Mnemosphere: An Interdisciplinary Research between Memory of Places, Emotions and Atmosphere of Space

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Abstract

The transmission of memory seems to be an obsession of our time. This issue has been addressed by different disciplines and approaches. Design, as a discipline that contributes to the enhancement of culture, can help to expand the horizon of memory studies, but so far this issue is still undefined and blurred. Mnemosphere project, through an interdisciplinary approach, investigates the ways in which the memory of places is designed and communicated through experiential spaces capable of stimulating emotions. The research proposes a dialogue between communication design and exhibition design, in the atmospheric and aesthetic dimension, with emphasis on the translation of content into a system for the understanding of the mnestic space set up. This is done with special attention to the topics of emotions, chromatic perception, and the design of temporary spaces and services. The research first considers the articulation of a common lexicon regarding the memory of places, atmospheres of spaces and atlas of emotions, among others. Then, the project analysis devices for activating the memory in exhibition spaces, through data collection and defines parameters for the design of future spaces related to memory and emotions. The result is the collective construction of an archive of visual materials for the concepts proposed. This is being done through an open call that has been spread online through the project's platforms. The shared archive and results will be available online to contribute for a further perspective on design studies connected with memory and spaces.

Keywords: Aesthetics, Memory of Places, Emotions, Exhibition Spaces, Atmosphere

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Introduction

Mnemosphere is a research project funded by MiniFARB 2020 grant, promoted by the Design Department of Politecnico di Milano, involving Ph.D. students and research fellows coming from different academic areas. As part of the interdisciplinary dialogue within the Design field, the Mnemosphere project investigates how the memory of places can be aroused through the design of exhibition spaces in the atmospheric perspective (Böhme, 2016). The term "mnemosphere" is a neologism coined specifically by this research, conceptually expressing the themes investigated. The concepts of memory of places and atmosphere of spaces are linked by the sphere of emotions, representing the key element and conjunction of the entire research. According to Zumthor (2000), in fact, thinking about atmospheres is never separated from spatial design. Combined with fundamental elements such as light, materials, sounds, memory and reminiscences, they are part of an all-embracing design system. The "central pivot is emotion [...] and the atmosphere is constituted through the memory of places" (Alison, 2020, p. 113). The concept of mnemosphere is thus investigated aiming to find new interpretative paths within design culture, emphasizing the translation of content addressed into a system of parameters and guidelines for the design of mnestic spaces.

Mnemosphere project bases its approach on a synergic collaboration between different disciplinary fields and enriches its interdisciplinary nature with the study and analysis of emotions, colour perception, and the design of temporary spaces and services.

The research has been divided into two intermediate objectives, intended to investigate the research theme from both a theoretical and practical point of view in a different and combined way. The first one aims to establish how the different disciplines involved in the research can contribute in a specific and 'transversal' way to communicate the memory of places, starting from the existing literature and moments of comparison with the scientific community of reference. The other one is about investigating the research theme through field activities to gather data and knowledge. It is about analyzing, synthesizing, and critically interpreting the information and conducted experiences, hence defining guidelines and parameters to contribute to design culture within the memory/emotions/spaces axis.

Considering the memory of places as a lively and dynamic concept, not only rooted within the past, it is possible to expand its horizon until it enters into a design perspective. Here is why the Mnemoshere research project comprises an interdisciplinary research team with diverse backgrounds, providing a synergistic collaboration between different design fields, driven by a common goal of achieving multiple theme interpretations. Thus, the first stages of the research were focused on defining a standard glossary of reference to align the different thematic perspectives amongst the research team towards a common theoretical framework. (Fig.1)
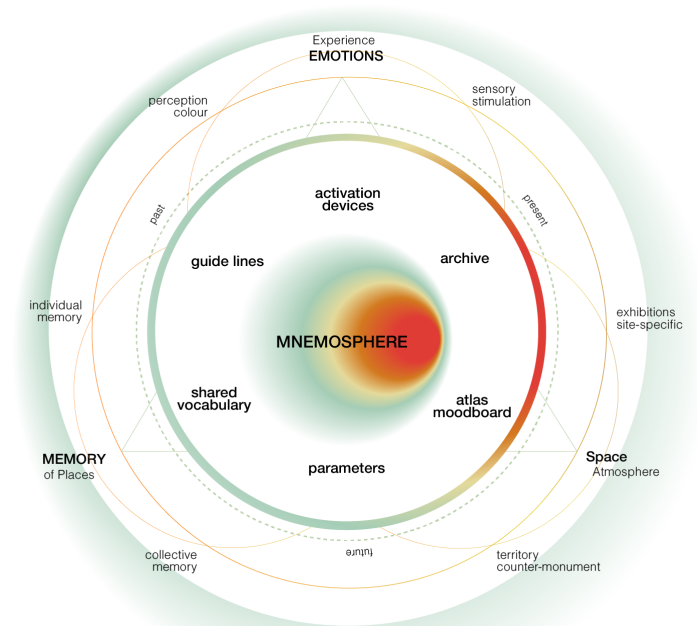
Figure 1: Mnemosphere Concept Map

