarity-sensitive receptor

discharges (there are obviously neuro-physiological correlates, but the correlates are the response of a system in consequence to the perception of a goal, they are not the knowledge of the goal. With a machine that replicates the brain when joy is experienced, still the goal would not be known, i.e. the expressive quality of happiness, the brain machine functioning would be known; in fact, without the previous knowledge of the goal, the construction of the machine would not even be possibly imagined). Therefore, majesty and joy are tertiary but also "expressive" qualities because the concerned landscape expresses, externalizes its own essential character by means of its perceivable properties, of its physiognomy. It is no coincidence that the expressive qualities have also been called physiognomic qualities. The relationship between the internal character of an object and its external properties is usually intersubjective evidence, to the point that Köhler can affirm: "I do not see any reason why such 'tertiary qualities' should not occur on the objective side of the phenomenal field" (1938, p. 78).

Therefore, not meanings projected by the ego, but characteristics proper to the things that are present with objectivity in the phenomenal experience.

These characters can be isolated with a phenomenological description, can be experimentally investigated on a phenomenal level, to obtain laws that determine an intersubjective expressive effect, and therefore can become the designer's palette to project the expressive factor of a landscape. Having clarified what the tertiary-expressive qualities are, how these are used in landscape design, how a designer communicates expressive values that become the specific message of his project still need to be specified.

4 Expressive Landscape Design

Landscape design conveys values according to at least two communicative methods: one based on signs and one based on expressive qualities (Sinico 2019). The first, by definition, is implemented through terms, such as symbols, icons and indexes, related to a referent which is not present in the communicative moment. On the other hand, perceptual communication takes place through the very presence of the communicating term. If, for example, the stylized form of a column can represent a tree, that in the perception of the column exists only as a mental representation of the observer, the inclination of a column (Fig. 2) communicates, at the same time in which it is observed, the expressive character of lightness (Arnheim 1954, 1977).

In the first communication mode, the form is a sign and, as a sign, implies a cultural sharing of meaning, as well as a knowledge sharing of the referent to which the sign should correspond. Otherwise, in the second type of communicative mode, the character of the expressive property—lightness in the example above—does not require any shared or previous knowledge, because it is under observation as a perceptive presence.

In the example of inclination, it is evident that a visual property influences another visual property: weight. In this case, weight is defined as a tertiary quality, since it

Fig. 2 Inclination is a determinant of visual weight

cannot be reduced to a specific metric of this physical dimension, and therefore measured in "visual kilograms". Based on similar phenomenal dependencies, experimentally detected, a designer can consciously use some perceptive properties to obtain certain expressive characters.

Besides, in a landscape, symbolic and expressive values together are usually present. As an example, to appreciate the communicative values of a skyscraper inspired to an Assyrian-Babylonian model, knowledge of the Assyrian-Babylonian style is required. In fact, in the sign communicative mode, culture and communication are interdependent: without sharing an acquired code, the receiver has no access to the source message. Conversely, the enormity of the skyscraper—"perfect when all the elements of its architecture combine to make it look as tall, big and terrible as possible; it is ugly when they oppose it, when they delay that frightful climb" (Soldati 1956, 30) according to an acute observation by the writer Mario Soldati—is a specific expressive character that, to be perceived, does not need an acquired knowledge: it is universal.

Although usually present together, these two communication planes are independent (see also Fig. 3). This means that a project can be centered either on the first or on the second.

The communicative mode based on expressive qualities goes beyond the interactions between sensory domains, it extends to all perceptual properties (the so-called primary ones: form, size, speed, etc.; or the secondary ones: color, taste, timbre, etc.), gestalt qualities but also relationships (Sinico 2019). On the contrary, it is useful to present a second example, to highlight how, manipulating minimal perceptive properties, the expressive character can also arise in the *relations* between objects. The reference research is by Marigonda (1968).

The experimental subjects had the task of observing pairs of simple geometric figures (see Fig. 4) and to establish which of the two exclaimed: "I demand that my order be immediately executed!". The results show that the peremptory command

Fig. 3 A feather is the symbol of lightness, but if we add certain perceptive conditions—a different inclination, stylization of margins, compaction, overturning—we obtain a feather that does not appear light at all, due to an independence between the sign and expressive plane

is proper to the figures with certain perceptive characteristics: the higher figure (situation A), larger (situation B), placed higher (situation C), looming (situation D). These are perceived to be dominant.

The relevant aspect of this research is that observers perceive precise expressive qualities of social relations, in the dominance-subordination relationship, directly in the relationship between simple geometric figures, depending on perceptive laws, which we find as invariants in landscape contexts (Fig. 5).

Once again, the perception of expressive aspects is due not to cultural knowledge but to perceptive conditions. Knowing these conditions, the designer can convey certain expressive *universal* messages with his project.

5 Conclusions

Going back to the contrast between the two perceptive communication models, it can finally be noted that they give a different contribution to the contemporary landscape design heuristics. The "sign" model, by its nature anchored to a cross reference, and consequently to acquired cultural premises, always is declinable potentially differently by different cultures. Instead, the perceptive model is favoured, in its essence, by transculturality (Heras-Escribano and De Pinedo-García 2018; Menatti and Casado da Rocha 2016). Where the instances of global communication induce us to design with a universal language, a project with the sign modality necessarily becomes a rift from its landscape context. Often, the contemporary architectural project is criticized precisely because it contrasts with the local values settled in urban history, because it imposes globalist values with a uniformizing outcome. The project with expressive

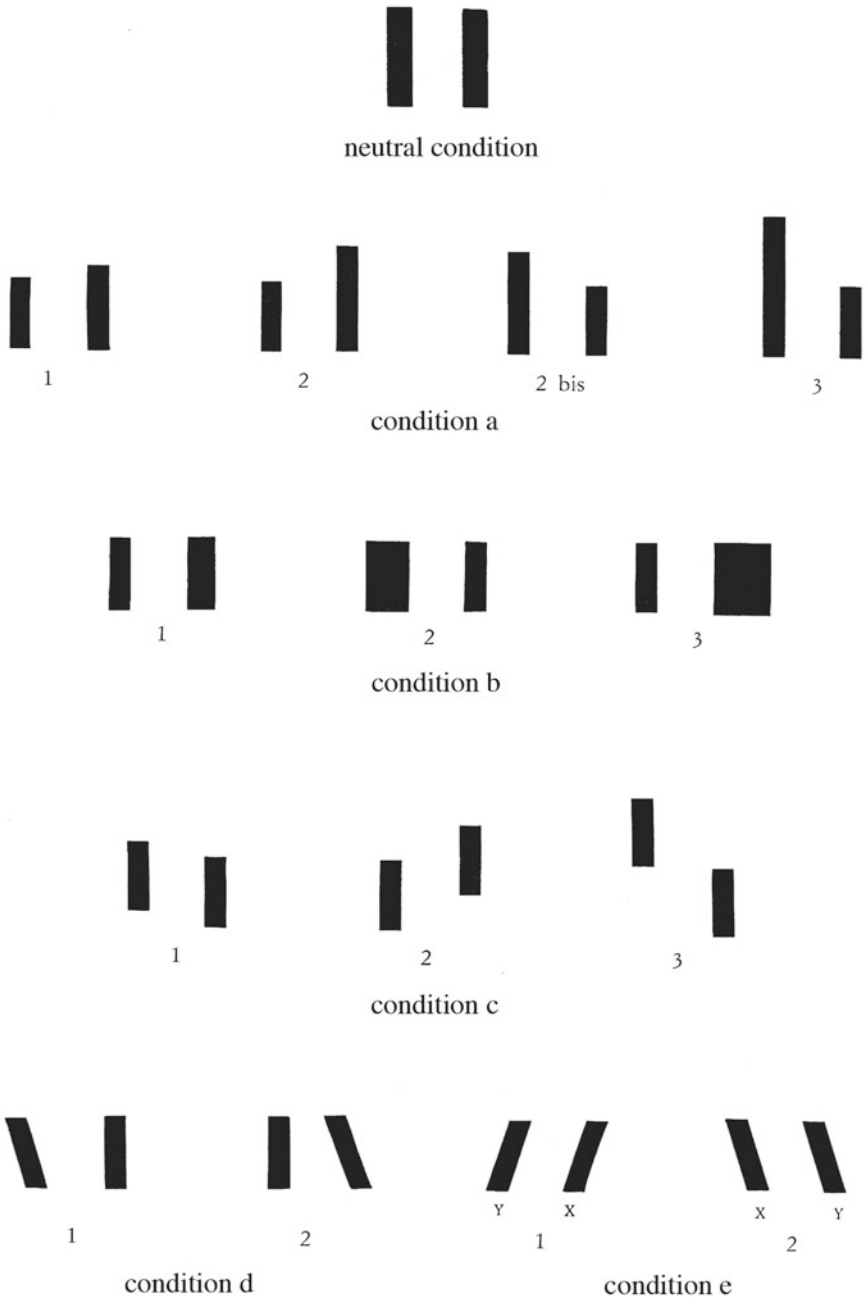

Fig. 4 Marigonda experiment (1968). Height (**a**), thickness (**b**), support position (**c**) and inclination (**d** and **e**) of geometric shapes influence the expression of the dominance-subordination relationship

Fig. 5 Skyscrapers with expressive value: the Shanghai World Financial Center (2008), designed by Kohn Pedersen Fox, overlooks with a dominant attitude the Shanghai Tower (2014), designed by Jun Xia

modalities can reconcile the communicative universality, by harmonization on the expressive level and assimilation to the historical-identity values of the context, without slipping into homologating globalist drifts. This too is a path towards a guided globalization, capable of exploiting the potential of transcultural ways of communication in order to avoid the neutralization of differences, instead valuing the richness of multiple identities.

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Metropolis. Sensory Ethnography Paths in the City of Differences

P. Briata

Abstract The chapter looks at the "city of differences" as at places where people increasingly live together in a radical condition of pluralism, the only element that they have in common being their presence in the space. The reference theoretical horizon is the one that looks at the everyday aspects of multiculturalism, observing the diversity experience in some specific places and paying attention to the conditions that generate openness, without denying those that lead to intolerance. Daily multiculturalism prefigures both an empirical investigation field and a methodological positioning capable of looking into the "fine grain" of the territories, through ethnographic research. Within this line of studies, we focus on how "being together" in contemporary cities is also a body exercise, a habit (and indifference) to sounds, smells, different skin colours, heterogeneous way of understanding what is proximity or distance. The perception of diversity, as well as everyday racism, derive also from multisensory experiences. The essay focuses on the role of multisensory perception in urban cohabitations: a research horizon still little explored outside sociological and ethnographic research, but which should be considered in observing, describing, designing and planning the spaces of the contemporary city.

Keywords Sensory ethnography · City of differences · Everyday multiculturalism · Coexistence among strangers · Spaces and bodies · Planning and urban projects

1 Introduction

> Where to sit on public transport? Next to a young woman guzzling a burger and fries? Next to the teenage boy whose personal soundtrack is spilling loudly out of his leaky headphones? Or next to the middle-aged man, who despite spreading his legs inhospitably, is wearing the same aftershave as a favoured uncle? (Rhys-Taylor 2017, 2)

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Compatibly with everyone's choice possibility, in which neighbourhoods do we want to buy or rent a home? In which shops, markets, and malls do we prefer to buy? Which buses, subways, and trains do we choose to go to work? In our daily journeys, do we travel on secondary roads or main and crowded streets? Many other examples could be given, but in any case, these choices have consequences for urban life and vitality. Decisions affected by multiple factors, some of which are not exclusively linked to the need or spending power. Among these, in different parts of the city more or less familiar smells are also present, different languages, sounds and music, different ways of expressing the space appropriation. The visual, sound, gustatory, and olfactory city landscapes shape movements and settlements in the urban space. The body dimension is also crucial to make people feel comfortable or feed real or imaginary fears.

This contribution looks at multi-ethnic and multicultural cities, focusing on the role of multisensory perception in urban coexistence. It is emphasized that all senses have a fundamental role in making us decide what, in a city, is or is not desirable, beautiful or ugly, acceptable or unacceptable, dignified or worthy, safe or dangerous. We will try to argue that such dimensions are mostly significant when we move in the "city of differences" (Fincher and Jacobs 1998).

In contemporary cities, "being together" is also a matter of body training, a "melee" with others in the city spaces, a habit (and indifference) to sounds, smells, different skin colours, heterogeneous ways of understanding what proximity or distance is (Lancione 2016). The perception of diversity, as well as multiculturalism and everyday racism also derive from multi-sensory experiences, particularly visible and amplified in some spaces such as large urban and suburban shopping centres (Anderson 2012), street markets (Rhys-Taylor 2017), the compressed spaces of public transport vehicles (Wilson 2010; Briata et al. 2018). The paper proposes a reflection that tries to combine issues identified by the sociological and ethnographic research that has reflected on the role of multisensory perception in urban cohabitation, with the recent literature on cities, planning, policies and the urban project that has asked many questions about the role played in the space by bodies in situations of co-presence. The fundamental themes identified by the latter line of studies are introduced in the following paragraph.

2 Metropolis: Lands of Strangers

Contemporary metropolises can evidently be described in very different ways. In this essay, a glance selection is made, taking them as places where pluralism and difference are most clearly manifested (Young 1990; Massey 2005; Laurier and Philo 2006; Sennet 2012; Pasqui 2018). The city is a place where even extreme physical proximity (think of the bodies compression in public transport or in crowded shopping centres) does not necessarily correspond to a form of sharing, beyond that of space.

At the same time, in the face of an increasingly evident individualisation path that characterizes contemporary societies, urban places where people do things together persist and are renewed: "we can increasingly share (spaces and activities) without sharing (meaning and identity)" (Bianchetti 2016, 69).

Looking today at European society, the British geographer of Indian origin Ash Amin describes these phenomena as "coexistence between strangers" (Amin 2012), introducing both a reflection on the role of bodies in contemporary racism forms, and a very critical view of the narratives that invest on strengthening social ties in order to reconcile differences in common life.

On the first front, European societies are now mixed and plural in constitutive and structural terms. Amin emphasizes that strangers are neither friends nor enemies and we should not necessarily like them: they are simply part of our life. However, the idea that every society exists as the homeland of "its" people has regained significant relevance in the public speech. This is a context in which social hierarchies centred on the race re-emerge as a primary filter of information on the bodies. It is important to emphasize that the sensory stimulus possesses a visceral force that supports racial judgment in a less governable way than other factors such as, for example, institutional or cultural inheritance.

Despite this apparent pessimism, Amin is also one of the scholars who has long since introduced significant attention to the everyday dimensions of multi-culturalism (Amin 2002). Researches have shown that the usual reality of multi-ethnic and multicultural cities is based on everyday forms of difference negotiation. A "civilization of indifference to difference" is particularly visible in those that are described as "the micro-publics of meetings": shared workspaces, gardens where children play, schools. They are places where people even work together, mix and communicate, guided by coexistence rituals, tacit rules of orientation and collaborative effort, somehow "trained" in good manners of space sharing. Nonetheless, here emerges the most significant character of being strangers, without particularly explicit forms of interpersonal recognition (Sennet 2012; Wessendorf 2014). The ability to coexist is a habit of negotiating the multiplicity and the company of unknowns, in a form of exercise that is also corporeal.

Following this line of reasoning, Amin's emerges as a radical critique of the narratives sustaining that differences can be reconciled by strengthening social ties. In these terms, the challenge of coexistence in contemporary societies cannot be centred on the identity change and the construction of intra-subjective empathies, as recounted by some proposals aimed to return to a renewed "intercultural" community. The latter perspective has had some success both in urban policies and projects (Fincher and Iveson 2008; Marconi and Ostanel 2016), and in the European rhetoric of programs like The Intercultural City (Wood and Landry 2008).

Amin questions the possibility of working either on strengthening traditionally intended community ties or on stimulating new ones. Therefore, how to think of an "in-common, without community, without predefined references to any identity belonging, to a shared interiority (be it ethnic, cultural, geographical)"? (Pasqui 2018, 10). A first, perhaps obvious, answer—shared by the authors introduced so far—emphasizes the need to recover welfare, that in the last thirty years has been

marginalized by the expansion of neoliberal values. Without a collective social safety consisting of decent public services for all, without key principles of social justice and democratic inclusion, there can be no protection of the fragile results of daily living together (Valentine 2008; Amin 2012).

In addition to this level. that could be defined as "macro", in some research lines centred on the future of urban design and planning in plural cities, we have begun to reflect on how we can coexist in the absence of common values, belonging or roots. Then, a position has also emerged that we could define as "micro" and that converges on the need to investigate in a deeper way the relationship between spaces and bodies (Bianchetti 2016; Pasqui 2018). Starting again from a spaces and bodies centrality in contemporary metropolises involves a significant rethinking, even for disciplines such as planning that aim to trigger on territories and cities control and care mechanisms through the space control (Mazza and Bianconi 2014).

Then, literature began to emphasize the relevance of focusing on the relationship between bodies and spaces; in this essay, one of the proposed tracks to investigate these relationships is connected to the micro-publics of meetings analysed by the daily multiculturalism studies that will be introduced in the next paragraph. In addition to this, the multisensory dimension of the relationships between bodies and spaces remains a question still little explored outside sociological and ethnographic research. A subject on which this short paper intends to dwell, proposing some issues that seem to require attention and multidisciplinary openness.

3 Daily Multiculturalism: Investigation Fields, Methodological Attitudes, and Spaces

In front of a public speech and a media narrative where racism and xenophobia prevail, in most of European cities and neighbourhoods not only tensions and conflicts are observed, but also virtuous forms of living together that hardly are in the spotlight. Since the new century, the so-called "micro-publics of meetings" have been at the centre of the attention of daily multiculturalism studies (Colombo and Semi 2007; Wise and Velayutham 2009). These researches propose to observe the diversity experience in some specific places, paying attention to the conditions that generate openness, without denying those that lead to intolerance. This line of studies emerged from the observation that multiculturalism is normally told following a top-down perspective, i.e. looking at national inclusion models and policies for the diversity management of national states (May 2016). On the contrary, everyday multiculturalism explores the diversity experience in some specific places, looking at how social relations and people identity can be formed and reformed, giving rise to tensions and conflicts, but also to coexistence forms and cultural transformation. Therefore, it proposes a *situated approach* which, without denying the relevance of higher-level political structures, as well as of laws and integration models adopted by

the states, tries to understand the daily dimensions of multiculturalism as it is experienced. A "situated" approach because it looks at the everyday difference practices in specific situations and in meeting spaces, exploring how social actors experience and negotiate diversity "in the field", and how in this process social relations and identities form and re-form.

According to Colombo and Semi (2007), this approach intends to indicate, at the same time, an *empirical observation space* and a particular *analytical perspective*, or a different way of looking at and asking questions to local difference contexts. In terms of observation field, much research on daily multiculturalism confirms Amin's position in pointing out that, increasingly, in contemporary societies, a neighbour is a stranger: people do not build explicit forms of interpersonal recognition by crossing cultural boundaries such as ethnicity, class or religion, but this lack of "intimacy" does not prevent coexistence and communication (Wessendorf 2014). In some contexts, people are so used to the difference that civilization or (mutual) indifference to strangers becomes an "internalized" life factor. Noble (2009) also mentions a "pragmatic being together" determined by the fact that, in some places, in order to move, do shopping or ask for help on a bus, knowing how to deal with the difference is an ordinary competence that is necessary to participate in recurring interaction situations. Attention to everyday life does not limit the gaze to positive interactions between people; moreover, it is necessary to pay attention not to erase the daily racism issue from the public speech, also because this phenomenon appears not only through extreme incidents. In fact, racism can be so rooted in everyday life and involves so many practices as to be difficult to distinguish, even for those who are its victims.

Daily multiculturalism also suggests a *methodological positioning* capable of looking into the "fine grain" of territories and of producing "dense descriptions" of the observed situations (Geertz 1973). This is possible through ethnographic paths, a way of doing research characterized by predisposition to listening, direct observation, attention to the meaning given by the actors to their own practices, by preference for an intensive analysis of specific cases that is sensitive to relational dynamics, the construction of others' images, their failed or distorted recognition (Madden 2010; Semi 2010; Cefaï 2013).

Which spaces proved to be the most suitable for carrying out this type of analysis? In the studies conducted so far, the most significant micro-publics of meetings have been workplaces, schools, children playgrounds, urban gardens, street markets, shopping centres, public transports, gyms, leisure and sport places. The latter spaces have been given particular attention because bodies are at stake there (Amin 2002; Watson 2009; Sherman 2009; Wilson 2010; Anderson 2012; Rhys-Taylor 2017; Briata et al. 2018).

In this essay, we will refer to a further evolution of ethnographic research, the one that emerged towards the end of the just concluded century and reportable to the so-called *sensory turn*: an approach focused on the relationship between multisensory experiences and the production of social formations in the urban space (Classen et al. 1994; Seremetakis 1996; Stoller 1997; Back and Puwar 2012; Howes 2003; Vannini et al. 2013; Howes and Classen 2013). It is about exercises of understanding

the experience and the materiality of a multitude of sensory stimuli that also tried to experiment, record and represent reality with multimedia tools: video, cinema, photography, sound recording and infographic (Back and Puwar 2012; Lury and Wakeford 2012). The reflection is centred not so much on the medium, but on which means or means combination is most effective for communicating and evoking the sensations complexity that an environment, a neighbourhood, a part of the city can give.

In the following paragraph, we will try to introduce some reasoning on those that have been defined by this literature as *sensoryscapes*, with particular attention to the city of differences.

4 Multisensory Ethnographic Paths in the Multicultural City

According to the French ethnographer Cefaï (2013), in the ethnographic research the personal history of a scholar has a fundamental role in the trajectories he decides to follow. Therefore, this paragraph also reflects my position as a researcher, who graduated in architecture, has a doctorate in Planning and Public Policies, has been engaged for more than twenty years in research on the multi-ethnic and multicultural city, with particular attention to projects and urban policies implemented in the "city of differences" (Briata 2007, 2014, 2019). This way of looking at the city is certainly guided by an ethnographic sensitivity for the territories butis carried out by a person who does not have a background as a sociologist or an ethnographer. At the same time, my positioning in the research was certainly influenced by the daily nature of the two cities where I formed, lived and worked for the longest: London, a global metropolis often described as the most diverse city in the world (Raco et al. 2014) and Milan, one of the primary destinations of migration flows in Italy (Cucca and Ranci 2017). Therefore, the biographical notes that emerge in this paragraph are functional to explain some everyday situations, even some ethnographic research and educational experiences that have contributed to produce my position in understanding and investigating multicultural cities. At the same time, these notes aim to provide some small examples on a "relationship that is not always easy to navigate", the one between spaces and bodies (Bates and Rhys-Taylor 2017). To give an order to some thoughts on this relationship in the multicultural city, I start from a reflection which was developed within the discipline in which I graduated, even though I never practiced it: architecture. Finnish architect Pallasmaa (2005), in the book *The Eyes of the Skin. Architecture and the Senses*, warns on what he defines the "sight domain" in Western societies. Sight has a very important role in the perception of architecture (and of the city), but eyes continuously "collaborate" with the body and with all other senses. Referring to the philosopher Merleau-Ponty's thought, Pallasmaa states that sensory experiences are integrated through the body, within the actual constitution of body and the way of being human. The body has not only a physical dimension:

it is enriched with dreams and memory, past and present. A memory is not only built through the nervous system and the brain, but also through our bodies: senses constitute a fundamental element of mediation for information and mind judgment.

Let's try to transfer these statements on the western, multi-ethnic and multicultural city. Certainly, *sight* plays a fundamental role in the perception of diversity. This concerns human and material "urban bodies" (Paba 2010). Race diversity is certainly one of the first visual information that mediates the perception of diversity. At the same time, an Islamic veil, a Sikh turban, an Indian sari are not only garments, but also very strong "markers" of ethnic, religious and cultural diversity. But sight does not only record the diversity of human bodies. "Ethnic shops" become evident in the city streets when their signs and products on sale appear different from those normally sold in the host countries (Fioretti and Briata 2018). A mosque is more visible when it changes the urban landscape with architectural elements that define it as such—e.g. the building style or the minarets. In many cities of the western world, the construction of mosques recognizable as such, even in architectural terms, has represented a problem (Home 1997; Fincher et al. 2014), whereas the myriad of "sacred spaces in profane buildings" scattered in disused industrial sheds and other less visible areas of the cities has been and is less problematic. Cassani (2013) has mapped the innumerable worship places of this kind in New York. From her research, a city map resulted where the presence of buildings to carry out religious functions different from the dominant one is very dense, but not very visible, therefore also not very problematic. More modestly, a similar work was carried out in 2019 at the Gratosoglio district, a southern Milan suburb, by a group of students from the final design laboratory in which I taught with my colleagues Giovanni Hänninen and Gennaro Postiglione. The invisibility of places where the most diverse religions are practiced is a fundamental element for their acceptance, even in Milan, a city where the migratory presence is relatively recent.

If we dwell on mosques, we can understand how they, in various ways, can represent the multisensory dimension that accompanies the diversity perception in urban spaces. As already mentioned, sometimes these are "seen" places, where people using cloths other than the most common in Western countries are more evident, concentrated and not dispersed in the anonymity of the metropolis; at the time same, diversity "is felt": think of the muezzin call to prayer, the variety of languages spoken where religions other than the dominant one are practiced. Therefore, also *sounds* indicate the diversity: the language spoken by foreign people to each other, the one we intercept in the street or on public transport, even in conversations through mobile phones, the accents that we perceive when newcomers learn the language of arrival country, the music spread from a store run by immigrants or from meeting and socializing spaces for those coming from afar. In London, in a popular apartment block where I lived, the neighbours cultural diversity became more evident in some evenings dedicated to convivial gatherings, punctuated by the drums rhythms; an inevitable Tuesday night event led me—perhaps unknowingly putting into practice a form of pragmatic adaptation to the difference—to concentrate my dinner invitations on the same evening. Looking further ahead, think of the impact of long Ramadan waking nights on western quarters, when families and friends meet to cook, eat and

talk till late: voices, scents and smells not always familiar or pleasant because "different" from more usual ones. Therefore, if we look at these expressions, senses like smell and taste come into play that, perhaps in a more powerful and visceral way than others, signal diversity.

Often, the most persistent memory of a place is related to its smell. The London neighbourhood where I lived in recent years, everyday hosts one of the most multi-ethnic and popular street markets in the city. Every time I go back to London, I walk the Ridley Road market, perceive the mint and spices smell that has become familiar to me, see those meat cuts that I would never imagine to cook. In a way, it is a "sentimental" journey. I inevitably stop in front of Ararat bread and find again a bread with a perfect texture: eating it remembers me a "tactile" experience, though not perceived through fingers. Then, if I turn toward Kingsland shopping centre, a very intense, slightly cloying, popcorn smell arrives. No doubts: I have returned to Dalston (Briata 2016).

I have introduced touch, and this brings me to a teaching experience I carried out over the last four years with the international students of Urban Ethnography at the Politecnico di Milano. Also with them, I learned that, contrary to what happens in Italy, in many world cultures presenting oneself by decisively shaking hands is a sign of rudeness. But touch is not just a matter of "touching"; in urban spaces, significant perceptions are linked to some situations that make us touch each other involuntarily; besides, we can have different perceptions of proximity and distance. Hall's proxemics studies (1996) on personal space offer important insights into instinctive and unconscious aspects of our relationship with space, as well as of our use of space in behavioural communication. To explicitly understand these relationships, an ethnographic research project has been fundamental, which in the last three years was proposed to 85 students in Planning and Architecture on the trolleybus 90/91 in Milan (Briata et al. 2018). In a didactic and research path with Massimo Bricocoli and Martina Bovo, we asked students from all over the world to develop their own point of view on the space uses of the most stigmatized public transport in the city. As the result of prolonged observations by young people who are finishing or who have completed their specialist degree in Architecture or Planning, the work has produced a significant number of narratives. Over time, we realized that the strength of this work lays in a methodology that emerged during the work and proved to be very powerful: a *multiplication of viewpoints and corporeal experiences* that was made possible also by the heterogeneity of biographies, educational paths and ethno-cultural backgrounds of those who attend our international classes. A methodology that to us seemed to have some points in common with that of a surely very illustrious predecessor like Pierre Bourdieu. In his book from 1993 *La misère du monde*, a meticulous inquiry into French *banlieues* carried out by a very articulated research team, he underlines how the so-called "difficult places" (but perhaps also "difficult problems"), are first of all *difficult to describe and think*. Against simplistic and unilateral representations such as those of media, the group led by Bourdieu carried out an inquiry in which, on the one hand, the plurality of coexistent and rival viewpoints of residents in the French suburbs was let clearly talk but, on the other hand (I add here), a multiplication of viewpoints takes place also through the multi-ethnic

and multicultural background of those who conducted the interviews. Differentiated sensitivities and backgrounds (even only in gender terms) of the researchers can be detected in the detailed transcript of the interviews.

In the exercise more modestly carried out in Milan by students, the compressed space of the trolleybus allowed to amplify the gaze on the city diversity. Then, for the Indian girl who never took a bus in Pune because "I wouldn't have lasted even a day", the space of 90/91 is wide, clean, almost boring and repetitive when compared with the human mass who everyday fights for a minimum living space in her country's transports. On the opposite side of the proximity and distance perception, beyond habits and ethnic groups, according to a girl from Hamburg, the most significant character of Italian buses is the "door appeal". Everyone crowds in front of the doors, even when the vehicle is not so full and would give more comfort: a common culture compresses and further restricts the already compressed bus space. The everyday life of a compressed space is also an extraordinary amplifier to observe the cultures diversity: a Belgian boy makes his lack of Italian knowledge a powerful weapon to study the bus *soundscape*. Among his discoveries: foreigners who study Italian through a smartphone app during long journeys. At the same time, the back-ground diversity and, sometimes, their visibility—wearing an Islamic veil or having "different" somatic features or skin colours—has become a powerful weapon to discover *with and on one's own body* the shapes of everyday racism that occur on a bus, in the most internationalized of Italian cities.

The examples could be many others, but I interrupt here this short trip in the multicultural cities guided by the five senses. An important note: in telling some experiences in Milan and London, I made the ironic side of my multisensory diversity perception prevail, but obviously irony is easier if expressed by a person who, on many fronts, *had the opportunity to choose*. It was my sensitivity that led me to work, sometimes to live, in multi-ethnic and multicultural neighbourhoods. But it should not be forgotten that, for many immigrants and indigenous people, this condition is not a choice. Cohabitation is a daily work, sometimes simpler and more spontaneous than that narrated on the basis of fear, sometimes not to be taken for granted, especially where poverty linked to immigration and to some forms of diversity intertwine with other poverties that affect everyone, immigrants and natives.

In these pages we have tried to tell how much senses count too in building the difference between "us" and "them". Smells, sounds, flavours and colours can be used more or less explicitly to distinguish insiders from outsiders. Identity, tolerance and racism are also the product of multisensory experiences that each person's body live in space. Racism is also based on invisible and visceral "body memories", determined by multisensory perceptions (Smith 2006; Obasogie 2013; Friedman 2015). However, it is not just a matter of personal sensitivity: these sensations rely on a series of formal and informal codes to interpret the senses that also depend on how a society is trained or not to practice those forms of "civil inattention" towards diversity referred by many recent studies on daily multiculturalism. An aggressive public speech towards "the other", built by media and policy makers, does not help in this sense; nonetheless, celebratory rhetoric of diversity and cultural hybridization, especially where poverty linked to immigration coexist with poverty that affect everyone, does not help either.

5 Conclusions

Through a journey into multi-sensory perceptions of diversity, we tried to explain the complexity which, in cosmopolitan cities, policies and projects centred on the space transformation and care should take into account. The multisensory structure of the city is not just a background for the actors involved. On the contrary, senses and sensations are key elements for understanding cities economy, social forms and culture (Rhys-Taylor 2017). Class culture, racism, and multiculturalism are not just discursive constructs: they also feed on sensory perceptions, settled through cultural filters capable of giving different meanings to these perceptions. In front of this complexity, what have been the answers in terms of urban design, urban projects and policies so far? If we continue to use senses as a common thread, we can affirm that design responses *above all, albeit not exclusively, have privileged the sight* through proposals aimed at either "celebrating diversity" or repressing it.

The celebration of diversity takes place above all in the construction and marketing of "ethnic-cultural" neighbourhoods (Shaw et al. 2004), where the ethnic is "staged" in a version that selects a series of multisensory elements (colours, sounds, smells and tastes) capable of attracting cosmopolitan upper middle class consumers. It is important to stress that these marketing operations are increasingly promoted also by the economic and commercial leadership of ethnic groups, so it is not only a matter of "domestication" and sanitation processes implemented by Western societies, as stated by a broad literature. They are also a product of immigration but, in most cases, they exclude the poorest immigrants' groups, sometimes even triggering gentrification processes that displace all the disadvantaged populations (Fioretti and Briata 2018).

An opposite answer is the repressive one, where the foreign presence becomes visible, if not problematic, in the "sensory landscape". We have already mentioned how, in many cities of the Western world, mosques that appear as such were at the centre of repressive measures, including planning (Fincher et al. 2014). Ordinances, regulations or forms of repressive zoning are also implemented in commercial areas where the foreign presence is significant, especially if the settlements take place in historical centres and modify a consolidated idea of "urban landscape" that would like to be preserved (Briata 2014; Fincher et al. 2014).

In the face of these common reactions, a lot of ethnographic research on the micro-publics of meetings showed how in cities where space regulations are just apparently looser very different place uses and a plural idea of public space can unfold. Therefore, places allow a certain degree of comfort even for very different urban populations. However, the researches that have investigated such spaces have been carried out mostly by sociologists and ethnographers, able to penetrate the fine grain of some territories and situations and to understand what conditions make cohabitation more or less possible. Even multisensory perception has been at the centre of attention but, perhaps because of the training of those who carried out these studies, the role played by space in interaction with bodies has remained little

explored. Smells and sounds can contribute to shaping the space. Space can support possibilities more or less comfortably, constitute an impediment, be more or less suitable to sustain different uses from those which were thought and designed (Briata 2019).

Therefore, these pages constitute a sort of "triple invitation" for urban design experts, planners and anyone with spatial sensitivity: to understand the relevance of ethnographic approaches even for those involved in various forms and scales in the city design (Cranz 2016); to observe, precisely through a spatial sensitivity, the spaces where the negotiation of difference usually takes place (Taşan-Kok et al. 2017); to take into account the multisensory dimensions that contribute to form material and immaterial boundaries between "we" and "them". Therefore, this is certainly a solicitation to a multidisciplinary openness, but also an invitation to observe "with all senses" the places and their differences.

In the face of difference, what attitude could a "forward-thinking" actor of policy and projects have today? Literature that has questioned about this almost seems to subtend an invitation to "stop", suspending a natural regulatory and design instinct: not so much to "relax" the rules, but to rethink them by looking more carefully at what is already happening in the streets, squares and public spaces. Also trying to set aside consolidated notions of "appropriate use of public space" and their consequent regulatory mechanisms Crosta (2010). Cosmopolitan societies may stay united also based on multiple public spheres instead of on certainties related to a historical community (Amin 2012). In the contemporary city, corporeal materiality, sensory characteristics, temporal depth of a project on the public space must face a different dimension of what is public, a dimension no longer based on a collective will."There is no longer an audience able to define guidelines and project legitimacy as in the past. There are 'a hundred small boxes': fragments of public re-form and disintegrate whenever something defines a sharing, a value is affirmed as such, or a problem moves a non-individual action" (Bianchetti 2011, 82). This does not mean that plans and projects should not try to operate in the public interest, rather that the public interest is not something "wherever out there" waiting to be found, but something that is being built in a political path, in a situation often characterized by the presence of "multiple audiences", occasionally in competition (Fincher et al. 2014). If we return to a multisensory dimension, clearly the answers are not simple: how is the limit between a pleasant and an unpleasant (also because little known) smell established? What is the time limit of some convivial gatherings during Ramadan, if they take place in apartment buildings where the inhabitants are not all Muslims? In some situations, multiplicity may perhaps make us think that we are facing an impossible "solution". But it is also important to realize that, in many places, new and old residents, different populations, established and outsiders are already experiencing spaces of indifference to difference and coexistence between strangers. Multiculturalism is not so simple, and it is not only this but, in some places, this is already the case. Therefore, the proposal is to work starting from these relations, and from spaces and bodies through which they take shape. Probably the answers are not given, they must be built and negotiated in a series of practices that take place in space and for which a regulatory and planning act capable of renewing itself is also needed.

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Reuse. Re-contextualization and Re-signification in Art and Care

M. Giuliani

Abstract Across a comparison between evolutions and "paradigm shifts" in the field of music and in that of cure through speech, the chapter illustrates a common practice in human creations. The past is hardly erased: more often it is reused, put back in a frame, restored. As we proceed in our history, we renegotiate the role of past elements; as we progress in this renegotiation, we grow, transform ourselves and transform the world around us. We look back to the past as a dimension that contains stratified experiences, which do not vanish nor are replaced by the new, but rather receive new meaning as the stratification process advances. Evidently, this responds to a fundamental self-narrative need, since we recognize it in various knowledge fields as well as in our biographies.

Keywords Reuse · Epigenetic · Past · Re-signification · Contexts

1 Introduction

I know that behind everything I see
there is an island of heaven
waiting for me…
the marvels of garbage
the desire and the adventure of doing by myself…
(Claudio Sanfilippo, *Memory*)

There is a well-chosen metaphor that two therapists (Telfner and Casadio 2003, 19) took from Wittgenstein's *Philosophical Researches*. It presents the knowledge history as a city, in which coexist new and old constructions, historic districts and areas with new buildings and even new ways of understanding the city. I find it an interesting metaphor. First because as a city is a collective and progressive construction, inseparable from the life of a community (Rossi 2011), so a scientific and cultural

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community collectively builds over time a non-physical "place" in which it recognizes itself. Then because a spatial metaphor of the history of a thought, a model, a knowledge, makes that history simultaneously present in all of its phases: each of those areas that constitute the city is not just a past trace but becomes habitable, here and now.

I believe the sensitivity that comes us from a creative collision with the postmodern thought helps us to see the present not so much as a further part of that city—perhaps the most peripheral and modern—but as a look from above on a city which is ancient and modern together, in which different pasts stratify and coexist.

Anzani and Caramel (2017), citing Marchino and Mizrahil, argue that as the human body is the space that contains the memory of the individual's past (the verb *to remember*, like the Italian *rimembrare*, refers to a past and a memory that are written in the body, in the *members*), in the same way the city with its stratifications is the space of a collective unconscious: in Telfner and Casadio's metaphor, of the collective unconscious of a scientific community.

In that metaphor, the aerial look allows us to have the whole city for us if we are willing to bear the cost of a loss of experience definition. We possess it all together, but we possess it a little less. The meanings of that past become somewhat *renegotiable*, contexts and identities become more blurred. Because the past is the matrix of meaning of the present (history draws the frames within which we experience present reality); but also, time is a recursive ring in which past, present and future influence each other. Past, while we recall and talk about it, is not *really* that past: it is the *present* of the past, it is the experience we have here and now, which is under the influence of the present and of what we are today (and, basically, of our idea of the future) as much as it in turn influences it (Boscolo and Bertrando 1993).

In this renegotiation of meaning, the challenge is finding a way to accept each part of that story which ultimately is us. Increasingly, ideas and theoretical constructions seem houses designed for temporary stops of a progressively mobile thought. The Human disciplines seem less and less places of identity rootedness and more and more structures to be inhabited by becoming a tenant, free to modify them more or less thoroughly (Bourriaud, quoted by Crespi, in this volume). More and more, the question of how to transform and re-dwell the past appears to be transversal to different disciplines, fields of knowledge and human action.

2 An Epigenetic Perspective

In the continuous confrontation between practice, theory and epistemology, there was a time when the relationship with the past and with previously dwelled ideas was a question particularly felt by psychotherapists of the systemic and Batesonian school. Boscolo and Bertrando (1996), at a time when psychotherapy was confronting with postmodern and narrative orientation and felt the urgency of repositioning itself against the claims of scientific objectivity cultivated in previous decades, defined their position as "an *epigenetic* perspective, which is built by apposition and not by

denial of what came previously" (Boscolo and Bertrando 1996, 37). Their point of view is that the conviction, very widespread in human sciences, that an idea can really be put away and replaced with another, is unrealistic: ideas are part of us, they are the substance we are made of, our history, a memory that cannot be erased because it is recorded in our bodies. Their evolution does not proceed by discontinuity and by overcoming the past: in each moment we are the product of our history, of all the ideas that have crossed us and oriented our actions, of all the positions that we have taken over time. A new perspective does not replace the previous one: they coexist, one over the other in a sort of stratification, where the previous idea becomes the ground on which the new germinates and finds nourishment. Indeed, it was in that period that Boscolo began to call himself a psychoanalyst again, recovering the original identity that gave rise to his entire history as an innovator. But while he does so, that definition has no longer the same meaning it had previously: it has a historical, narrative and autobiographical meaning. A meaning that has inevitably been transformed by the action of all that happened afterwards, as well as by the gaze of what he is today. It does not declare a theoretical belonging: in a sense, it says *something about* that theoretical belonging.

Now, what makes me find this vision and the thought path leading to it exciting, is that I have always had the impression that in other fields, with other languages, in the same years, someone was asking the same questions.

3 In Music: Re-contextualize the Past

Breuer (1981) observed that, in the second half of the twentieth century, artistic creation was crossed by concerns and new questions toward the past and became essentially self-referential: i.e., interested in reflecting on creative processes and on the construction of meaning in composing and playing.

In 1989, the jazz guitarist Bill Frisell published Hard Plains Drifter,[1] a long suite arranged by John Zorn with the subtitle *As I take my last breath and the noose grow tight, the incredible events of the past three days flash before my eyes*. For over thirteen minutes, thirty-six fragments of various lengths (seven seconds the first) of numerous musical genres follow one another, from noise to country to free jazz to punk, a third of which are improvised, all mounted in the relentless way suggested by the subtitle. Almost paradoxically, Frisell associates an anarchic and deconstructive impulse with an effort to bring to the extreme consequences his love for the songs' architecture, a "virtuosity of the deep structures" (Coe 1989).

When Frisell in that meta-structure (Bateson 1979) plays twenty-nine seconds of country, evidently he is not a country musician: he says something about that music and the classification of genres. We would not expect to listen to that fragment played on a Nashville stage: art itself becomes the object of art, those sounds and that way

[1] In the album *Before We Were Born*, Elektra.

of producing them are taken from their original "natural" context and placed into a completely different frame.

Much has been said about that composition in relation to the later Frisell's and above all Zorn's music, which would have represented an original experience in a certain American avant-garde (Gilardino 1988). It did not present particularly amazing innovations from a strictly compositional point of view; nor, really, in the "block" structure that chased each other at a furious pace. Also this aspect recovered past experiences, in particular the music for the Warner Bros *Looney Tunes* cartoon films over the 40s and 50s: here the composer Marc Stalling used sudden jumps of setting and musical genre, fragmentation and discontinuity as improvisational and compositional devices to underline the frenetic action performance on the screen (Goldmark and Taylor 2002). In particular, Zorn argued that Stalling was comparable to Ellington, Parker and Gillespie, i.e. to genial composers who had forever changed the music forms, and that his music was that "of our unconscious". Which is certainly true, since the links between the sentences appear more dreamlike than logical, but also because apparently disconnected fragments seem slivers of emerging memories: Frisell's "incredible events", in fact. About memory, here I am interested in an "autobiographical" reading which to me seems to be legitimized by Frisell himself: in an interview sometime later, he claimed he wanted to recover "all the music that drove me to become a musician myself" (Gilardino et al. 1989), although this is not what the public and the jazz and "cultured" music establishment was expecting.

4 Break and Rebuild Contexts: the Art of Reuse

However dizzy this may seem, it is not entirely new. A re-contextualization intervention and a re-functionalization[2] of pre-existing elements to create something that was not there before is practically the history of twentieth century music.

Someone will be surprised to know that (among many others!) *Michelle* by Lennon and McCartney and *Chim Chim Cher-ee* (the song of "Mary Poppins" chimney-sweeper) were born from the reuse of a much utilized harmonic progression, which dates back at least to *My Funny Valentine* (a song written in 1937 for a musical by Richard Rodgers and Lorenz Hart) but very likely much earlier. And that, to cite examples which we are rather familiar with, both *Albachiara* by Vasco Rossi and *Go West* by the Village People (as well as many other pop compositions) reuse a seventeenth century Pachelbel canon.[3]

The utensils were the first objects of this actions of past transformation and re-transformation. The first instruments used by the American blacks to produce sounds were the *jug* (a flask, which gave rise even to a real musical genre called the *jug bands*)—blowing in which they produced low chords notes—or the *washboard*, a

[2] "Re-functionalization" is a term that I happen to track down in musicology and about buildings and urban contexts.

[3] And we are not even going into the complex discourse of modern sampled music.

washing table which, rubbed across the grooves with coins, bottle openers or other objects, became an original rhythmic instrument (Martorella 2009, 190). But the fundamental blues instrumentation were those of the European classical tradition, obviously used in a way that had no technical continuity with the languages previously developed on them. In the wealthy homes of the white landowners they worked for, the blacks found the guitars called *parlour*, a living room model of small dimensions with a not particularly powerful sound, suitable for ladies' use. That little guitar would become the main blues instrument in the iconography and the imaginary of Afro-American music.

Probably, they first met guitars in Texas where they had arrived across the Mexican border, or through Spanish soldiers (Martorella 2009, 172). Therefore, in those surroundings the instrument experienced its maximum development with the introduction of techniques that were unthinkable for the original one.

Moreover, Afro-Americans music appropriated piano (a product of European romanticism), violin, brass and reed instruments that played European march music, but also the sacred music of the seventeenth and eighteenth centuries (Cerchiari 1997, 71).

If techniques, poetics and sometimes melodies were certainly evolutions of African archaic art forms, here we would like to illustrate the processes of re-contextualization and "appropriation" that black musicians of the time operated towards ways, structures, instruments and even culture places with which they found themselves unwillingly negotiating their own personal and cultural identity.

Even the spiritual, whose melodies mostly had African origin (the antecedents of *Swing Low*, *Sweet Chariot*, for instance, can be found in Rhodesia), takes the form of the *sermon*: its antiphonal structure seems all African, whereas it was born in the New England (Polillo 1975, 34). About ragtime ("an imitation of white imitations of black music", LeRoi Jones 1963, 108) has been long discussed whether its form was that of the minuet or of the march: but we know that Scott Joplin, the main author of this genre, at the time when was playing in the worst Missouri clubs, was carrying out in-depth studies of European music (Polillo 1975, 63).

Even the typical I-IV-I-V-I harmonic blues progression is certainly not African; rather, its matrix has been clearly recognized as European. It was the *passamezzo* scheme, a Renaissance dance that can be found in Italy and France, penetrated the United States and influenced the white song form, on the one hand, and the urban blues on the other, in a sort of meaning renegotiation, a real re-functionalization. The same structure, torn from the Western harmonic conventions, hosts alterations of the third and the seventh degree of the scale—as well as microvariations of the fifth and sixth—and lives on harmonic tensions completely unrelated to the spirit and the culture that generated it (Polillo 1975, 38; Cerchiari 1997, 100).

However, it is important to see how the blacks mastered and reused the musical forms they met, particularly those of the white and European culture that oppressed and often scorned them and the music they produced.

5 Reuse as a Gift or a (Re)Appropriation

As a listener, I have always felt a contradiction in the widespread jazz field practice to make refined versions out other genres, endow them with more complex harmonic structures and improvisations on the main theme and explore unexpected implications of melodies spread among the general public. Rather, in the jazz field, taking successful songs and reworking them so as to make standards capable of generating pages of great music had the sense, often even political, of regaining possession of a creation, subtracting it from the hands of those who profited from other people's forms and creativity. They overturned them with a so virtuous and complex improvisation style as to be less and less imitable and sackable. Often, they superimposed new melodic lines on the pre-existing chords, so to be able to attribute a new title to the piece they had re-mastered.

Quite the opposite of a tribute was the practice of black bebopper that distorted the melodies by white composers, written for European music in the style of American jazz. It is a bad mistake, Cerchiari explains (1997, 116–117), confusing Cole Porter and George Gershwin with jazz.

Polillo (1975, 198) shows how this practice had far more radical implications than a variation on the theme or an improvisation on chords. After all, pages of new music were generated by the reuse of a rather small number of "standards" (*How high the moon*, *I got rhythm*, *All the things you are*, *Whispering*, *Indiana*, *Just you, just me*, *Cherokee*, *'S wonderful*).

I hope that from this chapter an idea of reuse as a proud gesture emerges, that is not aimed at confirming the history but rather has the irreverent ambition (Cecchin et al. 1992) to write or re-write it. It is an operation of cultural re-appropriation, an insurrection of meanings.

Thus, the musician Bill Frisell affirms his relationship with the music of the past and claims a sort of multiplicity of his self, affirming his critical position about the division into "genres". The therapist Luigi Boscolo recovers passages of his own scientific evolution not to deny the progress of which he was a promoter and protagonist, but rather to take it to the extreme consequences: re-mastering a rejected identity is a radical way of affirming his own complexity that is not reducible to a current photograph, nor to an academic classification of schools of thought.

6 Music Redesigns and Re-functionalizes the City Spaces

Churches, as well as worship places beloved by blacks converted to the Evangelical Baptist cult, gradually became—in the first decades of the twentieth century—places for the spreading of hymns and gospel music, initially accompanied by slow movements and the rhythmic beat of the feet, since the use of percussion instruments in the church was forbidden (Caramiello et al. 2016, 48).

Again in the years of segregation, small towns were born around the railway stations near the plantations. Rural centers were actually two parallel towns: an official one, controlled by the dominant white culture; the other occult, born from the need of African Americans to have their own space, in which to take refuge and find protection from the racist violence. In those hidden realities flourished the *juke-joints*, places "halfway between a bar, a ballroom, a place to eat fast food, smoke a cigarette, drink liquor of variable quality, talk without being hurried up" (Martorella 2009, 56). That network of clubs played an important role in the spread of blues.

But even after the great migrations in big urban centers, when the Afro-American music was out of the ghetto and became more and more *American music*, it reconfigured the city spaces occupied from time to time, as dance music (often very lively) but also, and increasingly, as music to listen.[4]

The solemn luxury hotels ballrooms or the movie halls were overturned, due to the managers and staff concern, as happened at the Paramount Theater in New York when, in 1937, a total of twenty-one thousand people attended five Benny Goodman's shows in the breaks of the projections, dancing between the armchairs rows and then even on stage. On another occasion, Goodman was struck by the fact that the public had stopped dancing and had huddled under the stage, willing to listen to the orchestra's arrangements (Caramiello et al. 2016, 111).

In 1914, twenty-five years after its construction and after having hosted classical music for a long time, the New York Carnegie Hall saw itself totally invaded by a huge orchestra of "*negromusic*" (Caramiello et al. 2016, 83).

7 Re-functionalization of Tools and Spaces in Psychotherapy

So, the re-use and re-signification of elements of the past constitute a widespread practice in various fields of human creativity. Therapeutic techniques can be updated in a new epistemological framework, but through a process of re-contextualization and re-functionalization (Giuliani 2017).

We saw how the psychotherapist Luigi Boscolo (a good jazz listener, but I think not too close to the New York avant-gardes), in his epigenetic perspective declared a position similar to that supported by Frisell, when the latter recovers the role of all past music that formed him and refuses to "cancel" pieces of his own biography. In fact, he chooses to welcome them in a "holistic framework" in which they coexist (Boscolo and Bertrando 1996), albeit profoundly modified in their original sense.

It is much more than the influence of an element of the past: it is a process of renegotiating the sense of a part of oneself and one's own history.

[4]The long essay by LeRoi Jones (Amiri Baraka) *The People of the Blues* (1963) remains the richest source on the sociology of African American music. Although it does not go into the aspects that concern places and spaces of the city, it is an excellent text on the relationship between music and the community.

Family therapy has an inseparable link with the spaces in which it takes place. Imagine a certain number of people in a certain position in relation to each other, in a room; and imagine two communicating rooms, in most cases separated by a glass that lets light pass from the therapy room, with the light on, to the observation room, with the light off.

In the illuminated room, one or two therapists talk with the family and, in the other, one or more colleagues follow the session in supervision. In addition to the glass, the supervisors can follow what happens through a closed-circuit video system. Furthermore, it is possible that a video recording system is connected to the image capturing system: reviewing the sessions is part of the family therapists' clinical work, but also of their research and theoretical work.

On the one hand, a similar setting marked a radical discontinuity with previous practices (psychoanalysis, intimate conversation, the therapist's couch) and seemed to respond to the need of observing the complex interaction phenomena between a certain number of people. On the other hand, it was the translation of an epistemology: an external observer would have had a "superior" and objective point of view on that very complicated events congeries that took place under his eyes. His "superior" point of view was given by his being "expert" of the functioning (and therefore of the malfunctioning) of the systems he observed, and by his having a "not involved" point of view, separated also from the physical barrier of the mirror.

So much faith in the power of the objective observer faded between the 80s and the 90s (Ganda and Giuliani 2017), and at that time the new emerging epistemology imposed a new space conception. Some clinicians abandoned the supervisory room, the mirror, the video system, in favor of welcoming and possibly well-furnished rooms, more suitable for a free conversation. Others have faced the problem of re-adopting old practices and techniques (Giuliani 2014), but, above all, of changing the sense of the traditional setting in a way more coherent with the new ideas. So, the relationship between the two environments ceases to be hierarchical, with an epistemologically and operationally superordinate supervision of the therapy room: so much so that sometimes it is possible to reverse the polarity, turning on the light where it was off, turning it off where it was on and thus observing the part of the therapeutic system that was under observation. The family follows the clinicians conversation and therefore is invited to comment on it: in this way, it acquires a status of "expert" like the therapists, in a redistribution of the "power" that the previous theory attributed to the observer and that now is also sanctioned by the spaces dynamics (Andersen 1987).

Not only the setting consistent with the old theories is not abandoned, it even suggests some practices that will be translated into new theories where contexts, ideas, epistemologies, therapists, all co-evolve together as a single system.

8 Conclusions

Through analogies between different fields of human activity, I have tried to illustrate a question that concerns our relationship with the past and the continuous process of re-signifying elements of our history: however paradoxical it may seem, preserving a sort of continuity, of unity in our biography, involves a continuous renegotiation of the meanings of objects, places and events.

Now I realize that I have sparingly used a word that I wanted to use more frequently, but that sometimes I find insufficient and even misleading. The word "identity", with its derivative "identifying", increasingly assumes (with regard to things that change meaning over time) a protective and exclusive function. The "identity misunderstanding" is a product of the same ingenuity that looks at the identity as an essence that remains unchanged over time.

If, in the past, staying equal to oneself over time was considered an element of mental health, today we can think that a constant dialogue between the dimension of identity and of dis-identity (Lai 1988), between stability and change, is what guarantees health to people, groups and cities. Memory, which is the function assuring us to live in a substantial continuity of experience, makes us aware of the transformations of the surrounding world: therefore, it asks us for new ways of describing it and composing ourselves with it. So, we abandon some past elements to their fate; others remain firm where they were; others live new lives: and to do this, they change name, location and meaning.

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Time. The City as an Event of Time and Space

F. Leoni

Abstract We think of space and time mostly as containers, impassive and indestructible coordinates in which things are placed and events take place. Instead, we should start thinking that space and time are things, go together with things; more precisely, they happen with events. In other words, space and time are the way in which events themselves, in their happening, intercept and intertwine the happening of other events. Space and time are the memory triggered by every event starting from itself, remembering every other in itself and, so to speak, being remembered by every other.

Keywords Event · Insects · Interior · Exterior · Memory · Morphology

1 Introduction

Space is an effect and a memory. For this reason, some languages preserve an etymological link which is fully interesting to those who analyse the connection between space and time, between space and memory. We can verify this in German, for instance. Where *mal*, the stain, which we also find in *malen*, "paint" but more literally to leave traces, stain a surface, returns in a term like *Denkmal*. *Denkmal* is the monument, etymologically a place in which to meditate and remember, but from a structural point of view a block, a spot, a stretch, a dot that marks the landscape and therefore summons to gather: a point in which one gathers in his thoughts, or in which many people group together, participating of a common space and a shared memory (Maldiney 1973).

If we follow a Latin, instead of a Germanic path (but *Mal* also comes from *macula*, stain), we find that *monumentum*, before being a monument in the present sense, is a warning. And in turn, a warning (*monere*, warn) is such because it coincides with something that is shown (*monstrare*, *monstrum*), i.e. something that makes a sign,

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signals itself, in some way marks an obscene point, that for its obscenity attracts in its orbit looks, thoughts, fantasies, projects. In this whole sequence, *monere*, *monstrare*, *monstrum*, we see how the monster oscillates between different though contiguous meanings. *Monstrum* is an example, in this sense a remarkable and exemplary thing, a remarkable object because it is singular. But singularity itself is such because it is incomparable, it has no possible comparisons and, in this sense, it is not immediately comprehensible, attractive and disturbing at the same time. This is why the *monstrum* becomes the monster of our dictionaries (Dal Lago and Filippi 2018).

It is not by chance that stain and monument are so closely linked. Space is always marked by an irregularity, always draws the surroundings of a stain that reverberates in it. In fact, there is no space in general, space is never an empty container, a neutral surface in which objects are inscribed. Space is always a specific space, a space marked by a contingency, a space established by a process. Of that specificity, contingency, process, space preserves memory. Or rather, of that specificity, contingency, process, space is the memory, tout court. In fact, if we limit ourselves to say that space "preserves" the memory of a certain contingency, we would assume that a general space is given, and that only in a second time, only in a time that we always think of as a second, something happens, deposits its traces in that space, and lets that space preserve its traces, just as the showcase of a museum preserves the desiccated finds of another time or place. It is not like that. Space happens along with what happens. Space is always induced by an event.

2 Insects/Worlds

At a certain point, a strange conceptual character, to use Gilles Deleuze and Félix Guattari's expression (1996), breaks into twentieth century philosophy. In a knowledge where, for centuries or millennia, the key concepts had been being or time, nothingness or becoming, radically heterogeneous beings burst into the traditional philosophical imagination, i.e. insects.

It is worth drawing the parable of that irruption, at least schematically. We find wasps and caterpillars in Bergson, who studied the entomology of his time. Along with many other biological knowledges, he re-introduced it in the *Creative Evolution* (Bergson 1911), one of the great books that contemporary philosophy has never stopped reading and rereading. In Heidegger we find bees instead. In an extraordinary lectures course held in 1929–1930, *The Fundamental Concepts of Metaphysics* (1995), Heidegger dedicates to them a long reflection, substantially borrowed from a great German ethologist like Von Uexkuell (1957). Another example that twentieth century philosophy takes from Uexkuell and his influential book *A Stroll Through the Worlds of Animals and Men: A Picture Book of Invisible Worlds* is tick. We find it in Maldiney (2004), in *What is philosophy?* by Deleuze and Guattari (1996), in *The Open: Man and Animal* by Agamben (2004).

How should this invasion of insects in philosophy be interpreted? Perhaps, we must start from an observation. About ticks, Deleuze and Guattari stress above all

their extreme poverty of means. We find something similar in Heidegger about bees, or in Bergson about wasps and caterpillars. A tick, Deleuze and Guattari emphasize, lives on his grass blade for days, maybe weeks, sometimes months. Only when a warm-blooded animal passes under him, the tick perceives its presence, or better, it perceives the butyric acid that every warm-blooded animal secretes through its epidermis. So, the tick loosens his grip and lets himself fall. If the throw is lucky, the tick ends up on the back of the animal. He is guided by its heat, makes his way through its fur or feathers, reaches the epidermis and sticks his beak into it. When he is full of the animal's blood, he slackens off, falls away, and prepares himself for a new cycle. So: butyric acid, animal heat, reached satiety. Here are the three polar stars that orient the tick and literally draw his space.

To what do we owe the tick's philosophical fortune? At this point, answer is easy. To the attempt to see space arise. To the attempt to think of space as an event in progress and not as an already given surface. Such an enterprise could not have been accomplished by starting from human beings. Man was overly familiar to himself, or perhaps we thought we knew him so well that we didn't even see him anymore. What man had made of space had simply replaced the many spaces that under and within human space continued to flourish. The space that human beings had projected around them with the action of their body, with the effectiveness of their senses, with the projection of their techniques and technologies, all this had blocked any theoretical and practical access to that event through which space is made. It had even barred any access to that infinite variety of events through which the infinite variety of spaces is constituted. One had to look elsewhere.

In this sense, perhaps, we must interpret all the current interest in post-humanity. It is not so much a question of abandoning the human to look at cyborgs (Haraway 1995) or at animals (Marchesini 2016), at plants or minerals (Coccia 2018; Kohn 2013), because these would be more real, or more futuristic, or more eco-sustainable. It is rather a question of abandoning the already done to study the doing process. The fracture line that the post-human invites to think about is not between human and non-human but between crystallization and genesis. In other words, it is necessary to study the tick or the caterpillar or the bee, like the physicist interrogates particles, detects their trajectories and interactions, questions the way in which their energy intercepts other energies. Each time it was necessary to grasp the genesis of what was a singular field of possible interactions, a network of peculiar relations triggered and irradiated by the peculiarity of a certain event, a node of connections that translated into the geometry of its own texture any other node of connections, any other geometry, any other texture.

3 Interior/Exterior

None of the Euclidean categories familiar to us apply to the tick space. Studying the tick means penetrating non-Euclidean spatialities, and perhaps taking a further step that not always the first theorists of non-Euclidean spaces had been able to take.

None of these space varieties is but all of them are momentary creations. Spaces "are" not, but each time "happens" as the surroundings of a singular event.

For instance, the tick space is not a transparent volume, endowed with a certain system of symmetries, neutrally disposed to contain objects, ready to be crossed by trajectories. It is a tactile element, a lump of recurring contiguities a morphology of specific ribs. At the extremes of those ribs we find the tick and his prey, the grass blade and the ground below. But what matters most does not happen at the extremes, it happens halfway. Not at the end of those lines, but along those lines. It's not so obvious that the tick is something other than the mammal that he is bleeding out. We don't have to think of two things separated by an emptiness. We don't have to imagine that space is a void. The tick is sensitive to something that activates him, which means that he himself activates what will activate him. What activates him ends up being, much more than an external object or a foreign stimulus, an internal element, a dimension of his body, an echo of his behavior. Everything must be repositioned in a fundamental continuity.

In other words, space is not the place where the tick and his prey are placed, it is the behaviour of the tick himself. The tick is the stain the navel of a space that unravels in perfect continuity from it, like a fabric of which the grass blade, the approaching prey, the ground on which the tick finally drops are more or less distant knots (Leoni 2019). The tick is the watercolor stain that, by falling, impregnates the paper sheet with its irregular branches, finely zigzagging, gradually paler and yet always recognizably related to the drop density. The black or blue or yellow of the drop never stops changing its colour, moving away from the falling point and drawing with that black or blue or yellow the unprecedented space, but those nuances and variations never stop recalling the drop, they never stop echoing the intensity of that black, the note of that blue, the luminescence of that yellow. We must call space not the paper sheet on which the drop falls, but the morphology of an irradiation, the irregular but specific grid that the drop produces around it. Space is a morphological event.

4 Poverty/Infinity

Thus, it is not really the tick's poverty that fascinates the twentieth century philosophy. It is the selectivity, the singularity of the process that he illustrates, the peculiarity of the construction that he puts before our eyes.

Saying poverty would mean a lack, a diminution with respect to some fullness, a loss with respect to a presupposed wealth of possibilities. We would be putting poverty and wealth on a single scale, and that scale would probably be our scale, that wealth would probably be our wealth. We would be putting the tick on the human scale, and we would be saying that his space is poor compared to human space. Isn't it much more adequate, much more rigorous to speak of singularity? The tick's space is as singular as his life. The three stars that draw it are the infinite wealth that shapes and populates it. If we decided that we have a thousand and three stars, like

the women loved by Don Giovanni, we could only reach the same conclusion. Those thousand and three stars that draw our space are the infinite wealth that shapes and populates it. Or if we prefer, those three stars that orient the tick are the absolute poverty of his space, just as those one thousand and three stars that orient our space are the absolute poverty of our space.

What is the relationship between the infinite wealth of the tick's space and the infinite wealth of man's space? A relationship of incommensurability, if we speak in cognitive terms. Of the two infinities we can only make two distinct morphologies, two mutually exclusive styles. However, we should remember at every step that it is we who talk about the tick, who use the tick as an extreme resource, who try to pull ourselves out of ourselves using the tick like the Münchhausen Baron tried to save himself from the swamp through pulling himself by the collar of his shirt. If we speak in pragmatic terms, it is a relationship of mutual cannibalization. Spaces colonize each other, they incorporate each other precisely because they are not arranged along the same line, but each of them is an absolute that translates into its own plot every other plot, a totality that makes any other network of relationships and interactions relative to itself.

In other words, each event marks a point that intercepts every other event, even in the most tenuous and distant way. Every process traces a furrow in which every other process is inflected, like an ocean stream alters every other stream, large or small, near or far, according to its course. Every space is a whirlpool that reconfigures every other geometry in the geometry of its movement, making every other whirlpool an ally or an antagonist, a consonant resource or a contrasting movement. Every space attracts in the texture of its own processualism every other texture, which we must suppose does the same thing: attracts in its own form what had attracted it, inflects as much as it can what had inflected it to a greater or lesser extent. Each stain induces around itself a space that is all in tune with its black, its blue, its yellow; yet, and this is a great paradox with which contemporary physics never ceases to measure itself, every other stain is simultaneously matching its colour to that black, that blue, that yellow. Space is simultaneously all black and all blue, all yellow and all green. Space is the perfect simultaneity of these infinite incompossible places.

5 Matter/Memory

Every space is a space of spaces or a memory of memories. If every space is triggered by an event, by a process, if every space even comes together with that event or that process, then every space is the memory of that event, the uninterrupted echo of that process, its perfectly continuous resonance, even if it is more and more evanescent.

Every space is memory: it shows in its body, in its materiality, in its disposition, in its system of reliefs and roughness, the operating processes that designed it, the network of relationships that oriented and maybe stabilized it in some overall geometry. Every space is that space, as long as those processes are in progress, or their echo is sufficiently close, sufficiently intense. As soon as those processes set in, their space

fades away, their memory clears. In other words, we are faced with the paradox of a memory that is contemporary to the event of which it is a memory. The space of the event is born and dies together with the event. The memory of the event is born and dies together with the event. In other words, everything is present as long as it is present. And if it is not present, it is not even properly past. Simply, it is not.

Bergson (1912) made a surprising example, to reason about this consubstantiality between space and memory, between the materiality of surfaces and the mnemonic vitality that in every moment crosses and restructures them. Take acid and calcium carbonate, he said. Drop an acid drop on calcium carbonate. The acid will corrode the carbonate. Drop instead a drop of the same acid on a wooden board. The acid will slip off like water. Which means: everything should be understood not as an object but as an answer, or perhaps as a set of possible answers, to another thing which is itself a question, or a set of possible questions. Each material is a repertoire of behaviours ready to repeat itself if and when it is triggered by a congruent behaviour. Each molecule structure is a pattern of possible repetitions, activated by a pattern of corresponding repetitions. Everything, every material, every structure always repeats the same music, so to speak. It always responds with the same process to the same process. In fact, everything is a repetition, each material is the insistent echo of its own spectrum of processes, each structure is the incessant unfolding of a peculiar rythm.

Bergson made that example in a book that is among the masterpieces of the twentieth century, *Matter and Memory*. He aimed nothing less than to solve once and for all the paradoxes deriving from the eternal dualism of philosophy. First way to read the title. For centuries or millennia matter and memory has meant matter *versus* memory. The way Bergson solved the problem was extraordinarily bold. It consisted in radically rethinking the conjunction that the title put between matter and memory. Matter is memory. Second way of reading the title, a properly Bergsonian way. In other words, according to Bergson, it was a matter of antedating the phenomenon of memory, i.e. the performance that most of all summarizes what has been put on the spirit account by an exterminated tradition. It was a question of antedating memory to matter, thinking of memory not as a faculty that at a certain point would arise from matter, not as a possibility that would become available once a certain level of complexity had been reached, but as the elementary functioning of matter itself, the structure of being.

6 Conclusions

Every space is a battlefield because it is a memory field, and memory is never cognitive memory, photographic memory, documentary memory. Each memory is an ongoing force, a specific style of action, an insistent and obtuse repetition of its own pattern. Each space must be read in stratigraphic terms, as the superimposition of many simultaneous yet uncommunicating spaces, present yet untranslatable in each other. What we call the same garden superimposes on the same surface the world of

the tick, the world of the dog that the tick stings with his beak, the world of the child who plays with the dog and the ball. But, here is the thing: what the tick stings and what the kid chases are not the same dog. The one the kid kicks and the one the dog dodges are not the same ball. Where the tick meets the dog and where the dog whines for the tick bite are not the same space, as where the dog plays with the child and where the child plays with the dog are not the same space. What we call the same garden, the same space, is simply another garden, another space. For instance, that of the man who looks out of the balcony and builds that scene as the memory of his worries, the repetition of his habits, the replication of his gestures, the mirror of his expectations.

When the man thinks he is the absolute point, capable of remembering the entire stratification of those spaces in the definitive geometry of his perspective, he does not know that something of his skin has reached the tick's nostrils. And that also the tick's space has captured in his orbit something of him, of his space and his world. There is one aspect, a hidden yet fully operative bottom, for which man is already in some obscure relationship with the tick and his space, with his very poor and total memory. There is a corner of his being, a trait of human behavior, which is not only beginning to remember something from the tick, but which has never stopped being remembered by that strange tiny creature, has never stopped letting himself being to some extent crossed from his space and shaped from his memory. The tick as much as the dog, the child, the ball is the man's unconscious, and man is the unconscious of the tick, or the dog, or the child. Not metaphorical but real unconscious, unconscious as a system of events each resonating in each other. Unconscious as a linking of spaces and not at all of times, as a stratification of spaces all perfectly simultaneous, each intent on happening as itself, and therefore destined to happen in all the others i.e. to be remembered in all the others and like all the others.

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Identity. Beyond Places, beyond Identities, for a Cultural Redefinition of the Relationship between Man and Nature

L. Bonardi and A. Marini

Abstract The current moment in human history is unprecedented, unique, probably unrepeatable. Over the past centuries and millennia, little or not at all, have been heard the words that told of the world flow, of its incessant transformation. Since ancient times, Heraclitus, Lao-Tze, etc. explained this truth: everything flows and changes. During its course, Western thought has fixed this flow, trying to create and apply replicable and re-applicable models. The most efficient and effective model was that of nature or rather of the man-nature relationship. The climate crisis that the Earth is experiencing requires a profound rethinking of this concept, as of many others; but it is precisely from it, as a structural basis, that the re-design of human dwelling becomes urgent (Heidegger in Saggi e discorsi, Mursia, Milan, 2015). All this should be based on a philosophical and geographical re-founding of the relationship between man and the world, with new terms, concepts and words that can understand the complexity of the world situation. An essential basis for such a reflection will be the concept of "hyperobject" produced by Timothy (Morton in Hyperobjects: philosophy and ecology after the end of the world, University of Minnesota Press, Minneapolis, Morton, 2013).

Keywords Hyperobject · Climate change · Global warming · Nature · Geography

1 Introduction

On the night between April 14 and 15, 1912, off the Canadian coast, south of Greenland, the largest transatlantic ever designed, the Titanic, collided with an iceberg; this steel and wood mastodon, until then considered perfect, unsinkable, one of the best results of human engineering, suffered so much damage that sank.

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In November 2000, a huge ice block, with a surface area of about 11,000 km^2 and a weight of 3 billion tons, detached from the Ross Wall in Antarctica. The iceberg, called the B-15, over the following years has modified its surface area and weight and in 2005 has divided into 9 parts. B-15, or the parts that made it up, are "slowly" wandering and melting into the ocean. We do not known whether another Titanic will face such a close encounter, but there is a good chance that B-15 and it's not-so-far relative are part of the same family. Rather, that they are somehow generated by the same phenomenon that for many millennia, but particularly for about 150 years, has been transforming the planet and its balances, or those that Western culture outlines as such.

We are faced with something that is perceptible, not only through these examples or various numerical data that crowd scientific journals and, often with little clarity, newspapers, radio, the web and the news, but through everyday experience. Something in the world is changing, profoundly and rapidly, and the melting of mountains and poles glaciers is telling the story.

This transformation did not begin suddenly and will not end like the last page of a book; as in the variations of a curved line, it goes through phases of growth, apex—positive or negative—and devolution. This takes place out of something that was already happening and will generate one, or rather a series of future events. All this, in its most evident form, can be inscribed in the words "global warming". This phenomenon or event is not a hyperbolic process, but rather a parabolic one, as mentioned above. The Earth always changes, and the laws through which we have always described it must change with it, because nothing begins and nothing ends suddenly, but everything keeps transforming continuously.

Global warming is a process and as such it proceeds, transforms and manifests itself in many ways, in many places, spaces, times, as a quantum phenomenon, which happens several times in different situations. Earth heats up and the equilibriums change, as well as the ways in which the world can be described at a physical and scientific, but also cultural and humanistic level.

It is necessary to begin this cultural metamorphosis, redefining the global vocabulary. As if you had just wakened up after a stormy night, you have to recalibrate your movements and words, so you must do also after this wake-up: world is changing and, if you want to continue living according to the rules of the human park (Sloterdijk 2004), an adaptation is required, which will have to be primarily cultural and, consequently, technical.

2 Awareness: Words Are not Enough

In the same year when B-15 presented itself to the world, Paul Josef Crutzen proposed to human beings a new word: "Anthropocene". Since then, this term has been used to define the geological epoch in which the Earth still finds itself, i.e. that phase in which its structure and therefore its transformations not only take place, but are influenced by a factor, or rather a conscious vector, the anthropomorphic monkey

Homo Sapiens. The evolutionary history of humans and their primary domestication of Earth has been examined, among others and in different ways, by Diamond (1998), Harari (2014) and Pievani (2018, 2019). However, starting from them, it is necessary to reflect on man as a being who, since he exists, walks, runs, jumps and swims on Earth, is a vector of change. It seems obvious, but it is not, and it is necessary to become aware of this.

Homo sapiens is not a sedentary being by nature, he has become a sedentary being by necessity; perhaps, among other causes, precisely because of a climate change that occurred tens of thousands years ago. Certainly, he is a different animal from the others, not only because he has a conscience, writes books or drinks cappuccino in the morning, but above all because he is a naked animal, without environment. This appears very evident: in fact, every animal has a habitat, i.e. has characteristics which allow it to live in certain climatic and environmental conditions, while man does not. When he finds something that does not make him feel safe or comfortable, he modifies it or, as Marx (2018) reminded us, he transforms nature for his own survival. Man is an environmental animal, in the sense that he modifies the environment to survive; he does not modify himself, or not as substantially as a virus or other more complex organisms can do.

For this reason, the term "Anthropocene" is perfect because, since man is there and has become sedentary, he has begun to modify the environment substantially and intentionally. As Peter Sloterdijk (2017) recalls, man has become responsible for settlement and management of Earth, especially since the invention of the greatest technology, agriculture, when he began to be a significant and not irrelevant presence. Significant has been said not by chance; in fact, a signifier is the trace that shows on the surface the continuous reference to a meaning (Eco 2016; Peirce 2003). Human gestures have a meaning that are highlighted by a series of signifiers.

Therefore, these signifiers are nothing more than the traces left by man himself in the course of history, directly or through interaction, modifying the Earth and settling his dominion over it. In fact, creating environments is an operation that involves difficulty, study, preparation, time, space and improvisation skills, qualities that homo sapiens is equipped with. Certainly, preparation and improvisation are "intellectual" qualities, while it is strange to consider time and space as qualities. On the other hand, this can be said in the light of recent studies that quantum physics (Rovelli 2017) has brought to light: as Kant (2004) had already anticipated and suggested more than two centuries ago, space and time are not existing elements, present and separate, but structures of human perception used to understand and design. The perception of objects and situations always occurs in certain moments and durations that man internally subdivides into instants (time) that come one after the other in distances or points arranged in a certain order (space). Actually, memory is created on these bases, i.e. by selecting and cataloguing these forms of succession. Not only this is a logical operating principle, but it also has its own usefulness in design. In fact, based on experience, memory is what allows us to project, i.e. to look ahead with an end, finding a repetition and a canonicality in the forms that follow one another in the world. This reaffirmation of constant forms is what allows the creation of long-term cultural and technical installations, each time modifying,

adapting and re-proposing patterns. If you think about it, agriculture is nothing more than this: a technical pattern, understood and reworked by experience, re-proposed and redesigned several times, not only over the last ten to eleven thousand years, as it has been considered until very recently, but probably for at least twice as long (Snir et al. 2015). Thus, this gesture has been repeated for centuries and millennia and still it is repeated in a more or less predictable way; on this basis, man has chosen and shaped environments according to a logic that is functional to his own survival, adapting the relationship between thought-culture and world as in a dance.

Therefore, man is this type of animal, very particular, which has shaped and modified Earth in his own image and likeness, almost like another well-known creation relationship (Genesis, 1:26–27), and on it he implanted himself making it a home and furnishing it with always new and different tastes. Building a house, a home, is a dwelling process, i.e. a construction of meaning, the creation of places from the interpretation of a space, by bringing out the submerged, the latent project of every territory (Marini 2016).

Sloterdijk (2017) writes that the phases and events succession that have characterized the ways of furnishing this house can be organized according to the metabolic modalities through which homo sapiens has transformed nature.

Before taking a further step towards a reflection on the relationship between man and that container without a real form that is the word "nature", one must conclude the analysis of anthropization. As said, this process has a long course and somehow it has never begun and will never end, because the traces left behind were, are and will be there, even without homo sapiens. Certainly, however, we could say that this is possible precisely because the human being, by analyzing and studying the elements of the habitat in which he has found himself, has then modified the habitat itself, thus outlining a territory. With this, it is usually defined a selected part of the environment the characteristics of which result from the relationship between man and environment, delimited by natural or artificial boundaries that are recognized as such. Inside these borders, man lives and proliferates, planning his destiny. Therefore, homo sapiens is not only the first mammal to wear trousers, as Eddie Vedder wrote in the lyrics of one of his songs from 1998, but he is also that animal that recognizes a readapted and therefore *habitato* environment as his own and defends those limits he recognizes as borders.

In the same song, not by chance entitled *do the evolution*, with an ironic tone, man is remembered as the first mammal to make plans and therefore to design. This is possible thanks to the logical and cultural ability to recognize and recreate similar, if not identical, models over time and in various places. Thanks to this capacity, in the course of his cultural history, man has planned, classified and subdivided everything, the whole Earth and everything that is part of it or in some way is related to it, to the point of going beyond its natural boundaries and looking beyond the sky, to the planets and the universe that can be thought of or at least physically and theoretically modelled. Everything is comprehensible, everything is divisible; but if man can do this, then, as a logical consequence, he will also be the same being who, in a clear way, can control everything. After all, if the patterns are repeated, it is enough to read and re-apply them. And if I, homo sapiens, can do all this, it also means that

I am the controller, the king of all this; ultimately, everything belongs to me. That things are not exactly like that, this mammal who wears trousers is now being taught by that "strange" phenomenon that is usually defined as global warming.

On the other hand, the fact that everything is not fully controllable does not change the influence that man has on Earth anyway, so much to geologically modify it. This happens because, since we work the earth, through emissions we influence the course of things. The use of this term is borrowed once again from Peter Sloterdijk, but it is preferably redefined as a process that allows to modify the environment, leaving a trace which more or less affects its equilibriums. Traces, on the other hand, are the rest of an emission, i.e. its remnant. The abnormal increase of carbon dioxide in the atmosphere, as well as the concentration variations of other gases and microparticles emitted in the last two centuries by man, are a clear trace of human activity and, consequently, of its influence on the Earth's equilibrium. They were found in the ice and therefore very probably also in B-15. It can be objected that a trace has no positive or negative sign, but since every signifier refers to a meaning, its one is exactly the equilibriums alteration with a negative sign, because these emissions, which then become fixations, only create new entropy.

Usually, in a transformation process, entropy is defined as the element or variable that increases; classically, in a system, it is the differential quantity resulting between the beginning and the end of the metamorphic process. In few words, human beings tend to increase the amount of entropy present in the Earth system. If we decline the concept in thermodynamics, the entropic increase caused by the anthropic transformative action is generating a temperature variation, with a warming direction that is affecting the global system: global warming. So, homo sapiens is a cause of global warming; obviously not the only possible one, but at this stage and by far he is certainly the most influential. One would fall into contradiction if affirmed that man is the unique cause of every transformation, because as we said at the beginning the world is continuously transforming, but certainly, in the current configuration of world equilibrium, man is a variable with a very high transformative coefficient.

If, as we have seen, man represents a variable that strongly affects the processes transformation, it is because of his cultural derivation; since culture is precisely the human capacity to impose his own structure on the world and to hand it down, which however derives from the very processes of adaptation to the environment. Certainly, at least in this sense, one must consider the existence of both a material culture, more effective and active, and an immaterial one, less effective but plasmative. The result of human traces, or of the ecological guilt, as Chelazzi (2013) defines it, is the result of the relationship between these two variables. They are variables because over time they have changed in form and quantity, but their relationship has never been broken and it will never be because of their interdependence; they can certainly assume different quantitative and qualitative values, but certainly they will not touch zero, not even when man, as we know him, will have disappeared.

Immaterial culture often serves to describe what materially exists and subsists, and one of the most influential results of this human form is the concept of *nature*.

Defining the term is truly complex if not impossible, as it is a signifier that refers to innumerable meanings that throughout human history have followed one another from time to time, whether or not the land conquering ape was conscious of it.

In popular culture, "natural" is what follows certain laws which man is thought not to have or previously had influenced. The adjective "natural" is often added to foodstuffs or products of first use or resulting from non-polluting or at least sustainable processes; or it is generally associated with what is not considered human or follows a different order and balance than the anthropic one. Morton (2007) points out that all this is not correct or not enough, because all these "naturalisations" do not consider multiple factors, but above all they are conceptually generated by the anthropocentrism of human culture. According to this vision, man is the most developed evolutionary being—*do the evolution*, sic—who holds a princely role in the relationship with everything that exists or is believed to exist. The term nature emerges precisely from this vision, because it distinguishes what is human from what is not and, according to Morton, this is where there would be the most anthropologically and ecologically significant error. In fact, man is nature and nature is man.

It is clear that man has a central role in the transformation of the earth's equilibrium, and his involvement is undeniable; nevertheless, he also must suffer the consequences and above all, once the ecologic guilt is recognized, he must act to improve all this, since the role assumed by homo sapiens, according to Sloterdijk and as mentioned above, is that of Earth healer, being it his home. All this by taking care not of man and nature, but of the globe as a unique system, formed of interdependent subsystems and organisms.

Therefore, there is the need to deeply rethink nature at an immaterial cultural level, so that from this perspective there can be a positive impact on the practical and material level. In fact, Morton proposes to culturally rethink ecology by avoiding the word nature and, above all, its classical meanings and the consequent systemic events connected to it. Global warming, soil consumption, rising seas are not natural phenomena, but neither are they anthropogenic, they have to do with the whole system of which nature and man are part. However, they are something unknown and disorienting because there are no certain solutions to them, no logical models capable of understanding all this, even due to the nature and the limits of human reason.

Homo sapiens is faced with something he does not know, global warming, and of which he cannot predict the results, climate change, even if he is its main cause.

New problems call for new words, new definitions, new tools to tackle these ecological metamorphoses. Environmentalist culture is usually one of the answers to all this, but, as Morton (2007, 2013) explains, it still thinks of nature as of something separate from man and therefore does so in a classical, Cartesian and anthropocentric way. What is necessary is the creation of new linguistic reading tools that go beyond dualism and above all allow to think of the environment with man included and not separated from it. All this because global warming makes no class or gender distinction and, except for the different phenomenal declinations that it can assume, not even geographical and cultural. It is a new element, dominant and massively

spread throughout the globe, with spatial and temporal repercussions, both in the classical sense and in the previously exposed Kantian-quantic one.

What needs to be rethought is the order in which facts and events are expressed, because there is no distinction between man and nature. Man is a product-part of the Earth ecosystem and nature is the ecosystem; just as we consider the white bear in the Earth ecosystem, and in particular in the polar one, so we must consider man as belonging to a variety of ecosystems and in particular to the planet global one, because massively distributed everywhere and influential on the whole geoid and beyond. Culturally, man no longer belongs to places, but he is a thing among things, an element among elements, a complexity among complexities: he is part of an open and dynamic system, an eventuality, a quantum event, like everything that exists, has existed or will exist. But due to a particular or magnificent chance, he knows it, and he must become aware of it.

Man lives in spaces on which he has built places that have changed over the ages and millennia. In the spaces or environments, in those indistinct masses, he has found inspiration and identified recognizable models and there he has "emitted" places, he has culturized the environments, the elements of the composite Earth ecosystem; by domesticating, he has anthropized them. All these processes have created what is now there, including the alienating global warming. By creating places, he has often abandoned, destroyed, forgotten, submerged, supplanted, uprooted, regenerated others; this is the great capacity of the human being, but in order to do all this he had to know and understand, or rather fill, that container which is culture.

Thus, places become emblematic elements of human dwelling on Earth because they are points of a network that coexist in different spaces and times, that are coloured and take different forms according to the cultural eye that reads and interprets them. However, the points of a network, like the variables in a relationship, do not have a hierarchical or chronological order, but simply are events that manifest or non-manifest since not all cultures or cultural perspectives are sensitive to the same perceptual focus. In classical times, mountains had a very different meaning from that attributed to them by Walter Bonatti, just as Captain Nemo's ocean depths have a different role and forms than those of a marine biologist, and the great Nebraska plains have a different meaning to Bruce Springsteen's notes than to those of the Native Americans who inhabited them. However, all these creation and destruction processes, of analysis and interpretation, foundation and separation have in common the human cultural behavior. Now it finds itself at a crossroads and has the obligation to change something, even if only immaterially the way of defining and interpreting the phenomena that happen in the world; because a different look asks for a different approach that, in turn, leads to a different result.

Cultural behaviour has generated the land consumption, glaciers melting, wars, exhausting resources exploitation, all causes and, in turn, co-present effects of that alienating event that is global warming. It is there and cannot be denied; it influences and will influence human dwelling on Earth, whether it is by presence or by removal. Surely, it is a non-local phenomenon, that is distributed in different spaces and times, generates a gravitational, cultural and eco-systemic field, which is essentially undefinable with the classical terms, and therefore it requires a profound

rethinking. Culture must interpret, return to calling things by their names, especially those elements that do not have a connotation and classification: because even if classifications have produced damage, still the human cognitive apparatus works through them and cannot change its functioning. Nevertheless, it can do so in the production of results, therefore it can influence knowledge and action.

Timothy Morton defined the elements with these kind of characteristics, hyper-object, i.e. things (Heidegger 2011; Esposito 2014) that are beyond the classical cultural schemes, such as places, global warming, and perhaps man himself.

3 Give a Shape, Face the Abyss

Not many hours before these letters were engraved on the bright light of a computer screen, the thermometer in one of the most prestigious cities in the world, Paris, reached almost 43 °C; something that had never happened since atmospheric temperatures are reliably and comparably recorded in this city. Also, a few weeks earlier in France, the previous absolute maximum temperature records in the country were disintegrated. Likewise, globally June 2019 was the warmest month ever, surpassing the previous and recent record of 2016. If it were the Guinness World Record show, humanity would credit itself with a substantial number of them; but such an achievement would be a failure and bring other perspectives. The emergency is global: the landscapes all over the Earth are changing because of mankind, but the transformation is not predictable. The environmental and anthropic identity that characterized a place is no longer the same, it is changing. After all, identity is not something fixed or defined at the origin, it is created by progressing, and places all over the Earth are changing: there is something strange in the neighbour's garden, but also in the home garden. Identity is evolving and in the mirror in which homo sapiens looks, he sees only the blur, a vibrant limit, like the intense, swaying lights of the starry night painted by Van Gogh.

Man is facing something new, a faster and faster descent towards a point he does not know; it is a leap into the void. Global warming brings data, results, interpretable towards the past and what we call the present, but not towards tomorrow, because it is not there yet, it does not exist. Certainly, one can make predictions, but it is like hypothesizing, from acquired experience and memory, what is at the edge of the universe or at the bottom of an abyss. Homo sapiens is looking right into this chasm, into this abyss, but, as Nietzsche (1977) recalled, when we inspect the abyss, it looks inside us. It disturbs us, digs into us; it confronts man with a primordial, distressing, perturbing question, a return to his origins, to himself. The answers he can give can be apocalyptic, fantastic, hypothetical, there is no certainty, there is no repeatability. And memory doesn't help, because there is no experience of all this. The human being is faced with something that he does not know, but if he wants to continue his adventure, he will have to face that step by step.