The research defines that the mnemosphere context includes three main concepts: the "atmosphere of space", the "memory of places", and the "atlas of emotions". The "atmosphere of space" is defined as a temporary spatial condition between resonance and permeation, physical, cognitive and emotional, that involves the perceiving subject and the environment in a state of synchronicity; the "memory of places" as a specific site that embodies a collectively shared knowledge and, at the same time, a more private and personal form of attachment; the "atlas of emotions" as the entirety of nature and landscape of sensations, intensities and reactions related to the human lived experiences. The project intends to investigate the emerging themes by analyzing their specific communicative and visual components, by collecting data and analyzing recurring elements.

Open Call for Images

To visually explore mnemosphere topics, an *Open Call for Images* was launched online, spread through the project's digital platforms.

The main intention behind the process was to use a tool, the Open Call, usually connected to the art world, and apply it to a design study. It was considered preferable to use this particular format of investigation because, from the very beginning of the research, the lexical and textual apparatus appeared insufficient to define, represent and communicate the mnemosphere conceptual dimension. The visual expression of the concept, essential for its representation and perception, was missing.

The call, therefore, aimed to 'give texture' to the intangible *mnemospheric* concept, and was composed of a brief questionnaire and the upload of a maximum of three images for each participant. The primary part consisted of general questions on the participant's identity, like name, age, nationality. Then, the self-assessment questionnaire was structured with an inventory of questions aimed toward analyzing the potential mnemosphere dimension. The questions opened up the possibility of introducing other key concepts, describing various

characteristics, and indicating possible synonyms. Another valuable consideration has been to offer participants the option to describe the concept through the use of antonyms. Thus, participants have been given the choice of defining intangible and elusive themes, such as those investigated in this research, through a negational and oppositional description (e.g., "the mnemosphere is not aseptic and it's not cold"; "a mnemosphere cannot be tangible"). Other questions were proposed through closed-ended answers and multiple choices, allowing participants to select several items simultaneously: like determining the mnemosphere in terms of size and movement and imagining what kind of characteristics it would have consistent from their personal point of view.

For the second part of the Open Call, the focus was entirely on the uploading of images. Each participant could submit a maximum of three files, without any restrictions in terms of format, communicative and figurative language. In fact, the images uploaded showed a wide range of formats such as photographs, illustrations, paintings, collages, drawings and sketches. The great variety of images and visual expressions made it possible to add heterogeneity and expressive variety to the research resources.

In addition, to each image uploaded, participants were asked to add the title and other information, such as the year and place of the shooting, keywords and concepts related to the image in question. Participants were also asked to express, through indicators in the form of percentages, colours and senses involved in the images. The reason behind this investigative section was to collect data on sensory approaches and synaesthetic nuances.

Lastly, a free description of the image has been included to add the right framework for each contribution (whether autonomous experiments or linked to didactic exercises etc.) and deepen each mnemosphere 'spectrum'.