The first step, with biblical scent, is to give the name to things (Esposito 2014; Heidegger 2011). The term "thing" is largely discredited, so much so that its meaning

and strength is not understood. It generally means any element—general, particular, universal, existing, imaginary, non-existent, material or immaterial, concrete or abstract—that is evoked in presence. When something is present it becomes real because it can be described, framed, perhaps representable. To become real is to take consistency and subsistence; after all, "real" is linked to "thing" because they both derive from the Latin word "res" which was used to represent what is in the breadth of determinations. Therefore, thing is not a neutral or vague word, but a lemma that recalls reality; what homo sapiens must redo is to give name and form to the real, to the new real phenomena that appear only as changes but that in the depths recall a new and pulsating reality. All these events, elements welcome in the real, because what seemed fixed no longer is and perhaps never was. When a building, a place is built it becomes an individual or collective focal point, but somehow it deforms the flat space perception and creates a temporality, because from its new presence something happens. In this space and in this time that are recreated and re-presented, these elements change in their minimal systems as well as in the more evident ones that appear more "real". The physicality that outlines them and the culture that shapes them are necessary elements to their definition, because they are things on which the identity perception projected by the individual or the community is outlined. They are things or more properly objects, since there is a subject, conscious or not, who grasps and perceives them. As it is for places, so it is for other events and for global warming. But how can this complexity of phenomena with unique characteristics, diffused in space and time, that are and remain present both as precedent absence and as subsequent trace, be defined? Morton (2013) has shaped a witty and precise term for them: "hyperobjects". They are more than just objects, because they must be considered in their "non-local" aspect and their influence on multiple scales. They are more-than-objects, perceived by an entity that is simply a subject, and here is their perturbation: their complexity is such that they cannot be understood simply with the classical models of experience and classification.

The term "hyperobjects" is perfect because it allows us to overcome that concern, that non safety that arises when one tries to refer to these elements, to explain them in their complexity; as Fisher (2018) wrote, these elements are *uncanny, weird*, and make normal classifications no longer valid and sufficient. Their aura requires new terms and new approaches, as Morton (2013) said.

> Hyperobject (refers) to things that are massively distributed in time and space relative to humans. A hyperobject could be a black hole (…) the biosphere, or the Solar system, (…) nuclear materials. Hyperobjects, then, are "hyper" in relation to some other entity, whether they are directly manufactured by humans or not (Morton 2013, 1).

The American philosopher traces four main characteristics in order to be able to sub-divide, recognize and therefore classify an element as a hyperobject: they are viscous; they are diffuse and present in different space–time moments (non-local); they are zonal and determine phases around them (phasing); and finally they are a set of several objects (interobjectively).

Specifically, when Morton talks about viscosity, he means that these hyperobjects are mellifluous, viscous, i.e. once you enter into contact with them you can no longer

detach, they remain present in your memory and are detectable in other determinations, in other elements. After all, the philosopher presents this term to classify the global warming, explaining that it is the hyper-object that manifests itself through the climate change, because the latter is one of the results of the global warming process-thing. Precisely for this reason it traces it as viscous, because climate change varies and spreads all over the globe and in different ways, but especially because once you realize its presence it cannot be ignored (even if there are those who try to do it), you are influenced and touched by it. The same happens also with places and landscapes (Marini and Tolusso 2016) because they are expressions of cultures and interpretations, you revive them in time, in memory, you are influenced by them, in positive or negative.

From here emerges the second peculiarity, the second constitutive element that connects global warming, landscapes and places, i.e. their non-real local aspect, because they appear and transform over time, showing new dynamics and expressions, occupying and assuming different spatial forms. After all, global warming did not only manifest itself in 2019 but, although in a less evident way, it was already present when the Titanic sank, or when Rachel Carlson gave voice to the environmental movement, or when B-15 began its journey to the ocean. In the same way, every place is present to itself, but changes over time; just think of how cities change: Rome, New York, Paris, Tokyo, Oslo are not the same as 200 or 2000 years ago and they will not be the same in 10 years, as they will not be in 10,000 years: they occupy, occupied and will occupy different spaces. Five hundred years ago the USA, like Italy, did not exist, now they exist and leave material and immaterial traces, spread them all over the globe, through their inhabitants, those vector-animals that are man in his entirety.

The presence of hyperobjects varies in its quantity and intensity, but their presence—and here is their third characteristic—their reality determines a phase shift (phasing) in space and time, from a material and an immaterial or, more properly, cultural point of view. In fact, like black holes, they are present and affect you the closer you are to the portals of manifestations, while they act in a less deviant way the further away you are from them. They modify the homo sapiens' perception, i.e. space-time, just as they shape reality when they are present, because they transform and change the balances of the systems in which they are inserted, to which they are connected or to which they refer. A heat wave in Europe enters into a real relationship with the winter frost that can touch the east coast of the United States; a sort of Butterfly Effect, as it happens when a city or a place imposes itself as an attractive centre, varying its influence over time. Zermatt and Cervinia are not a local phenomenon, but a global one because they move flows all over the Earth, both on the material and on the immaterial level. Their influence, their being "zonal" has varied over time: 300 years ago, they were not what they are now. They were villages of shepherds and crystal seekers, now they are international tourist centers; tomorrow, perhaps, they will be humanity's places of salvation. We cannot know this, we cannot experience it, just as it was not conceivable, if not from a utopian point of view, that they would become what they are now.

Can there be a relationship between the function of a place, its destination and global warming? Is there a link between two elements apparently present in different systems? The answer is clearly yes. Here emerges the fourth characteristic to identify and define a hyperobject, i.e. its interobjectivity: each of them can be composed of several objects belonging to various systems that are related to each other, just as hyperobjects can be in a systemic relationship. As variables of a system of equations, they vary and change as their constitutive elements change. Global warming influences the destine of Zermatt and Cervinia, as well as the use and generation of entropy in the two city systems influences global warming, because they belong to that complex and global system called Earth.

Out of this, one can infer that hyperobjects are objects themselves, and therefore real things, but they are not a simple assembly-sum of smaller objects, rather they are also the result of immaterial and not algebraic relations; they exist, as Morton (2013) recalls, whether one thinks and knows them or not, because they are indeed related to human factors, but they exist independently of the presence of sapiens. They have spatial and temporal durations, change in time and, as said at the beginning, they are not born and they will not be suddenly exhausted, according to definable or calculable waveforms. Therefore, we can realize but not indicate them directly, we can grasp a manifestation, an episode, but not observe them in their totality; they are a Kantian noumenic reality that cannot be grasped with the limits of human reason.

Hyperobjects are a new word, a new way to refer to the world, to the Earth itself and not only, a small step to redefine the man-world relationship, going beyond the classic definitions. Above all, they redefine the identities of things, of reality and therefore also of places, because they are no longer just isolated spatial determinations, but something more: hyperobjects.

4 Conclusions

Man creates hyperobjects from simple objects in response to other hyperobjects, even if he does not realize it. About 1200 km from the North Pole there is a geo-localized place that does not belong to any state, any nation, but to humanity and perhaps to the Earth because it serves to preserve its life and potentiality and contains the genetic patrimony of life on Earth: seeds. It is an object that happens in a space and time, but in its destiny it has to become something wider and more complex, not measurable, therefore a hyper-object, i.e. the Svarbald Global Seed Vault. It contains the present, but also the past and the future, potential environments; it is zonal and is one of the answers to global warming. Perhaps, an attempt to overcome the concept of nature and place, towards a complete eco-mimesis (Morton 2007, 2016) of a common and integrated survival between earth and sapiens, between human and non-human, not as something distinct, but as participatory, without a hierarchy but as co-presence at the same level.

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Mind in Places

Borders. The Design of the Unfinished as a New Transdisciplinary Perspective

L. Crespi

Abstract The text identifies neo-nomadism as an issue characterizing this beginning of the century and as a challenging field for the project culture. It calls for questioning the meaning of living in the contemporary world, in post-industrial cities, in relation to available spaces no longer used, which are named leftovers. Their regeneration project is described, which can assume their degradation elements as an opportunity to experiment a new "aesthetic of leftovers". In conclusions, in this scenario, the need to rethink the disciplinary status of the project is recalled, to be opened to a new form of transdisciplinarity, defined as "design of the unfinished", positioned between architecture, design, scenography, restoration, exhibition design.

Keywords Neo-nomadism · Project · Interior design · Leftovers · Aesthetics of leftovers · Design of the un-finished

1 Introduction

Dealing with space and its borders means also thinking what science tells us. I use the verb to tell because the stories proposed us by physicists are the most surprising and, in some ways, the most terrible we can hear today. They speak of parallel universes, dark matter, space–time as a single entity, of our universe been born from a transformation of void, of black holes containing a spherical region whose edge is called the *events horizon*. And above all, of vulnerability and precariousness of the human condition as a reflection of cosmic precariousness. We would be shocked if, at the end of each of these stories, there were not always a cue to start from and transform our awareness of everything transience—as writes Guido Tonelli, professor of physics at the University of Pisa—in the push towards "new and deeper motivations to take care of other people, respect living beings, repair the planet wounds" (Tonelli 2017).

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Concerning the border issue, Italian sociologist Stefano Allievi asks "Is there still a *finis-terrae* in this situation? And where? In the space? Beyond? As Marc Augé reminded us, we live more and more under the sign of Hermes, god of doors, of city thresholds, but also of crossroads. Among the cities, there are more and more roads and bridges" (Allievi 2001). And between the continents, there are seas whose surfaces are continuously sailed by boats full of humanity in search of safe landing, albeit temporary.

2 Neo-nomadism

The 2017 UN report on international migration has estimated that some 258 million people have left their birth countries and now live in other nations. In 2018, according to UNHCR, the United Nations Refugee Agency, the number of people fleeing wars, persecution and conflicts has exceeded 70 million. This is the highest level recorded by UNHCR in almost 70 years activity. This figure corresponds to twice that of 20 years ago, with 2.3 million more people than in 2017, and is composed of three main groups. The first is formed by refugees, people forced to flee their country due to conflicts, wars or persecutions. In 2018, the number of refugees reached 25.9 million worldwide, 500,000 more than in 2017. The second group is made of asylum seekers, people who are outside their origin country and who receive international protection, waiting for the outcome of their asylum application. At the end of 2018, their number in the world was 3.5 million. Finally, the largest group, with 41.3 million people, includes persons who are displaced within their origin country, a category normally referred to as internally displaced persons (IDP). These include climate migrants, who are defined by the International Organization for Migration as "people or groups of people who, mainly due to sudden or gradual changes in the environment that negatively affect their living conditions, are forced to abandon their usual residences, or choose to do so, either temporarily or permanently, both in their own country and outside of it".

The displacement of millions of people from one geographical area to another, albeit for very different reasons, constitutes a complex phenomenon of planetary dimension which perhaps has not equal, if not in its origins, in the history of humanity. Together with environmental degradation, it is destined to represent the great emergency of this century, with enormous repercussions on what dwelling the world means today.

A lot has been written about the appearance of neo-nomadism. According to the Italian philosopher Umberto Galimberti, due to the spread of new forms of mass nomadism, people would have nothing left but the "destiny of 'wayfarers'. Unlike 'travelers', who go their way to reach a destination, from time to time they adhere to the landscapes met by going; to them, those are not transit places in view of that place, Ithaca, which makes each land a simple stop, along their way back (…) Nomadism is the ability to dwell the world in the randomness of its innocence" (Galimberti 2000).

Michel Maffesoli, emeritus professor of Sociology at the Sorbonne in Paris, was among the first who dealt with the subject; in his book *Du nomadisme. Vagabondage initiatique* (Maffesoli 1997) he argued that the nomad can be considered as one of the emblematic figures of our time. In this case, nomadism is seen as a form of wandering, something inscribed in human nature, which can represent a sort of catharsis, an enlargement of the self towards something greater, capable of incorporating the earth, the world, the others. This interpretation weakens its explosive and political significance in favor of a vague idea of social neo solidarity, which in the web finds the place that makes new interconnection possible.

According to Arianna Dagnino, an Italian writer and scholar of collective behavior changes, new nomads are great crossers of physical and virtual geographical and mental frontiers, possible inhabitants of cities which could be born and die during a single day. About twenty years after her study on the new nomads (Dagnino 1996), written when migrations had not yet taken on the current dimensions, Arianna Dagnino supports the need of a new approach to the explosion of migratory phenomena, to overcome the main limits of the policies used to face them. She highlights two specular cultural attitudes, defined as "assimilationism" and "multiculturalism", and indicates a transcultural approach. This is a "critical perspective that intends cultures as dynamic processes affected by mergers and confluences", which "therefore can also represent an alternative model of identity construction, which develops at the crossroads with other cultures and pushes towards a dimension beyond any specific culture (…) Instead of focusing on polarities and differences, transculturality favors intersections, elements of commonality and shared initiatives" (Dagnino 2016).

According to the French art critic Nicolas Bourriaud, the failure of postmodern multiculturalism would be due to its being based on belongings, inevitably destined to create "ethnic roots". In line with Bourriaud, if immigrants, exiled, tourists, urban wanderers constitute the dominant figures of contemporary culture, in order not to suffer a reality characterized by planetary nomadism and financial exchange globalization, it is necessary "to elaborate a nomadic thought, organized in terms of circuits and experiments, not of permanent installation. To the experience precarization, we oppose a resolutely precarious thought to be inserted and inoculated in the same networks that suffocate us" (Bourriaud 2009). A thought that replaces the idea of identity roots with the notion of *radicante*, which implies the abandonment of the "exclusive disciplinary rights" in favor of "a nomadic predisposition, whose main characterisstic is to live in existing structures, accepting to become the tenant of present forms, being free to modify them more or less in depth" (Bourriaud 2009).

According to Stefano Boeri, an Italian architect and scholar, "in recent years, European cities have become a sort of big camps; the site for temporary stops and mobile life projects" (Boeri 2011).

3 New Ways of Living

In this scenario, the project culture cannot escape the need to measure itself against the effects of this phenomenon on the changes in the ways of living. Yet, the debate and even more the practices of recent years do not seem aware of the need for a true Copernican revolution against inherited elaborations concerning policies, techniques and aesthetics. Some proposed solutions, such as those of temporary and mobile housing models, appear to be completely out of date, not to say meaningless. And in most cases, they are not even interesting as for their formal quality and "rate of innovation", especially when compared with similar, memorable experiences carried out in the 1970s.[1] It is the case, for example, of the *Refugee Housing Unit*, designed by Ikea, made with special and ecological materials and equipped with photovoltaic panels. However, from the design point of view, they reproduce the obvious archetypal image of a cottage, as always imagined in childish fantasies. Paradoxically more interesting, as they cleverly wink at the universe of the neo-nomads, are the objects of the SPRIDD collection, designed by Kit Neale "for all people in constant movement who want to live a simpler and more enjoyable daily life, going from one place to another. With its tents, travel bags and thermos, SPRIDD is perfect for rock festivals. The boxes, on the other hand, are ideal for those who move to study at the University, for work or for passion". In fact, this is a significant sign of the attention demonstrated even by the Swedish furniture giant towards the ongoing changes.

Changes that are well-known in the scientific world, also thanks to some recent sensational discoveries. Guido Tonelli reminds us of two epochal discoveries in this decade: in 2012 the Higgs boson and in 2016 the gravitational waves, are destined to contribute to in-depth knowledge of the world, of its origin, of its dark side and also of its fragility, due to the unstable equilibrium in which the forms of life populating the Earth find themselves. This greater knowledge, also corroborated by the first photo of a black hole taken in April 2019, gives us an idea of a universe that coexists with countless other universes and does not seem to be immutable at all: "Now we have to take a further step: take awareness that the whole cosmos seems to share a similar precarious condition with us and with our planet" (Tonelli 2017). In short, science tells us that we live in a strange, colorful and amazing world "where space crumbles, time does not exist and things may be nowhere" (Rovelli 2014), a world based on relationships, before than objects, and on "elementary processes where quanta of space and matter continuously interact with each other" (Rovelli 2014).

This is a radical change in the statutes concerning scientific thought which, as has always been the case in history, necessarily reverberates over the design disciplines. It happened with structuralism in the 1960s. It happened in the 1980s thanks to the contribution of authors such as René Thom and Ilya Prigogine, whose program of replacing a predictive and experimental science with a qualitative and hermeneutical one created the conditions for questioning a possible agreement between science and design on ground of a common ability to perform forecasting type activities. As a consequence, the project activity and even technology have renounced to a program

[1] Only think to the exhibition *The New Domestic Landscape* held in 1972 at MoMA, New York.

of integral domination over the realities to which they are applied (Crespi 1987; Crespi 2018a, b, c).

Science, besides having made unimaginable knowledge progress into the laws that govern the universe, has recently explored in a new way human beings' behavior towards the environments in which they live. With the discovery of mirror neurons, we are able to better understand "how we come into contact and react to materials, spaces, shapes, scales, lighting conditions". Thanks to neuroesthetics and to scientific experiments carried out to find out how our brains react to aesthetic stimuli, through the brain visualization techniques we "can capture on the screen 'chills down the spine' that might occur while listening an *impromptu* by Schubert or the entry into a medieval cathedral" (Mallgrave 2013). Vladimir Nabokov would have liked to be able to verify in the laboratory the effect of reading "not with the heart, nor with the brain, but with the spine—because there is where the revealing thrill" (Nabokov 1980) of a genius' work manifests itself. Indeed, he was convinced that studying the sociological content of literature was an invention for the benefit of those who are immune from the "aesthetic vibration of real literature" and that "reading a book is useless if you do not read it with your back". Others, like the Italian psychoanalyst Vittorio Lingiardi, have tried to explore our relationship with the landscape and what it means and evokes in each of us, something that "does not end with our look and contemplation. It involves our body and sensory participation, it is charged with affection and memory and becomes an element of identity" (Lingiardi 2017).

Others like Stefano Mancuso, the director of the International Plant Neurobiology Laboratory in Florence, observe the behavior of plant world in a different way, through a discipline called "Plant Neurobiology". It studies how higher plants are able to receive signals from the surrounding environment, rework the information obtained and transmit it to the other parts of the same plant or to other plants, even distant (Mancuso 2017).

As we can see, the project culture receives signs from far away, from disciplines that are focused on the relationship between man and the universe to which he belongs and from events that are turning the planet upside down. However, it does not seem to have picked them up to make a real change, to go beyond an insistent and even somehow ritual recall to environmental issues and interventions sustainability, both in the architecture and design field.

Under the heading *Project*, the Treccani Encyclopedia reserves a challenging text written by Purini (2010), one of the most authoritative theorists of architecture; his essay raises many and dense issues related to the project in the contemporary world, including the ecological one. However, the proposed solutions would be sought using the same technologies that cause the problem itself. He deals with the globalization, its positive implications as a possible mean of cohesion, and its negative ones, above all in terms of the reduction of human signs being left on the territory. He underlines how the notion of *time* has deeply changed in post-modernity, passing from an axial to an enveloping one, where past and future give way to a sort of spiral motion dominated by an absolute present. He touches on the role of the body in the electronic age and on complexity, as it is treated in the latest studies of science philosophers.

He invites us to deepen the idea of reality, to be considered by interposing a necessary critical distance, so as not to entirely yield to the conditions of the architectural work and try to achieve more socially meaningful and more aesthetically advanced results. However, when he goes back to the disciplinary language, his reasoning loses strength, folds back on itself, old disputes resurface about the difference between design and composition. Attempts to experiment different approaches to the project are ignored: "Once declined, almost universally, the interest in history, and therefore in the memory of places and the collective aspects of architectural language, today prevail design trends that consider the architect's activity similar to *industrial design*, fashion or communication. With a persistent progression, many architects are transformed into *performers*, creators of installations, media operators, within a widespread misunderstanding according to which architecture directly identifies itself with visual arts. Any necessary distinction is lost between constructing territories, cities and buildings or producing pictorial and plastic works". Yet, in his long essay, there are promising cues scattered here and there, such as when, in examining recent production, he detects the presence also of "new spatial themes which, by rationalizing futurist and expressionist intuitions, aim to transpose into architecture that fluidity characterizing the incessant information flow from the global world". In short, despite the awareness that, in the present conditions, the project seems to "seek the ephemeral rather than the lasting", the attraction of a traditional thought prevails over the need of a different approach to the problems been identified. In this context, highlighting that "once become one of the many *mass media*, architecture is forced to overshadow its most specific contents, i.e. it's being primarily an inhabitable space", may be entirely agreeable. Nevertheless, it seems to invoke a return to "the foundation, to memory and to the theme" just in one way, that of making "stable and lasting, sometimes up to some kind of eternity, what is instantaneous, random and fragmentary".

There is a surprising passage in *The Poetics of Space*, the pivotal Gaston Bachelard's work, aimed at tracing back to the essence of what is meant by poetic image, whose true measure would be represented by the notion of *retentissement*. It is in the chapter *House and Universe*, where the domestic space is explored as "space that is supposed to condense and defend intimacy" (Bachelard 1958). In paragraph VII, where he deals with the house of the future, he affirms that "it is better to live in a state of impermanence than in finality". It is surprising because it is mentioned in a context in which the house is considered the place where our memories and our unconscious are kept, the images of the house are in us as we are in them (Bachelard 1958): therefore, the place where a stable anchorage can be found. At the same time, it opens up a working perspective, because that condition concerns precisely the house of the future, the house that still does not exist; we could say, the house to be designed, the dreamed house: "Housed everywhere but nowhere shut in, this is the motto of the dreamer of dwellings. In the last house as well as in the actual house, the daydream of inhabiting is thwarted. A daydream of elsewhere should be left open therefore, at all times". Couldn't we think that this is the same daydream of the border crossers?

First released in 1974 and accompanied by photos of Jean Mohr, in 2017 *A seventh man* is published in Italy; written by John Berger, a great critic and author who died in 2017, it is an epic tale of emigration and suffering. Starting from that experience, they described the condition of contemporary living, defining the house as "a microcosm that works as a model for interpreting one's daily experience, structuring it and projecting it externally. However, in a world in motion, made of global workers, emigrations and exoduses, we should reflect on the new meanings that a house can assume. Rather than a physical space, a hypothesis can be that it appears more and more in the form of a set of routines and practices exportable elsewhere, i.e. opinions, clothing styles, etc. A house as a habitus, as incorporated practices, in the words of the French anthropologist Pierre Bourdieu, as a performance. Narratives about the house become the ideal research context to find the way individuals build various *moving home*, "cognitive homes" in transit" (Berger and Mohr 2017).

Could we think that the ephemeral, the temporary and the provisional can become something more than a mere representation of a phenomenology of living, something capable of generating new expressive codes and languages? In the face of what is happening at the beginning of this century, how can the project culture still be debating about the difference between composition and design? How can the interior design not go beyond narratives on participatory design, design thinking or little naive criticisms, orphan of the extraordinary power of Marcusian thought, addressed by Victor Papanek to consumerism?

In the chapter titled *Disarmonia, asimmetria, wabi, sabi (Disharmony, asymmetry, wabi, sabi)* of the book *Horror pleni. La (in)civiltà del rumore (Horror pleni. The (in) civilization of noise)*, Gillo Dorfles affirms that in a fluctuating world, in general thought and particularly in the world of arts, the ideal of perfection, which is typical of some great past civilizations and based on a principle of cosmic harmony, should be replaced with "a kind of cogitative mode that takes its cue from imperfection, transience, randomness, and above all from that "'disharmony" which today is dominant in the things of art, but also in those of our everyday life" (Dorfles 2008). A disharmony that, according to Dorfles, is related to some concepts of Japanese art, such as *wabi sabi*, *ukiyo*, based on the principle of breaking equilibrium and symmetry.[2]

4 Leftovers

His idea gets particularly interesting in trying to face the topics mentioned at the beginning with a different perspective, giving the interior design the role, almost subversive in this historical moment, of experimenting actions of social content, with a syntax that interpret and represent them.

[2]Dorfles had already addressed this topic in the book Dal significato alle scelte (From meaning to choices), 1973, dealing with the work of young Ugo La Pietra, committed to experimenting with unbalancing actions.

In other texts (Crespi 2017a, b; Crespi et al. 2017; Crespi and Invernizzi 2017; Crespi 2018a, b, c) I already had the opportunity to deal with this subject, which takes its cue from the existence, especially in post-industrial countries, of a multitude of abandoned spaces.

It is not so much about abandoned industrial areas, which ultimately the project culture has dealt with through re-functionalization operations, following the birth and consolidation of the discipline of industrial archeology (Muratore 2006). Established in the fifties as a new discipline, especially in Anglo-Saxon countries, industrial archeology has decisively contributed to spreading the interest among institutions, operators and the public in protecting abandoned industrial assets as a "cultural heritage". "Archeology is a science that studies findings and testimonies of human activity in antiquity, so industrial archeology is a science that studies findings and testimonies of the industrial revolution era, in all its aspects and contents (machines, buildings, technologies, infrastructures) and the deriving economic and social consequences. Therefore, it is a science that studies the origins and development of the machines civilization and the signs left by the industrialization process in daily life, culture and society" (Corti 1991). The disposal of a substantial part of these places is due to the radical change of production means and modes, which took place with an exceptional speed. The spaces created to host forms of production now obsolete have often become containers of new types of activity, sometimes temporary. Almost always, meeting an unquestionable favor from the public. As if those places, much more than a lot of new architectures, were able to communicate an immediate empathy feeling. It may be for the "fascination of industrial archeology" mentioned by Battisti (2001). It may be because of their physical characteristics that are not easily found in other environments.

Instead, it is the large number of spaces species that in the post-industrial city, for very different reasons, have ceased to play the role for which they were created and that are now in a state of suspension. I called them *leftovers*. They do not possess the same symbolic and seductive power as former factories. They may be former schools, depots, churches, slaughterhouses and so on. Some of them are present in all the geographical world areas. An immense heritage, not yet systematically surveyed. In some cases, when they have particular characters due to their symbolic or iconic value, they are transformed into a melancholy circus attraction, like the village of Goussainville in France, a sort of transposition into reality, for splatter lovers, of the dark atmospheres of *Sin City*.

Yet, there should be another way to redeem these atopic places from their uncertain destiny. The idea is to assume their elements of degradation as a "gift" and transform them into new use opportunities, based on a new *aesthetics of leftovers*. In the sense attributed by Mauss (1924) in his famous essay, gift as something that is given and must be repaid. In archaic societies, it does not represent a free practice, but a social obligation. Therefore, from this point of view, leftovers give the project the chance to rethink its disciplinary statute and operate in a transdisciplinary perspective. A regeneration mode positioned between architecture, design, exhibition design, scenography, restoration can be adopted for these environments, which could be called "design of the unfinished". A reversible, even temporary in certain cases,

"exhibition" approach, able to meet the need to give them back an identity value. However, its contours cannot avoid to deal with the presence of immigrants, exiled, tourists, neo-nomads, urban wanderers as dominant figures in contemporary culture.

According to the great Italian art historian Giulio Carlo Argan, Michelangelo's unfinished has represented "the supreme moment of art that goes beyond its technical limit (…). Since then, with the Mannerists and then with the Romantics, all art was constitutionally unfinished; and, going beyond its disciplinary limit, it challenged the prejudice that the finite was the necessary connotation of value" (Argan 2005). The *design of the unfinished* can be a way to assign to these abandoned environments, whatever their function, the representative *character* of provisional, precarious, transcultural conditions typical of the century just begun.

5 Aesthetics of the Unfinished

It is a kind of intervention aimed at making these places habitable, especially through provisional and reversible actions: furnishings, installations, low-cost forms of space redevelopment, use of technologies alternative to those normally adopted in reuse projects, enhancement of the representative elements of the previous history of leftovers. However, without renouncing to adopt specific languages and aesthetic codes. Without pathetic and anachronistic pleasures, nostalgic towards the time dust and a lost little ancient world (Peregalli 2010). Nothing to do with an operation like *Incompiuto siciliano* (*Sicilian Unfinished*), cunning from the media point of view, oriented to attribute a "style" value to that part of the building assets that remained unfinished (Collectif 2018). Little or nothing to do also with "tactical urbanism" or dialogic design and different forms of participatory planning, which in most cases assign a preponderant and almost exclusive role to the process, without any critical evaluation of the result quality.

Recently in the world, a number of operation examples have made abandoned spaces, *leftovers*, available through interventions that imply a change in the use destination of the space itself and the substantial maintenance of its original conditions. There are very different examples, most of which characterized by a predominantly architectural approach, a form of *sui generis* restoration based on the partial preservation of the existing building integrated by completely newly built parts, in a new "long lasting" destination perspective. Others, like the projects *A Sandeira*, a café in Porto of 2013 and *Musa*, a brewery in Lisbon of 2017, by young Portuguese architect Paulo Moreira, are marked by the intelligent balance between the new furniture he introduced and the elements he found. In the first, he used elements and materials recovered from other buildings in the city and extended the external paving in granite slabs till the interior, so to obtain a space continuity. In the second, a former warehouse with an uncertain destiny, threatened by a possible real estate intervention that would cancel its presence, he carried out a calibrated intervention, a flawless furniture design, a judicious use of the resources including the plant system kept completely exposed.

Many other examples could be cited, but this is not the task of this essay. We are only at the beginning, these episodes occurred almost simultaneously in different geographical contexts, even before any conscious adhesion to a legitimizing thought, to a new paradigm. Rather, born as an inalienable need to deal with some of the most problematic constitutive features of the contemporary world.

We may think that this approach is suitable to *leftovers* regeneration to be used for commercial or cultural functions, more than for domestic functions, where changes take place at a slower pace. However, our previous reflections about the sense of contemporary living authorize experiments also in that direction. Especially if they are comforted by considerations on the need to disrupt many commonplaces, still widespread, on today dwelling meaning, already questioned for example by Alessandro Mendini almost forty years ago (Mendini 2016). The risk remains that many recent intervention examples included in this type of approach may be considered as "trendy" and fashion operations, the expression of a chic and fashionable design. A critical cataloguing work has just started. As usual, when trying to explore new disciplinary territories and find a new paradigm, numerous obstacles can be encountered along the way.

This is a territory where, in the last few years, I have conducted an intense educational experimentation activity together with my colleagues from the Design Studio, within the degree course in Interior Design at Politecnico di Milano. Starting from that, the need arose to carry out a parallel project research activity in different contexts.

A first example consists of the regeneration project[3] of a former late nineteenth century warehouse of the State Railway in Varese, Lombardy. It was commissioned by the Varese Municipality who wished to participate in a call for tender addressed to the re-use of spaces for social and cultural functions. The interior is a "directional space" of about 70 × 8 m, with wooden trusses having double vertical elements, to which a porticoed part of 23 × 9 m was added, occupied by an office building made in recent years with a prefabricated system (Figs. 1 and 2).

The project involves the removal of this body, to give back to the city the possibility of using the porch (Fig. 3); it also assigns to the internal space the character of a "covered alley", where new functions follow one another without interruption, giving life to a new landscape.

The spaces go in succession from public, with the porch intended as a covered square, to semi-public, with a cafeteria, associations and co-working places, to spaces for artistic and design activities provided in the terminal part (Figs. 4, 5 and 6).

The inserted volumes, reserved for some special activities, are conceived as small reversible pavilions, to be created with techniques usually adopted in the exhibition sector, with low cost furnishings and exposed plant systems. The existing concrete floor is going to be maintained and "sutured" in the most deteriorated parts, like all the elements that characterize the space. The obtained overall image is of an unstable

[3]Project by Luciano Crespi, Marino Crespi, with Fiamma Colette Invernizzi. Consultants: Osvaldo Pogliani, Barbara Di Prete.

Fig. 1 Former warehouse of the State Railway, Varese (Italy); timber roofing system (**a**) inner space where the roof is lacking (**b**). Photographs by Michela Albergati, Federica Borrello, Elena Grisa, Gennaro Merolla, Federico Nunziata, Giulia Turati

Fig. 2 Former warehouse of the State Railway, Varese (Italy), details; floor (**a**) furnitures (**b**) small objects (**c**). Photographs by Michela Albergati, Federica Borrello, Elena Grisa, Gennaro Merolla, Federico Nunziata, Giulia Turati

Fig. 3 Former warehouse of the State Railway, Varese (Italy). Redevelopment project by Luciano Crespi and Marino Crespi, with Fiamma Invernizzi, Barbara Di Prete, Osvaldo Pogliani, 2019. Exterior view

harmony, in a difficult balance between the unfinished place, with its wrinkles and marks left by time, and the finished, measured, mild, constructions.

A second example[4] concerns the reuse project of a former industrial complex in Varese province, consisting of a number of pavilions disused for several years and on which the passage of time has left traces of rare power and beauty. Of the pavilions, with metal structure and roofing, only the skeleton is left, which now in some parts is at one with the vegetation; from the openings of the lowered concrete barrel vaults filters a ghostly light (Fig. 7); some soil areas appear as a mixture of glass fragments, moss, metal, roots.

Also based on the local administration requirements, the project involves the introduction of new residential, cultural, social and welfare functions, as well as a small hotel and spaces for sports and entertainment. Our choice was not only to enhance the spatial features of the different environments but also to take on the effects produced by the materials accumulation occurred over time to give life to a Fellini landscape, suspended between memory and the future (Figs. 8, 9 and 10).

The idea of proposing a space regeneration through this design approach aims to give back again to the territory, relatively quickly, a place rich in memory, otherwise destined to oblivion and the cancellation of its history.

[4]Project by Luciano Crespi, Giorgio Vassalli with Marino Crespi, 2018.

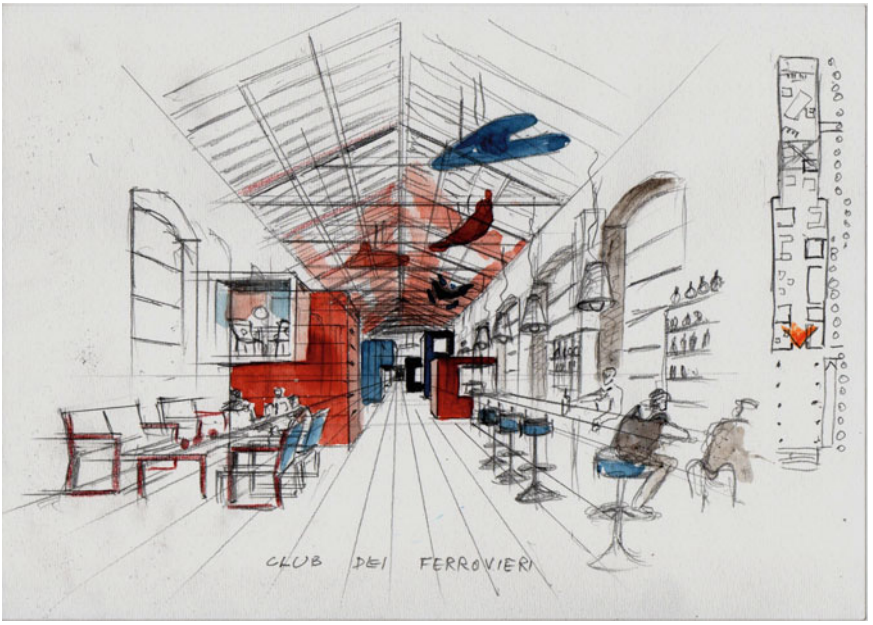

Fig. 4 Former warehouse of the State Railway, Varese (Italy). Redevelopment project by Luciano Crespi and Marino Crespi, with Fiamma Invernizzi, Barbara Di Prete, Osvaldo Pogliani, 2019. Cafeteria

Fig. 5 Former warehouse of the State Railway, Varese (Italy). Redevelopment project by Luciano Crespi and Marino Crespi, with Fiamma Invernizzi, Barbara Di Prete, Osvaldo Pogliani, 2019. Associations area

Fig. 6 Former warehouse of the State Railway, Varese (Italy). Redevelopment project by Luciano Crespi and Marino Crespi, with Fiamma Invernizzi, Barbara Di Prete, Osvaldo Pogliani, 2019. Creative laboratories

6 Conclusions

A process has just started, destined to the elaboration of a new syllabus where the words should be found through which the challenges of a changed world can be faced. This is not an easy task. Preserving the memory of these places and assigning them a role that is perhaps unmatched is a necessary dare. Mentioning Alessandro Papetti, an Italian artist whose work center is abandonment, Massimo Recalcati writes: "Remembering is never just reproducing what it was, but reinterpreting it, letting it be born a second time, making it alive again. Memory is not so much a replica of the already been, reproduction, repetition, but creation, invention" (Recalcati 2016, 219). The *design of the unfinished* tends to this; it displaces and does not wink. It is devoted to propose a new aesthetic code. It is a thinking style, a new design philosophy aimed at creating shelters for nomads of the third millennium. It gives up a polished image and shapes the unfinished, the unprecedented, the unexpected.

Fig. 7 Former industrial complex in Varese province (Italy). Lowered concrete barrel vaults (**a**), metal roofing skeleton (**b**)

Fig. 8 Former industrial complex in Varese province (Italy). Redevelopment project by Luciano Crespi and Giorgio Vassalli with Marino Crespi, 2019. General exterior perspective

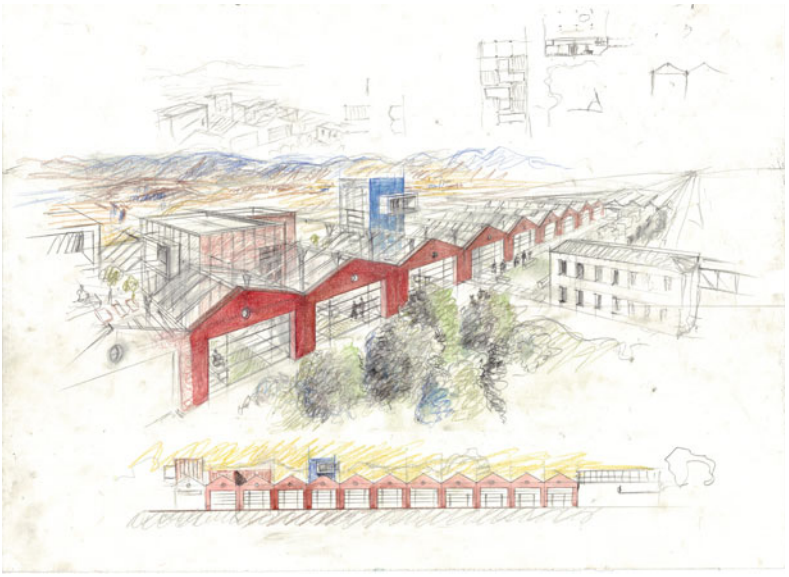

Fig. 9 Former industrial complex in Varese province (Italy). Redevelopment project by Luciano Crespi and Giorgio Vassalli with Marino Crespi, 2019. Detail on exterior perspective

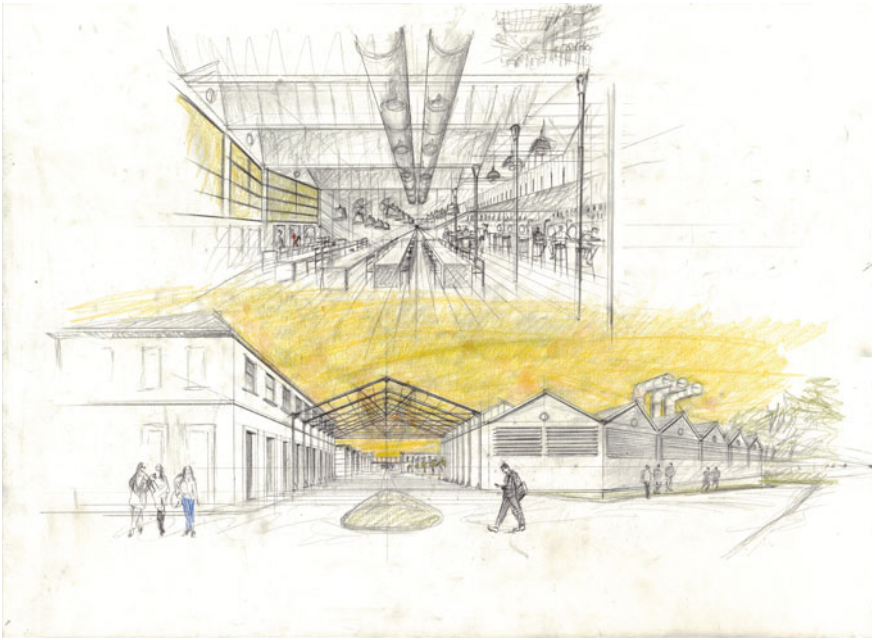

Fig. 10 Former industrial complex in Varese province (Italy). Redevelopment project by Luciano Crespi and Giorgio Vassalli with Marino Crespi, 2019. Outer and inner views

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Perception. The Representation of Space, from Bidimensionality to Tridimensionality

E. Guglielmi

Abstract The need of representing the space of our community life has manifested itself over time through different forms, which have had as its object the reality in its various patterns. This long journey, documented as early as the Neolithic, continued almost unchanged until the introduction of the geometric perspective, better theorized in the fifteenth century. New formulations opened, which had their maximum application in the artistic disciplines, reaching the threshold of the twentieth century with the complete "destruction" of the traditional relationship between form and content in the abstract image. From the end of the nineteenth century, studies were addressed to a continuous space, no longer divided into rigid schemes, corresponding to the need for an increased social communication between individuals. Also in the light of the scientific acquisitions of recent decades, the chapter proposes a historical and theoretical reconstruction of the process that brought human thought from topology to three-dimensionality, towards a greater awareness of the geometries and physicality of a habitable and visible place, to ascertain the relationships that can exist between surfaces and spaces, even in everyday life.

Keywords Representation · Topology · Perspective · Abstraction · City · Multisensory space

1 Introduction

The need to represent the space of our community life has been manifested through numerous variables addressed to reality, described in its different declinations.

This path, already documented in the Neolithic period, continued almost unchanged until the introduction of the geometric perspective, better theorized in the fifteenth century, opening to new formulations, which had their maximum application in the artistic disciplines.

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Since the end of the nineteenth century, studies had addressed the search for a continuous space, no longer divided into rigid schemes, corresponding to the need for an increase in social communication between individuals; it was well summarized in philosophical-mathematical theories (Russell) and in those of pure mathematical and psycho-physiological space (Cassirer), reaching the threshold of the twentieth century with the "destruction" of the traditional form-content relationship in the abstract image.

However, the scientific divulgation of the last few years seems to have taken this historical and theoretical reconstruction for granted, to the detriment of a more conscious acquisition of our perceptible physicality, in order to note the relations that can exist between surfaces and spaces, even in everyday life (Fig. 1).

A long and tormented walk has seen man (active creativity) competing, even in a violent way, with the vegetable and animal world (passive creativity).[1] Thus, from "unwelt", chaotic, irrational, the world has transformed into "welt", ordered by rules in what Arnold Gehlen (1994–1976) indicated (Gehlen 2003, 2010) as "absolute totality"[2] (Fig. 2).

Ultimately, what the Latins called "Natura naturandis", the development of primitive, atonal and obscure nature towards its "regeneration", did not exist except in a mythical key.[3]

The subject of nature mutation, not yet fully understood in its scientific models, was much investigated by our Humanism that forged some of its aspects even within Neoplatonism. Cosimo I (1389–1464) was interested in this, together with Michelozzo (1396–1472), his architect and trusted man. This was discussed by his nephew Lorenzo (1448–1492) during his long and hot summer stays at the Careggi Villa, together with friends of intricate speculative adventures, Angelo Poliziano (1454–1494), Marsilio Ficino (1433–1499) and Pico della Mirandola (1463–1494).

From these meetings, the true theoretical Renaissance soul and its way of representing a new tangibility was said to be born, in our eyes also in a symbolic way, after Giotto's stuttering.[4]

Starting from the second half of the fifteenth century, many of these ideas were divulged by Leon Battista Alberti (1404–1472), adapted in his treatises the "De re

[1]The plant world is endowed with repetitive, spontaneous creativity. The animal has a biological, "species" creativity, that is handed down as survival. Human creativity, on the other hand, is "volitional", i.e. every time it interprets the data or problem to be solved, becoming functional to its needs or the needs of others.

[2]The German philosopher and anthropologist theorized the human being as an "organic totality" towards nature, right down to industrial civilization. Several times the subject has been treated in an systematic way by the author of this essay (Guglielmi 1993, 1994).

[3]This concept of a ktonian nature and of a dark and silent universe, where matter is the only reality that each individual translates through the senses, in fact creating the world aspect as we see it, can be found in the *Teoria delle Apparenze* published by Marco Todeschini (1899–1988) in 1949 (Guazzelli 2019). His current of thought called "Psychobiophysics" was fundamental for the birth of Cybernetics.

[4]Among the topics dealt with by the Neoplatonists there was the curious cosmic hermaphroditism which had as followers Leonardo (1452–1519), the young Michelangelo (1475–1564) and in particular Raphael (1483–1520) (Bolsena 1980). See also for general aspects: (Warburg 1966).

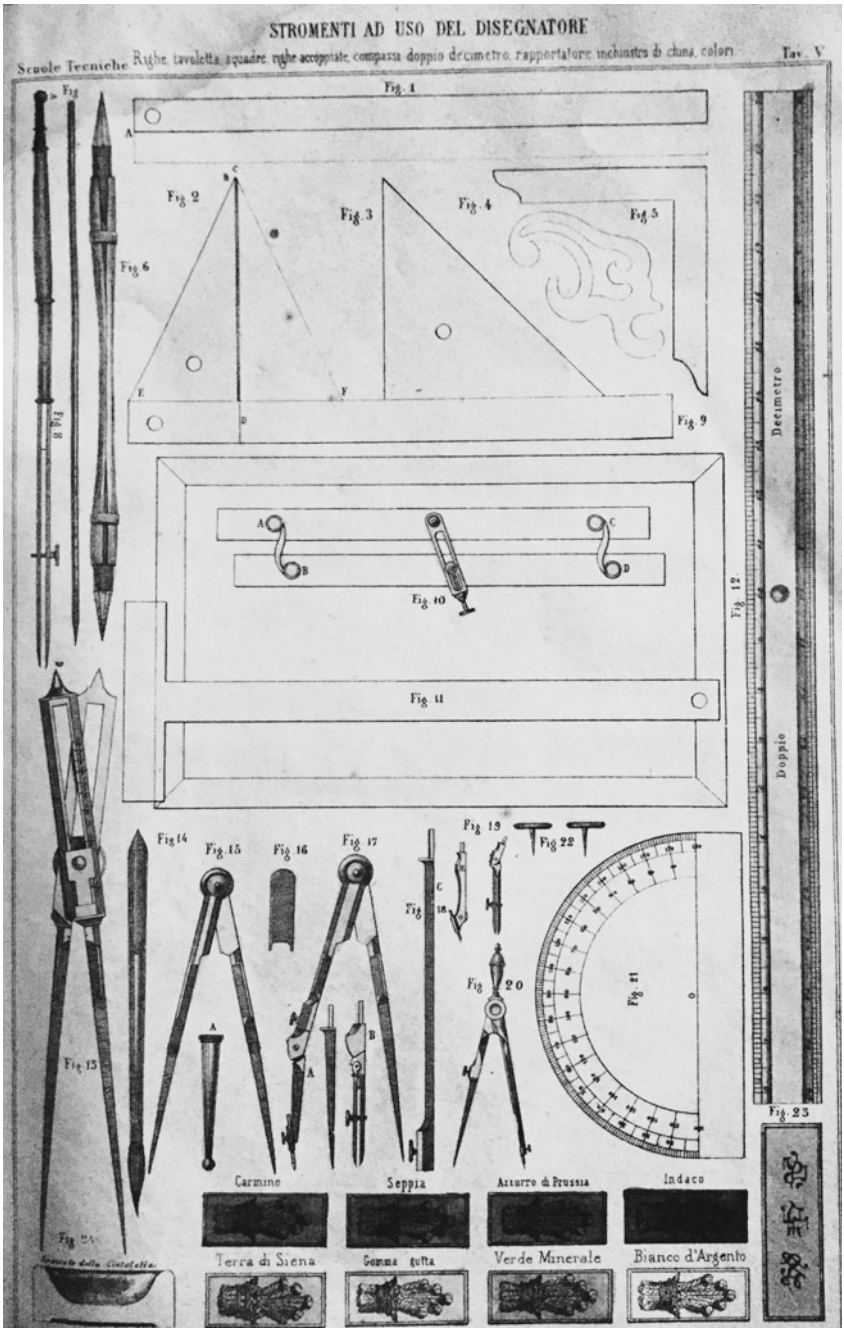

Fig. 1 Table of traditional tools for graphic representation that remained almost unchanged until the advent of today's computerized systems. From Boidi (1867) (property of the Author)

Fig. 2 Giorgio Zorzi, known as Giorgione (1478 c.–1510), *La Tempesta* (1502/3), egg tempera and walnut oil, 83 cm × 73 cm, Venice, Gallerie dell'Accademia (Photographic Archive E. Guglielmi). The work is perhaps one of the first cultured examples of landscape represented in the history of Western art between the magic of free nature (unwelt) and its rationalization due to human intervention (welt)

aedificatoria" (1450)[5] and the "Villa" (fifteenth century). The latter, in particular, was applied in various Medici mansions of delight, in a close relationship between architecture and environment, in what we still recognize as a consolidated image of the Tuscan landscape, which has become synonymous of "Italian".

[5]The first publication dates back to 1485.

This extraordinary season ended with the apocalyptic preaching by Gerolamo Savonarola (1452–1498). A dramatic fracture involved figures such as Sandro Botticelli (1445–1510), Donatello (1386–1466) and even Buonarroti and Pico.

But in the meantime, the foundations of the new rules that put order "in rerum natura" had already been laid by the other soul of the early Renaissance. Interpreters such as Piero della Francesca (1416/17–1492), Francesco di Giorgio Martini (1439–1501), Donato Bramante (1444–1514) had drawn up the reasons for the project, its rules, capable of changing the living environment forever. The perennial natural organic form was subjugated to the artificial geometric form, through the application of mathematical rules that had served Paolo Del Pozzo Toscanelli (1397–1482) to elaborate his theories on linear perspective together with Brunelleschi (1377–1446) and Donatello (Fig. 3).

This "reasoned" world invested the previously "dreamed" one, created by curious interpretations of a never dormant Aristotelian thought.

Jacques Le Goff (1924–2014), through the figure of the young Tristan who miraculously landed on the coast of Cornwall, well describes the daily life of an "anti-rational" Middle Ages, made up of large, dark, endless forests, rough glades and mephitic swamps. This was the true face of Western Christianity which monks and missionary saints then transformed obsessively, because it was considered an evident manifestation of paganism to be cut down (Le Goff 1964).

On the other hand, the spread of the Renaissance perspective, in the restitution of our living environment, has come up with a number of issues, not yet completely resolved, in the relationship between perception and representation of reality. In fact, the mathematical and geometrical laws now defined, systematically applied to the environment "as rules", have created a "new" apparent reality, the only one that can be demonstrated, to the detriment of the "ancient" sensorial one.

Ervin Panofsky (1892–1968) will add incendiary mixture to this debate, transferring the problem into the transformation genesis of the represented space, through a chronology of the artistic form, a rather labile proposal in its formulation, if considered under the anthropological aspect. According to the historian of Hanover, it is in this geometrical space, acquired from the fourteenth century onwards, where its modern idea is placed, which will then result into the conquest symbolized by the ideal single point, where all the lines of the image converge: a metaphor of space already investigated by Descartes (1596–1650) as an "extended, homogeneous, infinite substance" (Panofsky 1966) (Fig. 4).

To tell the truth, the primacy of a "geometric space" formulation was rather a slow recovery of the so-called "cubic", axonometric perspective, already used by the Etruscans and then reappeared with Giotto (1267 c.–1337): almost a legacy hatching under the ashes of that figurative culture which, from central Italy, involved much of the West after the crisis of the end of the ancient world (Burckhardt 1952).[6]

[6]Riegl (1858–1905) argued that only after the age of Charlemagne (742–814) space was considered as a "prius" with respect to the single form, in the sense of modern infinite spatiality, considering that classical and late-Roman art were not able to overcome this development process (Riegl 1901, 1902).

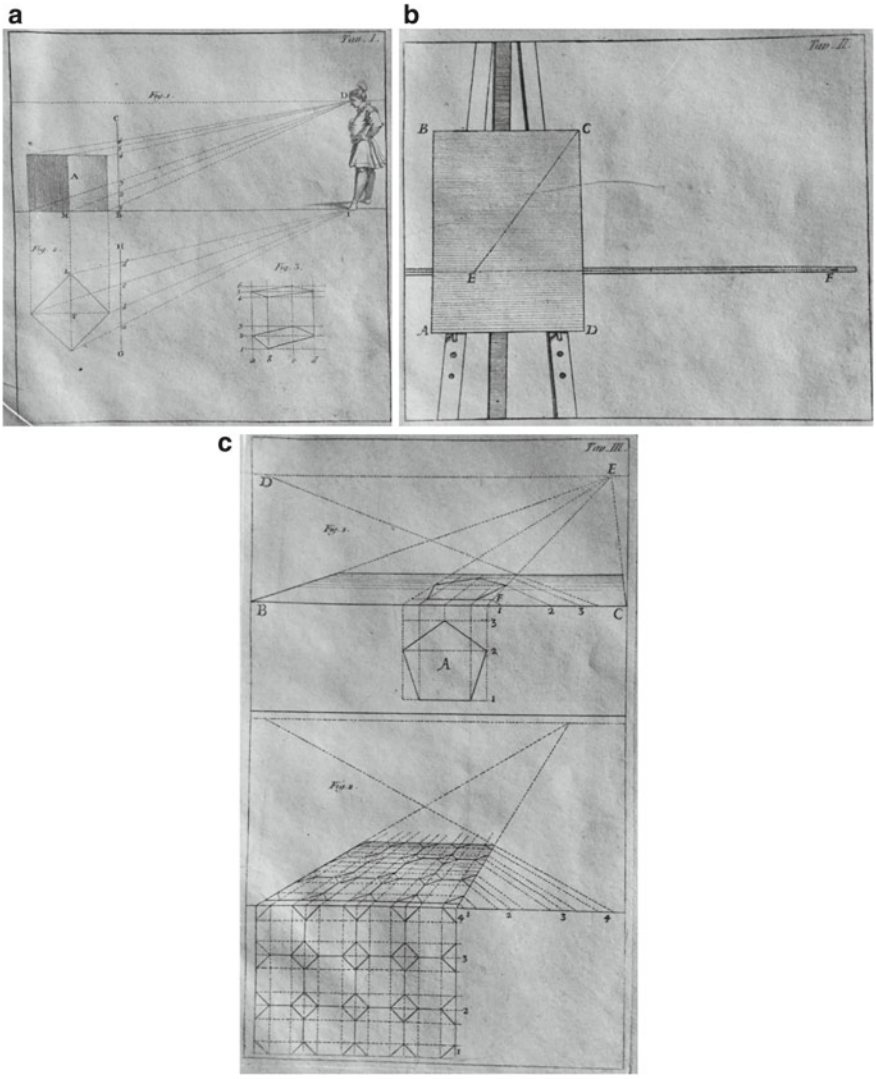

Fig. 3 **a–c** Series of tables on the use of linear perspective according to the classical standard, for architects' use. From Barozzi da Vignola (1830) (property of the Author)

2 The Codification of Spatial Representation

When we are going to create a painting, an architecture or a design object, we must be aware that, behind our inventiveness, rules and syntheses are collected in the project, as a creative act par excellence.

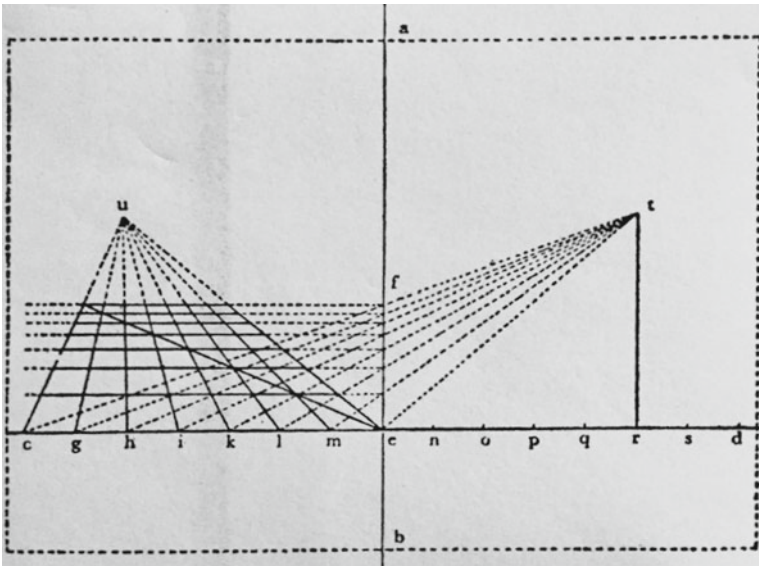

Fig. 4 Perspective construction as a modern representation of space according to Panofsky, in relation to Alberti's theory. From Panofsky (1973)

The ambiguity of this path lies in the combinatorial relationship between entities belonging to the same dimensional level, Figure-Surface and Form-Space, recombined according to the mental and cultural structures of different eras[7] (Fig. 5).

It does not seem completely idle to wonder how our counterparts perceived their surrounding world and how they could actually represent it, especially in the frayed ideal demarcation between the Paleolithic and Neolithic.[8]

For years the studies in human sciences have tended to overcome, even chronologically, these two historical moments, related, according to the traditional Darwinian evolutionary concept, to an almost animalistic individual who gradually reached his spiritual "new humanity". They are components of a subsequent attempted interpretation between extremes, passing for instance from the universal Steinerian Man (Steiner 1940), in contrast to the *Phenomenology of the Absolute Individual* by Evola (1898–1974) (Evola 1930).

A synthesis of the argument can be easily formulated in the comparison between the concept of "pyramidal history" and "rectilinear history". In the first case, as a representation of Western civilization, at the base of an ideal triangle we find man in

[7]The current computerized representation systems are nothing but the derivation, with highly sophisticated techniques, of the manual ones. Sony's first experiments on the Playstation had as their initial model the theory of traditional perspective.

[8]The overcoming of the Neolithic period in human civilization will be completed only with the definitive abandonment of friction as energetic dynamics between different materials, in favor of impulse. This is exactly what we are living in this new Age that will take us from the use of matter to pure energy without limit.

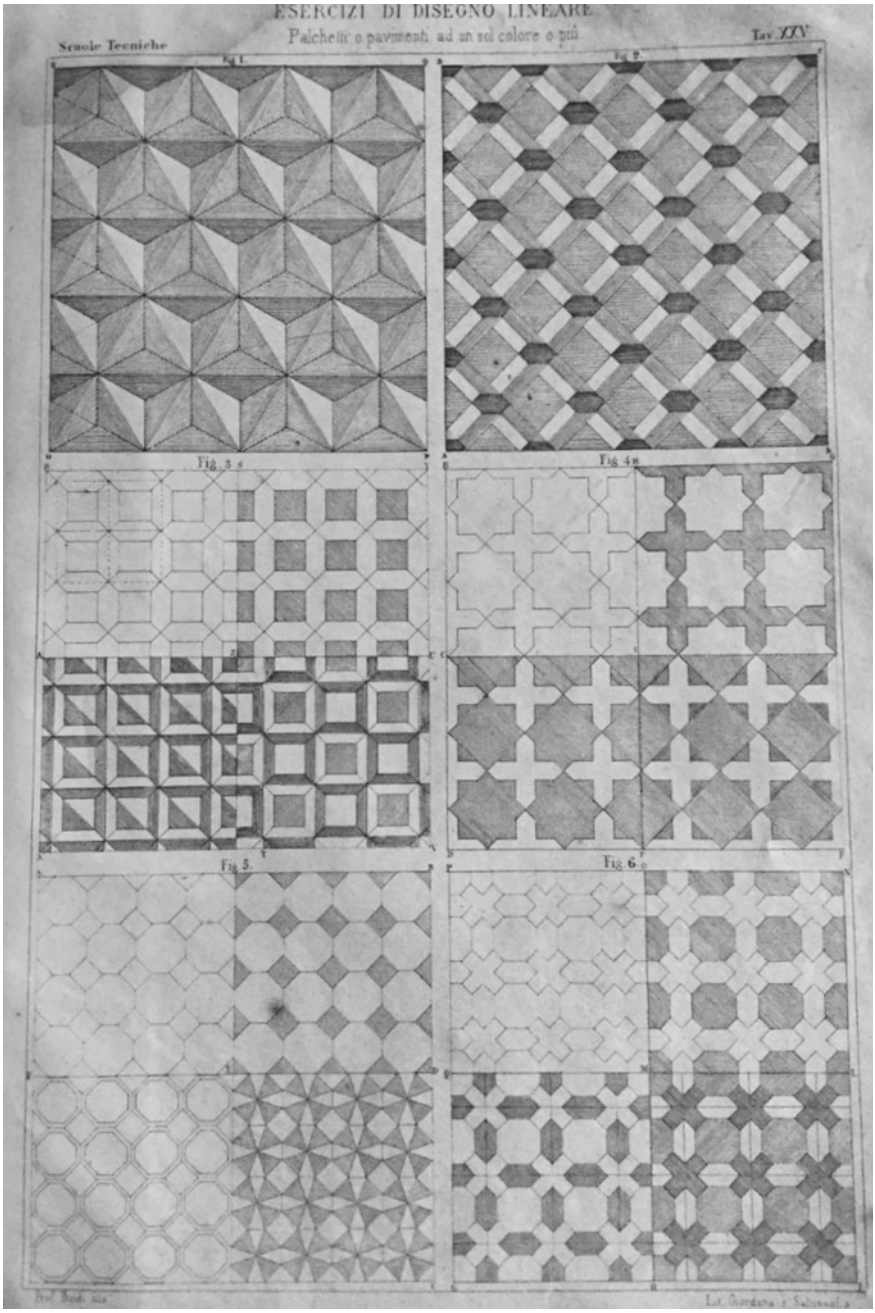

Fig. 5 Relationships between Figures and Forms (positive-negative) according to the gestalt rules of visual perception. From Boidi (1867) (property of the Author)

his primitive state evolving to the vertex. In its aesthetic values, the concept derived from Giorgio Vasari (1511–1574), according to whom, starting from Greek art, no one would have been able to make works like Raphael and Michelangelo, making the past become an "absolute value" and excluding any possibility of creative improvement. In the second case, the concept of "rectilinear history" is based on a different, much more topical, comparative assumption, according to which no civilization is judged superior to another. In fact, each one has its own anthropological life cycle, marked by a birth, a development and an end. This cycle is conditioned by different calamities, by social and economic factors that determine the harshness of one civilization compared to the others. Therefore, history has a relative value (Guglielmi 2011).

Anyway, the primitive surface (not to be confused with the geometric definition of "Plan") has always manifested itself as a strong constraint for the formulation of space, in the passage from two-dimensions to three-dimensions; this was a fundamental and disruptive action that has conditioned the development of civilizations and their historicization. This itinerary has only found its conclusion with the adjustment of technical artifices that are now part of our representative codification, basically summarized in four models.

Topology. Vision bound to two dimensions, where the figures are tilted on the plane according to two orthogonal axes (Y–Z). Besides pre-Hellenic Mediterranean civilizations, famous is the Egyptian Civilization which, despite its great technical and scientific knowledge based on trigonometry, used the topological limit to tell its story and to represent itself to posterity (Fig. 6).

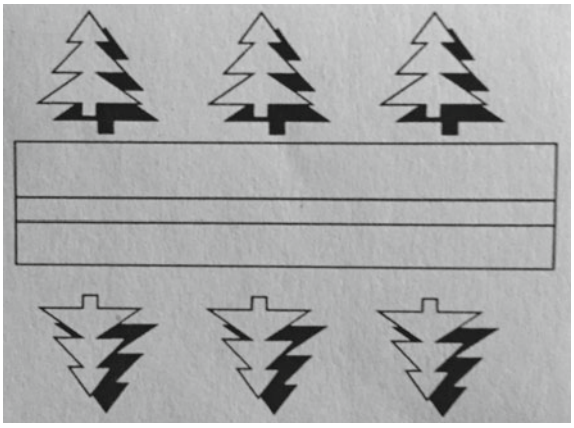

Fig. 6 Example of topology: field with trees crossed by a road. From the Author's notes (2010). *Collection of lessons in Contemporary Art History and Semiotics*, UNIFI, Faculty of Architecture, Degree Course in Industrial Design, Series "Gli asterischi", Florence

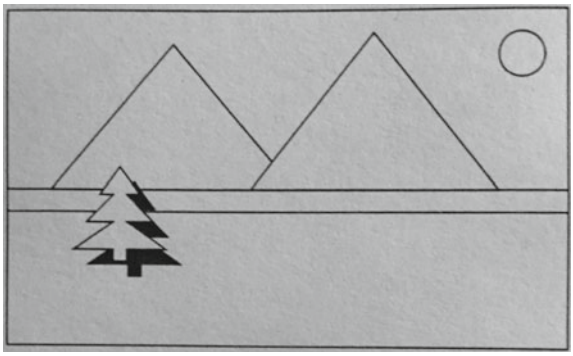

Fig. 7 Landscape represented according to the "horizon line" vision. From the Author's notes (2010). *Collection of lessons in Contemporary Art History and Semiotics*, UNIFI, Faculty of Architecture, Degree Course in Industrial Design, Series "Gli asterischi", Florence

Horizon Line (or frontal) Vision. Always inside the visual frame (Y–Z); however, here to each plane corresponds an object, according to the hierarchical size scale "from the nearest to the farthest". This technique was taken up and made known also by Leonardo da Vinci, in his studies on the space depth, where the represented object is influenced in its optical and chromatic reading by the air mass (*l'aere*) interposed between it and the observer's eye (Fig. 7).

Geometric Perspective. A method of representing the depth, in an objective way on a plane, through a vanishing point placed on an ideal horizon line, where all the straight lines with normal direction to the picture converge (main point).

Already experimented in the Middle Ages, the horizon line (or frontal) vision represents a sophisticated system still used today, as part of the Descriptive Geometry. It is a substantial result of western culture (Fig. 8).

Aerial Vision. Still used by Leonardo for the "bird's eye view" in his studies on the territory. Today, through aerial and satellite photography, it is among the most technologically advanced systems (Fig. 9).

However, these devices, based on conventions that are only apparently objective on the two-dimensional plane, to which we can also add the nuance, cannot explain behaviours that are not linked to the complex system of relations between technique and representation, in the constraint of the boundary between two contiguous parts of space.

If we consider the form at the moment that its intrinsic characteristics are transported on a two-dimensional support, we do nothing but tie it to the perceptual laws of the plane figures, with all that will follow in its structured analysis.

From this comes a misleading historical-critical literature that has always conditioned the description of a pictorial work, but of which the ancients had already identified the illusory limit, translating its elaboration in an almost magical way.

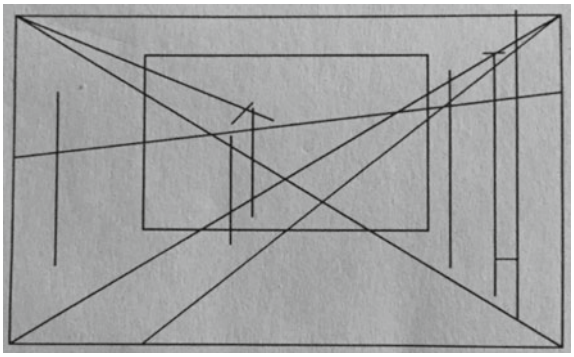

Fig. 8 Combination of possible perspective lines in relation to the "optical picture". From the Author's notes (2010). *Collection of lessons in Contemporary Art History and Semiotics*, UNIFI, Faculty of Architecture, Degree Course in Industrial Design, Series "Gli asterischi", Florence

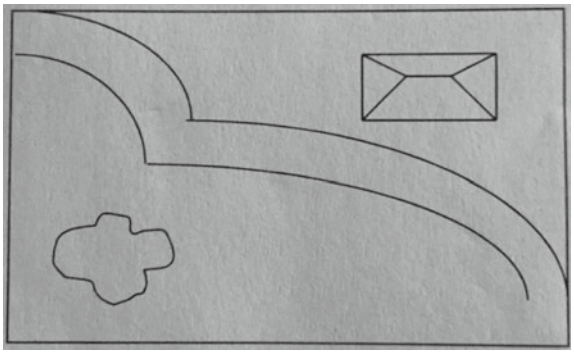

Fig. 9 Portion of territory with a house, a tree and a road represented according to the "bird's eye view"

The surface, as an insuperable bond towards space, centuries later dictated to Lucio Fontana (1899–1968) his desecrating but highly emblematic cut.[9]

In fact, the surface limitedness is accentuated when representing three-dimensional works par excellence, such as sculpture and architecture. We know that the planes are completely different, the vision is partial, does not respond to truth. This is how Ernesto Rogers (1909–1969) expressed himself in 1955 on the occasion of the photographer Werner Bischof's death (1916–1954): "one cannot transport without a strong dose of superficiality what, by its nature, is three-dimensional, linked to a precise succession of temporal events that continually change its relationship with us and practically establish direct experience with its complex reality" (Rogers 1958).

[9]This topics have been dealt with by the Author in Guglielmi (1973, 1983).

3 The Values of the New Perception: from Real to Abstract

Starting from the seventeenth century, other aspects related to the perception of the represented world will come into play.

Reality is considered as an emotional interpretation of the senses, through rules that will anticipate the studies on the human eye and its relationship with the brain. Reality is essentially a physiological result and not only a geometric-mathematical one of Luminist imprint. It is no coincidence that Husserl (1859–1938) claimed that there are more shadows than objects.

It was the painters who sought new rules, as in the theory of "pure visibility" elaborated by Konrad Fiedler (1841–1895), who relied on Kant's (1724–1804) and Herbart's (1776–1841) thought, considering art as the knowledge of the visual quality of things, excluding from it the value of feeling, arriving to conceive it as knowledge of the form, precisely as "pure visibility".[10]

What we are particularly interested in, because it had decisive implications also in the architectural project related to the environment, is the contribution by the sculptor Adolf Hildebrand (1847–1921).[11]

Paradoxically, today his figure is more relevant than ever, especially for his approach to sculpture between its dimensional nature and its environmental location, both in the private and the urban context.[12]

For instance, we owe to his theories the rule of placing central fountains in Italian squares, creating an evocative circular vision, from which the now famous "French-style" round-shaped fountains have resulted. Starting in 1919, Hildebrand's reflections also influenced many sculptors in the programs for the diffusion and positioning of monuments celebrating the First World War, still characterizing the image of many of our urban centers[13] (Fig. 10).

According to Hildebrand, the survey is to be understood as a container where the artist places and fixes a simplified nature in its significant data. Two ideal parallel planes are imagined and among them a figure is placed so that its extreme points

[10] Aloïs Riegl (1858–1905), instead, extended his critical investigation from Greek art to the Renaissance, the only ones known to be valid according to Fiedler's theories, as opposed to the Baroque. Later Heinrich Wölfflin (1864–1945) developed new principles by elaborating the symbols of "pure visibility" on which basis the concept was reaffirmed that the artistic fact is determined solely by the form values, with no adherence to the naturalistic fact. Starting from Anglo-Saxon psychology, scholars such as Bernard Berenson (1865–1959), Roger Fry (1886–1934) and Clive Bell (1881–1964) adhered to the same formalism.

[11] The sculptor Hildebrand collaborated actively with Fiedler in the elaboration of his theories. In 1893, together with their painter friend Hans Von Marées (1837–1887), they wrote *The Problem of Form in Painting and Sculpture* (Hildebrand 1907).

[12] Decisive was his twenty-year relationship with Florence, where he married. He also had architectural interests.

[13] I remember in particular Antonio Maraini (1886–1963), Libero Andreotti (1875–1933), Giannino Castiglioni (1884–1971) in the track of their French colleagues Émile Antoine Bourdelle (1861–1929) and Aristide Maillol (1861–1944).

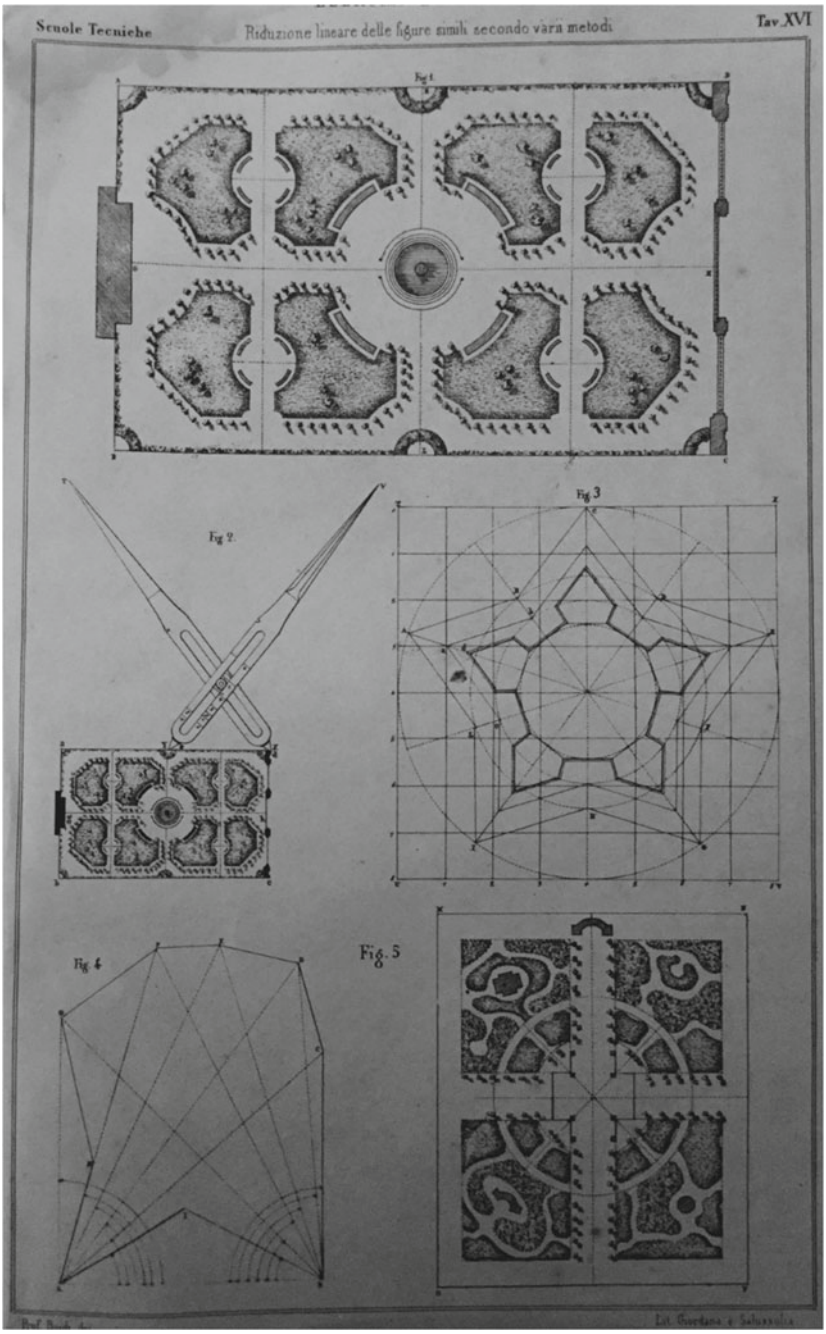

Fig. 10 Scheme of urban spaces derived from Hildebrand's compositional theories. From Boidi (1867) (property of the Author)

touch these planes without going beyond them, thus favouring a "clear and incisive" spatial perception just like the one sought by the ancient Greeks.

The extreme limit of the "Theory of pure visibility" was overcome by another of Hildebrand's friends, the critic and painter Maurice Denis (1870–1943), later influenced by Symbolism and the esoteric aspects of the Nabis group.[14] A brilliant young man, he became known for a phrase that he declared as early as 1890 amid general dismay, but which was fundamental to the path of contemporary art:

> Se rappeler qu'un tableau, avant d'être un cheval de bataille, une femme nue ou une quelconque anecdote, est essentiellement une surface plane recouverte de couleurs en un certain ordre assemblées. (Remember that a painting, before being a battle horse, a naked woman or any story, is above all a flat surface covered with colors assembled in a certain order) (Denis 1913)

Without this enunciation, it would have been unthinkable to arrive, with abstractionism, to subsequently overcoming the real image.

Denis affirmed the need for a more dynamic and simplified language, abandoning late Impressionism, "reconstructing the ideal unity of form" through the recovery of tradition as "essentiality" and "constructive rationality". Ultimately, his attempt was to make the variability of reality become an "absolute value".

We know that the integration between various scientific disciplines has favored openness to new horizons. For instance, Gestalt psychology used advanced studies on the brain physiology, through stimuli coming from the eye, without however dispelling doubts about the results of some structural survivals in reading images (Wertheimer 1924; Guillaume 1963; Köhler 1929; Testolin and Guglielmi 1975).

"Psychology of Vision" or "Language of Vision", terms introduced into the track of traditional art history, given the need to codify a too impetuous iconic world and once the meanings of ancient symbols and the contents of the naturalist realism had gone, are now usual.

Lionello Venturi (1885–1961) considered "the use of visual symbols as a historical-philosophical tendency of Art Critics", in my opinion without taking into account that symbols, due to their characteristic, are to be considered inherent to the work, also as archetypal models.

Once lost an immediately comparable meaning, a content easily accessible to many, there is the need for a new alphabet.

Thus, the point, the line, the figure, the surface, the shape, the space, the color become the protagonists of a new image that, from Kandinsky to Klee, will survive beyond its meaning and that researchers like Kepes (1906–2001) and Arnheim (1904–2007) will attempt to normalize on theoretical ground (Kepes 1971; Arnheim 1947; Köhler 1929).

Abstract art was also called "concrete" by Theo van Doesburg (1883–1931), considering that "nothing is more concrete, more real than a line, a color, a surface" (van Doesburg 1978). As Arturo Carlo Quintavalle (1936) will say, distant "from the culture of idealism", it will thus become a synthesis no longer seen as a moment for

[14] Parisian artists adhering to the post-impressionist avant-garde of the last decade of the nineteenth century.

specialists only, contradictory or insulting the popular mentality, but as an intrinsic presence of the visual culture of late twentieth century, now used and re-proposed by the Media together with any other form of traditional expression (VV. AA. 1979).

Today, attention has relentlessly shifted towards reading semiotic results, to the detriment of aesthetic values alone.

In our contemporaneity, a visual message can no longer be interpreted in the traditional terms of "beautiful" or "ugly", but through the signs that connote it also in its serial aspect making it perceptible to the greatest number of individuals (Guglielmi 2011).[15]

In our case, it is a matter of understanding the work and its environment in relation to their historical and cultural context, in the name of recovering a common root, able to be transmitted through precise and simple as well as complex communication channels (Deely 2001).

4 The City as a Necessary Significant and Multisensory Space

Spatial representation, in all its articulated components analyzed so far, naturally brings us back to architecture, and in turn to the city, given that this discipline, by definition, is intended to organize our living spaces.

If, as Albert Einstein (1879–1955) said, "Logic will get you from A to B. Imagination will take you everywhere", we immediately see the need to drastically question our model of social development, compared to the contemporary city.

The ritual characteristic of the ancient foundation, well summarized in the Latin phrase "ab urbe condita", seems to reverberate a sacred aspect of the project that has been lost over time, being it essentially aimed only at the physical human needs.

By definition, the "space" (spatium) is an "undetermined and not circumscribed", therefore infinite, extension; it ended to symbolize "limited" values, represented in its volumetric definitions: the material bodies contained therein.

In this way, an evident fracture has formed between built and not built, where in judging the value between full and empty, the former have been privileged due to their obvious economic importance related to ownership, while the latter have assumed the marginal meaning of an almost metaphysical order, being subjected to that process of degradation typical of the historical passage between village, city and metropolis.

This is a legacy of classical and late Roman culture, where "three-dimensional spatiality was only partially recognized and concerned the identification of objects in

[15]The persistence of "world modelling" codes before and after the appearance of the Mass Media was addressed by Domitilla Dardi (1970) and Angela Rui (1980) through the works of three artists, Qu Lei Lei, Sabine Marcelis, Costance Guisset, in the Exhibition *De/Coding*, Real Palace, Milan 2019.

their material singularity, while atmospheric space was conceived as a mere negation of matter, a pure nothingness" (Neri 1966).

To the limited Illuminist interpretation of the "spatial composition" meaning, from which our current school discipline of "Architectonic Composition" is derived, we still entrust the representation of objects on a flat surface, according to the common sense of high-low, right-left; it has mainly served to satisfy our sense of symmetry and mental order, without a real direct experience of the third dimension (Weyl 1952).

Being conceived according to two-dimensional perceptual schemes, our cities have become the result of values hierarchies essentially based on the reading of contours and shapes.

In fact, as rightly said by Berenson, "a painting that represents architecture is not intrinsically a spatial composition, more than any other painting" (Berenson 2009); for the same reasons, this judgment can be extended to the architectural project and to its graphic rendering.[16]

Therefore, the recovery of our urban areas should start not exclusively from design as such, but from a physical and psychological space re-appropriation, with a depth extended to the sensitive data of our sensorial, and not only visually, relationship with the environment, at 360°.[17]

So, representation is a direct consequence of perception. In fact, what characterizes the space is its simultaneity and the consistency of all its parts. In this framework, a continuous metamorphosis takes place which corresponds to the perennial renewal of forms.

In the perception of a large view field, the space parts are progressively learned as it is traveled by our receptors. So, perception and memory are inseparable. In fact, memory provides the newly perceived elements with a spatial meaning in relation to those already perceived previously.

Only in this way, can the "marginalized" void space be read as a real active space, through a process that we will call "integration of subsequent perceptions".[18]

[16]During his summer stays in Cossonay Ville, I had long talks with Alberto Sartoris (1901–1998) about the relationship between design and construction, and his famous chromatic axonometries, which he considered architecture in all respects. On the other hand, Marco Zanuso (1916–2001) defined architecture as an "ineffable reality that must be lived, inhabited, travelled, seen in three dimensions".

[17]The state of our visual reality is bound to an angle of about 156°.

[18]Global perception can relate to space fragments given in immediate succession in the rapid exploration movements of the eye and memory. In man, orientation can be helped by images and symbols whose previous perceptions are condensed (Guglielmi 1972).

5 Conclusions

I like to conclude this work with another illuminating reflection by Bernard Berenson who, already in 1897, had indicated the path that we still struggle to travel today, perhaps hiding ourselves behind tradition, considered as a fetishist "worship of ash" instead of as a right "custody of the fire":

> Spatial composition begins to exist when a sense of space is communicated from it, not as empty and something merely negative; but, on the contrary, as something positive and defined, capable of confirming our awareness of existing, thus increasing our sense of vitality. Spatial composition is the art that humanizes the void, and makes it an Eden, a solemn home, where our superior being can finally take refuge: not only a pleasant refuge, measured by the daily needs, like the houses of the happiest among us; but the exciting and glorious place where to live an ideal life. (Salvini 1977)[19]

Human placer are formed slowly, by stratification; intervening without care on the past, we would suddenly destroy it all and forever. Ancient Rome had such deep roots in its humanity that we still perceive it almost miraculously, more than two thousand years later.

The city of "non-places", without anthropic values, a necessary recovery, a redesign and a reconnection between its exterior and interior is nothing more than the result of this long contradictory proceeding since the first Industrial Revolution (1774).[20]

So, let's move towards a definitive generative redemption of the territory, for a city that is self-regenerating and circular, without waste, according to the master model of nature.

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[19] It is curious to note how this Salvinian interpretation corresponds to the meaning that empty space assumes in Eastern practices; translated with "sunya" in Sanskrit, it indicates "a fertile void as the matrix of human possibilities, the womb of the receptive universe, potential of life and, in a broad sense, also of our future projects" (Guglielmi 2019).

[20] These topics have been extensively covered by Marxist sociological critics and by estimative science.

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Dreams. The Cultural and Creative Conversion of Abandoned Buildings as a Driver of Urban Regeneration

B. Di Prete

Abstract The chapter investigates creativity as a driver for urban regeneration and social reactivation. In particular, buildings redevelopment mainly promoted by the public, often in synergy with the private sector, will be analyzed; these processes are aimed to reconquering abandoned buildings and returning them to sociality and collective use, making them representative of increasingly heterogeneous communities. The text focuses on social—and not only spatial—reactivation of some abandoned factories, which today are reintegrated into the urban economic and productive fabric. Thanks to reconversion processes, they are transformed into cultural and creative hubs, that respect the productive vocation of the places. Although in disuse for years, these spaces still belong to our collective memory; lost in a suspended time, thanks to reactivation processes based precisely on creativity (both analogical and digital, artistic collectives and digital craftsmen being the contemporary "creatives") and sharing (typical of coworking as well as of creative workshops), they now find a sudden redemption and become drivers of urban regeneration. Specifically, some precise case studies of the Milanese context are analyzed, episodes that are no longer isolated and that can offer interesting food for thought for the design discipline.

Keywords Reuse · Urban regeneration · Social innovation · Creative hub

1 Introduction

Post-modern societies, characterized by the decline of totalizing thought and the loss of a prevailing vision, are characterized by the delegitimization of great stories, or *grands récits* (Loytard 1981), and by markets globalization. A *liquid modernity* (Bauman 2002) has lived through the parable of industrialized models and today proposes increasingly invasive, post-verity information flows that replace the objectivity of the real; a dynamic flexibility is reflected in every social sphere and inevitably produces masses of waste (goods, but also places and, sadly, even people).

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The metaphor of waste can be easily translated into the architectural and urban sphere: just think of how many spaces, indifferently public or private, populate our cities and live in a functional and temporal "limbo", anchored to a past that constantly resurfaces and projected into a still uncertain future. These places live in a suspended time, they are disused buildings telling of an industrial past now lost. Such abandoned assets or areas, often forgotten, could easily return available to our use through a few expedients, able to "listen" and enhance the places with economic and reversible interventions. Their memory becomes a project opportunity, their experience a resource for the present: "they can represent a strategic resource for the territory, not just being available to perform new functions, but also holding memories and human stories that would otherwise be lost" (Crespi et al. 2017, 1473).

These kind of buildings represent a valuable opportunity for a city that could transform empty, anonymous spaces, having no identity and shared narrative, currently unable to welcome or structure positive community relations, into epicentres and drivers of new forms of sociality, informal or structured (Di Prete 2016, 161). Some scholars call them "urban reserves to experiment collective dreams" (Inti et al. 2014, back cover).

2 Reuse: Urban Reserve of Collective Dreams

Today, this type of need is clearly combined with the urgency of saving economic resources, but also landscape and territory. Reuse seems to be a response to new forms of abandonment that affect individual urban polarities or, sometimes, entire city districts under profound transformations, due to the loss of their industrial vocation, to inevitable historical processes or gentrification, sometimes even by chance or bad luck. In the last seventy years, Italy has increased its built heritage by 400%, with a consequent exponential increase even in the abandoned heritage; just think that, at present, in the country unused or underused properties are estimated over six million (Maccaferri 2016).

In 2014, the book *Riusiamo l'Italia* (Campagnoli 2014) dealt with the subject, analysing how empty spaces have often become an opportunity for the growth of cultural start-ups and the increase in youth employment. The book was followed by various initiatives: Iperpiano is an interdisciplinary network that connects actors from all over Italy, an "ecosystem of solutions and innovations for the government of the territory"[1] and launched *Nuovo di nuovo,* a campaign aimed at analyzing how to recover the innumerable "urban voids" of the peninsula. The campaign has mapped a series of positive experiences that are tracing a sign of change in the collective perception of abandoned buildings; they are now seen as an opportunity for architectural reconversion and urban regeneration, as a driver for social/occupational redemption and also as an opportunity for economic return (Bruno and Tognett 2019). In 2016, in the same logic of assets "rehabilitation", the University of Reuse

[1] www.iperpiano.eu.

was inaugurated, a website was opened that collects the best-practices launched in the peninsula also providing legislative indications (often still anachronistic), and a platform was activated on which individuals can offer their properties now out of the market. Therefore, through operations of social, cultural or energy innovation, here they become points of a network mapping.[2]

A few years earlier, the *Temporiuso* collective had also focused on various research-action strategies, which in 2012 resulted into a Protocol with the City of Milan and, subsequently, into a manual with the same name (Inti et al. 2014). Also in this case, it was a programme of temporary reuse of abandoned buildings based on cultural initiatives linked to associations, small firms or crafts.

On the other hand, reuse is not a new phenomenon: "it must be remembered that in a place as rich in history as Europe, the continuous reuse of its abandoned parts, whether they are buildings, defensive structures or open spaces, has been the most characteristic aspect of urban history, which is almost taken for granted" (Ferlenga 2015, 48). In the past, as Alberto Ferlenga reminds us, what he calls "recycling" has been applied at all scales (from the simple materials reuse to the regeneration of entire buildings or urban portions); following this process, theatres have become squares, buildings museums, museums unusual hotels and factories fashionable houses. This testifies how formal qualities and established building types are substantially independent of the functional opportunities they offer and of the collective rituals they can accommodate.

Although it was a constant feature of our history, "the possibility that what already exists may become the main field of application of the new is undoubtedly an imperative of our age and requires an adjustment of techniques and mentality" (Ferlenga 2015, 49–50).

However, first of all we must change its terms, moving away from that purely productive and functionalist paradigm to which the words recycling and reuse allude, typical of an architectural and economic tradition that we want to overcome. Today other scenarios appear more appropriate, which also call into question the dimension of subjectivity, temporariness, uncertainty and reversibility as design values. Artefacts today "silent" could be reintegrated into the social fabric, easily becoming witnesses (and protagonists) of a territorial cultural identity to be preserved in functional, aesthetic, but also symbolic terms. From a purely functionalist dimension to the enhancement of interpersonal relationship that also becomes space, from the place of the subjectivity multitude to the accumulation of shared belongings, this interpretation shift leads towards an increasingly psychological and relational dimension that can help first to read, and then to design spaces.