The Open Call took place between mid-January and the end of March 2021, and more than 200 participants from all over the world have contributed, uploading more than 400 different images that capture the mnemospheric essence not yet explored. Once the Call was officially closed, the quality of the contributions collected was immediately evident as they were visually expressive and capable of conveying (through concepts and words) particular present and past experiences. The evocative power of the images collected enabled a first outline of different *emotional landscapes*, either private or collective, linked to the memory and atmosphere of the places. After collecting all the images, a multi-method approach was set up to catalogue and organize all the responses. One of these actions was to develop a website (https://www.mnemosphere.polimi.it/) as a medium to virtually configure an international 'online exhibition' of the images. A configuration that functions as a digital database that can be consulted by anyone interested in looking at the work of other participants and the various 'meanings' given to the concept of mnemosphere. In this way, users are involved in the project and thus be inspired with further interpretations.

Besides the development of the website, a careful analysis of the visual contributions submitted was followed by defining criteria, as if they were mnemospheric guidelines, through the creation of Identity Cards.
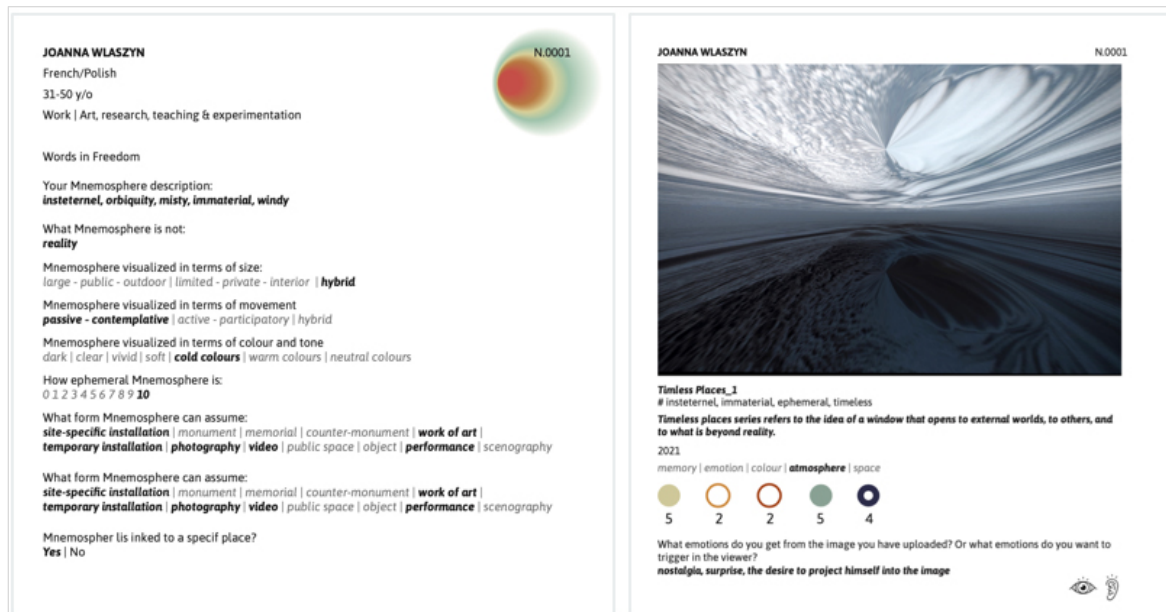
Figure 2: ID Card Example

The first step to analyze the contributions received was systematized and organized through the creation of a set of "identity cards". Data related to the general concept of mnemosphere have been discussed and processed apart. The designed identity cards have the function of summarizing all the data inherent to each image in a more effective, synthetic and visually intelligible way, thus allowing to order the contributions for analytical observation. Hence, each ID card has multiple interpretations, related to the written information (consisting of concepts and descriptions), visual information (consisting of image and color percentages) and sensory information (related to the senses involved in each image narrative).

This introductory phase sees the role of the identity cards as essential to define the relationship between the narrated and developed data. They were also refined according to the objectives and themes established at the beginning of the project, such as atmosphere, memory, space, emotion and colour.