In fact, if the contemporary is an expression of rituals, obsessions and frenzies typical of a multicultural, multiform and changing society, its project cannot avoid a comparison with the "relational" sphere (Pizziolo and Micarelli 2003). Its manifesto-spaces must take up the challenge of becoming "an inexhaustible and

[2] www.riusiamolitalia.it and www.osservatorioriuso.it.

latent reserve for dreams, games, fictions and creativity, […] suitable for developing creative collaboration in a non-hierarchical world" (Pizziolo and Micarelli 2003, 238–242).

This attention has characterized a research recently carried out at the Politecnico di Milano by some professors of the School of Design, who have worked in an attempt to recover "an invisible city, the one that everyone dreams, remembers, imagines, but that escapes conscious attention" (Pignatelli 1978), working on a series of "documents" that have both a historical and an aesthetic value. "Documents" that, in a significant essay, Prof. Luciano Crespi, who was responsible for the research, has provocatively defined as "Leftovers" (Crespi et al. 2017, 1473–1482).

3 A Contemporary Scenario: between Creative and Productive Reuse

Other chapters of this book investigate the tools that design can provide to equip these "leftovers" in a perspective of economic sustainability, functional reversibility and cultural identity. In this chapter, on the other hand, we are particularly interested in dwelling on a dynamic that involves numerous buildings, once used for productive purposes and now converted into cultural and creative hubs.

In fact, in our cities, an increasing number of associations, non-profit organizations or creative companies, by creating bridges between public and private, are taking on the onerous task of redeveloping abandoned factories and converting them into exhibition and research sites for cultural or productive experimentation.

On the one hand, these places become perfect settings for artistic performances and permanent or temporary exhibitions: their often metaphysical atmosphere, their *Writing Degree Zero* (Barthes 1982), i.e. their "legacy-free form", leaves room for the language of art. Many places of our recent industrial past have been able to regenerate themselves precisely through this strategy: Milan proposes several case studies that are representative of this approach, like *Hangar Bicocca*, *Fabbrica del vapore*, *Borroni* Factory.

More generally, cultural and creative firms appear to be among the privileged subjects to which the Milanese public administration addresses in order to activate processes of re-appropriation and requalification of disused productive buildings. These firms operate to bring back to light the memory of a recent past and to restore spaces to everyday urban life, making them available for new collective rituals. To this respect, interesting cases are *BASE* in via Tortona and *Nuovo Armenia* in Dergano district; for about three years they have been carrying out a significant work of physical and symbolic "mending", acting to reconnect memories, identities, cultural belonging and physical places interrupted until yesterday, through cultural-creative connections having repercussions both in economic and social innovation terms.

BASE, for instance, is located in the spaces of historic ex-Ansaldo electromechanical factory and represents one of the most significant urban conversion projects

Fig. 1 BASE Milano—DesignWeek 2019. Photograph by ROAR Studio, published with permission

in Europe: today its 12,000 m^2 have been transformed into an incubation and cultural production factory and are used for workshops, exhibition spaces, shows, conferences and book presentations, bistro, study rooms and artist residences (Fig. 1).

Here, new collaboration models between the public (the Municipality that owns the area) and the private sector (a non-profit social enterprise, resulting from the synergy between ARCI Milano, Avanzi, esterni, h+ and Make a Cube[3]) are experimented: "a project of cultural contamination between arts, business, technology and social innovation [with the aim of] generating new reflections for the city of the twenty-first century, creating new connections between arts, disciplines and languages, supporting Milan's role among the great capitals of creative production".[3]

Nuovo Armenia, whose name pays homage to a historic Milanese film industry, is instead a cultural association created with the aim of enhancing multi-ethnic integration and eradicating the dominant narrative on migration. In one of the latest challenges, *Nuovo Armenia* and *Asnada* are redeveloping a historic farmhouse located in Dergano, the second Milan district for the presence of immigrant population.

Through a public tender for the redevelopment of disused buildings, the two associations have been assigned a farmhouse in Via Livigno 9, owned by the Milan Municipality: since December 2016 and for about a year, a laborious process of restoration, cleaning and accommodation of the building has been carried out, involving different populations of the neighborhood. Today the building is finally available to all communities for spontaneous use, in the face of a "huge hunger for space in which

[3] www.base.milano.it.

to bring one's way of being in the world, one's cultures and habits …" (Bruno and Tognett 2019). At the same time, the building has become the driver of cultural integration initiatives (think of the balconies Cinema, a festival welcomed in Dergano courtyards with the projection of films in original language and subtitles) and "a creative hub for urban regeneration, a place of action and inclusion where creative production processes are activated with cultural and social service functions".[4]

Countless examples are already moving in this direction, not only in the Milanese territory. Some have passed from the production of material goods to the production of cultural goods (former *Livellara* glasswork is now the *Spirit de Milan,* a venue for music, food and drink). Others, through practices of spatial occupation, operate with the aim of "freeing art" and making it usable to the widest and most possible heterogeneous audience (former Milanese slaughterhouse is now *Macao* cultural centre). Others have sought a new role in niche areas (a former soap factory in Lodi is now an art workshop, a dance school, and during Expo 2015 it has been circus and rehearsal room of the Cirque du Soleil) or have invested in digital skills and as incubators of innovation (in Romagna region, in the historic city center of Ferrara, the Grisù Factory is a consortium of creative companies located in an asset of 4000 m^2 that had been previously in alienation for years).

Also abroad, collaborative experiences of integration between top-down policies and bottom-up processes are capable of engaging administrations, stakeholders and local actors in order to give shape to a "collective dream". Think, for instance, of the Chocolate Factory in London: since 1996 it has been reconverted into a "creative factory", now is considered one of the most important experiments in the creation of a creative hub in Northern Europe. Think of the Precare project by Citymine(d) association in Brussels, which since 1999 has been working to encourage the temporary reuse of disused buildings through artistic-cultural activities; opposing both to illegal occupation and to the problem of security, in the same time it is enhancing the architectural assets and increasing the value of the area. And, again, think of the project for the NDSM-werf in Amsterdam, a port area that since 1998 has been the object of continuous research and experimentation by a group of cultural associations, artists, squatters and citizens who claim the right to redesign, manage and use abandoned spaces. In recent years, the former shipyard on the shores of Lake IJ has thus become a very important and lively cultural centre, by hosting multidisciplinary festivals, shows, exhibitions and events in a post-industrial environment with distinctive features. Finally, a similar design melting pot can be found in the Darwin ecosystem in Bordeaux, located in a former military barracks of 20,000 m^2 on the Garonne banks which now houses a green economy center, a city farm, an XXL skatepark, a facility dedicated to urban sub-cultures, free expression spaces for street artists, an open-air gallery and alternative commercial areas. In the majority of these cases, it is interesting to note the active role of the public administration which, in the face of a constant lack of economic resources, increasingly structures an effective program of co-management and reactivation of spaces abandoned for

[4] www.cascina9.polimi.it.

years, starting from municipal calls and integrated partnerships between public–private sector and associations. In this way, the administration guarantees the use of public goods for medium-long time frames (in the case of New Armenia in Dergano for thirty years) with free or highly subsidized fees. Vice versa, the private sector is committed to put it back into operation at its own expense, adopting the necessary architectural interventions that often result in interior design projects. Therefore, the space is re-functionalized and the evolution of local social needs is more rapidly satisfied. This process responds to a plurality of interests: the need to experiment with innovative management procedures and flexible intervention policies, the need to trigger an active involvement of the local community, the opportunity to identify a vision capable of transforming buildings of collective interest into drivers of area development.

It is no coincidence that the Italian government has also recently published a new list of properties to be redeveloped and transform abandoned buildings into art workshops (assigning them under concession for 10 years at 150 euros per month): with the Ministerial Decree of 18 December 2018, the decision was taken to invest in interdisciplinary projects capable of hybridizing various artistic forms, available for sharing the premises with subjects from other territories, able to organize initiatives open to the public, to build an organic relationship with the local fabric and to promote an eco-sustainable property management (Mammarella 2019).

Although different in the engagement mechanisms of the local actors, it worth mentioning all those cases of old factories that rediscover their productive vocation in a creative key: they are spaces redeveloped by the new makers—the so-called "digital artisans"—that reinterpret the industrial processes in a customized production perspective. The phenomenon may not yet have clear economic repercussions, but its impact on the physical organization of the city, on its production and social structure, is now clear. Gradually, also urban imaginary is changing in the common perception.

Therefore, the need to put these high-potential places back into circulation, changing their role without losing their symbolic charge, at the same time is an opportunity for our cities, which can also identify new forms of collective representation.

4 From Bit-Factory to Bit-City

As already mentioned, many municipalities are exploiting the conversion of many abandoned factories as a driver for urban regeneration. In this last part of the text, the spillovers already present in the cities will be analyzed due to the emerging new digital production scenarios which, precisely in the reuse of industrial architecture, find their chance for redemption.

Digital fabrication technologies break down economies of scale and allow the creation of on-demand products, i.e. objects that are expressions of individual needs and ideally are modifiable indefinitely, in a sort of continuous work in progress designed to meet specific users' requirements. Thus, consumers-users become active participants

in a vast process that, provocatively, we could define as "mass customization": the individual need—or imagination—which until yesterday were limited to the world of possibilities, now become project material and an opportunity to build innovative bottom-up solutions. In other words, we are witnessing a radical paradigm shift, which John Hick has effectively summarized by postulating a simple yet visionary passage: contemporary society is increasingly abandoning "massive production" to support, rather, a "production by mass " (Hick 2006, 240).

Allowing to create even a single object at affordable costs, this customized production seems to be able to translate a collective dream into reality: from the series to the individual, from the objectivity of needs to the subjectivity of desires, economic-production optimization is not renounced, but a level of complexity hitherto unthinkable is added. It is no coincidence that Chris Anderson, one of the most attentive observers of the digital economy, to outline this disruptive social and productive scenario, speaks of a "personal factory" (Anderson 2012).

Digital production is also characterized by a real "productive ubiquity" (Zanotti 2016); beside being extremely contemporary, this term appears emblematic because it suggests how new IT manufacturing technologies allow, at least partially, to heal an intrinsic conflict that traditionally contrasted the city to the factory. Historically, in fact, the products were marketed and consumed in the city, but the production took place outside of it. Instead, antithetical models are emerging, much more flexible, economic and sustainable (socially, economically and environmentally); they are now going to renew the ancient role of *urbes*, no longer conceivable as recipients of goods only.

In these systems, materials are modelled by "bits"—of indifferent geographic origin—and takes shape in any of the urban nodes of the FabLab network, which we could also call "light factories".

These new actors, definitely among the protagonists of the ongoing revolution, are contemporary factories that can bring into dialogue different urban actors and summarize their skills. They are places intrinsically devoted to technological and disciplinary contamination, where the innovation of production processes is accompanied by a collaborative design model. They are "small businesses between high technology and craftsmanship" (Micelli 2011, p. 39), but above all they are precious incubators of experiences, experiments and failures that are easily "amortized". In fact, the makerspaces carry out a particularly intense experimentation, often reinterpreting and *hacking* the machines used for industrial production to make them more decipherable and versatile. Finally, these are accessible laboratories, characterized by continuous and open research; for this reason, they "have all the credentials to expand this democratization to the entire social and productive sphere" (Menichinelli 2016, back cover).

This original form of self-entrepreneurship often develops in an "anarchic" way, starting from the so-called "basement" experiments, not too original a metaphor in the Italian collective imagination of cramped places, which can be assimilated to American garages as "empires of hi-tech creativity" (Lana 2014). These experiments give voice and expression to attitudes acquired in the field, still not very institutionalized and definitely far from academic programs. These knowledge, which we could

define "peripheral" because they are tangential to those codified by the school system and by intrinsic vocation hybrid and multidisciplinary, not by chance often find their official location in abandoned areas, in disused buildings, in areas bordering the urban edges.

Thus, also in Milan many makerspaces were born, usually in peripheral but dynamic areas; due to the presence of young and foreign populations, with a desire for redemption and an intrinsic innovation potential, they are characterized with a great ferment. They are places of training, skills exchange and growth of new projects, which attract communities of creatives interested in digital manufacturing, open-source research, the Internet of Things, on-demand production of physical/digital artifacts. Among others, it worth mentioning the experience of Makershub, a coworking site placed in an old factory of small metal parts. In 2017, together with fablab Ideas, it pushed the experimentation on temporary reuse beyond the "already seen", proposing an innovative Design Hostel (Crippa 2017) which for Milan Design Week provided an "interstitial" (among the machines), "community-like" (taking the hostel model) and "exhibitionist" (making the guest-designer rooms an everyday life exhibition open to visitors) hospitality (Fig. 2).

Significant is also the case of Milan LUISS Hub, a multifunctional space of school-work-alternation dedicated to digital manufacturing, but also a start-up incubator, born from the collaboration between LUISS Guido Carli, the Milan Municipality, Brodolini Foundation and ItaliaCamp, with the sponsorship of Wind-Tre and Terna. It is a former industrial area of approximately 1600 m^2 owned by the Municipality, disused for years and which, with this operation, was recovered and returned to the

Fig. 2 Design Hostel, Milano—DesignWeek 2017. Photograph by D. Crippa, published with permission

community. A similar management model characterizes the case of MakeInProgress, a makerspace installed in 2016 at Sulbiate inside a former spinning mill that was renovated thanks to the funding of the Cariplo Foundation and the Lombardy Region, with a fruitful collaboration of a university—the Design Department of the Politecnico di Milano and POLI.design—and the support of the Sulbiate Municipality, the Province of Monza and Brianza of the local Commerce Chamber. Also in this case, the challenge was to create a cultural and creative hub capable of determining an economic impact on the territory and providing innovative services to the whole district, putting in the system a plurality of synergistic actions: Making, Food, Art, Theater and Coworking.[5]

The concepts of "anarchist experimentation", "multicentric periphery" and "productive ubiquity" introduced here could be taken as new interpretative categories of the revolution underway. In light of these observations, the effects of digital fabrication appear fully comprehensible even at an urban level, because FabLabs constitute a strategic opportunity for the development of the territory.

In fact, the Fab City movement, born in 2014 in Barcelona, promotes different production and consumption models, according to a systemic and widespread approach in which, far from being small autonomous ateliers, the Fab Labs become rather "key elements of an international ecosystem for economic, political [and social] change" (Traldi 2018).

5 Conclusions

In the framework briefly described here, we are witnessing the proliferation of productive and creative micro-poles that favour a process of functional conversion, activate spontaneous resources present in the places and become the driver of urban regeneration, as well as social innovation. Increasingly widespread solutions for adaptive reuse of buildings, aimed at solving peripheral situations of disposal or physical degradation, give the market and the citizens renewed spaces in terms of their functions and social microcosm. Given their large number, they have been identified by city administrations as a precious resource for a widespread re-functionalization that, starting from the interiors, allows to redevelop also the public city spaces.

Transformed into social and cultural laboratories, these architectural heritage "leftovers" are often incubators of new production models, opportunities to experiment shared, inclusive and collaborative processes between public institutions and local actors, and can then become best practices and good governance policies. This approach, which is an alternative to traditional real estate development, is particularly useful in the current crisis phase; it "bets on the activation of services of collective interest, conceived as 'commons' (i.e. services managed and maintained by users communities), and their action as a new driver for processes of urban and building development in abandoned areas" (Cottino and Domante 2017, 73).

[5] www.exfilanda.it.

In this scenario, abandoned areas take on a value that transcends their purely functional one, becoming progressively "places where to be born, live, meet, surrender to contemplation; places to escape from, to conquer, to cross, to see flowing; places of memory, of the spirit, of the intellect. Places of oblivion and eternal reminiscence" (Boeri 2011, 33).

In these places of knowledge production, sharing of services and free time, as well as of development of new economic and productive models, cultural contaminations, interactions and possible synergies between different populations increase and diversify exponentially. Thus, these spaces become magnificent interpreters of that contemporary "cosmopolitanism" which J. Rifkin defines as the ability to expose oneself to the diversity of others, with whom empathic bonds are also established (Rifkin 2011, 397). In fact, in a globalized society in which "the world has become everyone's backyard" (Rifkin 2011, 391), these operations of functional conversion and urban regeneration look like precious examples of another possible world, which does not speak of fear, hostility and intolerance towards the different. They act under the pressure of a multiplicity of factors: the defence of memory in the light of technological innovation, the promotion of beauty to encourage collective and individual wellbeing, the enhancement of a cultural welfare, the updating of local know-how and the development of a new social, intercultural, cross-disciplinary and multidimensional capital, indispensable for the development of local contexts.

The "leftovers" prepare themselves to new lives and become not only a representation of the values and visions of increasingly promiscuous communities, or an ideal location to welcome the new challenges of the contemporary world, but also a means through which a new collective social, economic, productive, architectural and urban dream can be shaped.

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Body. Spatial Transitions in the Scene Architecture between Space, Event and Movement

D. Crippa

Abstract The chapter ranges between the music that marked an era and the architectural spaces that witnessed this cultural revolution. We will discover that the musical performance is made not only by sound, but also by a deep study of one's own image and the occupied space. The musical landscape of a twenty-year period that has changed shape, appearance and thought will be considered; we will make a journey on the stages of the sixties and seventies, between pop culture and psychedelia, the artist centrality and his absence. We will analyse the space that some characters have occupied over the decades and how it has influenced their stylistic and musical choices. We will see how the cultural influence of those years marked the stylistic choices of some of the greatest world artists.

Keywords Beatles · Genesis · David Bowie · Body · Pink Floyd · Set-up

1 Introduction

End of 1800, Bayreuth, Germany: the composer Richard Wagner decided to revolutionise the Baroque concept of theater. The new theater had to flatten social differences by placing everyone on the same level; places of honor and seats dedicated to officials disappeared, as well as the split between social classes, in all respects. The light disappeared, in order for the attention to be focused on what was happening on the stage.

The basic concept of Wagnerian theories was the idea of a theater as a total work of art: in order to represent man in his totality of mind, feeling and sensoriality, the theater must use all forms of expression and especially poetry, music and dance. For the first time, the venue for a performance was no longer a rich passive envelope but a space that was shaped by what was reproduced inside. It was the triumph of the real over the symbolic (Wyss and Bratton 1990, 57–78).

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However, the way of making music changed radically in the twentieth century with the advent of amplification. From this moment, even the thinnest hiss, the farthest note or the faintest breath could become conductive motifs of the musical piece and could be received in a crystalline way by any spectator, making its distance from the stage irrelevant. Therefore, unlike what happened in the theaters, where the structure played an important role in acoustics, the physical environment of concerts no longer had to perform this role; it became an integral part of the scenography, an element that reflected the artists' search for spectacularism.

Since the early seventies, entertainment places have experienced an uninterrupted development, which has led them to distinguish enormously from those of the past. These changes are given by the advent of new technologies, a change of dynamics between spectator and artist, the ever-increasing number of spectators, the differentiation of their requests. These and other needs gave rise to an architectural strand called *live Architecture* (Kronenburg 2010), which was based on live performances with the presence of the public. In design terms, *live Architecture* identifies three distinct categories: adopted spaces, adapted spaces and dedicated spaces.

Adopted spaces are those designed for other uses, which informally host musical performances; adapted spaces are those whose nature has been changed from their previous use and now host musical events; dedicated spaces are those specifically created to host the performances. Their architecture can play a decisive role on the character, power and importance of the performance, adding levels of meaning for both the musicians and the spectators. The geographical site and the architectural environment in which the performance takes place greatly influence the artists' stylistic choices, change their shape and thought.

In the late eighteenth century, pop musicians, if we can call them that, to be able to perform, very often they had to move around, reach private homes or courtyards, sometimes squares. Very rarely they were assigned a suitable space for instrumentation and acoustics. Only later, already at the turn of the nineteenth century, adequate spaces could be used by costume designers or local groups; the concept of dressing room for the artist was born and a more concrete relationship began to be established between a place and a musician.

2 Pop Music

All pop music was born in small and informal places, often in the streets, but its rapid diffusion guaranteed its movement in larger spaces that could properly accommodate musical performances.

This phenomenon inevitably led to monetization of the musical performance which was formalized in an income process. The great urbanization of those years allowed the construction of real places where making music and where all the other functions were secondary, supportive. Simultaneously, places for outdoor entertainment emerged, such as gardens, squares, parks, amphitheatres, where small stages were set up for orchestra performances. The use of these architectures is the evidence

of a social and political change that has taken place in society, especially over the last 50 years.

The marketing of pop music made possible large-scale outdoor events, such as music tours in stadiums. Inaugurated in the 1950s by Elvis' experience in American baseball stadiums, the stage and suitable infrastructure for spectators required the design of urban-scale structures that could be assembled and disassembled, transported and stored. These, and others, are some of the features that differentiate static from mobile architecture. In particular, *live Architecture* must pay special attention to the transport, installation and reuse of construction elements; a scrupulous care is given to the weight and nature of the construction materials, their flexibility and durability, the moving parts and assembly techniques.

As a result of these factors, the relationship between the designer and the builder is obvious; in turn they are often supported by a number of collaborators.

In parallel, mobile architecture and live performances share the same ephemeral nature. Their relationship is peculiar; apparently, both are the same for the duration of a tour, but every place, every day, every schedule and every breath make them different from all the others. Although they are fleeting events and non-lasting constructions, they create a permanent presence in the memory of those who take part in the event, whose perception of the place is changed forever.

The transience of this architecture, it's so dreamy aspect and apparent lightness must not make us trivialize its nature; "this must be considered 'real' architecture and not simply construction, since the people who use it come into its contact in the same way they approach traditional architecture, and since the quality conditions of space, environment, shape, image are as important as they are for other architectures" (Kronenburg 2010, 309).

The sixties and seventies of 1900 are characterized by a very lively cultural ferment that revolutionised all the western countries. The economic and industrial boom, the end of the Second World War and the beginning of a period of peace and prosperity favoured the media diffusion of ideological currents, cultural models, but above all the image of the United States of America as a hegemonic power not only in the military, but also in the cultural field. During the sixties, one of the imported trends that most influenced the English landscape was *pop Art*. From then on, the word "pop" has been used to outline a creative panorama more and more vast and diverse, including numerous forms of expression. The "pop" movement tends to focus its attention on objects, myths and languages of consumer society, finding its strength in the "module" and the multiplication, metaphors of man and a standardized society with a strong American inspiration. In this movement, emerges with great relevance Andy Warhol, a multifaceted American artist, painter, sculptor, creative mind. His contribution to music and music related creativity was evident with the first release of the Velvet Underground's works, for whose discs he edited the graphics.

In those years, beside pop Art, minimal art developed which was born and formed on simple geometric patterns, such as the circle or the triangle. Starting from simple shapes, complex abstract compositions could be created. A few years later, a return to ancestral forms was a key element for Pink Floyd. *Body art* was born, with David Bowie and Peter Gabriel as the greatest exponents. The body is the only element

on which the exhibition is based, totally centred on the individual appearance. The tendency to combine the different artistic forms in a unitary expressive dimension has its roots in a sort of theatricalization of art, inclined to cultivate intermediary experiments. A complex expressive method called *happening* develops, in which the first experiences related to the mixing of different languages are realized and which gives body to the first collective experiments.

In the 1960s–1970s in London the *Swingin' London* (Sandbrook 2006) was born, which indicates a mix of arts on the English territory, often accompanied by an uncontrolled social life that greatly influenced the artists' stylistic choices. At this point, it is interesting to analyze some of the personalities that characterized those twenty years and, although living in the same cultural context, developed very different expressive tendencies.

We are talking about Beatles, David Bowie, Genesis and Pink Floyd, who will be analyzed in a deliberately non-chronological order, to highlight the relationship they had with the space they occupied on the stage.

3 The Beatles: the Music

It is 1965 and for the first time the Beatles find themselves performing in a stadium. They are at the Shea Stadium in New York, and there are 55,000 spectators. As in all their performances, the English quartet decides to present itself without any scenography, only with a bare stage, some amplifiers and a sober sand-colored coat. The stage at the center of the baseball field is shy, almost non-existent if compared to the crowded steps inhabited by very young girls who loudly invoke their idols. The choice of having nothing ancillary to pure musical production is classic of the British group; they never felt the need to capture attention except with music and with their presence on the stage.

"What happened on that stage was quite accidental: just like the show, the Beatles did not have much to offer" (Sutherland 1992, 14). This comment by Robert Sandall, on the one hand is critical about the performance, on the other hand highlights the need for a greater amplification of the expressive channel.

They are generational idols, real pop icons, born and formed in the dark and narrow rooms of the Cavern Club in Liverpool, which led them to be legends in just a few years of activity. "Our image is simply us, what we were, we have not tried to create an image, it simply happened".[1] Since all the attention was focused on them, individuals, idolized men, it was unnecessary to set up a stage with additional elements, since they could have diverted attention from what, in this case, turned out to be the main expressive vehicle of the musical message: the musicians themselves. The composition of the group does not include a frontman, on the stage each actor's position is designed so that each of them has the same importance, the same level of expression. The pattern followed by the group in the arrangement on the stage is

[1] Ringo Starr, STV, Glasgow, 30/04/1964.

very simple and classic; the string instruments on the front and the percussion set a few meters back or elevated by a structure that allowed the public to see all the components. It should be emphasized that this type of performance had guaranteed the Beatles a huge live success; but after the concert at the Shea Stadium, they considered necessary to change their communication strategy, by expanding it with a visual, scenic and narrative apparatus. From the *Pepper's Lonely Hearts Club Band* album of 1967, in England a type of work called *concept album* starts to develop a work around a single idea, on several levels. "The phrase concept album is inextricably linked to the late 1960s, when rock & rollers began to broaden the limits of their artistic forms".[2] Since music is pure art, almost fluid, with the *concept album* the message that wants to be expressed is clear: the real work of art is "the sensitive appearance of the idea" (Hegel, *Aesthetics*). The way it is expressed is almost accessory and, at the same time, necessary to express it in all its facets. All forms of expression through which the album is presented are closely linked. There is a strong unity and the narration is always homogeneous and well told. If we theorized this approach to stage occupation, three reading codes could be introduced: *background*, *set-up* and *object*. The background code is expressed by the place; it is the simple box where the performance takes place which lives and is fed thanks to the set-up code and the object code. The former is masterfully expressed by the stage set where the musicians narrate; the latter is the music itself. The parallelism with a traditional setting is now clear and shows how the performance itself is nothing different than the staging of a work of art in a museum. In the specific case of the Beatles, we note that there is only the background code given by the place: the outline varies according to the concert location. There are no scaffoldings and scenic stratagems. The set-up code is eliminated to give strength to the sole message that music (the object code) wants to give through its musicians.

4 David Bowie: the Body

Let's forget for a moment the Beatles' sobriety to introduce a real protagonist of the stage: David Robert Jones, better known as David Bowie. An eccentric and undoubtedly talented character, he is a singer, musician, painter, sculptor and actor. Endowed with an enormous potential, in just a few years Bowie managed to become a true icon of world pop and rock. He was the inventor of *glam rock* and his polyhedral and chameleon-like nature led him to create different alter egos that he kept alive for most of his musical career. Bowie matured his scenicity after meeting a mime, who taught him the body language. Every movement, although natural, is now full of drama, expressive pathos and great communicative power. The scene is dominated by the eccentricity of his figure. The place no longer matters, it becomes non-existent; only the singer is present to support the entire scenography through his disguises since, as Bowie often said, "music is the mask that hides the message" (Pegg 2002, 392). He

[2] All Music Loves Concept Albums. In: *AllMusic*, 10 February 2014.

himself becomes the stage, "thus intercepting an idea of architectural immateriality that is identified in the contemporary" (Crippa and Di Prete 2011). Also in this case, the artist plays the role of main protagonist, but in a totally different way! Here, the artist projects the set-up code onto himself, he is the one who becomes the staging itself which, in concerts such as the Pink Floyd's ones, is governed by a colossal scenic machine. As an intrepid experimenter, Bowie also adopts the *concept album*, remaining consistent with the multiple personalities he personifies. Starting from Ziggy Stardust, passing through the White Duke and reaching the last years when he presented himself more human than ever, each piece of his career was a small story studied in detail, everything was coherent and thought out. "I find that I am a person who can take on the guises of the different people that I meet, I can switch accents, in seconds of meeting I can adopt their accents. I've always found that I collect, I'm a collector. And I've always seemed to collect personalities, ideas. I have a hotchpotch philosophy that really is very minimal".[3] He was able to catch in advance the air of change and, like a chameleon, he adapted to what was around him, before the others noticed the change taking place. David Bowie is chameleonic and absolutely avant-garde; he becomes and remains an icon of style for decades, leaving a new way of making and expressing music imprinted on future generations.

5 The Genesis: Toward the Scene

The *concept album* formula found great followers, such as the Genesis group, authors of long and complex compositions, narrated interludes, songs full of numerous rhythm changes and lively solos. Their desire for experimentation is also expressed in the language being used; neologisms are coined and, in some ways, a new communicative language seems to be created, made of sounds, squawks, noises. For these artists, more than others, the shape of the *concept album* is fundamental to artistically express the great research done by the group. The scene, on stage, gradually begins to take shape with the Genesis, though remaining secondary to the true narrator, the frontman Peter Gabriel. His communicative power lies in his ability to relate to the public, using his body as an interaction tool. Still, the scenography remains passive, a silent witness in the performance. However, unlike Bowie, the Genesis do not cancel the architectural aspect (set-up code) but bring back to the stage a theatrical and dramatic dimension abandoned for a long time and for some totally unknown. The pop icon loses the attributes earned by Bowie; they are outside the box, but remain far from the commercial, completely original, always difficult to frame within a musical category. With the Genesis, the stage equipment is enriched, diversified and colored so to maximize the performance expressiveness. "In our culture, masks are seen as something to hide behind, but in other cultures they are the vehicle through which we come out in the open, and that's how I came out" (Zoppo 2015, 6). The combination and mixture of several elements made the group's work fascinating even in

[3] https://www.youtube.com/watch?v=sQyRt3f1SNI&feature=youtu.be.

the eyes of artists from different fields. They strongly befriended with the Hipgnosis duo, avant-garde graphic designers who followed the Genesis in the realization of their most famous successes. In a sense, the transformism and dynamism of their performances are the first step towards a dialogue with the stage architecture, while still remaining far from what the Pink Floyd revolution will be.

6 The Pink Floyd Revolution

Pink Floyd were born in the mid-sixties by three architecture students and one art student. The environment in which they met was fertile, creative, revolutionary; in those years, it was in the *art schools* that the theatrical, musical and audiovisual tensions found a meeting point. The group, formed by Roger Waters, Nicholas Mason, Richard Wright and Syd Barrett, immediately showed interest in technological experiments. The union of multiple arts and multiple artistic expressions is for Pink Floyd the best method to express their complex dimension where "The container has always become part of the scenography" (Moltisanti 2019). It is precisely in *live* shows that the combination of image and sound reveal their strength. Communication is totally different; no longer we see in the foreground the idolized pop icons, rather we see lighting effects, repeated graphic elements, shapes research and the study of new technologies. The first fundamental moment to understand the close link between sound and an abstract musical vision dates back to the *Swingin' London* period, when the Group interfaced for the first time with *light-shows*. Almost by chance they interacted with this world, being involved by a friend during an installation project of "luminous sculptures". They began to experiment in absolute freedom and soon realized that the visual element would be the one that would distinguish them from the others; from then on, they started a research on a new type of live. Their first great invention, created with the stage technicians, were the "liquid slides", an element destined to become a distinctive brand of the first part of their career. These slides were produced by inserting ink between two films, thus obtaining abstract, random chromatic patterns. Continuous research led them to rediscover ancestral figures, such as the triangle or the circle, which were emphasized and given a totally different dignity. Just the circle, initially expressed through a gong on the stage, will become a constant element in every concert of the Group. The use of a large circular screen allowed the ever-changing projection of graphic elements, which became a true accompaniment to musical narration. Undoubtedly, their work that more than others embodies a continuous research, experimentation and introspection is The Wall. The protagonist of this incredible concept album is Pink, Roger Waters' alter-ego and most likely the reincarnation of Syd Barrett, the group's historic founder. Pink is a problematic rock star, addicted to drugs, characterized by a very complex relationship with his own interiority and the public. It was precisely this journey of introspection and escape from reality that led to the creation of the album. The wall erected by Waters is not only mental, but also physical with the public, with whom, for some time, he had developed a very conflicting relationship. In all the tours, on the stage began to appear

a gigantic wall made of polystyrene bricks which, in the middle of the show, would completely divide the musicians from the audience. "The project was always divided into three distinct parts: the design of the bricks, the wall construction process and how to make it collapse".[4] In the background, on a huge circular screen, frightening cartoons were projected that intensified the narration of The Wall, the *concept album* par excellence. As a multi-level communicative construction, the concept album in the hands of Roger Waters and his companions was conceived as a container for a range of diverse interpretative codes, which extended from the verbal text to the stage and dramaturgical dimension. In the listener's perception of the disc or the live show, the different communication layers result not as isolated elements, but as parts that the listener/spectator should summarize in relation to the overall work structure. The ontological disparity between the constituent levels of the concept album, as well as being the triggering characteristic of the dramaturgical mechanism, also causes a series of consequences that affect the global disc shape, both in its construction as a musical object, and in its material presentation and the live show (Sforzi 2015, 50). Therefore, to interpret the general message of this type of disc, an "entirely structural" approach will need to be used, recognizing that: "the meaning of particular units does not lie in their substance, but in their relationship" (Middleton 1994, 305). Therefore, in a concept album, what is interesting to analyze is the integration of its elements within a unitary communication process, looking at the totality of the work components; it has blurred boundaries and, at the same time, it does not end in the disc and is more than what is presented during live performances. Normally, in Pink Floyd's performances, the background code (Rome, Berlin, Venice, etc.) merges with the extraordinary strength of the set-up code (always very strong but reaching its peak precisely in the scenography of *The Wall*) and with the music (the object code) which is integrated and gives the scene timing. With *The Wall*, a complex game between parts is born, an extraordinary balance takes the spotlight off the musicians and focus it on the idea itself. The Pink Floyd are the perfect synthesis of a turbulent and creatively active period that characterizes the sixties and seventies. They are unique, complex and decisive in defining the relationship between the musicians and the mobile architecture they live in. Still today, Floyd's scenography is an example of innovation and great genius; they are pure expressive force, the protagonists of an animated stage. Pink Floyd's musical project captures the true essence of conceptual art, bringing the concept as the only useful and necessary element; everything pivots around this, starting from music up to the place chosen to play, the scenography of the performance, the graphic choice and the narrative storytelling composition of the project.

[4]Pink Floyd's The Wall, TPI Magazine. https://www.tpimagazine.com/editors-choice/classic-productions/9077/pink_floyds_the_wall.html.

7 Conclusions

Looking at the history of contemporary music, we have identified four main attitudes: the Beatles' (all focused on the music power), David Bowie's (who managed to project the scene on the singer using himself and his music as the only vehicle for the show), the Genesis' (who adopted some of Bowie's strategies by mixing them with the use of scenography) and finally the Pink Floyd's (who, through the use of scenography connected to the background code, created their musical storytelling tool).

Looking at the contemporary, perhaps we can identify a new way of living on the stage: that of not dwelling it. For some years now, more and more artists have decided not to show themselves to their audience, for various reasons. Among those who have made anonymity their own emblem, we cannot fail to mention Sia, an Australian singer-songwriter who, only recently, has decided to show up. Her presence on the stage is often insignificant, sometimes even absent because of walls behind which she can hide. Therefore the object code, music, assumes a double value: it must be so effective that it can be convincing even though it does not have a face. The background code is cancelled and the set-up code is often bare, but it is enriched by dance performances without lighting or special effects. It is a simple, almost futuristic scene. The set-up choice, for Sia and the other artists who decide not to show themselves, is extremely important and must be immediately ascribable to the artist. We see repeated elements, stylistic tones, such as the choice of always having dancers with a "bob" hairstyle, or the use of pastel colours. This artistic experience, this choice not to show herself in order not to be the obligatory object of her art is certainly the trump card of the singer-songwriter. By carefully observing her live performances, we cannot fail to notice how the almost non-existent setting manages to live thanks to choreography and stratagems meticulously studied to keep the attention of the public alive.

Another case, even more extreme, is that of the Gorillaz, a non-existent English group; yes, they do not exist. They only appear in the form of cartoons and often, in live shows, they use the hologram technique so as not to show themselves to the public. Gorillaz are the "smartest project of our time" (Primi 2018), they were desktop designed by multi-instrumentalist Damon Albarn, and cartoonist Jamie Hewlett, and they entered the Guinness world record as the most successful virtual band. Their live shows are incredibly involving, their cartoons are not at all realistic, have accentuated physical characteristics, almost ape-like, making their look not far from monsters' images. On the stage, the space is entirely occupied by the cartoon projection, in some cases there are lighting effects and choreography, especially in the case of featuring with real artists actually present. Their expressive strength lies in their absence on the stage, and in the playfulness of their performances which, to date, are inimitable and unique.

They are far from the frontman Bowie and from the incredible Pink Floyd's set-ups; we are facing a new case of experimentation: a rejection of the artist's idolized image.

The different approach shown by these artists in the stage occupation shows how society, culture and customs can more or less influence stylistic and artistic choices. The response to external stimuli produces a desire to know and experiment, use new technologies or cancel them.

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Memory. Dwelling in the Leftovers

F. C. Invernizzi

Abstract In Italy 8 square meters per second are built every day. Society needs to use what is already built because it is enough; by thinking of it in a new, more flexible, sustainable and ethical way. By mixing knowledge from Architecture, Interior Design, Exhibition Design, Art and Anthropology, abandoned buildings can find a new way of being part of the contemporary urban fabric. Produced in a society that consider waste its religion, they represent an extraordinary resource, not just able to carry out new functions avoiding further soil consumption, but also considered as caretakers of human memory and stories that otherwise would be lost. As old books, by keeping their old covers as a memory of their past, abandoned buildings can be renewed from the inside, as contemporary nests, able to adapt to contemporary way of living, becoming crossroads of interculturality, capable of producing new spaces for relationships and stable anchorages. Cross-disciplinary approach, short-time and low-cost interventions are the clue to make those abandoned architectural leftovers live again. Ethically, flexibly and sustainably.

Keywords Leftovers · Abandoned buildings · Design approach · Architecture sustainability · Cross-disciplinary approach

1 Introduction

"And yes, we do need hope. Of course, we do. But the one thing we need more than hope is action. Once we start to act, hope is everything. So instead of looking for hope, look for action. Then, and only then, hope will come". It was January 2019 when the 16-year-old Greta Thunberg's speech at TEDx in Stockholm became viral. Since August 2018, the young activist has been struggling to defend an environment that is drifting. First with the Fridays For Future, then the TEDx, the World Economic Forum

English version of the chapter provided by the Author.

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in Davos, the COP24 and the conference at the UN. Everything to raise a voice and say that something is mistaken, something is going in the wrong direction, towards a planet without a future and—to put it bluntly and uncompromisingly—towards ruin. I would like to start this chapter with Greta Thunberg's words because if there is a social and theoretical background to which we all have to look, this is it. "Chaque civilisation a les ordures qu'elle mérite", wrote Georges Duhamel on his return from a trip to the United States between 1929 and 1930. Every civilization has the garbage it deserves. In the following ninety years—after the Second World War—to commodity fetishism (already theorized by Karl Marx) have followed the economic boom of the 50s and 60s, the development of the marketing of consumer goods of the years 70s–80s, the third industrial revolution, globalization and the normalization of a gesture linked to the indiscriminate acquisition of goods—often unnecessary—defined as contemporary consumerism (Lynch 2008). The biggest effect of this chain of events? Waste generation.

Reasoning on the design of leftovers leads to the need of reflecting on contemporary environmental situation. This reflection is first and foremost presented through a general environmental overview—linked to the themes of growth and consumption—and then is continued with insights related to the relationship between urban planning and land use, between population growth and construction. The use of mathematical data from the official WWF and Ispra reports makes it possible to have a clearer picture of the contemporary situation and to better understand how much it is necessary to address the issue of existing buildings in order to counteract the false need for new construction. On a global scale, a nationwide zoom is proposed, in order to show the drastic variation in urban density in the last fifty years and how the Italian territory is undergoing uncontrolled cementing, to the detriment of existing architectures, rich in history and memory. The application of alternative choices and innovative territorial policies is supported by specific national studies, showing the possibility of approaching the existing assets by rethinking the construction and the territory in a sustainable and ethical way. Through a historical and multidisciplinary excursus, the awareness of climate and environmental issues is presented here, this theme being already very rooted in national culture; today it is necessary to reverse course from the last fifty years, through conscious and far-sighted political practices.

Growth is the imperative that the entire globe has undergone since the industrial revolution until it consolidated to the present day. If initially the fascination derived from a technological upheaval addressed to an increase in common well-being, from 1950 to the present day the myth of growth has turned into a mercantile illusion of consumption without control. Today growth is imposed by society, so much so that simple but not obvious questions like Growing to what point? At whose expense? With what effects, costs or implications? Do not claim the need for an answer. Despite the immediate effects that we recognize in Western society—capable of satisfying any need as a result of a click or of a day spent within the contemporary cathedrals of consumerism—we need to recognize the danger of a system devoted to the illusion of infinite economic growth. In fact, in addition to a first mere mathematical limit, behind contemporary unconditional growth there are weaknesses and criticalities of

an unfair and unsustainable system from a social, human and ecological point of view. The economic market becomes myth, the technology becomes religion.

And yet, in all this mind surfing in pre-wrapped disposable packages that become old even if just bought, one is amazed by the abyssal distance and the ever-widening gap between the uninterrupted technical progress and the "ethical delay" of men with respect to it (Baudrillard 2010). Both technology and the economic market do not take into account the human beings that made them flourish for centuries. This is a path towards mistrust, towards the decrease of happiness at the expense of the increase in GDP, a slippery road between high energy consumption and low human communication; it is headed by the presumption that every need can be satisfied by a proper machine, every practical (or psychological) problem can be foreseen, prevented and resolved by a technical, rational and absolutely suitable object (Baudrillard and Codeluppi 1987); the space for human thought is poorly manifested and relegated to some hidden place. The well-known sociologist and philosopher Serge Latouche (Latouche 2012; Latouche and Schianchi 2015) moves in complete countertrend; in his innumerable writings, once again he proposes the theory of sustainable degrowth—or happy degrowth—which, insisting on the above all "convivial" side of intelligent austerity, would demonstrate how to reverse the consumer race will not bring a profound sadness but will be "the happiest possible thing" (Rumiz 2008).

2 Environmental Issues

2.1 The Planet Wellbeing

Growth transforms ecosystems, biosphere, environment so much to compromise the near, not remote, future. We live in a great climate mutation that we are causing ourselves. In fact, the "Great Acceleration" represents a unique event in the 4.5 billion years of Planet's history. On the one hand, it corresponds to an explosion of the human population from 1800 to present day; it has now reached 7.6 billion people and it is expected to growth up to 8.6 billion in 2030 and 9.8 billion in 2050. On the other hand, it manifests itself with an economic growth capable of leading to an unprecedented global change, through the incremental demand for energy, land and water (WWF 2018). As can be seen from the data reported in the studies carried out by the WWF and shown in the Living Planet Report 2018, a very high number of resources has been requested and consumed since the 1950s, including the urbanized population, transport, the loss of tropical forests, land taming, biosphere degradation, ocean acidification and exponential CO_2 production. To use only one term: unsustainable; in human, scientific, global, ecological, strategic and ethical terms.

Continuing with the data reported at a global level by the WWF, it is evident that the ecological footprint of most industrialized nations—mainly North America

and Russia—is in total disharmony with the environmental well-being of the Planet. In fact, considering bio-capacity as the ability of the ecosystem to renew itself, it is necessary to recognize that through technological changes and land management practices, the planet's bio-capacity has increased by 27% over the last 50 years. In the same quantity of time, the human ecological footprint has increased by 190%. Raising awareness of the issue of conscious consumption and reversing the route are two key points that make finding a solution essential before it becomes too late, reaching the point of no return.

The many data collections lead to the evident need to reflect, analyze and eviscerate the complexity of the environmental phenomenon, not letting it be the exclusive result of sectorial reports, but placing the spotlights on it so that it can be tackled in the most varied fields, among which architecture and interior design.

In fact, according to what has been defined by the European Commission in terms of guidelines on good practices to limit, mitigate and offset soil sealing, in urban areas, especially in arid climates such as the Mediterranean, the climate becomes hotter and drier due to the loss of vegetation and consequent less transpiration and evaporation as well as larger surfaces with a high heat refraction coefficient. In synergy with the heat produced by air conditioning and traffic and with the absorption of solar energy by dark asphalt surfaces or concrete, this contributes to local climate change, causing the heat island effect . This appears as a necessary declaration of intent to stop construction and soil overbuilding, towards the reuse of existing buildings. However, in the simplicity of this statement there are many ambiguities that do not allow this type of approach to be taken first into consideration by municipalities and contemporary policies.

Focusing on Italy, according to WWF reports[1] the Italian urbanized surface can be reliably estimated at 2 million hectares (7% of the country), whereas the area covered by roads corresponds to a total area of the order of 800,000 hectares, just under 3% of the national surface. This leads to an average artificialization rate of Italian soil today at around 10%. There has been a very rapid acceleration in the last 50 years, considering that in the immediate post-war period the density of urbanization did not reach 2%, with an evident latitudinal gradient; the average transformation speed was over 80 ha/day.

The morphological and historical-economic differences that distinguish Italy, especially between north and south territories, cause a very different distribution of urban areas in the 20 regions in which the country is divided.

Half of urban surfaces fall into the plains (a morphology that affects less than a quarter of the territory), giving them a density of urbanization of 12%. This is more than twice the value of the 1950s (when this index was less than 5%), with an average transformation speed of close to 43 ha/day. But even the hills, less than half of the national territory, are urbanized at 6%, which means that they concentrate 22% of the total urbanized area (with an average speed that was just under 20 ha/day.

[1] WWF, *Caring for our soil—2017* and Regional papers of soil use updated on average after 2000.

Currently, less than 30% of the more than 4,000 km of peninsular coasts are free from urbanization; they were over 60% in the 1950s.

2.2 Rethinking Sustainability

However, it is not enough to feed on data; the prevailing need is to realize and implement conscious choices, which go against the policies of overbuilding and bad environmental practices. "Resistance passes from the combination of virtuous practices and conflict", says Domenico Finiguerra who, in his brief but effective sentence raises his voice and condemns an overbuilding mechanism that is putting our country at risk. The data is appalling, with the national agricultural area having dropped by 28% in the last forty years and countless building amnesties. But the point is in the awareness, in the need for citizenship to be able to take a voice and in implementing sensitization projects with regard to these burning issues, also in the field of planning and university. "The land is not renewable", continues Finiguerra, "it is not infinite and unfortunately it is not indestructible. And it is not sustainable to stay and watch a crime that is advancing at the rate of 8 square meters per second. Saturday and Sunday included. Twenty-four hours a day. Even at Christmas and Easter. Eight square meters per second is the pace at which beauty, biodiversity, agriculture and culture of our country are asphalted and cemented" (Finiguerra 2014).

A disaster, so tragic as it is difficult to stop. The first point to counter this cement phase is to disclose the data and facts. Since the seventies, many enlightened and literate people have moved in the direction of an environmental propaganda of denunciation which, however, did not achieve overbuilding reduction or interruption. Two particular examples of literature are the film by Francesco Rosi "The hands on the city" of 1963 and the serialized program that Pier Paolo Pasolini produced in 1974 titled "The forms of the city".

In the first case, the film is presented as an explicit denunciation of the direction that the country was taking towards non-sustainable and pervasive design. The disruptive power of the film shows a landscape composed of corrupt politicians and municipalities unable to make far-sighted environmental decisions. The words are from Edoardo Nottola, a builder and city councillor who briefly explains to his staff the new project to expand the city of Naples. "I know that the city is there and that it is going this way because the Master Plan has established it, but it is precisely for this reason that from there we have to get it here. (…) There is no need to change it, the Master Plan. The city goes there and this is not an agricultural area, then? And how much can you pay it now? 300, 500, 1000 Lire per square meter? But tomorrow this land, this same square meter, can be worth 60 or 70,000 and even more. Everything depends on us. 5000% profit. There it is (pointing to the new Neapolitan concrete suburbs), that's gold today. And who gives it to you? The Commerce? The industry? No. (…) With this, no worries, all gain and no risk".

This shows the image of the country that, in the following years, sank into mala-construction and the inability to take care of the territory, considering it only as something to be exploited for personal profit and not something to be safeguarded.

In the same way, expresses Pier Paolo Pasolini confronting himself with a hypothetical filming of a city—in this case Orte becomes a pretext to talk about the vast majority of Italian cities—and shows the situation.

> I chose the shape of a city as the theme, the profile of a city. Here ... what I would like to say is this. I did the shot that first showed only the city of Orte in its stylistic perfection, that is, as a perfect and absolute form. But as long as I open the field and here the shape of the city, the profile of the city, the architectural mass of the city is cracked, ruined and disfigured by something foreign, that is, the buildings that can be seen rising on the left. (...) Many times I see myself struggling with this problem, in the desire to resume a city in its entirety. And how many times have they seen me to suffer, blaspheme, despair because this design, this absolute purity was ruined by something modern or by some foreign body.

The suffering expressed by Pasolini is evident and it is not only linked to a historical period, since the situation has re-emerged in the last fifty years, so that some estimates affirm that the amount of buildings built from the Seventies to the present was the same as in all of the years preceding that time. A crime that also causes contemporary thinkers and artists to rebel, like the poet Andrea Zanzotto who says that “after the death camps, we are witnessing the extermination of the fields”. The problem is widespread, still following the wise Finiguerra’s words, and “it is clear that the ecological conversion of the building will not be enough to recover all the 400,000 jobs lost in six years, those caused by the explosion of the real estate bubble, the same that left on the ground environmental rubble (empty buildings) and social rubble (unemployment)". The practices that can and must be implemented are numerous and not always difficult to apply, if you think with an innovative and far-sighted perspective, totally at the service of safeguarding the environment. A net change in building policies, first and foremost, could produce jobs on the one hand, and a very high environmental benefit on the other hand.

Besides, awareness should be spread about the importance of the recovery, restoration and reuse of abandoned buildings, both in the historic villages and in the suburbs of the country, of abandoned squares and abandoned corners of the nation that, if put back in order, would return to be part of an enormous architectural heritage. As we will see later in this chapter, this is already partially happening around the world and this essay also wants to be a promoter of this kind of building policies. Another fundamental point is the abandonment—if not total at least partial—of great works in favour of a system of small works, enclosed under a great far-sighted political plan which can restore environmental and territorial portions and constructions. The care for minor building, including leftovers, would be an excellent political, social and economic starting point for the territory to regain value, biodiversity and ecosystems that are so numerous and unique on the national territory.

With the latest catastrophic events—at an environmental and also at a construction level—something in the world is moving, making the designers reflect on issues related to the production and consumption of building materials. One above all, who was personally contacted about these issues, is the Catalan designer Carles Oliver. In

his book *Life Reusing Posidonia* (Oliver et al. 2017), through very powerful words and reflections, he expresses considerable perplexity about the characteristics of traditional construction and the use and provenance of building materials. In his research itinerary, the most common problems are the lack of knowledge on the provenance of the building materials used on the market, the lack of knowledge on how these materials cause obvious CO_2 emissions—given the types of extraction and transport—and the lack of care for the exploitation of natural resources that cannot be continuously and incessantly produced. Various reasonings lead the designer to formulate an irreverent but meaningful proposal, imagining that on buildings and building materials a label could be affixed declaring their origin and calculation of emissions given by the extraction, production and transport of the various materials. This would allow greater awareness and greater knowledge of the current state of the buildings constructed in Western countries and above all would draw attention to a more traditional approach to building, where "traditional" means more linked to the soil and the territory in which the construction finds place. In a way, as if innovation coincided with the concept of taking a step backwards towards de-growth and towards tradition, precisely understood as respect for the ecosystem to which we belong, as designers, professionals and people who are sensitive and attentive to environmental issues, now no longer of secondary importance. A vicious circle of policies that are unattentive and unaware of what happens to the world system should be interrupted. Instead, a virtuous circle should be encouraged through bringing the inhabitants to become aware and wise citizens in their choices, in order to enhance the existing built heritage. An aesthetic idea and a contemporary design approach could show itself as a valid alternative to overbuilding.

3 Aesthetic Issues

3.1 Romantic Charm or Charm of Failure?

"Future history will no longer produce ruins. It does not have the time for them", stated Augé in *Le Temps en ruines* (Augé 2003), reflecting on the hardness and violence of a world whose ruins are doomed to temporal stalemate or, even worse, to an oblivion incapable of telling the memories of their past and the hopes of their future. Seventeen years later, the debate on the future of abandoned buildings is once again in the need to show the close relationship between human beings, historical stratification, memory and the environment. This happens in a collective framework composed of a lack of spatial references and an urban crisis characterized by excessive expansion. However, the peremptory human need to find an identity within the city itself, i.e. a *civitas* representing an organization and stratification of associated life, cannot renounce to memory, to environmental harmony, to "human reflection and loving participation" (Pane 1988, 31).

This need shows as a Romantic feeling of rediscovering the territory, in search of contemporary ruins scattered both in an urban context and in more isolated and forgotten places. As we read in the diaries by Goethe who, on March 23, 1787, writes about Paestum "At last, when we were doubting whether we were passing through rocks or ruins, some great oblong masses enabled us to distinguish the remains of temples, and other monuments of a once splendid city", so the new urban explorers are hit by the ruined attraction of the building products of post-industrial societies. In this way, the seduction of failure and abandonment are confronted with the historical Romantic charm of ruin, allowing, for iconographic exercise, to place side by side the Piranesian engravings (1745–1750) with the Falck photographs by Gabriele Basilico (1999–2012) or the canvases by Caspar David Friedrich (1825) to the dioramas by Lory Nix (2007–2013).

Using Yourcenar's words, *The Imaginary Prisons* are "one of the most secret works left to us by an eighteenth century man (…) and represent the denial of time, the displacement of space, the suggested levitation. The thrill of the impossible achieved or exceeded, having the peculiarity of the dream or, better to say, of the nightmare" (Yourcenar 2016). Dream, nightmare, fascination of mystery and spatial immobility are elements that easily manifest themselves and are also recognizable in the photographic series that Basilico carried out, following the disposal of the Falck Steelworks, which have become manifestos with a melancholic and monumental flavour. Both representations appear as depictions of internal spaces carrying a tragic and immobile human memory, awaiting an uncertain fate.

In the Piranesian prisons, the human figures take shapes of shadows, in Basilico's photographs they are shown as imposing absences. In fact, if compared to the ruins of the past, the attractiveness of the environments represented on canvas or engravings also consists in imagining the human being himself and his way of living in the abandoned space, in front of contemporary and real (or fictitious) images. As in the case of Lori Nix's dioramas, of the leftover spaces on the territory it is not possible to do anything else than imagine ourselves inside them, since we are the missing anthropological component (Biamonti 2016). Interiors are shown that are as similar as distant, as inhabited as forgotten, as immobile as subject to rapid and continuous changes, defined by the passage of time, by the intermittent fading or renewal of memory and by the growing re-appropriation of space by the natural elements. Considering Simmel's statements concerning the relationship between architectural matter and natural re-appropriation of space, it is nature that plays a fundamental role in historical and contemporary ruins. If, in the former case, the ruin is invested with a new meaning—which includes a spiritual configuration no longer founded in the human purpose but in the interweaving of unconscious natural forces—in the second there is the risk that the specific attraction and the sense of sublimation of the very concept of ruin is missing, to the extent that one perceives the destruction by man (Simmel 1903).

From this derives the specific impression that the charm of contemporary ruin, and even of architectural leftovers, lies in the idea that a man's work is ultimately perceived as a product of nature. According to Simmel, what directed the construction was the human will, while what gives it its current appearance is the mechanical force

of nature from which a form is born that is absolutely significant, intelligible and autonomous (Simmel 1903). Thus, a new characteristic unity is born with multiple facets of meaning and expression, capable of indicating and underlining a process that is inverse to that of the architectural project, making us experience—through melancholy and tragedy—the loss of the social function of the project (Speroni 2002). With skill and dexterity, Lori Nix's dioramas—which mostly comprise indoor environments closed and invaded by decadence and nature—underline the feeling of immobility, absence and at the same time of past humanity and memory. The images that immortalize the catastrophic environments reproduced by the artist are proposed as narrative series having as a constant the desolation of modern civilization places of culture and economy within which, however, life has not ceased to exist, thanks to the slow eruption of flora and fauna, capable of designing space in an autonomous and unconscious way.

3.2 Reading the Places

In this context of urban fragmentation and lack of references to the collective memory linked to certain abandoned spaces, numerous autonomous and unorganized movements have become widespread in the last two decades, making of research and exploration of abandoned places their main theme. If exploring an abandoned place can be compared to reading a new story, then it is also true that you cannot judge a book by its cover. In fact, often battered and unattractive, the leftovers do not show their best from the outside. Their facades, when they are still recognizable as such, represent the shadow of an expired narration and seem haughty warnings, more capable of driving people away than of inviting them to enter. Waste, vegetation, graffiti, barbed wire prohibitions, uprooted gates and destroyed glass windows are the most common peculiarities, which generate an inhospitable and divisive threshold.

Architectures of the leftover—and often of abandonment—deny their expression towards the city and the public space, turning entirely inward, in a movement of self-exclusion from the urban environment. Going unnoticed, remaining excluded from city passages and public glances, they lose their expressive power of buildings, acquiring iconic strength of forgotten places. If, as stated by Pavese "The only joy in the world is in the beginning", this also happens with the discovery of leftovers: from having overcome the obstacle of accessing the interior, you make your way through bureaucratic prohibitions and narrow environments, having as the only weapons sturdy shoes and a good camera. When any architectural criterion of reading the exterior of the building is discarded, it is immediately apparent that there is no "public" and "obvious" threshold, substituted by a succession of silent and fogged, hidden and unofficial entrances. "The threshold is the key to transition and the connection between areas with different territorial vocations", said Hertzberger in his lectures to students of Architecture, "and, as a place in itself, essentially constitutes the spatial condition for the meeting and the dialogue between areas of different

order" (Hertzberger 1996). In the leftovers, the threshold is shown not only as a transition between areas or as an ideal spatial condition for the meeting of environments, but also as a means of communication between the place itself and the user who explores it.

Therefore, reading and judging the spaces become essential moments of reflection and elaboration of concepts and observations related to the interior design approach. A fundamental judgment is that of interior environments, in which emptiness and space are the protagonists of architecture itself "which is, after all, also natural: because architecture is not just art, it is not just an image of historical life or of life lived by us or by others; it is also and above all the environment, the scene, where our life takes place" (Zevi 2009). Or, more precisely, where it took place. In order to get in touch with an architectural leftover, one needs to re-recognize the space itself, considering it as a new architecture, with a new existence, modified by the passage of time and, as already stated, by its state of spatial and temporal immobility.

In fact, knowing and re-knowing an architecture means first of all dwelling it, searching for its specific characteristics, remembering that knowledge itself is not really knowledge of the history of architecture but rather of architecture in history (Maroldi 2014). Walking through the interiors of a disused building allows not only to live—even if for a short time—a past architecture but also to read anthropological and constructive details capable of becoming interesting cues and references for the interior reuse project. The strength that the careful and deepened reading of a place brings with it allows to underline how the intrinsic potentialities of architectural leftovers, not perceptible through a superficial reading, can give shape to new meanings, structures and experiences.

Calvino stated in his American Lectures, "At times when the realm of the human seems to me condemned to heaviness, I think I should fly like Perseus to another space. I'm not talking about escapes in the dream or in the irrational, I want to say that I have to change my approach, I have to look at the world with another perspective, another logic, other methods of knowledge and verification" (Calvino 1993). "We do not know how to recognize the soul of places" says Hillman, "and this is due to the culture in which we live. We have lost our aesthetic response.[…] It means to be aesthetically incompetent: in a state of amazement, stupid" (Hillman 2004). The frenzy, the excess of production and consumption remind us how the leftovers, unfortunately, resemble spaces that have not really been forgotten over time because they appear ontologically constructed without the intention of being remembered.

3.3 The Photographic Storytelling

"An easy way to get to know a city or a place," said Camus in *The Plague*, "is to look for how you (…) work, how you love and how you die" (Camus 1948). Often architectural remnants have the power to encompass all the complexity of an anthropological narrative of the use of interior spaces with its fundamental details and its unique characteristics. The first way—more immediate and effective—for the

human being to approach and resume contact with these places again is to use the photographic tool, intended as a special "eye" through which feelings, intuitions and details can be fixed that otherwise risk being lost over time (Crespi 2013, 2018). In fact, the photographic story of a disused space is an element already developed in function of a future planning: the choice and the selection of the frames and of the characteristics of the place become a very precise narration, useful for the purpose of a conscious and reasoned interior design.

According to one of the greatest experts and photographers of abandoned buildings, Sipes, the images taken inside architectural leftovers bring with them the design difficulty of immortalizing sensations and scenes very different from the classic landscape photographs, "like the Golden Gate at sunset, where the scene speaks for itself" (Sipes 2014). Organic and inorganic elements intertwine in the soul of the places and become the main actors, attracting the attention of the explorers and of Sipes himself who, in the Urban Exploration Photography manual, declares its importance. Some elements and details are also recognizable as diamond tips for a future design: light rays, natural proliferation, chairs and windows, objects, artefacts and machinery, graffiti, pictorial detachment.

From this list we can already see at a first glance that the interest does not fall on architectural elements but on the natural and anthropological imprint that characterizes the abandoned space. In fact, these elements are proper to the scenography with which the interior design approach must be compared, considering them not as obstacles or defects of the space but as creative and innovative potential of the project. The light rays, first of all, simultaneously narrate two realities: if they enter through planned windows or openings, they tell the design studies carried out during the first project of the building; if they propagate through collapsed ceilings or roofs or unexpected openings in the walls, they manifest themselves as elements and perspectives of interest for the new design. If Le Corbusier affirmed that "architecture is the wise, correct and magnificent play of volumes grouped under the light", then the design of the leftovers must also take into account its inevitable change in contact with abandoned buildings, missing elements, unexpected holes in the unstable surfaces and material boundaries. Sudden light rays can cross unexpected thresholds, transforming spaces and connoting them of new and different characteristics from those for which they were born, so they need a greater (and maximum) attention in the new design. The beauty of this innovative interior design approach lies in its complexity and in the attention necessarily paid to multiple and various details.

The second aspect, that of natural proliferation—as briefly mentioned previously—also enriches the interior spaces of each leftover with quality. The need to rethink or to face an internal environment in which green—in all its many forms—is overwhelming, can be a unique design opportunity. Small plants that rise directly from the ground, mosses that decorate walls and ceilings, climbing grasses that invade rooms through windows (often broken or without glass) dominate the leftovers and the photograph of abandoned buildings. In the same way, also the water present in some interiors—due to the carelessness of existing roofs or floors or to the presence of deteriorated windows or pipes—becomes a catalyst for the diffusion

of green elements and, with its games of transparencies and reflections, an important iconographic (and design) protagonist. Understanding and knowing how to read the motivation of this uncontrolled sprouting of green and natural elements requires the designer to pay particular attention to the effects of the surrounding world on the building and its behaviour following the passage of time. A question that Sipes asks himself—How many other photographers can say they had the opportunity to photograph?—can also be introduced in the world of interior design that is forced to deal with the issue of reuse, considering all the existing elements and not only the architectural ones. The third aspect includes the typical characteristics of architectural and design tradition, considering as protagonists of spatial photographs—and design—windows and seats (of every kind) that are encountered in the exploration of leftovers. The former, always glorious subjects of architectural photography, in the photographic repertoires of leftovers and abandoned buildings, are shown as one of the main elements of narration and analysis of the original building construction.

They remain as fundamental references for the new design that always seeks a close dialogue with the existing architecture of which it wants to maintain the qualities and exploit the opportunities already present on site. Therefore, the windowed openings are not considered as constraints for the interior design project but as an opportunity to read and re-read the space, playing (seriously) with a new interior planning, generated by the new approach. The chairs have instead an incredible compositional and communicative power, within both the photographic and the design sphere. The initial astonishment lies in the fact that in every existing leftovers in the territory there is at least one seat capable of bringing to mind the original image of the abandoned building: a wooden chair, a padded chair, a ruined or unsafe seat, a school chair or an office chair, a cinema or waiting room armchair, it does not matter. The power of this object (which in the design field is the master), falls precisely in its bringing to mind that the empty spaces once were lived by human beings, having our same needs for rest, waiting and work. This anthropological flavour highlights the importance that must be given to the human component in the design of the existent, managing to trace back to the reading of the gestures that were performed within the spaces. Then, the ability of a chair or an armchair to bring us back to a specific historical or cultural moment—after analysing its material and workmanship—is so high that we can gather valuable information for future projects. In the same way, all the other elements—artefacts, machinery and objects full of memory—that occupy space can be understood as the last human imprint to be handed down or to be considered in the interior design project. Not necessarily all the objects found on site must be charged with the same design value but in equal measure must lead to a reflection on the opportunity to be maintained or discarded during the reuse process. Some artefacts characteristic of the history of the place can become protagonists or scenic elements for the design while others—of secondary importance—can be eliminated and considered not fundamental to the transmission of a spatial and memory idea.

Such objects, which often allow the explorer and the designer to understand more deeply how the structure was inhabited—in the sense of habitus, to make habit—and who lived in it, remain charged with the sense of abandonment of the place and, staying undisturbed from the moment the building is closed to the public, they tell

the past truths of the place where they are located. They encourage explorers (and designers, always) to consider the original dating of the place, thus imagining its uses and customs. This type of relationship with space makes it possible to become more in tune with it, bringing added value, knowledge, awareness and culture to subsequent design choices. The last two components to be examined are linked to a particular "decoration" of the walls, which arises both spontaneously and artificially: graffiti and pictorial detachment. The former, the immediate fruit of abandonment, are manifested above all in the first period following the closure or dismantling of a place, an easy prey for destructive but creative vandals. This type of contemporary decoration takes the power of an additional layer compared to the last existing pictorial surface, as it cannot be neglected or simply buried under a new layer of plaster. The interest in graffiti is manifold, from the shapes to the colour palettes used, from the relationship with the place and with a possible new user. Ironic messages or subliminal narratives are displaced in every abandoned environment, covering every material surface by irreverent declarations of no interest for the existing structure.

On the contrary, a frequent motto for urban explorers (and an excellent design base for designers) is: "Take nothing but pictures, leave nothing but footprints", also underlining the fact, in the case of soft surfaces such as snow or mud, to be able to walk in existing footprints, if present. The shrewdness and the attention of the designers who intend to approach this type of space consists in the awareness that these vandal narratives do not necessarily have to be covered with new paint but claim the valid possibility of becoming manifest or intrinsic quality of the new project to revive a meaning of space able to tell all the historical periods faced by the building itself, including those of abandonment and neglect.

Moreover, graffiti can be considered as characteristic elements of texture type and colour palette, interesting both for an exclusively photographic reading and for an interior design response. In the same way, the pictorial detachment of existing paints renders the rooms immersed in an ephemeral pattern of colours and particular nuances, produced by efflorescence, partial detachments and unforeseen upheavals of the original material. The vulnerability and fragility of these pictorial patinas are the quintessence of the elapsed time representation, of the wear and tear of surfaces and the materials degradation. The fascination of raising the pictorial surface also refers to curiosity and the unique possibility of reading several design layers simultaneously, bringing to light, in some cases, elements lost as previous graffiti or pictorial interventions covered at a later time. The beauty with which the interior design applied to leftovers responds to this type of complexity makes the approach always new and always full of clues for a conscious and innovative design of abandoned interiors.

Two other fundamental factors for the study of leftovers and the reading of the place are more linked to the original architectural layout than to the iconographic appeal of the photographic story. These components are the crumbling structures and the void. If the former are the most intimidating—and in some cases dangerous—physical manifestation of the deterioration of the building itself, the latter becomes the absolute protagonist. In fact, giving new meaning to a leftover requires the need to confront and respond to all the structural and safety issues necessary for the place liveability, but above all to measure against the grandeur of the emptiness that

paradoxically took possession of it, regardless of the presence or scarcity of elements or objects distributed in the interior. This tangible emptiness, this invisible presence, marries perfectly with the words of the master Oteiza, in his spatial "de-occupation" of cut-and-broken steel volumes: "The void, the emptiness is something you get (…). It is an aesthetic response related to the phase of spatial 'de-occupation'. The vacuum is to be the presence of an absence. The empty space as a spiritual apartment, as receptivity".[2] Spatial de-occupation given by the non-use of the leftovers, its manifest absence of a presence and its planning potential are all elements of fundamental importance for the subsequent project that must be aware of them when dealing with these spatial aspects and feelings.

4 From Urbex to the Sicilian Best Practices

As silent and self-referential microcosms, the leftovers are powerful in their defects and narratives, in the memory of the place and of the original architecture of which only the faded shadow remains. Born from a planned obsolescence or a selective oblivion, these battered and unknown spaces have become the protagonists of virtual movements and communities that are now more and more widespread and whose final aim is the investigation of architectural leftovers and their narration through suggestive photographic documentation. Over the years—and especially with the advent of the internet—the production of images and sites linked to urban exploration have multiplied, as well as users who walk in search of abandoned or forgotten spaces to explore and immortalize. For the purpose of this chapter, two examples of socio-architectural-artistic-photographic practices/movements are chosen and described below: the worldwide Urban Exploration movement and the spontaneous design events that are appearing in Sicily, in the last few years.

Both complex, controversial and somewhat ironic, these two movements take care in their own way of spreading knowledge about leftovers and abandoned spaces of any type and architectural feature. Like all the movements born almost casually and then exploded to the present day in a viral way, even that of the Urban Exploration—abbreviated as Urbex—does not have a very precise date of birth. Ironically, it is said that the first Urban Explorer "officially" recognized by historical documents is a private Parisian citizen—Philibert Aspairt—who lived at the end of the eighteenth century and died getting lost during the exploration of the catacombs of the French capital itself. He died on November 3, 1793, and was found only eleven years later; a tombstone was dedicated to him, still visible today in one of the corridors of the catacombs, below rue Henri Barbusse, next to the boulevard Saint-Michel, which reads as follows: "À la mémoire de Philibert Aspairt, perdu dans cette carrière le III Novembre MDCCXCIII retrouvé onze ans après et inhumé en la même place le XXX avril MDCCCIV."

[2]Oteiza quoted in (Catalan 2001, 26).

As probably happened even before 1793—but without official documentation of the archives—over the following decades many curious, artists and writers began to move their steps inside abandoned places, bringing back their dark charm. Walt Whitman himself, pioneer of American literature, reports in his 1861 writings the fascination of walking in the underground architecture of the Atlantic Avenue Tunnel in New York:

> The old tunnel, that used to lie there underground, a passage of Acheron-like solemnity and darkness, now all closed and filled up, and soon to be utterly forgotten, with all its reminiscences […] But its glory, after enduring in great splendour for a season, has now vanished—at least its Long Island Railroad glory has. The tunnel: dark as the grave, cold, damp, and silent. How beautiful look earth and heaven again, as we emerge from the gloom! It might not be unprofitable, now and then, to send us mortals—the dissatisfied ones, at least, and that's a large proportion—into some tunnel of several days' journey. We'd perhaps grumble less, afterward, at God's handiwork (McPherson 2017).

Places that have no reason to exist, therefore, often considered darker than tombs, wet, cold and particularly silent. Yet extremely attractive. Thus, the charm of the forbidden and of the discovery are mixed in the will to overcome every limit and to go beyond the boundary of the known. Explorations are gaining ground and we start to have a trace of it in all corners of the globe. The favourite subjects for exploration during the second half of the twentieth century are the underground tunnels and the roofs of the tallest buildings, but subsequently the interest in urban exploration extends to every type of built element. In the United States, Russia and Australia, exploration movements multiply rapidly and the first publications appear.

The names given to these incursions in abandoned or forbidden places are the most varied—urban hacking, fringe exploration, urban adventure or infiltration—but it is in 1996 that the term Urban Explorer appears for the first time in an official publication. In a periodical called "Infiltration—the zine about going places you are not supposed to go", the editorial of the first issue explains its meaning, introducing the idea of exploring off-limits areas of any kind, as a hobby.

The author, Jeff Chapman, thus becomes one of the pioneers of urban exploration and his zine "Infiltration" favours the spread of the Urbex movement around the world. With the pseudonym he used in the field—Ninjalicious—he signs another very important publication, released in 2005, just before his death, at the age of 31. From the date of publication, the book *Access All Areas: a user's guide to the art of urban exploring* becomes a manifesto of urban exploration, capable of laying the foundations of a true movement, now globally recognized. Divided into very accurate sections, the exploration manual analyses the fundamental actions that the Urban Explorer is facing—training, recruiting, sneaking, social engineering, equipping and preparing—and the behaviour or ethics to follow. According to Chapman's words: "We are not doctors; we cannot guarantee your long-term safety in the face of certain environmental hazards you may encounter in your exploration. Similarly, we are not lawyers; we cannot advise you of the legality of various expeditions nor can we reassure you that the legal climate where you live will not contort your good or harmless intentions out of fear" (Ninjalicious 2005). A movement that is in some ways political, exciting and able to challenge the danger, viral and anthropological,

capable of reading urban movements from an opposite point of view, is well told by Andrew Lynch, the famous Urbex of New York who states: “It is like the city is this creature (…) and outside everybody’s abusing it or changing it, but on the inside is where the heart is, and you see that it’s just so still, so peaceful”.[3]

Making a geographic leap from overseas to our nation, it is important to bring attention back to some facts—typically regional—that have been taking hold for some years now. In fact, in different points of Sicily, an area full of numerous architectural remains, groups of artists, architects, designers and private citizens have moved in the direction of a creative and sustainable design. It would be necessary to deepen this dynamic with an even more specific analysis considering local sociological aspects, but here we prefer to read the question only from the point of view of design in relation to abandoned buildings.

The three best practices analysed below are of different types but equally effective: Incompiuto Siciliano, Favara’s Farm Cultural Park and the First Lounge Bar in San Berillo district, in Catania.

4.1 Incompiuto Siciliano

Incompiuto Siciliano, with a photographic matrix, stems from the irreverent desire of the collective *Alterazioni Video* to show and document what they think is the birth of a new style—the Unfinished one—characteristic of Italian territory in the last fifty years. Motionless, still, in peace. So the leftovers can be defined and so the buildings selected by the group of designers and artists have been described in order to draw up a manifesto for the Sicilian unfinished. A moral and social slap in the face of a nation and of some bureaucratic and political mechanisms that raised the voice and shed light against this bulk of unfinished buildings, mostly widespread in the regions of southern Italy but unconditionally present throughout the entire national territory.

The *Incompiuto Siciliano* manifesto unfolds in ten fundamental points and intends to demonstrate how *Alterazioni Video* considers that “the Unfinished is not only a label within which to forcibly enclose a heterogeneous package of works, but rather a real theoretical model, capable of recognizing, identifying and even to a certain extent foreseeing, the configuration of a work or a system of unfinished works in progress or in the process of becoming".[4]

Seen as places of collective and national memory still to be investigated, for these contemporary ruins the designers who founded the movement do not foresee a reuse but a crystallization in order to maintain a contact with a “cemented” instrument useful to understand the recent history of the country. The diffusion brought to light by this movement—750 large buildings or infrastructures on the whole national territory of which 350 only in Sicily—highlights how the issue of reusing leftovers is fundamental and necessary today. The interest and curiosity to restore meaning

[3] https://www.outsideonline.com/1869986/explorers-underground.

[4] https://www.domusweb.it/it/portfolio/2017/05/09/alterazioni_video_incompiuto_siciliano.html.

to buildings that seem to have lost it should be the only design challenge for the decades to follow, in order to avoid a further overbuilding of the soil and its collapse between the phenomena of overproduction and over-consumption that is prevailing in this historical moment. The photographs taken by Gabriele Basilico tell much more than words, between full and empty, graffiti and iron rods exposed to the wind, prevailing vegetation and gigantic blocks of anonymous cement. The reflection to be addressed, however, is the immobility related to this movement: it is suitable for the identification of never completed architectural leftovers but not for rethinking these structures; they are left to their fate, without proposing reuse hypotheses or assuming any intervention.

4.2 Design and Culture, so the Ghost Town Is Reborn

On the contrary, in the case of the Farm Cultural Park, the idea is exactly doing and activating it through art. In fact, due to the economic crises and a lack of human resources, Favara had begun to turn into a market place from which the population moved away, like a human haemorrhage in search of a better place to stay. However, from 2010 onwards, thanks to the positive energy of a Sicilian couple named Andrea and Florinda—for years transferred to Paris—the situation has changed diametrically. After their buying and renovating some abandoned buildings, precisely seven courtyards, the heart of Favara has started to beat again. Abandoned buildings have given way to interventions of art, architecture and design, exhibition spaces and workshops that offer interesting food for thought and events that are culturally very high, for sensitivity and foresight.

The Favarese reality mingles today with buildings redesigned by pop characters and contemporary aesthetics: designers of all nationalities are hosted for conferences and events, to give lectures. Contemporary art, architecture and public design have been the three languages that have characterized Farm Cultural Park since its origin. Every street, every courtyard looks like an urban interior, treated for size and sensitivity almost as if it were an architectural interior. There are many elements, numerous activities: in addition to the school of architecture for children and that of politics for women, the spaces wind between the Farm XL—an exhibition space dedicated to culture—and the Riad/Farm—a tribute to Moroccan public spaces—between the Nzemmula—a shared kitchen, with social table and collective living room—and the Mercato dei Sette Cortili—a typical regional experiential gastronomic itinerary. These activities, always new and always in progress, survive with the continuous presence of architecture or design students, young workers who propose ideas and their own energy, funds for social investments and the passion and appreciation of numerous professionals of every part of the world.

Jonata De Padova, a collaborator of Favara's Farm Cultural Park, is only twenty-four years old, although for charisma, curiosity and knowledge he should have at least a hundred. Curly hair and sandals on his feet, he has the energy of someone who, out of enthusiasm, can't stand still in a chair. He springs, indicates, smiles, moves,

reasons aloud and feels like a citizen of the world. “Farm Cultural Park”, introduces us with seriousness, “is a reality born by the will of Andrea and Florinda who, lovers of contemporary art, in 2010 decided to move from Paris to their beloved Sicily to show that, with responsibility and passion, you could curb the terrible haemorrhage of human capital that was actually affecting Favara”.[5] From that March of almost ten years ago, the Cultural Park talked through travel magazines, national and foreign newspapers, reporting numbers and impressions that seem to tell a success of multicoloured pixels. 1750 square meters dedicated to contemporary art, 100 creatives present in the area and 90,000 visitors in 2016 are just some of these. Favara shows herself on television not for mafia or abusiveness—as unfortunately happens in many other small towns on the island—but for alternative art, culture, design and urban regeneration. “The training courses offered by the Farm”, continues Jona, becoming the spokesperson for the reality with which he collaborates, “are three: the school of architecture for children from 7 to 12 years, that of politics for young women—held by Florinda and by some activists of Movimenta—and an orientation festival for students of the last year of high school, to favour the elaboration and the representation of concepts through creativity and art". The two pillars that make the Farm Cultural Park sparkling and contemporary are precisely the initiative and youthful interaction, capable of amalgamating lives and languages of diametrically opposed origins. “In the seven courtyards of the Farm”, continues our young wise, “artists and students have arrived from Berlin, Boston, Tunis, Paris but also from Venice, Milan, Rome, Turin and from all the Sicilian universities. And there they meet the Aunts, three ladies who in 2010 believed they had to leave their homes, while now live in contact with young professionals from all over the world”.[6] What language is spoken in Favara today? We all ask ourselves. The Sicilian, of course. Or maybe that strange universal language made up of looks, colours and beauty. Of contemporary art and humanity, of life and smiles.

4.3 San Berillo, the City to Hide

San Berillo carries scars on its skin and soul. Between the alleys and the walled doors the air is still, shaped by bodies for sale and boys too young to have such adult looks. Walking through the streets of this neighbourhood is like taking a leap into an uncoordinated time, in which the vices of respectability are simultaneously masked and manifest. Prostitutes and small drug stores wind through abandoned houses and frescoed vaulted buildings, alternating with brazen interventions by international street artists. The air has the taste of defeat and eternal expectation, like in an open-air prison. San Berillo is the hidden city. Indeed, the city to hide. The accesses are few and narrow, invisible for tourists and unacceptable to citizens. Yet something has happened, something has moved. With complexity, effort and the strength to face the

[5]From an interview carried out with Jonata De Padova, collaborator of Favara’s Farm Cultural Park.
[6]Ibidem.

conflict spread between hollow bricks and houses with collapsed roofs, two opposite, different, contradictory realities have arisen right in the heart of the ghost suburb: the *Frist Lounge Bar* on one side and *Trame di Quartiere* on the other. As different twins, separated at birth, unable to speak a common language due to the excessive difference of character, the two universes have a common goal: to heal San Berillo. The first, bold and contemporary, dressed in succulent plants and aphorisms painted on the walls, has made *Piazza delle Belle* (in the name of the girls who once worked there) one of the most visited places in the entire city, between fancy cocktails and aperitifs, high scores on gastronomic sites and ruined walls of uninhabited buildings to act as a backdrop. A bubble, however, that does not talk about what happens in the rest of the neighbourhood. A lark mirror for those who don't ask questions about what happens around the corner. On the other hand, Luca Lo Re, just around the corner has found a reason to fight, to study, to put himself to the test and to tell how things really are. President of *Trame di Quartiere*—an association that works to design conscious urban regeneration interventions—he does not stop at appearance and is not satisfied with the bare reality of the facts. A dream for the neighborhood? He wonders aloud. "Start again to feel the smell of bread, in all the alleys of San Berillo. To inhabit, build and transform what is left of this extraordinary place. So that everything does not die among the unspoken and new taste is given to the everyday simplicity of life."[7]

5 Conclusions

Suspended, invisible, faded buildings, subject to an existential limbo between demolition and unconscious, fragile and isolated reconstruction, however the architectural leftovers manifest themselves as social and urban redemption in contrast with the bulimic needs of the contemporary market. The complexity of the theme of leftovers is also the cause of multitudes of responses, both from a design and artistic point of view, as well as from a social and aesthetic point of view. However, the choice of each artist—or non-professional individuals—to highlight this theme leads to a common message: the leftovers are no longer invisible. Of the leftovers we need to talk, with photos, DIY interventions, public funding, new strategies, paradigms, concept and thought changes.

The *Incompiuto Siciliano* and the genre of Urbex become the fathers of a new photograph, the cases of San Berillo and Favara of a new aesthetic language. The first appears as an exaltation of space in its characteristic and peculiar dismantling qualities but without the will to act; indeed, with the explicit request to leave everything as it is now and to take it as a new monument of the contemporary. The second and third tell of bottom-up realities that rebel against their condition, in search of

[7]From an interview carried out with Luca Lo Re, head of a cultural association (*Trame di quartiere*) that deals with the planning of interventions of conscious urban regeneration, in the San Berillo district.

alternative positive qualities that replace the existing, especially social, degradation. In both cases, however, the meaning and the result are clear, as is the beauty and aesthetic appreciation or constructive critical reflection that can be implemented on abandoned spaces that claim a new life.

Towards the restoration and conservation practices, the interior design approach to architectural leftovers brings with it a new way of thinking, seeing and considering the interior spaces, allowing a maximum enhancement of the anthropological and spatial stratifications that characterize them. The action of re-cognition does not consist in a technical operation but in a journey inside places through every interpretation, every listening channel and every desire for understanding, in search of precious elements and unique details capable of becoming protagonists of the new project, and to give space a meaning of its own.

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Landscape. Bottom-Up Approach for Cultural Landscape and Local Identity Mapping

G. Amoruso and V. Battista

Abstract A city is the organic expression of the human condition; it is the responsibility of communities, local institutions and citizens to invest resources so that this heritage could remain alive, in the everyday ways of life uses but also in memory, rituals and oral traditions, that is in the plot, sometimes hidden or elusive, which makes it becomes a cultural landscape. In this context, the Puglia Region promoted the *Law on Beauty of the Apulian territory* which introduces the innovative scenario of "landscape community", in which the practical definition of what is "beautiful" comes from participatory processes and mediation with the communities. The chapter presents a collaborative design methodology to search for the "identifying references of the landscape and the belonging of the territory to the reference community and the different meanings that can emerge from the local dimension of the identity". The process maps practices, arts, episodes, stories, crafts, representations and material and immaterial expressions. The outcome is a repertoire of identity and human dimensions starting from chromatic and material expression to investigate paradigms and knowledge, to reconstruct a community handbook.

Keywords Cultural landscape · Law on beauty · Color design · Pattern book · Puglia

1 Introduction

"A place is a total qualitative phenomenon, which cannot be reduced to any of its characteristics, such as that of spatial relations, without losing sight of its real nature".

English version of the chapter provided by the Authors.

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Thus writes Christian Norberg-Schulz, in his study on the *Genius Loci*, taking up the thought of Georg Simmel who, in 1912 essay *Philosophy of the landscape* introduced the distinction between "landscape" and "nature". His concept can be translated into a simple proportion: landscape "stands" for nature, as a place "stands" for space. This is because nature, being the infinite concatenation of things, the holistic dimension, cannot be broken down into parts, or have a beginning or an end. Landscape, on the contrary, is, like the place, a singularity that needs a characteristic imagine according to the indivisible unity of nature.

Landscape is a complete and distinct vision, even if intertwined with the infinite dimension of natural totality.

Simmel identifies a "spiritual tonality of the landscape", of the *Stimmung*, wondering if it is only the projection of a mood of the subject or it has an objective foundation. The most significant answer will come from the German geographer, Herbert Lehmann, who took care of the appearance of the landscape, highlighting that, in a landscape, as in a human face, it is possible to find an objective component, "the expressive potential" which must, however, correspond the gaze of the subject, which is always "charged with theory" and this means that, in nature, he only sees what he has learned to recognize. Taken together, these two indispensable components constitute the appearance of the landscape; the spiritual tonality of a landscape can never be something generic (sad, cheerful, melancholy), as the face of a man can also resemble that of another, but will always express its primary and exclusive character, thus the physiognomy of a landscape will always and only be unique. The *genius loci* concept concerns precisely the relationship that is also the link between people and the environment and Norberg-Schulz dialogues with the concept of "existential space" through the use of complementary terms such as "space" and "character" (Norberg-Schulz 1980).

The connection between human identity and the identity of the place is evident, but Norberg-Schulz also maintains that there is not only a close link between the two features, but that "the identity of man presupposes the identity of the place and that the *stabilitas loci* is therefore a fundamental necessity". Respecting the *genius loci* means highlighting the identity of the place, interpreting it and transcribing it with contemporary languages by referring to "themes" and their "variations" that are the result of the analysis process. If there is a connection that links the identity of the place and the identity of the man then it can be hypothesized that the principle of reciprocity applies to this link and that the loss or crisis of places entails a human crisis and that this process triggers a progressive decay of places as described by Marc Augé pointing out the gradual eclipse of the "anthropological places" and the proliferation of "non-places".

Applying this principle, for example, the American physiologist Ancel Keys unveiled essential concepts for the peoples of the Mediterranean countries and almost invisible to the common perception revealing the values and millennial qualities of a diffuse heritage, which were transmitted without interruption from generation to generation. Thanks to his studies on the epidemiology of cardiovascular diseases, he formulated, starting from the 1950s, the hypotheses on the influence of diet on these pathologies and on the benefits brought about by the adoption of the so-called

Mediterranean Diet. This intuition led, in 2010, to the V° Intergovernmental Committee for the Intangible Cultural Heritage of Humanity, UNESCO, to proclaim *The Mediterranean Diet*, *Intangible Cultural Heritage of Humanity*. *The Mediterranean Diet* is, therefore, a broader concept of cultural landscape, understood as a paradigmatic set of knowledge and practices closely intertwined in a conceptual continuum, from the urban and agricultural landscape, to the ways of social aggregation, trades and the table. It is the element of identity of Mediterranean communities that characterizes the personal experience of each individual who lives there.

But how is it possible to investigate, map, describe and visualize the domains that represent this largely intangible cultural heritage and which can be highlighted in the various territorial contexts?

The cultural landscape can be translated into a "diet"—from the Greek word *díaita*, lifestyle—it is a social practice based on a series of skills, knowledge, practices, and traditions that vary from landscape to food chain, which in the basin of Mediterranean concerns collection, cultivation, fishing, conservation, management, preparation and, in particular, consumption.

Since any cultural reading of the territory and its own beauty should start from the sources of law, the legal instruments available to ensure its preservation, this study considers the pivotal example of Apulia and the regional law on beauty, an ambitious project of interdisciplinary bottom-up co-drafting/programming, which ties together seemingly antithetic criteria like quality and wellbeing, focusing on the citizen, on his needs and dignity. The law provides tools, methods and actions to experience the beauty of our territory and to appreciate the vast diversity of Apulian identities' mosaic. The need to protect and preserve cultural heritage is a human rights issue and cultural heritage is relevant not only in itself but also in relation to its human dimension, in particular in its meaning for individuals and community as well as in their identification and development processes.