Historical Background: The Atlas

The historical background for the images analysis takes as model the visual research of one of the most famous modern art historians, Aby Warburg. Energetic ambassador of the interdisciplinary study of culture, he pointed out, since the beginning of the 20th century, that researchers should stop policing disciplinary boundaries to gain insight into processes of cultural memory. (Erll 2008). His studies focused on what he called iconic memory (*Bildgedächtnis*) and materialized in his great work called the *Atlas of Mnemosyne* (1924-28), demonstrating how certain "*pathos formulae*" migrated through different artworks, periods, and countries (Erll 2008). Mnemosphere workshop process was inspired by his panel system, a practice of assembling and organizing images that made it possible to perceive at a glance, the *nuclei* of visual and mnestic investigation, placed not in hierarchical relation to each other and continuously modifiable according to the evolution of research (Forster and Mazzucco 2002). These iconographic schemes were useful to connect artworks, artists, creative inspirations, and suggestions that converged into proper tables, panels that could be exhibited and be part of various forms of installations. At the beginning of Warburg's research, the tables

were meant to be only the introduction of the project, but soon became the core of the work which was dedicated to the Greek goddess protector of memory and remembrance.

In Warburg Atlas, which contains about one thousand photographs assembled and arranged following a new academic method of looking, the images are the subject of privileged study because they provide a direct way of narrating cultures, histories and aesthetics of the world. The image is the *locus* in which impression and memory come together and condense. Endowed with primordial energy and powers of evocation on the strength of their expressive vitality, images are the principal vehicles and supports of the cultural tradition and social memory, which in certain situations can be "reactivated and downloaded" (Iuav, 2012). In the Atlas, the juxtaposition of images, that weave several themes around a core element, creates energy fields and triggers in the beholder an open interpretative process: "the word to the image". The importance of Warburg's work lies in the evocative power of panels that are not trapped in linear and ordered sequences but develop in fluid and continuously updatable assemblages. His translating operation allows new paths of meaning and emotion to be discerned in historical and pre-existing materials thanks to a carefully designed juxtaposition. Mnemosyne Atlas is an interpretative machine, a kind of enormous condenser, in which all the energy currents that animate and enhance cultural and communicative memory are collected.

The mnemospheric experimentation, which took shape in the open call, wants to offer a series of visual *hypertexts*, in which the images will lose part of their initial meaning to acquire others suitable for the recognition of the atmospheres and the memory of places. It will not be a sterile loss, but functional to the development of the collective mnemosphere definition. Inspired by Warburg, the Mnemosphere Atlas aims to be an activator of the memory of places, a tool and an apparatus to navigate in the context of atmosphere, memory, colours, and emotions.

Figure 3: Internal Workshop Process and Tables

Results and Discussion

After the Open Call for Images, the research actions were dedicated to recognizing common red threads and recurring elements running through the collected images that can be translated into parameters. All the atlases are different from each other. This aspect highlights how the analysis of images and texts can follow different directions depending on how the concepts are to be conceived.

Therefore, each atlas is considered a dynamic, ephemeral, and active tool as it can constantly change. Hence, these atlases reflect the inner nature of the topics addressed, which are unlikely to be precisely contained and defined in one unified way.

During the first workshop within the research group, the images were initially organized and arranged according to the atmospheric perspective related to spaces and places, considering also the descriptions and concepts given by the call participants. The clusters inherent to this section were set up in advance as reference macro-categories: "air", "bubble", "diaphragm", "haze", "colorful", "nets" and "void". Subsequently, within each macro-area, more defined clusters of images were identified, acting as thematic sub-categories. Then, this information was translated into more precise spatial conformations and morphological elements, identifying the main features of each atlas (Figure 4).

The recurring themes emerging from these atlases are, for example, natural landscapes, portraits and period photographs, architecture, ruins, blurred atmospheres, and abstract visualizations.

Main Clusters	Related Sub-categories	Spatial Conformations and Morphological Elements
AIR	air, wind, aperture, sky, flight, vastness, horizon, wingspan	openness, no borders, big long shots, low-angle shots, glance beyond
BUBBLE	focus, eyes, dimensions, habitat, fullness, closure	roundness, bubbles, nests, spheres, clear outlines inside out, focal point, light focus
DIAPHRAGM	filters, thresholds, constructs, entrances, views, portals	movement, sequences, linear paths, holes, cuts, passages, upturned reflections, over & below
HAZE	fog, overlaps, accelerations, faded, limitless, muffled, chaos	transparencies, opacity, blurred, out of focus, diffuse, dazzling, in motion, blended
COLOURFUL	chromatic, rhythms, textures, vibration, rainbows, spectrum	tones, brightness, blends, accents, shadows, intensity, contrast, harmony, iridescence
NETS	webs, connections, contact, mutation, growth, systems	organic, natural, interconnected, interlaces, nucleus, bonds, complexity
VOID	lack, loneliness, instants, nothing, ruins, silence	old portraits, industrial abandoned places, no-places, close-ups and zoom-in, textures