2 An Integrated Bottom-Up Approach for Apulian Identities' Mosaic from Public to Local Communities

Recently, the growth of sustainability challenges in relation to urbanization dynamics has led to a renewal of territorial planning methods. This evidence results from the questioning of the classic paradigmatic contrast between the centre and the periphery and the consequent transformation of the relationship between the cities and its territory and between closed and open spaces. In this context, participatory processes have gained legitimacy by causing a profound change in the relationship between public and private actors, experts and citizens.

Recent work highlights the importance of transactional places, intermediary spaces for interaction and cooperation that foster synergy between actors and the territorial and temporal dimension within the urban system. The territory is a link between people, it possesses an identity value essential to societies. The interest is

then focused more precisely on the role played by heritage in territorial construction. It is clear that heritage is useful for territorial legitimation. Beyond this approach, which is often factual, heritage can be either a lever for territorial development, if it generates consensus or a source of tension.

Finally, through heritage-based projects and actions implemented on and for the territories, it is possible to identify a number of typical configurations that define the preferred spatial organizations. The use of heritage in the phase of diagnosis of territory also allows to question the cultural dimension brought to light: is it a federator of local interests, a mobilizer of energies, or more deeply the expression of a capacity to build territory and to create a social bond through the collective expression. Citizens needs belonging. The cultural territory is defined as a form of rooting and attachment to places, according to a cultural principle of identification. Communities don't build their environment for a material purpose, but to offer an image of themselves, to become aware of what is a common asset and to experience the relationship to with others. The territory can be considered as a cultural mediator. Beauty lives in the city.

Like the cosmos of the ancients, like the human body, the city is a configuration spontaneously related to beauty or, at least, its eminent possibility: *Kallipolis* (the "beautiful city" of Plato). The beauty of the city, as understood by Plato and the Greeks exceeded the strictly aesthetic dimension of modern beauty, and that polis refers more to a cultural constitution.

The beautiful city is a city where among its inhabitants reigns a *philia*, a fraternity, a mutual recognition through culture and traditions. Even today, we will try to show it, if there is a beauty of the city, it can only be in a deep cultural sense. It is through this ethical and cultural overflow of aesthetics that the city is not only beautiful but that it can be the most beautiful through a deep connection that recovers the sense of places. A city can be entirely beautiful; there can be cities where nothing is particularly beautiful, and which are however very sensual. The answer is cultural heritage and its traditions.

In this regard, it could be mentioned an Italian best practice represented by the law on Beauty promoted by the Apulia Region. This law provides tools, methods and actions to experiment with the beauty of the territory and to appreciate the wide diversity of the mosaic of Apulian identities. The Apulian Law is an operational law to improve the wellbeing of the community and allow processes of inclusion, hospitality and intercultural dialogue. The initiative presents the Apulian territory according to an innovative scenario of "landscape communities", where the practical definition of what is "beautiful" starts from participatory processes, from mediation with communities, according to the expression of traditions and innovation in order to create value.

It is a law inspired from the bottom-up process with the contribution of citizens, destined to change in the coming years the features of the Puglia Region.

This law has 23 articles and is accompanied by a *Manifesto* which explains the principles, reasons, and objectives that guided the drafting of the law.

The concept of beauty has a broad meaning that includes not only the beauty of the natural environment, but also anthropic environment, human artifacts, the

agricultural landscape, the urban landscape, the architectural fabric. The law was written in order to protect and valorize the beauty of Puglia in three ways: pursuing a high "constructive quality" in the future interventions that will be carried out in urban places; demolishing or recovering the so-called "detractors of beauty" that today disfigure the territories; preserving and enhancing the peculiarities of the different provinces that form the "Apulian identities' mosaic".

With regard to the "construction quality", the Region has to reorganize the planning tools, ensuring that the strategic level is regional, rather than the municipal implementation level. In this way, harmony should be ensured between the interventions to be performed. The criteria on which "quality" is measured are those of vitality, meaning, consistency and accessibility. About the "detractors of beauty", with this expression, the *Manifesto* means all those places, or non-places, that embrace the spaces: certain suburbs, certain buildings in historic centers, urban voids, eco-monsters, illegal buildings. This law will allow intervening on them making them fit into the idea of the beauty of the community in which they arise. Finally, speaking of "Apulian identities' mosaic" the *Manifesto* recognizes the differences between the different places that make up the Region and instead of smoothing them out, it encourages them. This is why the *Law on Beauty* contains only guidelines and through the participatory process that will involve the individual territories, it will be given its final connotation. This last point—that is, focusing on the enhancement of territorial identity—is what makes this law unique in its kind. This is not the first law on beauty, but it is certainly unique in its kind. In 1922 a law was proposed from Benedetto Croce, which, however, aimed to protect only the natural landscape.

The underlying idea of beauty was that of "ornament". Precisely in order to overcome a similar meaning, in 1947 the founding fathers inserted in the article 9 of the Constitution that the Republic "protects the landscape and the historical and artistic heritage of the Nation". Only by broadening this concept was it possible to pursue an ecological idea of beauty inserted into Italian and European legislation after the 1970s up to the 2006 *European Landscape Convention*. Instead, it is an act, which if made executive, will be destined to change the face of the Apulian landscapes in the coming years. Accustomed to an administrative practice victim of the tyranny of the present, one could consider good news. Given its complexity, moreover, it is a law that will have to be tested and, if necessary, modified over time. This should not be surprising: daring companies are selected for this very reason, because they do not have the way marked and it is up to them to find the way step by step, adjusting the false steps. Programs are based on the idea of regeneration linked to the environmental and historical-cultural characteristics of the area concerned, to its identity and to the needs and demands of the inhabitants. They involve a coordinated set of interventions able to tackle in an integrated way problems of physical degradation and socio-economic distress, contrasting the social exclusion of the inhabitants through the provision of a multiplicity of functions and types of users and material and immaterial interventions in the housing, socio-health, education, training, work and development fields (Battista 2019).

The articulated plans of the transformations are prepared by the single or associated municipalities or are proposed to the municipalities by other public or private

subjects, even associated among them and taking on the effects of executive planning instruments. Another important concept from the Law is the "Urban Quality Charter" which recommend Municipalities to identify buildings and areas to be subjected to special protection regulation with different types of interventions, building retrofitting and urban regeneration.

Quoting the great art historian Ernst Gombrich: "The Greeks were beautiful because they had beautiful squares and beautiful cities" (Gombrich 1950). Beauty in Puglia is still there from the times of Magna Graecia. All that remains is to preserve it and, if possible, increase its value among people. It is the responsibility of communities, local institutions and citizens to maintain heritage alive in memory, rituals and oral traditions, which are the *materia* of a cultural landscape.

3 Color as a Landmark in the Understanding of Place Character

Color is a key element for the understanding of place character and often the raw material of a cultural landscape. The study is proposing an operational methodology to overcome problems that today do not allow to create beauty as an expression of values and meanings. The methodology of analysis and interpretation of places, cities, and cultural landscapes highlights best practices for the documentation, representation, and mapping of tangible and intangible values through urban survey actions, typological analysis and delivering of repertoires and pattern books. Subsequently, maps, descriptive representations and local identity assessment make possible to present guidelines and graphic recommendations for regeneration projects at various scales.

Bruno Taut in 1925 reminded us that: "… as soon as you get rid of the superfluous, color undoubtedly reveals itself as the only natural means of defining spaces …", to give meaning to the form, to clearly mark the character of a place. Cities are complex systems that combine multiple chromatic identities; each area has its own morphological and chromatic spatiality influenced by many factors: brightness, materials, colors and contrasts, typology of spaces, dimensions of buildings. The invitations of Taut and many others have been partially ignored given the ideological predominance of the non-color fundamentalism, of the rejection of traditional architecture and of natural materials and the way they are crafted (Taut 1925).

In a landscape, by its heterogeneous nature, color as a synthesis between matter, human work, economy, and local resources, social meanings, represents a formal balance, deconstruction and perceptive reconstruction of a habitat, rebellion against the typological codes of serial and banal urbanization, the story of past eras, uses and, traditions reflected in the urban space.

Nowadays that story has stopped, it has become fragmented, although having the most powerful means ever missing the most important resource, people, their memory, their identity, the planning process takes place far from the reality and the real

needs, without any verification, based on evidence, without any attempt to operate a field test and to adopt a collaborative design method. The result is equally far from people, artificial, not reflective on the human condition, far from the concept of habitat and the perceptive component. And to think that already in the seventeenth century the philosopher John Locke formulated a perceptive theory of color that distinguished between what he defined as "Primary Quality", distance, weight, and form, which were to be considered real and physical, and the so-called "Secondary Qualities", color, which cannot be considered really physical but linked to the perceptive sphere, today the element that can make a project successful (Locke 1689). Attilio Marcolli highlighted the importance of perceptive phenomena related to design color according to the placemaking. Marcolli experimented them in memorable research applied to Venice, expanding the concept of "city and color" to the concept of "city-color" and referring to a "symbolic theory of colors" investigated the relationship between the color-sensitive effects and our habits, our mental-environmental relationships, our ways of thinking and our cultural traditions (Marcolli 2006).

The real enhancement of a built or natural landscape must become, in Eugenio Turri's words, "an intimate fact, to be brought back to the individual conscience, even if it is one of the great territorial, collective and even planetary facts"; this necessity is realized through the recognition of minimum units characterizing a territory defined "coremi" and the elementary units that characterize iconically and perceptively its identity, the "iconems" (Turri 2003).

Cities and their representations then become chromatic palettes, configurative codes, characteristic palettes as was already the case for the Roman cities in the transition from the republican era, characterized by the use of terracotta and warm colors (earth and clay), to that of imperial Rome with the extensive use of white marbles.

Color cities, for example, are the Indian Jaipur, the *Pink city*, and Jodhpur, the *Blue city*. Colors are the result of a slow evolutionary process and adaptation to the site or are imposed from above, introducing a brand or conceptual choices, we would say today. Colors can be unilateral decisions and synthesis of arbitrary choices linked to a symbolic form of governance and representation of places, anticipation of a modern concept of strategic design which is place-branding.

The color designer Jean-Philippe Lenclos has long investigated the spatial relationships and the chromatic component of places and devoted himself to the drafting of specific regional color atlases as well as to studies on the traditional hues of different French cities and landscapes. One of his most famous projects was his concept of *Geography of Color*. Lenclos and his wife Dominique published their first book *Couleurs de la France, Maisons et Paysages* in 1982 (Lenclos and Lenclos 1982).

Repertoires, collections and lexicon serve to explain, remember, involve, know, disseminate, internalize the principles of the *Law* in order to reconstruct (partially, incompletely but significantly for models and episodes) the identity of the territory and its human dimension.

A typical and popular Italian expression, "*fare mente locale*, making a local mind", that is, tuning the mind with a place, making it return to the dimension of life within a habitat, proposes a reflection on how to create again an integration between the

aesthetic and the cultural dimension in the field of space design; a reflection that promotes beauty, identity and memory as living cultural assets.

The chapter presents, with reference to *Title III* of the *Identity Law of the Apulian territories*, an operational methodology of participatory laboratory and collaborative planning to map the "identifying references of landscape and the belonging of the Apulian territory to the reference community and the different meanings that can emerge from the local dimension of territorial identity". The process implements the mapping of solutions, practices, arts, episodes, stories, professions, representations and participations related to "beauty", a concept that is the expression of the meanings and identity of the places. The act of seeking the sense of place through the representation of its identity is a prerequisite to integrate it into the strategic design process; the critical documentation and the several forms of representation address the perceptual and conceptual mapping process (Amoruso 2015).

The process of place-mapping is the design action oriented to its change that, involving perceptual and emotional issues and our senses, addresses the representation of space through visual thinking and production of graphic materials.

It is important to highlight the stability and continuity of a place to make a description of its qualities but it is also necessary to recognize unity and difference as site parameters. In modern and western-oriented tradition, *genius loci* usually refers to a special realm of a place, or to the presence of a "spirit of place" rather than necessarily a guardian spirit and in the field of architectural theory and practice, *genius loci* has profound implications for place-making, interior design combining the phenomenology issues too. Respecting the *genius loci* does not mean copying ancient models in a rigid and nostalgic way but highlighting the identity of the place, interpreting and transcribing it with contemporary languages and being able to create connections with "subjects" and their "types" that are the result of an analytical process.

Form, structure, and relationships are related to perception and representation that strengthen the role of image and visual thinking. According to Lynch, perceptual place-mapping is based on a cognitive and functional process that adopts primarily vision, memory, and fruition of such "environmental images"; they are generated from the potential of a place to be drawn out, the "imageability", and its hierarchy that allows orientation through its spaces, the "wayfinding" (Lynch 1960).

The process of analysis and mapping of places constitutes the necessary prelude to a design action-oriented to their modification, and also includes the emotional and perceptive dimension of involvement of the senses aimed at the representation of space through visual thinking and the production of graphic materials. "The eye does not see things but figures of things that mean other things", writes Calvino in *The invisible cities* (Calvino 1994). The mapping process consists of the formation of "images", first mental concepts that are then interpreted and transcribed in relation to a more or less sophisticated code. The images make visible a form, reproduce themselves through their geometric, typological, aesthetic structure and give evidence of the structural and functional relationships between the components.

The historical urban landscape of our territories, very often can be considered as cultural landscape (Salerno 2017), a material expression of the models of adaptation

to different sites and of environmental resilience, in which each element can be identified and documented; this landscape can be described graphically as a catalog with multiple levels of information developing appropriate semantic models (Amoruso 2017). Interventions on the historic urban landscape include methodologies, tools and design techniques.

To develop new knowledge on the settlement, typological and morphological features of the diffused heritage, tools and techniques for landscape representation are used to document landscape units and the homogeneous areas; moreover, it is necessary to address the meta-planning context to the recognition of the value of places. Other identifying characteristics are recurrent and can be found in different landscape units where the strong relationship between urban space and its chromatic component and the processing of local materials is evident. It is, therefore, necessary to promote operational methods to restore and rebuild the physical and human condition, investigating deeply the representation and enhancement of cultural heritage and historical urban landscapes, according to the definition of UNESCO, but linking the cognitive action to the subsequent methodologies of placemaking and strategic design.

The tools of urban representation require the definition of standards and graphic prescriptive regulations for the maintenance and recovery of the city; appropriate graphic design codes can organize information, management and communication of actions on the city, guaranteeing the achievement of urban quality objectives. The representation of space by color does not refer to one of the possible ways of representing; understanding also the perceptive values linked to the luminous and environmental phenomenon, it is possible to transmit the identity code of a space in a more organic and complete way.

Pattern books highlight the chromatic and topological configurations of the city, whose strategic importance was commented by Marcolli. Color is one of the many codes with which the city represents itself and therefore it needs to be framed and interpreted correctly.

For this purpose, it is necessary to draft documents to assess the character of the places, of towns, and raise awareness on the values spread in the urban habitat; through a critical analysis of the built scenario we define the appropriate guidelines for interventions related to pre-existences, highlighting, in summary, their *genius loci*.

These guidelines were drawn up through the use of design codes always arise from an important targeted action that highlights, through a systematic cataloging, the most recognizable features of the urban landscape; it is necessary to underline the incongruous characters in order to define, during the intervention, which vocabulary is to be followed, the material availability and local construction techniques.

Therefore, a knowledge-based and evidence-based approach is applied, which is grounded on an in-depth understanding of the site conditions and its social aggregation models also through strategic design tools, the drafting of typological repertoires and the application of techniques for environmental representation, information, social communication, and public awareness. The traditional city expresses, through its formal and chromatic factors, an environmental, ecological and social character,

projecting through the built environment the reference to our most rooted identities. The urban fabric is articulated according to a logical and hierarchical sequence of places, an organic language to their understanding and practical use.

For a correct intervention in the urban fabric, a structured knowledge of the context is important, to be achieved through the survey of urban and environmental features, highlighting the quality and degradation indicators of public spaces and of the built environment. This action allows the recovery and enhancement of places, the improvement of urban quality also through the elimination of incongruous works.

The urban lexicon includes all those architectural rules that define the final image of the built assets; therefore form, density, materials, use of color and construction techniques reveal the identity of a place and characterize its spaces hierarchically. The identity of places, as an element to refer to in order to establish what is incongruous and what is not is not an abstract concept since, within a city, it constitutes a central concept through the multiple layers produced by a process of cultural contamination.

Some recently enacted regional laws (*L. R. of Emilia-Romagna No. 16 of 2002*) introduced the term "incongruous work" as a starting point for a process of promotion of urban quality and landscape reconstruction; an incongruous element is an object lacking logical and non-proportionate coherence; therefore, not congruous means that it does not correspond to needs and expectations, it is "inconvenient", according to the common sensibility of the place. Paragraph 1 of the art. 10 of the aforementioned law mentions the visual impact, the dimensions, the typological and functional characteristics of the so-called incongruous works: aesthetic incongruity linked to dimensions, design-composition, color, style; functional inconsistency due to size, incompatibility with the context/fabric, for improper use; and then economic incongruity, linked to another very important concept which is sustainability for the community.

Patrick Geddes, a contemporary and supporter of Ebenezer Howard, advocated the civic survey as indispensable to urban planning: his motto was "diagnosis before treatment" addressing practical techniques for regional survey, analysis, and planning. Such a survey should include, at a minimum, the geology, the geography, the climate, the economic life, and the social institutions of the city and region. His early work surveying the Old Town of Edinburgh became a model for later surveys. He was particularly critical of that form of planning which relied overmuch on design and effect, neglecting to consider "the surrounding quarter and constructed without reference to local needs or potentialities". Geddes encouraged instead exploration and consideration of the "whole set of existing conditions", studying the "place as it stands, seeking out how it has grown to be what it is, and recognizing alike its advantages, its difficulties and, its defects".

Geddes believed that cities should be seen as continuously evolving organisms, setting great worth on the continuity of tradition and physical characteristics of a place. Once the essence of a place was understood, he believed, it could be given a new lease of life through good design and by targeting detrimental elements (Robb 2017).

Drawing on the scientific method, Geddes encouraged close observation as the way to discover and work with the relationships among place, work and folk (or family). Geddes' lesson teaches that a widespread cultural asset, like a historical center, is the main element of identity of a territory and an expression of its community; through the peculiarities of a place, its specific traditions and the historical memory that resides in its physical resources, it is possible to design a planning matrix that links the diffused environmental values to the natural scenario, to the traditions of building and the use of local resources; in this paradigm, we find the meanings related to living, the shape of agricultural landscapes and the urban structure that influences the sociality expressed by traditions, food and wine and craftsmanship.

In the characterization and representation of a landscape of proximity it is possible to highlight issues of stability and continuity and making the parameters of unity and difference recognizable. The concept of place is inextricably associated with the concept of limit and boundary, relationship and spatial connotation, which are intertwined with a physical-perceptive delimitation and give a representation of its soul. The place is a set of identities with boundaries, in which there is always a connection between the subjects and the space. Therefore, it is something specific, with its own character, which identifies it and, at the same time, makes it unique. Operational actions on the territory should develop, deploy and validate tools, information models, strategies and plans for enhancing the resilience of historic areas to cope with disaster events, vulnerability assessment and integrated reconstruction.

According to the UNESCO recommendation on *Historic Urban Landscape*, it is further suggested to identify the critical steps to implement the *Historic Urban Landscape* approach, which may include the following: to undertake comprehensive surveys and mapping of the city's natural, cultural and human resources and to reach consensus using participatory planning and stakeholder consultations on what values to protect for transmission to future generations and to determine the attributes that carry these values. A further step is to assess vulnerability of these attributes to socio-economic stresses and impacts of climate change and to integrate urban heritage values and their vulnerability status into a wider framework of city development. Indications shall be provided of areas of heritage sensitivity that require careful attention to planning, design and implementation of development projects (Bandarin and van Oers 2012).

Current research defines a graphic-design standard that can support the promotion of the architectural and urban quality of the territory. Through the drawing up of a morphological code, a correct graphic basis is proposed, implementing and establishing the "new" graphic conventions supporting the urban project: a set of principles, rules, and expectations to represent a concept.

This is possible because the codes (subsequently referred to a specialist areas) constitute the vehicle for translating intentions into a constructed form but at the same time they are also tools of representation and communication, showing, without ambiguity, how the urban structure will be created or recovered. The information necessary for the project is collected through synthetic graphic tools organized in the

form of graphic typological schedules, thus we arrive at the definition of a graphic lexicon and the drawing up of appropriate glossaries collected in an analysis document called the *Typological Code—Pattern Book* (Jeleński 2018).

This document addresses the understanding of the local code and identity through: the documentation of its urban patterns and building techniques, increased knowledge of the value of its vernacular architecture and urbanism. The research proposes the integration of models, representations, and visualizations based on repertoires, high-iconic databases and predictive simulations. The promotion of local identity and psychological and environmental wellbeing requires the definition of the tools for collecting and documenting local characters: analysis of urban patterns, construction techniques and tonal analysis of the urban environment, classification of architectural and landscape vocabulary. In the design of historic urban landscapes, color schemes are based on the topological importance of landscape units; the analytical documentation about these units allows to record the urban transect and the pattern book. The urban-to-rural transect is an urban planning model created by New Urbanist Andrés Duany and tested in several built towns worldwide. The transect defines a series of transition zones from sparse rural farmhouses to the dense urban core. The pattern book is a design-and-picture repository, which features images, models, and drawings of buildings, spaces and lexicon of the urban environment (Duany and DPZ 2011).

The *Faro Convention*, issued by the Council of Europe in 2005, underlines the important issues of heritage as they are entrenched to human rights and democracy. It promotes a wider understanding of heritage and its relationship to communities and society. The *Convention* encourages us to recognize that, about cultural heritage, objects and places are not important in themselves. They are important because of the meanings and uses that people attach to them and the values they represent. The *Faro Convention* is intended as a "framework convention" which defines issues at stake, general objectives and possible fields of intervention for member States to progress.

The *Faro Convention*, introduces two innovative concepts:

1. cultural heritage is a collection of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time;
2. heritage community consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations.

For this purpose, the research proposes a placemaking process to address a comprehensive study on the character of places, tuning attention on values, meanings, keyspaces, and environmental conditions. It's a continuous process that crystallizes the sense of community: a common vision within the community. Co-creation of a common understanding, mediation as a social game, introducing participatory tools for people and effective evaluation methods to start creative bottom-up solutions. The

place-oriented approach to spatial management has revealed a substantial potential for public involvement, collaborative decision making, and community building. It appeared to be an effective instrument for participatory democracy enhancement.

The *Convention for the Safeguarding of the Intangible Cultural Heritage* (2003) defines the intangible cultural heritage (ICH)—or living heritage—as the protagonist of the cultural diversity of humanity and its maintenance as a guarantee for continuous creativity. The intangible cultural heritage indicates the practices, representations, expressions, knowledge, skills—as well as the tools, objects, artifacts and associated cultural spaces—that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage is constantly regenerated by communities and groups in response to their environment, to their interaction with nature and their history and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity.

4 Conclusions

Scientific methodologies for systematic documentation of tangible component of urban patterns or, more generally, of territories have evolved considerably over the last few years due to the introduction of digital tools. This analytical reading, although necessary, is not sufficient to represent the diversity and variety of expressions and meanings, that is, the intangible heritage that international organizations consider being the key to understanding heritage that when spread over a large community becomes a cultural landscape.

Investigating and representing this diversity can have a significant impact only if it's a coordinated action between institutions, the local community and citizens, triggering a bottom-up participation process aimed at the re-appropriation of places and the formation of the psychological and perceptive component. Methodological and instrumental innovations are directed towards the creation of efficient cognitive and analytical processes that, using image-based measurement systems, allow to share, communicate, and document the color of a landscape. The understanding of its role on cultural and territorial identity must become the subject of narration, communication, social inclusion through the preparation of repertoires, toolkits, and manuals at the service of the community. Citizens, communities and institutional actors, in this regulatory and operational context, can reflect on the scenarios and expressions of their assets; color is that raw, refined, recognizable and popular material that gives character to places, at the same time it promotes beauty, identity and memory as indispensable dimensions for individual and collective wellbeing. The principle with which the colors vary is due to light; an energetic phenomenon creates chromatic variability, that is chromatic spatiality, tone, which then determines the value of a spatial context. This is the process through which the *civitas*, by means of its indispensable component, contributes to the determination of the vital space of a community and to the formation of its image, with the mediation and participation of its citizens.

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Metropolis. Urban Mindscapes

E. Lonardo

Abstract In the present chapter, a contribution will try to be offered to the debate on the project of contemporary cities, through a trans-disciplinary approach, starting from a central point of view that often, when dealing with a project of urban space, is taken into marginal account: the psychological one. Is the psyche of contemporary human beings sufficiently prepared to live well in the cities we have built? Does it make sense to talk about smart cities, if people are still expecting to see their basic individual and collective needs resolved in the urban fabric? The text starts from an examination of the research state of the art, then continues with an analysis of the characteristics that contribute to recognizing an urban space as a place, highlighting a series of behaviors that could be deepened or used as a driver for the re-appropriation of the city.

Keywords Mindscapes · Urban psychology · Urban interiors · Urban design · Placemaking · Psychogeography

1 Introduction

In the cities[1] we are born and die, move, wait, love and hate, work and rest; in the cities we live our lives; every activity of which our brain can send an impulse to our body can be carried out and experienced in the urban fabric; every man claims his place in the city, thus claiming his existence as a citizen. But contemporary cities, increasingly ambiguous and fluid, are not the same as in the past, do not have the same

[1]The use of the plural is deliberate, as it will be explained later; dealing with cities, one of the great ambiguities derives from using the term to indicate political, administrative and geographic territories. Although it is increasingly accepted that contemporary people live in a Territorial Pangea made of a single urban fabric, we continue to move from one city to another, without feeling (more and more often) a real sense of belonging to any of them. We use them rather than living them, and this creates an identity crisis.

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structures and the same functions; they have changed, just as the people who live there has changed because their habits and some of their needs have changed. A nomadic urban body lives in the paradox of being politically corrosive and ideologically seductive. Urbanized structures evolve more slowly creating periods of imbalance between the parts. Even in these moments, like the present one, the urban animal continues to exhibit social needs.

In fact, the urban landscape is a landscape of knowledge, a mental place before than a physical one. Designers, workers, citizens, artists are different figures who, together as in an organism, contribute to the construction of a space to be dwelled: home starts by bringing some space under control (Douglas 1991). Concepts such as spatial appropriation, human scale and co-construction of places, first of all, describe a new way of approaching urban open spaces. Starting from the end of the 1940s, especially in Italy and the Netherlands, a process has been changing the paradigm that defines the degree of separation between urban and domestic space. We are referring, for instance, to Aldo Van Eyck's opinion, according to whom the interior is not only a space confined by walls, but the essential sphere in which space becomes a place and time becomes an occasion (Van Eyck 1962). This is something similar to what the sociologist Derrick De Kerckhove called "internalization", i.e. the introjection of an exterior phenomenon within one's personal cognitive baggage.

Starting from the early 2000s, according to this internalized dimension and this centrality of the appropriation gesture, the project of the urban space becomes a reading of the contemporary city which seems no longer feasible through the categories of urban planning and design but requires the use of other disciplines.

"It is ironic that we know more about the habitat of mountain gorillas than we do about the habitat of people" (Jan Gehl, see Landry and Murray 2017).

The *State of the World's Cities 2008/2009: Harmonious Cities* of the United Nations predicts that in 2050 more than 70% of the world's population will live in an urbanized context, while the Washington Population Statistics Bureau states that only 4% of the human population ever existed on Earth has lived in cities; out of this we realize that the human species is not psychologically prepared to live in cities, so much so that some studies (Peen et al. 2010; Vassos et al. 2010) show that life in urban contexts is associated with a percentage increase of psyche illnesses and disturbances such as anxiety, schizophrenia and drug use.

The cities aspect impacts on our mental and emotional state and this impacts on the cities shape; therefore, what creates between us and the urban environment is a symbiotic process (Landry and Murray 2017).

Cities are places where most of us are strangers; they are a mix of people with defined identities and personal histories, with different cultures, interests and approaches to life often very different from each other, who find themselves living and sharing the same collective space. At the same time, cities are also the spatial level where to try and unify differences through a direct relationship between people (Landry and Murray 2017), where to satisfy individual and collective needs.

According to the hierarchy of human needs theorized by Maslow, cities should not only satisfy our basic needs, but should also be able to make us feel safe, connected to each other and inspired.

Social needs are anthropologically grounded; complementary opposites include the need for security and openness, for certainty and adventure, for work organization and enjoyment, for predictability and the unexpected, for unity and diversity, for isolation and encounter, for exchange and investment, for independence (or solitude) and communication, for immediacy and long-term perspective. Human beings also need creative activity, work (not only consumable products and goods), information, symbols, imagination and playful activities. Through specific needs, a fundamental desire lives and survives, which finds particular manifestations in play, sexuality, bodily activities such as sport, art and knowledge; at different levels, these moments allow to overcome the specialized work division (Lefebvre 1968). Work is at the centre of Ettore Sottsass Jr.'s reflections when in 1973, imagining the "Planet as Festival", he denounced those "involute thoughts about cities" according to which people must live to work and work to produce and then consume; he proposed to react so that people can instead live to live and work, if they want, "to know with the body, with the psyche and with the sex that they are living". Sottsass's considerations are a lucid reading of the transformations that are affecting the increasingly global society of his time.

In fact, with capitalism and the urbanization process taking root, the exchange value of an "object" replaced its use value, depriving citizens of the fundamental meaning of the city and the urban life as a place of participation, encounter and interaction, effectively changing the very meaning of the urban place. The combination of these factors with the economic crisis, the technological advancement that has allowed people to have a complete and instant access to an enormous number of resources, even in mobility, and the lowering of the time and cost of medium and long range travel, is redesigning the lifestyle of people who are becoming nomads, is reconfiguring the cities themselves as nodes of global networks (Fig. 1).

However, almost every analysis seems to confirm that the fragmentation, dispersion and heterogeneity of the contemporary city can be attributed to the technical processes in the transport and telecommunications field according to a model that interprets urban development in terms of Kondratiev waves.[2]

Lynch's (1960) and Cullen's (1961) observations have tried to create a vocabulary of elements that can be recognized in any city and would improve its understanding. The blend of these elements constituted an image of the public city, probably consisting of many individual images, or even many public images, owned by a number of citizens. So, we talk about routes, margins, neighbourhoods, knots, landmarks (Lynch) and about squares, focal points, knots, lights, communication (Cullen). But in the light of the changes taking place, it seems urgent finding new words and new narrative methods, inventing new functions to recreate a sense of belonging that is now eluded and purged. The contemporary city, rather than a place where one lives and dwells, has become a non-place where one moves, a space to be crossed, a territory in which continuously moving subjects create magnetic fields that define it

[2]Sinusoids that can describe regular economic cycles within the modern capitalist system. Five waves have been recognized since 1771: the industrial revolution, the era of steam and railways, the era of steel and heavy engineering, the era of oil and automobile and the telematic era.

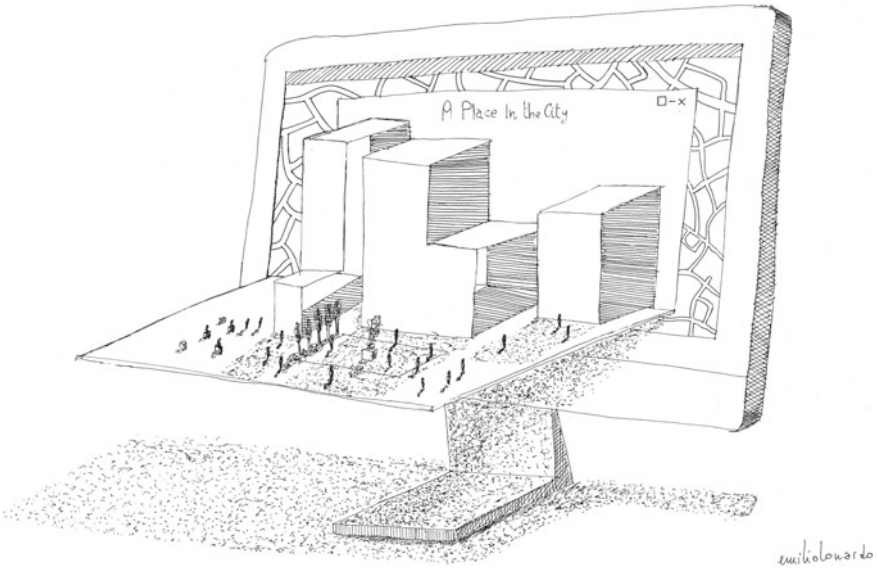

Fig. 1 *A Place in the e-city*, drawing by Emilio Lonardo (2015)

beyond its composing material aspects. This is the antithesis of the definition of the traditional city, which was a strong, firm, material point. The city was a place to go, a destination in which to operate. The opposite of a territory in which to move (Poli 2009).

Considering then the different relationship with happiness revealed respectively by the baby boomers and the millennials, we can draw a fairly clear line on the direction taken on the use of cities. In fact, socio-demographic surveys show that the children of the economic boomers tend to be happy when they have obtained material goods such as a nice house, a good job, a nice car, while those born after 1980 derive maximum satisfaction from travelling, knowing, exchanging. In the span of three generations (in between there is the one called X) a revolution has taken place: possession has ceased to be the main path to personal fulfilment, to give way to experience (Botti 2017). This new type of nomad does not know what "home" is and what "family" is, he replaces and exchanges relationships, groups and places, lives in a sort of exponential consumption. We are talking about an individual formed as a trans-cultural hybrid, endowed with a generally acquired (and unearned) economic power, the ability to nimbly cross multimedia, cultural and political borders; a "homo visitor", a collector of shots and experiences, rather than a subject with an interest in bringing value to the public sphere. If this is the evolutionary stage that the human species is reaching, then one wonders what cities will be used for, who will take care of them and whether there will be social groups capable of reacting to the gigantism of global uniformity.

2 The Role of the Designer and Urban Interior Design

In this cosmos of great transformations and new possibilities, the role of the designers and their way of making projects is also changing, especially for those who are interested in public spaces. In the increasing lack of clients, they find themselves carrying out self-commitments, promoting bottom up interventions and involving communities, as in the case of the bridge designed in Rotterdam by ZUS studio. Therefore, they are in a condition of independent designers, with annexed duties and responsibilities. An attentive and capable designer should be able to dialogue with places, stimulating an emotional subversion; in terms of design language, this corresponds to the ability of bringing spaces into play without distorting them, but working on their intrinsic characteristics, defects, on the place memory. Like Attilio Stocchi does, for instance, in the *Cuore Bosco* project in Piazza San Fedele in Milan, through which he temporarily brings the dormant Celtic heart of the Milanese city back into play. In fact, a quality project plays a fundamental role in the formation of a sense of belonging and memory. Real spaces, individual and collective places, their aesthetic connotation, the materials and colours of which they are composed, influence behaviours, creating bonds or disinterest, a sense of tranquility or restlessness, comfort or pain. One could continue to list dichotomies for entire pages, but what is clear is that the designer attitude should change, shifting from a creator's approach, to immerse in a paradigm fuller of life of the people who daily live the spaces. In short, the era of the archi-stars should end and should begin that of the anarchy-stars, i.e. creatives willing to enter the framework of reality instead of only observing it.

In the *Poetics of Space*, Bachelard (1958) has explored in depth the lure exerted on us by the possibility of "placing ourselves inside" and has connoted it as a process of psychoanalysis of the objective knowledge which is necessary to reach new spaces of freedom. In this sense, it is extremely useful to reflect on a project for open spaces in the city (Stevan 2011). It would be even more significant to introduce two categories into the definition of space: "conceptuality" and "spectacularism". As suggested by Ugo La Pietra, these components are useful to provide judgement elements for understanding and overcoming cultural trends (increasingly evident in the design of urban space), to go beyond disciplinary areas and stimulate social involvement. We have inherited from the Modern Movement the capacity for abstraction; therefore, we can use more or less sophisticated techniques in order to empower the architect's work with meaning (conceptuality). However, today, in order to design a liveable urban environment, we must also use spectacularism, a category that brings with it play, pleasure and irony, often achieved by using figuration as a driver (La Pietra 2011).

In this vision elaborated at the beginning of the '90s, the embryo of a spatial typology that will be defined as "urban interiors" can be recognized. In his speech titled *Interior/Exterior*, Ugo La Pietra also defines some design directions that, in his opinion, should be followed when dealing with the design of an urban space through an interiors approach, such as, for instance, allowing the urbanized individual not only to use the space tools, but also to possess them. To achieve this, a first step could

be to guarantee the presence of all systems in the publica space: as in the private space, where defined environments and objects allow to develop activities related to communication, survival and hygiene practices, play and cultural activities, also public space should contain all these functions. Another useful path to use with familiarity the two categories, spectacular and conceptual, is to look at the local citizens, at the underground territorial culture, to listen and record what people want. Human beings guarantee their survival through the physical, but above all mental, modification of the environment in which they live and work, where modification means appropriation, often exploration, it means understanding and, finally, loving a place (La Pietra 2011). Therefore, a urban interior designer will have to be a technician, but also an artist, a hybrid figure capable of taking into account all the above mentioned aspects, both material and immaterial, a sort of art-director of public spaces—as he was defined in a conversation with Luciano Crespi, director of the Urban Interior Design master at the Politecnico di Milano—capable of proactively dialoguing with citizens, workers, administrations and other professionals in order to achieve urban liveability.

3 Placemaking

Creating a place is not comparable to constructing a building; the value of a place cannot be measured exclusively through quantitative or aesthetic parameters, it is identified by the way its spaces are used. Therefore, designing a space that aspires to be a place must take into account physical, social, ecological and cultural factors, but also psychological and individual ones, in which the community identity is mirrored and self-replicated. Precisely because of this intrinsic and wide form of representation which constitutes its first foundation, placemaking is configured as an actually open process. On the other hand, as recalled by Lynch, a landscape in which each rock tells a story can make it difficult to create new stories. Although this may not appear as a crucial problem in the urban chaos in which we live today, it indicates that what we seek is not a definitive order, but an open order, capable of a continuous further development (Lynch 1960).

If analyzed, the complexity of urban fabrics can be understood and shown as a series of overlapping layers that contribute to creating that chaos that Lynch talks about. Each layer has its own peculiar characteristics which make it part of a constantly changing organism. *Level zero* is made up of the walkable ground on which things happen, ideas develop that, over time, will feed the layer of history. The *first level,* the historical one, is the substratum in which collective and individual memories are preserved, as well as the artistic, architectural and cultural heritage. Then we find the *geographical characteristics*, which describe the type of territory, and allow us to identify the landscape potential and its objective defects: if the city is protected by mountains or cut in two by a river; if, sitting at the outside tables, the users of a bar in the center can breathe the sea smell or be surprised by the north wind, and so on. The *paths* are linked to two lower levels. They can be natural or artificial,

but what is important is that they connect, together with the public transport system. The *landmarks* stand out visually or emotionally in relation to people, create a sense of orientation, lend their name to the squares, are the theaters of missed encounters and appointments. Grabbed to everything that is natural and artificial-architectural, there is a set of *superstructures*: shops and streets signs, advertisements, bus shelters, house numbers that allow you to locate the points of interest through their progressive succession and the distinction between even and odd, one on one side of the road, the other on the other. With not a few cases of ambiguity: as asks a Raymond Queneau's character, in "Icarus fledged", is the 13bis an even or an odd number? In some cases, they further connote the space (think for instance of the entrances of the Parisian subways), in others they flatten it (the commercial streets of large urban centers gather shops of few and repetitive global brands). The last layer, the most superficial one, is made up of the only element that makes all the others exist and be recognizable: *the people who live in a territory* and the network of relationships that is established between them is what makes a city really live. All these elements have an objective but also a subjective value; thus, for each city there are more cities, equal to the number of people who live it, have lived it or simply have passed through it.

4 Conclusions

Cities are the place where the citizen's and communities' life take place, where a collective individuality creates, and where today cultural, environmental and political challenges are played out. At the same time, cities are singular and plural, defined and in progress, immobile and changing.

Where now there is a city, once there was nothing, like on a blank sheet of paper; then words appear to compose sentences that are streets, squares and buildings, that create shadows, blacken spaces.

One sheet, in ISO A4 format, occupies 623.7 cm^2. To make 1 m^2, the minimum space for a man, where his identity is formed and his mind expands, little over 16 pages need to be written, and this contribution occupies a half of it, leaving a half free, the space of sharing, the first act to create a liveable city.

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Reuse. Urban Heritage and Liveability

C. Caramel

Abstract The functional reuse of the built heritage, that is generally the conclusion of any architectural restoration intervention and a necessary action for the conservation of the assets, today opens to new possible interpretations, derived from deep changes in the way of living. What meaning can and should the term reuse have today? And, specifically, what meaning can it assume in relation to those architectural elements widespread in the urban fabric which, due to their characteristics, are not subjected to public protection? If, in most cases, they cannot contain real functions, however they form an integral part of our daily scenario. If properly enhanced, to the communities they can become an opportunity to generate a renewed sense of place belonging. Therefore, in this process, the designer has the task of devising solutions that guarantee the assets safeguard and, at the same time, help the citizens to develop new awareness about the identity value of the built heritage.

Keywords Reuse · Little-known cultural heritage · Citizens' participation · Urban heritage conservation

1 Introduction

In an era which must face global environmental problems, considering how recovery and reuse actions can be addressed to urban spaces is equivalent to considering one of the many aspects of the crisis which affects our "common home". Together with different forms of "pollution" that compromise an adequate quality of living in the cities, we have the consequences of a profound transformation in the way people relate to places, marked by an increasingly massive use of digital technologies. In the virtual network, private and public spaces are expanding dramatically, exposing us to a dimension without boundaries which, if on the one hand is exalting, on the other hand is frightening. Besides, the physical experience of the urban space is often anticipated by explorations carried out through the numerous available apps

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and mediated by judgments shared by others through the social media. They can both satisfy our curiosity and mitigate the sense of inquietude that sometimes accompanies the knowledge of the lesser known passages of our cities. As in interpersonal relationships, also in those with places, the virtual dimension is able to offer us "comfort zones" in which we can take refuge, often interfering with our ability to face the complexity of ongoing transformations and with the possibility of becoming adequately aware about our "habitat" safeguard and enhancement issues.

At the same time, the logic of consumerism to which we still obey leads us to adopt its methods also in the transformation of private and collective spaces, favoring a rapid replacement of their constitutive elements and the tendency to "use" rather to "enhance" them. However, the velocity of changes and the predominance of "short-term memory" collide with the long times necessary for the formation of the places identity and the development of an adequate sense of belonging, the only conditions from which their inhabitants' wellbeing can descend. Within the spasmodic search for extraordinary works that embody our narcissism but, at the same time, can suddenly change the character of a place, what does the term "reuse" mean today?

The term has always raised questions at the center of the architectural debate, especially if referred to the re-functionalization of pre-existing assets particularly significant for the community; just think, for instance, of the evidences of twentieth century historic or the reuse of churches for other functions. The concept opens up to new possible interpretations that must necessarily be related to the complex transformations taking place in today's society. Therefore, here the attempt is to address the issue with reference to the urban spaces that constitute our daily life scenario. In particular, to those elements that we could define as "minor", being often overshadowed by monumental works, but in which the identity of the places and of those who dwelled them can still be read.

2 Fragments of Collective Identity

Within the important reflection on the collective memory of French people, carried out in the eighties and nineties of the last century, the historian Pierre Nora defined the idea of the "lieux de mémoire" recognizing the need to include within this definition both physical and immaterial places, equally suitable for preserving the identity of a nation.

> Ces lieux, il fallait les entendre à tous les sens du mot, du plus matériel et concret, comme les monuments aux morts et les Archives nationales, au plus abstrait et intellectuellement construit, comme la notion de lignage, de génération, ou même de région et d' "homme-mémoire".[…] Des lieux-carrefours donc, traversés de dimensions multiples. (Nora 1984, VII)

After about thirty years, it becomes interesting to reconsider this classification by trying to identify which "places of memory" are created by the "liquid society" (Bauman 2000) in which we live and, above all, if and in which physical places we

can recognize ourselves today. Inevitably, the widespread use of digital technologies made possible by mobile devices seems to favor the sedimentation of memories shared by more or less numerous and heterogeneous groups in an intangible dimension and, at the same time, filters the perception of real space. However, although the ways space is used are changing profoundly, there is no doubt that a large part of our common identity and, consequently, of our psycho-physical wellbeing, still today largely depends on the relationship we establish with the environment in which we live, on the possibility of feeling part of it and of reading our history in it. As Salvatore Settis points out, it is especially when the human history intensifies that we need our fathers most (Settis 2015). Therefore, the need of feeling that we are heirs of a "common heritage" appears with greater evidence precisely when the transformations are becoming more rapid and the scenario in which we live changes constantly, making us lose our reference points. For this reason, perhaps "Today, having a heritage is indispensable to having an identity and cultural memory; losing a heritage is like losing a key bit of both. Heritage has come to be used as 'proof' of past, tradition, belonging, and therefore proof also of rights to place, representation and political voice" (Isar et al. 2011).