Figure 4: Definition of the First Seven Visual Atlases Regarding the Concept of Atmosphere

The internal workshop organised afterwards continued with the arrangement of the atlases, this time from the perspective of memory. Four additional thematic clusters were obtained, which arose spontaneously mainly during the textual analysis of the descriptions given by the participants, and subsequently the visual analysis of the images was performed.

The thematic clusters refer to the following concepts within which additional subclusters and red threads could be identified as follow:
– "individual memory", in which people's faces, bodies, animals, portraits, frozen moments and instants, signs, and symbols of different kinds mainly appear;
– "collective memory", consisting of memorials, monuments, ruins, cemeteries and landmarks;
– "physical environment", linked to pictures of anonymous places charged with their narrative, wild natural landscapes, generic urban contexts, and domestic or private interiors;
– "abstract dimension", i.e. images constructed using different artistic techniques, characterized by vivid and saturated colours aimed at emphasizing the emotional impact of external places through internal emotional tones only.

Hence, two different approaches were used to structure the atmosphere-based and memory-based atlases, stressing two conceptual approaches that analyse the topic of "mnemosphere" from parallel perspectives but drawing from the same sources.

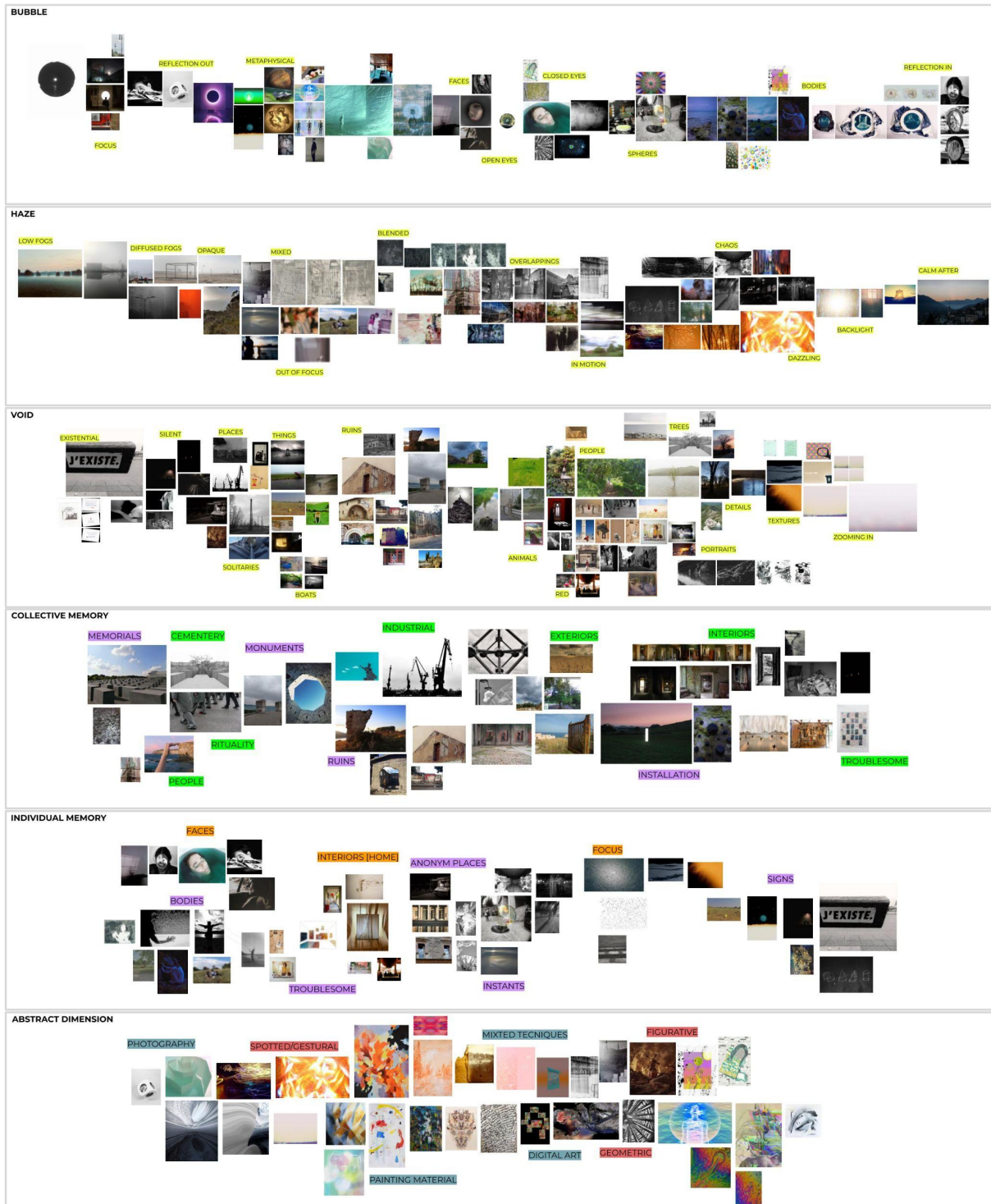An overview of some of the atmospheric-based and memory-based atlases can be seen in Figure 5.