In this perspective, if the monumental works officially recognized as such constitute tangible proof of a common identity, it is equally true that in "The moment a place receives official recognition as a heritage 'site', its relationship with the landscape in which it exists and with the people who use it immediately changes. It somehow becomes a place, object or practice 'outside' the everyday. It is special, and set apart from the realm of daily life" (Harrison 2016).[1] In these terms, the use of "Heritage" becomes the exception, the prestigious background of special events that go beyond our daily lives. On the contrary, the unclassified assets that dot the urban spaces risk being undervalued and lost. In fact, the cities retain numerous "fragments", often crystallized in an architectural detail, in an inscription or in the work of some anonymous author, by means of which it is still possible to recognize the identity of a place and its inhabitants, even in the often alienating globalization process (Fig. 1).

With reference to these presences, it is evident that, in most cases, the term reuse must necessarily find a correct interpretation as it is difficult to link it to a strictly functional translation. In fact, because of their conformation, many of the assets referred to here cannot contain human activity; rather, they are an integral part of the scenario in which it takes place. Therefore, the reuse must necessarily take place at the level of a "re-signification" of these elements, as a strategy capable of grasping their potential in the context of current social changes. However, this process can only start from a renewed awareness of the intrinsic value of the "small heritage" in making a space familiar, hospitable and comfortable. In fact, regardless of their aesthetic value, the aspect of the urban elements which we want to emphasize here is their contribution to the maintenance of that common identity that in our individualist culture seems to be missing, but which we continue to need. Therefore, reutilizing means first giving back a meaning and allowing citizens to recognize and contribute to it.

[1] https://www.open.edu/openlearn/history-the-arts/history/what-heritage/content-section-2.1.

Fig. 1 Little urban heritage. Photograph by Davide Niglia

3 A Difficult Relationship with Our Common Home?

The difficulty of recognizing and keeping alive the identity value of the most vulnerable testimonies of our common heritage implies, first of all, the attempt to understand which dynamics and which factors hinder this process. In addition to the reasons briefly mentioned above, derived from the lifestyle of our contemporary society and from the widespread use of digital technologies, often there is a form of prejudice that makes us consider of little value what is immediately close to us. Unconsciously convinced that beauty can only be found elsewhere, where we long for and plan trips and vacations, we are generally less inclined to pay attention to what surrounds us and is part of the scenario in which we move daily.

Paradoxically, in this regard it is interesting to consider how deeply our gaze changes towards the surrounding environment when we visit a place for the first time, or when we turn from citizens to "tourists". In fact, as John Urry points out, "When we 'go away' we look at the environment with interest and curiosity […]. In other words, we gaze at what we encounter" (Urry 2002, 1). In this condition, we are inclined to capture every detail of the surrounding environment and to pay attention to common elements such as the colors of public transport (Haapala 2005) or the road signs (Fig. 2). Undoubtedly, the "novelty factor" can awaken our ability to look at what surrounds us also in the vicinity and this aspect can decisively contribute to directing our attention also towards minor presences of the urban fabric.

At the same time, another useful attempt is to try and understand the relationship that, as citizens, we establish with the public space. In fact, if on the one hand there

Fig. 2 Road signs in London. Photograph by Claudia Caramel

is a growing interest in the design of private spaces, on the other hand living in our "common home" seems particularly difficult. Indeed, even the use of the public space seems more responsive to an event logic than to a constant care implicit in conscious dwelling. We are willing to take part in initiatives occasionally proposed by local administrations and bodies, however we seem to conceal a form of unease that prevents us from considering the public space as a natural extension of the private space. Multiple episodes of recent history, together with a widespread form of hypochondria, seem to keep us in a constant state of alert, fueling an unconscious diffidence towards what we cannot control in its entirety, as opposite to the illusory sense of safety offered by private environments, built by us in person.

However, to recognize the identity value inherent in the most vulnerable urban heritage and to keep its meaning alive, inhabiting the city becomes an indispensable premise. Emblematic experiences, such as the case of Venice, demonstrate how the lack of "inhabitants", as the living blood that circulates in those veins that are streets and squares (Settis 2014), inevitably implies the loss, not only of the more vulnerable past testimonies, but of the city itself. As Salvatore Settis reminds us in his numerous contributions dedicated to Venice reality, the depopulation due to the high costs of housing and the change in the functional destinations of numerous buildings in favor of "hit and run" tourism are at the basis of the true identity loss of the city and the causes that threaten its fragile palimpsest (Settis 2014).

Due to its particular structure, Venice condition represents an extreme situation; however, the lack of a direct relationship with proximity, deriving from the redefinition of citizenship on a global scale, often results into various forms of degradation which in turn trigger degenerative processes both in environmental and in social terms. In fact, an insufficient "sense of belonging" leads to neglect the "common good" or, even worse, to remain indifferent towards its condition (Fig. 3). On the contrary, feeling part of the material context that we live in as a community can be translated not only into a greater sense of responsibility towards it, but also into a significant improvement in our condition of psychological wellbeing.

In fact, numerous studies show the influence exerted on our psyche by the environment where we live; consequently, it is necessary to reflect on the contribution played by the urban context. In this regard, James Hillman recognizes in the city the tangible display of the community soul and, in the widespread state of disorder of the urban environment, sees the consequences of an exaggerated subjectivism favored by psychology. In fact, from his point of view, the cult of an individual self has progressively led people to an illusory independence from a relationship with their community and environment, which then resulted into different forms of disturbance and malaise. Consistent with this position, Hillman argues that acting on the external environment is fundamental to take care of the individual interiority, stating that one way to improve ourselves is to improve our cities and pay attention to all the elements

Fig. 3 Forms of urban decay in Palermo. Photograph by Claudia Caramel

that make up the landscape (Hillman 1999). In light of this consideration, even the small heritage can take on a considerable value.

4 Participate to Share

So that the process of "re-signification" of the historical testimonies spread within the urban fabric can be aimed at improving our sense of belonging and our wellbeing, not only the factors hindering this process should be understood, but also what potential of the contemporary way of life can be engaged in this direction.

In fact, if the public space is reluctantly considered as a natural expansion of the private one, on the contrary, it is interesting to note how urban space spontaneously becomes suitable to welcome that sense of community which occurs on exceptional occasions, such as those generated by political or natural events. In this sense, significant are the crowds that suddenly gather around artists and musicians who choose as their stage a street or the symbolic places of catastrophic events; just remember, for instance, the performance by the pianist Davide Martello in front of the Bataclan theater in Paris or the "One Minute of Dance a Day"[2] project started by Nadia Vadori-Gauthier after the attacks on *Charlie Hebdo* as a form of aesthetic resistance and a tangible possibility to relate with people and environments. In these situations, the need for "sharing", generally amplified by social media, finds a welcoming space in the warm and vital body of the city, suddenly overcoming the fear and the security limit marked by the home border.

Equally significant are the attempts made by more or less numerous groups of citizens, to improve the quality of urban spaces by acting personally. Also in this case many examples could be cited, including the actions carried out, since the seventies, by "guerrilla gardening", improvised gardeners who, at the limits of legality, transform small degraded areas of the city into flower gardens by "sowing beauty" (Trasi and Zabiello 2009); or the countless cases of street art, generally the work of anonymous artists eager to redeem the most degraded corners of the urban fabric and return them to the citizens. Episodes like these, to which many others could be added, today find their natural extension in images and videos captured and disseminated by means of mobile devices, through which perhaps a new form of belonging and participation can and must pass.

At the same time, the desire for "participation" expressed by citizens is reflected, and is in turn fueled, by numerous forms of involvement supported also by the European Union. In particular, the Faro Convention,[3] recognizing the need to put the person at the center of an enlarged and interdisciplinary idea of cultural heritage, assumes the participation of citizens as a fundamental aspect for increasing awareness on the value of cultural heritage and on the essential contribution it offers to the

[2] https://www.uneminutededanseparjour.com/en/.

[3] Council of Europe Framework Convention on the Value of Cultural Heritage for Society, Faro, 27.X.2005.

wellbeing and the quality of life. It is interesting to highlight how the very idea of cultural heritage is redefined here, intending it as "a group of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time".[4] At the same time, the Convention underlines the need for active involvement in the enhancement processes of all parties, including the citizens, who not only have the right to enjoy the heritage, but also the responsibility to participate in its conservation, presentation and identification. Therefore, it is clear how the direction traced by the Convention can substantially contribute to favoring a new approach and a new awareness about the value of all facets of the interaction between people and places and how this path can usefully enhance even the minor aspects of the urban fabric in which a community recognizes itself.

5 Conclusions

In light of the above reflections, the process of re-signification of pre-existent assets widespread in the urban fabric implies the need to consider problems of different entities, not exclusively attributable to interventions of material conservation of the testimonies themselves. In this perspective, the designer is called upon to devise solutions for the enhancement and use of goods, therefore his task is to launch a new form of dialogue between the built heritage and the citizens. The main objective should be to encourage a new form of awareness about the identity value inherent in these presences, helping the urban users to recognize them. On the one hand, exhibition-like solutions typical of the events logic (Crespi 2013) can help citizens to "see" their surroundings, introducing into the urban scenario, even if only temporarily, elements of novelty that can attract attention of passers-by and direct it towards smaller presences. At the same time, the desire for participation and sharing fueled by the virtual dimension must be supported by translating it into concrete and constant actions on the territory.

As mentioned, the urban elements we are referring to cannot generally accept a functional destination and even their functions are subject to rapid changes; nevertheless, the fragments of our common identity scattered in the cities can become reference points around which new use forms of public space can be organized. In the urban fabric, they can be read as "breaks" that offer us the opportunity to stop and "stay" in the city, as a necessary condition to rediscover a sense of place and community belonging, albeit temporary. Testimonies of a past often unknown to us, they can become attractive poles and propagate social and aesthetic values, making us rediscover ourselves as a living part of the city and heirs of a common heritage. In the complexity of our time, this can help us to counteract a sense of alienation

[4]Article 2—Definitions. Source: https://www.coe.int/en/web/conventions/full-list/-/conventions/rms/0900001680083746.

we often perceive and to get out of utilitarian pragmatism by learning to appreciate the beauty of our surroundings (Francis 2015). Only from a renewed awareness can come a real sense of respect and the desire to take care of the common good, as a significant action of enhancing the built heritage and improving our life quality.

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Time. Hybrid Spaces for Users-Bodies between Work and Hospitality

F. Scullica and E. Elgani

Abstract In design, time has always been a factor capable of influencing the relationship between individual and space as well as the ways of use connected to specific environments. However, in recent years, there has been a compression of the time available for each individual action, an unmeasurable increase in the number of experiences to be lived and a total subversion in the ways of using space, to which corresponds the emergence of new spatial solutions. In particular, if we consider work and hospitality in contemporary environment, these spaces are radically changing their identity through processes of hybridization and contamination with functions and services. The chapter explores this dimension and outlines "new interiors of the possible" that are progressively being defined, also in relation to new gestures, new styles of living and new ways of dwelling that will characterize the near future.

Keywords Hybrid spaces · Hospitality · Workplace · Co-living · Coworking · Transitional living · Experience design

1 Introduction

> Alice: How long is forever?
>
> White Rabbit: Sometimes, just one second.
>
> T. Burton, (2010). *Alice in Wonderland*, movie.

In contemporary society, we are witnessing a profound mutation and redefinition of the concept of time, after Modernism tried to mark the individual time through a rigid rational division, also applied to the spaces and the functions they contain. Spaces have progressively disregarded every pre-established plan both in terms of times and ways of use. For a long time, we have been aware of the ongoing change

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and we have recorded the divestment of all the main functions; "at the same time the misuse of almost all the existing ones is spreading" (Branzi 2003). In fact, for some years now we have been sleeping in factories, working at home, learning in an office, studying in a cafeteria, living in a "hybrid metropolis" in which the design world is a "fragmented, discontinuous system that exalts differences and exceptions instead of large ideological unities" (Branzi 1988).

On the one hand, spaces seem progressively being reaching their "stability" in discontinuity, alteration and incessant evolution, accepting to overcoming too strict codifications; on the other hand, time is in continuous acceleration, also in relation to various kinds of experiences that each individual is willing to live. Again, this inevitably influences the design of living spaces.

In an essay of 2010, the sociologist Hartmut Rosa, reflecting on the relationship between experience and temporality in the current world, recovered the concept of "contraction of the present" by the philosopher Hermann Lübbe and expanded that of "space of experience and horizon of expectation" by Reinhart Koselleck to analyse causes and effects of the acceleration processes characterizing our era. Rosa defines three distinct categories—technological acceleration, acceleration of social change and acceleration of the life rhythms—that have completely transformed the society space–time regime, i.e. the perception and organization of space and time in collective life. In fact, each individual is subject to the dominion of a time regime governed by forms of social acceleration that "is defined by a growth in the rhythms of reliability decay of experiences and expectations and by the contraction of time arcs that can be defined as 'present'" (Rosa 2010).

Therefore, we could say that contemporary time is organized in an increasingly contracted present that corresponds to a rising number of individual actions or experiences per time unit. Our daily life is based on the instantaneousness with which we live experiences, a time highly restricted "by a technological component that, accelerating them, reduces the times of daily tasks only to multiply the possibility of living the greatest number of experiences in a totally immanent time span that is based on an idea of the past as 'that which does not hold' superimposed to the instances of a future 'in which everything is possible' with the aim of fulfilling the main aspiration of modern secularized man, i.e. 'to taste life in all its heights and abysses'" (Azzaro 2019).

It is an instant time when we exchange messages and emails, swipe our finger on our smartphone to proceed with the online purchase of a product or an experience, share and appreciate a memory on a social network, manage the devices in our home, claim to do many activities in multi-tasking, run from one appointment to the next, measure the machines' as well as the individuals' performances, or internalize a pleasant experience to move on to the next. In contemporary society, the technological and social acceleration described by Rosa has determined new lifestyles based on work flexibility, temporariness of interpersonal relationships, frequent travel and discontinuity of living, which have repercussions on the spaces and the ways they are dwelled.

From these considerations, instantaneousness seems to be the new individual temporal dimension; through the technologies for accessing and processing a vast

amount of data in a few seconds, the immediacy of communication, the speed of transport means, which allow to travel in ever shorter times than in the past, and the definition of English and Chinese as global languages ensuring to easily understand each other, people are able to carry out a large number of activities in highly reduced times.

However, the acceleration of temporal structures and the expansion of the experiential field corresponds to an importance loss of experience, less and less able to express an identity value (Azzaro 2019). This condition determines the inability to "permanently express something to someone over time, because in principle we can become a sort of "everything" and express anything in any way to anyone in any place instantly and forever. Therefore, the appearance of contemporary experience promotes a representative space whose temporality tends to be infinitely "small" and in which the ability to produce a "thickness" for a sharable representation of the world has become a struggle against time" (Azzaro 2019).

The new dimension, abandoning qualitative visions of experience and a specific "slow" approach to individuals' gestures and behaviours, influences people's ability to concentrate, wait, interact and learn, as well as all the gestures connected to new behaviours. Think of the relationship with devices, now an individual's appendix, especially for the new generations that are growing in recent years, according to slogans that we could define as "all and now" and "if not now, when?".

Time has always played a fundamental role in the definition of the individual everyday life and, as anticipated, continues to play a decisive role also for the new generations. In particular, a lack of personal time is often manifested because one would like to be able to work less and/or to carry out further leisure and wellness activities and emotional experiences, now more accessible than in the past. Time to devote to personal issues or affections turns out to be a new luxury for some people, often too absorbed by their work activities and frustrated by this condition.

In particular, if we consider the temporal dimension in relation to the spaces and the ways they are used, which become not only physical, but also mental places where the individuals project themselves, we must consider that the "imperceptible bradyseism" of the mutations mentioned by Branzi (2003) has now turned into a "disruptive mutation" (Baricco 2018) i.e. a total subversion of the use patterns of spaces and services capable of altering all the "solid" and archetypal concepts we had established. In fact, in addition to an acceleration, the current condition corresponds also to a subversion of the temporal categories and consequently of certain spatialities; today the time dedicated to work and that dedicated to leisure are intertwined in a continuous series of contractions and superpositions that generate deficiencies or prevarication of one area over another, but also unprecedented possibilities.

2 Times and Spaces, between Travel and Work

In the contemporary world, which can currently be recognized as globally interconnected, constantly moving and accelerating, hospitality and "feeling welcomed"

become central themes of our daily lives, especially if we consider that the home is no longer our central focus of living, but we increasingly dwell collective and shared spaces for progressively shortened and discontinuous times (Elgani and Scullica 2020). In this chapter, the attention will be turned to receptive and tertiary work spaces of the latest generation, as well as to new spatialities generated by hybridization processes of these two areas; of course, the concept of hospitality should not be limited to these structures, but should be an essential paradigm for the design of any new architecture.

In the tourism context, the modes of travel and the consequent stay in accommodation facilities appear to be increasingly influenced by the time contraction: not only travel is faster and more accessible, but for some people mobility is often a way of life that leads them to spend most of their time travelling, moving from one hospitable structure to another (Elliott and Urry 2010). Moreover, the stay in certain contexts is concentrated in a lower number of days than in the past, but more frequently during the year (Gaggi and Narduzzi 2006) because the motivations for travel can be leisure as well as work. For this reason, accommodation facilities must be more flexible in their offer of space-services for new travelers, also in light of the spread of new phenomena such as bleisure (Raymond 2013).

In hotels, as well as in design hostels and resorts, the new travelers are looking for atmospheres, experiences, highly personalized and customized services to meet specific needs and desires; however, travelers often have a limited time to enjoy them. Many experiences, as well as many spaces, are evaluated based on their ability to amaze and excite the guest, who has a quick and superficial fruition, often limited to the image captured to remember the experience or a specific site. The image, then, is often shared on a network, becoming an icon of a lifestyle that people pursue and want to spread on social media.

Likewise, if we consider the antipodes, in workspaces the time factor determines the way of working in the offices, as well as in the production places, with the appropriate distinctions. In the office, the "top-down" normalized working time is progressively being replaced by new concepts based on the achievement of objectives and on time management entrusted to the worker, with broad degrees of autonomy. This is the principle behind smart-working, a new model for planning work activities in which the employees are no longer obliged to spend all of their working time in the office, but have the possibility to agree how much time they spend in the office and how they organize the rest of their time in which to perform their duties. For some categories of workers, such as parents of school-age children, this means having the opportunity to work "from home" so that they can better organize the time they spend with their children and family; this can allow people to enjoy more personal moments of leisure and culture, sports activities and body care. In this way, the stay in the office can be more and more concentrated, but also oriented to enjoy moments of immediate interaction with the people involved in work teams, as well as to access to specific activities and services. Individuals' relationships with their own activities and colleagues have significantly transformed, breaks and lunch times can acquire a different meaning and role than in the past and become more creative moments, not only on a professional level, but also for optimizing the daily time.

On the other hand, other work activities such as those related to the world of production and logistics are undergoing a significant acceleration based on the need to increase production or shipments while keeping times as short as possible, not without negative consequences on work and the worker's protection and dignity, as demonstrated by Amazon, which in some countries has equipped workers with bracelets capable of recording their productivity and speed. Work becomes the object of a real revolution, made possible also by the implementation of technological systems based on latest generation devices and data networks in continuous growth.

Like every revolution, the transformation of work also brings with it critical issues that affect the lives of individuals, including the continuity of their work activities even in rest moments, which leads some people to work much more than they are required to, the need to be always connected to respond to colleagues or be updated, the excess of control and of productivity evaluation that no longer considers the individual human dimension. These aspects can have negative repercussions not only on the professional sphere, but also on the areas of individual rest and relaxation, undermining the people psycho-physical wellbeing and at times negatively influencing their lifestyle.

Therefore, time becomes an element capable of influencing the individual's relationship with space, but this is nothing new; indeed, recent is the concept of fruition speed, often instantaneousness, as an element to be considered in the definition of spaces, to which the contained functional and service aspects are connected, as well as the relationships between the people who inhabit the spaces themselves.

3 Users-Bodies

In the design definition of spaces, the term user and, in more specialized studies, target, is increasingly referred to with a purely socio-economic meaning. Actually, beyond the macro categories of users and fruition, especially adopted in the era of modern design and of the "standardization" of its "responses" in the project field, it is often forgotten not only that different groups of users are formed by "people", with their own physical, psychological, behavioural specificity—as increasingly emphasized by the disciplines of Design for All and Design for extended fruition—but that these people are also to be considered in their physicality, associated with specific psychological conditions. For instance, when we refer to some fundamental spaces of our contemporary living, such as office workspaces, where we spend a lot of our daily life, or those intended for touristic hospitality, we should really take account of a bodily and psycho-physical dimension in the relationship between users-bodies, spaces, time of fruition and of relationship with spaces.

4 "Building" the Times

If we consider the spaces of tertiary work and hospitality in the contemporary scenario in relation to the changed behaviour of individuals and the instantaneousness of their relationships, we can affirm that these spaces, not only physical but also mental, are radically changing their identity. Recent projects, which have been investigated by research activities at the Design Department of Politecnico di Milano (Scullica and Elgani 2019), show an ongoing process of mutual hybridization of services and functions that requires a rethinking of the spaces for work and the related rest and relaxation. The time factor is fundamental in the definition of these new identities based on different spatial characterizations and services being offered. The numerous new projects of collective spaces also have a profound impact on the perception that individuals may have of their work or leisure time dimension, also in relation to the community they belong to. This is why designers are called to intervene not only on the spatial dimension, but also on the temporal one. The most convincing projects are the result of a team confrontation between the fundamental contribution of architects, interior designers, anthropologists, psychologists, facility managers, human resources representatives, marketing experts, event managers and trade union representatives. In fact, "building means affirming values that sometimes the community does not want to have. Sometimes, it implies imposing justice on the community, even though a tension between building and living will always be present in the real world" said sociologist Richard Sennett on a reflection on ethics in the city's design (Brivio 2018). Stimulating a positive tension between spaces, times and new individual behaviors is a great responsibility because it means identifying design responses for the community, even in relation to temporal structures, to increasingly rapid and disruptive transformations. Constructing a welcoming and intimate dimension that, even if for a short time, can give comfort to the individual is one of the most important challenges for the near future, whether it concerns indoor or outdoor collective spaces.

The hybridization of functions, services and using modes integrated with a design of space usage times is a process that can govern this ongoing change through the contamination between different realities so to generate new spaces, capable of stimulating gestures and attitudes and of adapting to the complexity of contemporary lifestyles.

5 New Species of Spaces[1]

Giving a name to the new spatialities originated from the encounter between the working and the hospitable dimension is a first step to recognize their identity and autonomy, with the awareness that the hybridization process does not follow a linear

[1] Quotation from Farè and Piardi (2003).

development, but produces a continuous mixture and juxtaposition of themes and activities once distant.

In fact, new spatialities emerge, based on new behaviour models and sharing principles, such as new receptive formats and new realities for shared work, among which co-living and coworking. Also, codified spaces are partially contaminated by the acquisition of functions that belonged to other areas without losing their traditional structure, as in the case of some hotels and hostels, or of the offices of small and medium sized companies that are not able to support substantial transformations. All these spaces are characterized by the desire to create significant realities, really hospitable and able to convey to the social community positive inclusive messages, attention to others and respect for the environment. There is also the desire to enhance the identity of the place where the new hybrid space is positioned to find an intimate and reassuring dimension also in a condition of extreme mobility, such as that characterizing everyday life, through the relation with components and objects connected with the individual identity. The two main new categories born from the hybridization between the hospitable and the working dimension will be discussed below.

5.1 Co-living

A new format, which has been emerging in recent years, is co-living, a hybrid *par excellence* because it combines a hospitality-residential dimension with the working sphere. An encounter that finds its roots in collective housing models, often founded on an ideological basis, as well as in student residences and later cohousing. In relation to contemporary lifestyles and without any ideological meaning, it is now distancing itself from those models because it involves the union of work and relaxation once connected to two opposing areas (Elgani and Scullica 2020). Co-living is mainly addressing to those, especially among the new generations, who by choice or necessity must live in an urban context different from the one in which they currently reside. For these individuals, mobility is usually determined by working needs and the desire of professional self-realization. This is why they mainly travel as individuals or in small families to urban contexts that, in terms of everyday life, are densely populated and very expensive, but rich in professional opportunities, such as the big European capitals, Asian mega-cities and the big centres of North and South America, where the first co-living networks are appearing. The need to live close to strategic areas and the often prohibitive costs of accommodation leads these young professionals to prefer shared solutions, also considering a value reduction in the concept of property ownership. In fact, if you assume a nomadic lifestyle, you abandon the idea of living permanently in a place; meanwhile, you may have new uncertainties such as loneliness or difficulty in accessing services.

In this sense, the layouts of co-living spaces are designed to offer meeting and exchange opportunities as well as privacy. Personal space is reduced to a minimum—you can have a room with bathroom or micro-apartments—while for catering and

leisure activities multifunctional, changeable and flexible shared spaces are offered. In addition to these, there are spaces for cleaning (laundry) and storage of personal belongings, as well as services like car or bike-sharing, activity programs specifically designed for temporary residents and access to other spaces like cinemas and restaurants.

In Europe The Old Oak in London, ZOKU in Amsterdam, Flatmates in Paris, in the rest of the world the WeLive network, demonstrate the variety of experiences proposed and researched by different categories of contemporary nomads to which correspond different co-living that emphasize attention to some specific themes or workers categories.

5.2 Coworking

As far as the work sphere is concerned, coworking represents a new spatiality being defined in these years (Simonelli et al. 2018). In the beginning, coworking was conceived as a flexible solution to meet the needs of the creative class, as outlined by Richard Florida, a category formed by free-lancers and creative professionals who often could not access an office of their own, mainly for economic reasons. However, the model has become widespread because the sharing of space and services has led to virtuous encounters between professionals, to new start-ups and successful collaborations.

The spatial model is progressively influencing also the world of large corporations which, applying the smart-working management system, find in the articulation of coworking a reference not only for layouts, but also for offered activities and services. In fact, coworking distinguish themselves not only by the different locations proposed, but increasingly by the range of accessory services they are able to offer and by the place "allure". The services attract specific "neo-tribes" (Cova 2010), professional communities who share professional interests and attitudes, generating interesting "thickenings" of professionalism and skills that contribute to reinforce or define specific identities in certain places. In the Milanese reality, the mapping of modern workplaces offers a variety of solutions like that of entertainment spaces in terms of number, strategic location and interesting aesthetic-expressive languages adopted.

6 Interiors of Possible

The new formats of work and hospitality are systems of spaces designed with an attention to the possibility of redefining the organization of a single space or a series of spaces around a temporary community. Spaces are deliberately versatile and flexible to adapt to different activities both for work and leisure. In ZOKU, the first European co-living opened in Amsterdam in 2015, an example of this are the rooms that during

the day host meetings and in the late afternoon host yoga classes, as well as the bar area equipped with different layouts, which correspond to different types of seating for holding both meetings and informal gatherings.

These are "interiors of the possible", where you can freely decide how to deal with your activities because the spaces are provided with a system of fixed equipment and furniture able to adapt to different uses for limited periods of time, as in the common spaces of the co-living belonging to the WeLive network, where the users can define the space configuration according to the type of activities they want to perform.

Designing dynamic spaces to accommodate the various and changing behaviour of a temporary community in continuous redefinition requires a careful analysis of the needs and tastes of the community members. In fact, unlike housing, these spaces must not respond to the needs of a single individual, but must be able to adapt to a community that temporarily inhabits them and, in the case of hosting spaces, that continues to redefine itself due to the frequent guests arrivals. This aspect adds complexity to an already very articulated design process in which the technical constructive issues must often harmonize with the brand size that owns the structure, as shown by the coworking belonging to global scale networks or hotel chains spread all over the world.

Involving the inner individual sensitive dimension is another central aspect of these new spaces. In fact, if our relationship with spaces is much more labile due to a reduction in the time of use and stay, on the other hand our individual need to relate with environments that are able of connecting us with our deepest intimate dimension is still significant. In an office where, due to spatial organization, lighting, air conditioning, you will not feel really welcome, it will be more difficult to concentrate and be productive. Likewise, in a hotel room where the access and use of services is difficult, guests do not feel comfortable and cannot relax peacefully. Not only that, if people do not perceive those details that allow them to "reconnect" with themselves, even in an emotional dimension that can be activated with choices of colours, perfumes, musical selections, communication and relationship aspects, the experience in that place will hardly be perceived as positive.

7 Conclusions

Designing the relationship between spaces, considering increasingly reduced stay times and aiming to allow significant living experiences, the help of components that support the functioning of the spaces-products-services system becomes more and more important. Among these are the narrative systems, increasingly sophisticated and integrated with physical and virtual space. Communicative paths and artefacts, which can be enriched with playful and/or ironic components, capable of activating an interaction with the users, capturing their attention and impressing a positive perception, are incorporated in the projects of all the new generation hybrid collective spaces. In hospitality spaces, storytelling has always been a founding aspect of the project since the codification of the first design hotels; today it is applied in many

workspaces. Social networks shift the attention to single environments, or fragments, and the fruition time of spaces is often relegated to that of a shot or a "story" (see Instagram) made with a smartphone. In very complex spaces, the storytelling helps to build and make manifest the relationship between different environments from an organizational-functional point of view, allowing the users to grasp the richness of the places they temporarily dwell.

However, a desire for the uniqueness of the experience clashes with the multiplicity of the proposed solutions, few of which really pay attention to the individual comfort, intimacy and emotional aspects; the result is a crowding of fluid spaces for work-rest-leisure.

In the near future, the instinctive perception of feeling welcomed where an empathic relationship with environments and objects can be established, capable of activating interactions, sensations, memories and intimate unconscious aspects, will represent the frontier to explore and "control" through the design process. Neuroscience research is moving in this direction; through wearable devices, it is possible to evaluate biological parameters that attest the individuals' reactions in certain environments (Magsamen 2019). Starting from the human body, the measurement of physiological wellbeing, integrated with studies on environmental psychology, has the ambition to define the characteristics of the environments in which individuals live better than others. On the one hand, this research direction represents the future because it could provide relevant data for the design of spaces-product-services that are more and more customized and adaptable not only to users' tastes, but also to their relevant physiological parameters. On the other hand, this could reduce the design dimension to a mere application of parameters. For the future, the hope is that design remains "an intellectual and emotional act full of expressive and aesthetic intentions, technical knowledge, ethical implications and narrative experiences" (Trabucco 2015). The role of will and sensitivity should remain important to balance in a sustainable way temporal and spatial factors, integrating them through increasingly sophisticated and complex processes of hybridization and contamination, without forgetting individuals, who is the privileged subject of current design.

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Identity. Place Identity between Preservation and Innovation

A. Anzani

Abstract Human coexistence in post-industrial cities poses a formidable challenge to the interior design, consisting not only of migration and the planet survival, social integration and welfare, but also of a liveability dimension based on intangible meanings. According to an ecological view, the human habitat should take account of people primary needs in their complexity, including their right to memory, beauty, interiority and to change themselves by changing their city. Reusing existing buildings allows to put a brake on the consumption of land, energy, built and natural heritage, but also to draw significant inspiration from the memory layered in complex historical spaces, taking their latent potentialities and developing them in an innovative and sustainable way. In the chapter, the concepts of place, identity, innovation are discussed and some reflections on the possible intersection between different fields (interior design, psychology, anthropology, preservation, neurosciences…) are proposed, to promote the creation of hospitable and welcoming physical and relational places.

Keywords Place · Memory · Beauty · Identity · Reuse · Interior design

1 Introduction

Human coexistence in post-industrial cities poses formidable challenges to the interior design, which finds itself in the face not only of migration and the planet survival, social integration and welfare, but also of the redefinition of space liveability.

An interesting convergence of different disciplines can be observed which have dealt with physical space as the place of human relationships. If we assume the role of interior designers as defined by IFI (2011), i.e. to determine the relationship of people to spaces based on psychological and physical parameters, interior design turns out to be invested with the great responsibility of improving people's quality of life. Similarly, in the 1970s, architectural preservation studies started to

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assume, in addition to historical and aesthetic aspects that had traditionally considered important, a psychological issue (Pane 1978) as a fundamental component of individual and community wellbeing. Conversely, environmental psychology first, then psychogeography and subsequently Hillman's approach (1999), based on the psychology of the depth, started to give importance to the effect of space on individual behaviour, arriving to state that changing the city context has a therapeutic effect, basically assuming an ecological dimension. This can interestingly be compared with Attiwill's concept of urban interiority which moves the discipline of interior design to an ecology of subjectivity, considering that subjectivity is generated in a dynamic network, from the relationship between people and the urban environment (Attiwill 2018).

From a transdisciplinary approach, based on a cross-fertilization between different fields (interior design, preservation, arts, anthropology, geography, neurosciences…), design-oriented processes could gain significant inspiration from the memory layered in complex historical spaces. Activating generative potential from actions, relationships and emotions (Schinco 2011), innovation could be implemented to promote the creation of hospitable and welcoming physical and relational spaces, favouring individual and community wellbeing.

2 Place

Dwelling is a form of knowledge and re-invention of reality that involves both the tangible dimension of physical places and their mental representation, our minds and bodies being connected at different levels with environment and culture (Damasio 2018). Given our socio-relational nature, inter-corporeity is the main source of knowledge of the world and of the others (Mallgrave 2013), and the link with places assumes a fundamental value for our personality.

As revealed relatively recently, much of our knowledge is non-literal and metaphorical: we know the abstract world with the concepts through which we have known the reality we have experimented with our senses (Giuliani 2016). Thinking proceeds by similarities and connections and relies on our body experience to give shape to abstract ideas; the body is so essential to thinking that we can say that the mind is incorporated. The crucial role of body in shaping reality highlights its fundamental relationship, both rational and emotional, with the cultural environment, inseparable from the natural one.

Recent philosophical studies and current neurological findings on mirror neurons help to understand that we can internalise external physical situations and experiences through embodied simulation. We have traditionally underestimated the roles and cognitive capacities of emotions in comparison with our conceptual, intellectual and verbal understanding. Yet, emotional reactions are often the most comprehensive and synthetic judgements that we can produce, although we are hardly able to identify the constituents of these assessments (Pallasmaa 2014).

A cohabitation with others and a real coexistence with nature are two objectives that imply each other and that are intertwined in a virtuous manner (Remotti 2010).

Recognizing the social nature of human creative expression as a manifestation of inter-corporeity can allow to re-launch the importance of spaces quality and attachment. Studies on place attachment have defined it as an integrating concept that incorporates several aspects of people–place bonding. Affects, emotions, and feelings are central to the concept, often accompanied by cognition and action. Place attachment includes a positive affective bond which is expressed by the tendency of the individual to maintain closeness to a place, an affective relationship with the landscape that goes beyond cognition, including not only tangible places of different scale but also symbolic or imagined places or objects. In addition, the object of attachment may not only be the physical environment but also the social relations that a place signifies (Korpela 2012).

> As we enter a space, the space enters us, and the experience is essentially an exchange and fusion of the object and the subject. Atmosphere is similarly an exchange between material or existent properties of the place and the immaterial realm of human perception and imagination. Yet, they are not physical "things" or facts, as they are human experiential "creations". Paradoxically, we grasp the atmosphere before we identify its details or understand it intellectually. (…) A space or a place is a kind of a diffusely felt multi-sensory image, an experiential "creature", a singular experience, that is fused with our very existential experience and cognition. (Pallasmaa 2014)

The intimate quality of a place, which differently from the related concept of space indicates space endowed with meaning, is due not only to the perception of climate and geography, but also to imagination. "Comforting and inviting settings inspire our unconscious imagery, daydreams and fantasies. (…) More often than not the atmosphere of contemporary cityscapes and dwellings lacks a sensuous and erotic air" (Pallasmaa 2014).

2.1 Memory

Space liveability is based not only on rational and functional aspects, but also on intangible meanings that allow us to feel a sense of belonging. From an anthropological point of view, places that have memory possess the quality of making us feel intimate with them. According to La Cecla (2000), if the environment in which we live, the city, the country, the territory become indifferent, our activity of living is no longer a place creation and modification. If an expectation of familiarity, of "affective adhesion or understanding" with a place, receives a "contrary command" from it, we find ourselves disoriented; if our body does not find an affinity with the surrounding physical presences, we may feel sick in a place because we do not feel or perceive it as of our own.

"Place memory" refers to the contents of people's memories but at the same time it is also descriptive of a place. Just as the body, which is the individual place of memory, can be a source of blocks and suffering, so the city, which is the collective place

of memory, can be a source of disorientation. Through monuments, architectural styles, buildings, inscriptions, places can remember. For people living in a place, collective memory may be influenced by conveying historical information, or by arousing curiosity and increasing motivation to discover the place's forgotten past (Lewicka 2008).

In our time, we are experiencing a psychic disorientation, a loss of memory due to the excess of construction, development, movements. Our need to preserve past dimensions and images is not due to their beauty or interest, but to their being part of our precious psychological heritage (Pane 1978).

The intentional destruction of works of art, the carelessness of monuments and landscapes, the decline of historic cities are different but convergent symptoms of a crisis that is not only economic and political, but cultural. We are no longer able to look back at our past, except with nostalgia or discomfort. Indeed, material destruction should be resisted through immaterial values, for instance redefining beauty in relation to the city. In fact, the protection of the environment, the landscape, the cultural heritage has an exquisitely political root and is linked to the horizon of our rights (Settis 2017). In our time, memory risks to be no longer worth anything if most of our familiar coordinates crumble: the shape of cities and landscapes, the care of human dignity, the priority of the common good, social justice, equality, the right to work, democracy. If we made a comparison with the historical memory of Europe, continuously been reborn from its ruins, we could make beauty be the privileged ground on which we could measure ourselves with the migrant communities that populate our continent. As a great reservoir of energy, beauty could breed an authentically plural cultural memory (Settis 2017).

3 Identity

There are places that have meanings for entire communities, conveying fragments that give value to present days and build our identity. Identity is a debated term; sometimes it is criticized when its meaning implicates a divisive sense of belonging that tends to create a separation between *us* and the *other*. To this respect, Remotti (2010) suggests referring more suitably to the concept of "recognition" which relates to needs, characteristics, rights and that frames places into a negotiable dimension.

However, if we relate identity to people's bonds with places, the concept becomes particularly interesting from a design approach perspective. According to environmental psychology, the term identity means both sameness (continuity) and distinctiveness (uniqueness), therefore it matches a need of coherence that, in the presence of change and over time, prevents the effect of feeling oneself a foreigner within a landscape or an urban territory. According to Settis (2017) this function is played by the historical city shape, which allows recognition and could be also reflected by the concept of *genius loci* used to describe the impalpable unique character of a place (Lewicka 2008).

3.1 Preservation

Post-industrial cities are marked by the presence of underutilized complexes, characterized more by memory than by current meanings. One of the central issues in contemporary cities is the compatible and sustainable reuse of historical heritage, in which complex relationships between collective memory, attachment to the place, personal/collective identity and behaviour emerge. Initially developed as a method of protecting historically significant assets from demolition, nowadays the reuse of buildings offers not only an alternative to our ever-increasing throw-away society, but also a way to enhance the potential of existing built heritage. In a time of constant movements and changes, living and working in a previously dwelled house offers the opportunity to get in touch with a common identity (Anzani et al. 2019).

The reuse currently concerns assets in continuous and progressive dismantling, linked to the socio-economic, functional and spiritual changes of our society, like industrial archaeology, military districts, former psychiatric hospitals, churches and religious complexes. One of the disciplines which are involved in the reuse and protection of historical heritage is architectural preservation, whose most delicate and powerful meaning from a globalized and "ecological" perspective is the care of places (Anzani and Caramel 2020).

In fact, preserving industrial icons, maintaining the intrinsic historic character of places, adopting minimal intervention criteria, as well as hybridization and reversible approaches may enhance local identities, bring redevelopment, heritage tourism, and favour individual and community comfort.

Interior design addressing the reuse of abandoned buildings should recognize their meaning, their historical and material stratification and the added value deriving from the reciprocal enhancement between the new and the old. In many cases, the greatest benefit deriving from the reuse of an existing building is the possibility to appreciate its delicate and often hidden beauty revealed through the project. Beauty safeguard and enhancement are actually a real contribution to improving the life quality. Reusing existing buildings requires a "creative/critic" dimension of memory, taking from the built architecture its latent potentialities, capturing the revolutionary force of the past (Pasolini 1971). At the same time our biological nature, strongly connected to our incessant evolutionary process, requires the use of innovative models.

Nowadays, preservation must face issues such as the destruction caused by natural disasters, wars, terrorist attacks, reaffirming the importance of the principles expressed in the *Faro Convention* (Council of Europe 2005)—also mentioned in other chapters of this book by Amoruso and Battista and by Caramel—where the loss of heritage results into a loss of memory and identity for the present. The Convention recognised an enlarged and cross-disciplinary concept of cultural heritage, at the centre of which people and human values are posed. In a constantly evolving society, the value of wisely used cultural heritage has the potential to be a resource for sustainable development and life quality improvement. In the Convention, the

right of every person to engage with the cultural heritage of their choice, freely participating in cultural life, is recognized. This is an aspect of the right enshrined in the United Nations Universal Declaration of Human Rights (1948) which goes in parallel with the right to the city formulated by Lefebvre in 1968, then redefined by Harvey. More than a right of individual or group to access urban resources, it should be the right to change and reinvent the city according to our needs. One of the most precious yet most neglected of our human rights, it is a collective rather than an individual right, since rebuilding the city inevitably depends on the exercise of a common power over urbanization processes (Harvey 2008).

4 Innovation

Our lives are framed by the physical and emotional complexity of the environment that form our urban interior. The multi-layered realm of the interior offers new visions for its future as an ongoing archive of human experience (Murialdo and House 2019).

Design in historical contexts should reknit relationships, paths, narratives that allow to make alive and attractive again a fabric characterized by built presences full of historical memory. One of the opportunities to create something that arouses interest and appeal, triggering involvement, is also to root it in its origins, generating places endowed with character and full of charm.

Often, abandoned urban spaces constitute urban voids "perceived as an elsewhere", experienced by the population as an absence of meaning, a sort of missed opportunity for the city. Historical emergencies, sometimes characterized by valuable constructive and compositional features even if in a state of abandonment, are part of a recognizable urban imaginary and a collective memory to which the population feels very attached.

An innovative project should take this into account, taking up the challenge of overturning speculative and cementing logics and demonstrating that through a mobility capable of creating connections and not barriers, innovation in the use of renewable energy, an intelligent reuse of the existing and minimal intervention, it is possible to reach very advanced levels of urban quality and the creation of welcoming spaces. This, however, also responds to the need of redefining a new balance between land use and psycho-physical wellbeing, putting a brake on the consumption of land, energy, built and natural heritage, as all the sciences to which human ecology belongs indicate from a global point of view. The cities of the third millennium should involve every aspect of the urban quality of life, from economy (work) to culture, from mobility to social problems and from environmental to wellness conditions. As "temporary custodians" of urban spaces, our aim should not be to mimic but to respect and be sensitive to the building's inherent materiality. A design approach should register a light footprint on a building surface whilst maintaining its integrity, ever mindful at the character of the erased space. Our ambition should be to make apparent the intangible qualities and elements following their traces, sensed but not necessarily seen (Lecce 2019).

5 Conclusions

Urban density, abuse of nature, mass migration are radically transforming our ideas of place and environment, requiring an incisive rethinking of the human dwelling conditions. Interior design can play a significant role in understanding the complexity of contemporary society, the revolution of working conditions and human relationships, giving value not only to a functional, but also to an experiential use of places.

Promoting a multidisciplinary intersection between interior design, psychology, anthropology, preservation can help searching design solutions focused on the interiority and existential aspects of contemporary living, exploring the relationships between the concepts of identity, attachment to places and memory.

In conclusion, I would like to mention Sennett's reflections about the possibility that the exposure to others can produce "feelings and thoughts: subjectivity, individuality, and interiority" (Pimlott 2018). In response to the metropolis of the present, the human engagement with others is desirable. Despite the oppressive narratives of the metropolis, Sennett highlights values that emerge and efforts that can be made to generate situations which favour people awareness, contacts and potential interactions between them. The issue for interior design is to understand what kinds of space can be made so that people can practice a reflexivity in which the work of memory can occur, where the real relationship between interiority and the exterior can take place (Attiwill 2018).

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