Figure 5: The First Examples Illustrate the Atmosphere-based Atlases of "Bubble", "Haze", and "Void", While the Following Three Examples Represent the Memory-based Atlases of "Individual Memory", "Collective Memory" and "Abstract-Dimension".

Conclusion

The results obtained reveal the complex nature of memory rooted in places, and how emotions are involved in its atmospheric communication and expression.

The subdivision into categories of the images is not intended to define precisely the areas investigated but rather to provide an *orientational framework* through the arrangement of the various contents.

In parallel with the analysis of the images, the colour component was also investigated, as it represents one of the main axes of this research. The chromatic analysis led to the definition of specific chromatic codes for each thematic cluster.
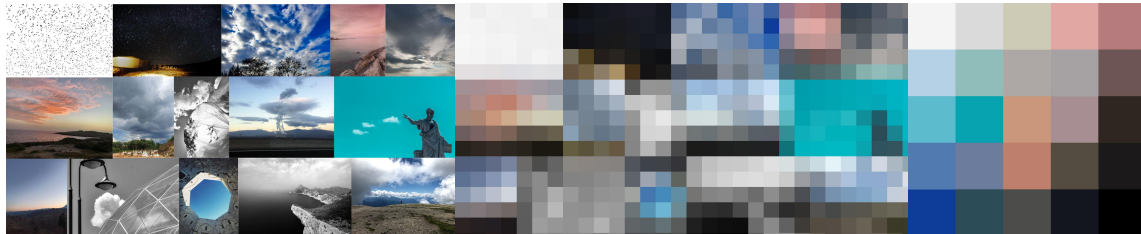

Figure 6: Colour Analysis Example to Obtain Specific Chromatic Codes for Each Atlas

It evaluated the different shades and saturation of the colours concerning the themes investigated. The resulting identification of *visual communication guidelines* from a chromatic point of view is complementary to the definition of parameters and guidelines for the design of exhibition spaces capable of evoking the memory of places.

Hence, the current state of research is still in the process of analysis to determine parameters and guidelines for the design of spaces, which is one of the main objectives of this research.

The focus of the project is to define the concept of mnemosphere through a collective and participatory mode and visualize its mutable manifestations through interactive and dynamic atlases to be collected in an open-access publication. Furthermore, Mnemosphere's interactive and digital atlases trace remembrance, spaces and sites through changing and temporary images, in which paradoxically the purpose is to "turn an ephemeral message into a permanent memory" (Tumminelli, 1997).

The final aim is to inspire further original reflections, by addressing researchers and scholars fascinated by the mnemospheric world. The Mnemosphere Atlas can also facilitate and enhance the dialogue between design and other disciplines, bringing together different voices and perspectives.

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