

The Crown of Thorns of Notre-Dame de Paris, Mythological Representations of Memory

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Preamble

On April 15, 2019, the whole world found itself gathered, as happens few times and for long and interminable moments, around the images that transmitted from Paris: the cathedral of Notre-Dame de Paris, in its solid and immutable appearance, was wrapped inexorably from the fire that gradually caused the collapse of the iconic spire, roof, and limestone vaults.

Among the images of the smoking ruins, the tragedy was slowly and tragically becoming myth; a priest was in the fire theater in search of the relic and the most sacred symbol preserved among the treasures of the cathedral. The crown of thorns of Notre-Dame,

an example credited as original and preserved in a reliquary commissioned by Napoleon III and designed by Eugène Viollet-le-Duc, miraculously remained intact as well as when John Paul II had personally transferred it from the Sainte-Chapelle in 1997.

A few years earlier, in the period between August 24, 2016, and January 2017, a sequence of about ninety-two thousand tremors (of which nine above the 5th degree of the Richter scale) catastrophically affected four regions of central Italy (Abruzzo, Lazio, Marche, and Umbria), causing 299 victims. This catastrophe involved six hundred thousand people; in the 138 mu-

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nicipalities of the crater about seventy-seven thousand houses were classified as uninhabitable and entitled to the contribution for the reconstruction. Amatrice represents the image of this earthquake; ironically, the oldest building in the city, the civic tower, has survived. How can we preserve the memory of this extraordinary heritage?

Diodorus Siculus, a Greek historian born in the province of Enna, dedicated his entire life to the incessant collection of the memory of places, spaces, and times that made up the geographical-cultural mosaic of the known world, the *Bibliotheca Historica*, an articulated program of universal knowledge (60-30 BC). Concerning Mnemosyne, Diodorus says that it is due to her if humanity could discover the power of memory, that ability to discern without misunderstandings, which allows us to recognize objects by their name and encourage understanding among men to satisfy their need to communicate. Thanks to her work, events, cultures, people never told before and who would not have survived oblivion. Pliny the Elder, praising the work of Diodorus, described the method: a systematic account of facts as a synthesis of traditions supported by the documents that he collected in his travels and his ten-year documentary work. In the absence of direct observations and original documents, Diodorus had developed a scrupulous deductive method not to interrupt the continuity with the past by entrusting it to the most ancient among social arts, the oral narrative of the intangible.

Losing the heritage leads us to reflect on the art of memory as a complex exercise of interpretation of the landscape and its imagination process. The depiction is a universe composed of an alphabet of figures, objects, taxonomies, syllogisms that recall images that are formed and composed, favoring, as in a puzzle, the highlighting of emblematic elements between places and things.

Representing the lost landscape means organizing knowledge through images that return, through homologous figures, the significant elements. Those who daily deal with the transmission of heredity and cultural heritage are responsible for looking after both the expressive apparatus that helps us remember and imagine the remembered content by transforming it into figures and their correlation, including the intangible level.

Mnemonics and the science of representation are semiotic phenomena which, as the ancients taught us, allow us to apply methods to develop advanced ex-

pressive apparatuses, correlating them with those of the story and the production of silent, dynamic and tactile contents.

Memory as a tactile space of the imagination

With its points of view, drawing carries out a disciplinary action aimed at creating continuous mythological representations of the memory of people, places and facts; it connects them thanks to the power of imagination. It performs the double function of carrying out the story through its graphic codes and producing images and thus evoking cognitive dimensions on multiple levels.

On the Young Mnemonics Fund Umberto Eco writes that the forgetful no longer knows who he is; he loses his awareness of himself because he has lost the most critical faculty by which both individuals and communities nourish their own identity [Eco 2013]. Memory is a fragile organism if separated from the everyday experience of the senses, and it regenerates through direct transmission. Memory is a private heritage, but it also becomes collective. It becomes a myth: a schedule of stories, facts, and protagonists that belong to an entire community. These are the words Oliver Sacks uses to describe his phenomenal experience of memory that brings to light memories which often haven't been experienced directly: "I accepted as inevitable having forgotten or lost a lot; however, I assumed that the remaining memories – especially the very intense, concrete, and detailed ones – were essentially valid and reliable, and it was a shock when I discovered that some of them were not at all. A striking example [...]: one night, a half-ton bomb fell in the nearby garden, fortunately without exploding [...]. A few months after the book was published, I talked about these episodes with my brother Michael [...], my brother immediately confirmed the first episode. 'I remember it exactly as you described it'. Regarding the second bombing, however, he said: 'You did not see it. You were not there'. As human beings, memory is fallible, fragile, and imperfect – but also endowed with great flexibility and creativity –. Confusion about sources, or indifference towards them, can be a paradoxical strength: if we could identify the origin of all our knowledge, we would be overwhelmed by often irrelevant information. The lack of interest in sources allows us to assimilate what is written, what is told,

what other people say, think, write and paint, with the same intensity and richness as a primary experience. This allows us to see and hear with different eyes and different ears, enter the minds of others, assimilate art, science, and religion by drawing on culture as a whole, to penetrate and contribute to the collective mind commonwealth of knowledge. Memory does not emerge only from experience, but also from the relationship between many minds" [Sacks 2017].

In the medical literature, amnesia is described as a long-term memory disorder linked to the inability to remember events. The techniques for memorizing cannot counteract the decrease of cognitive faculties. However, they can offer a series of practical expedients to avoid the so-called "forgetfulness of past species", as defined by Johannes Spangerberg in his *Artificiosae Memoriae Libellum* of 1539 [Spangerberg 1539].

The art of memory is a practice of representation that follows a precise system of rules. The purpose is to conserve and use the information for the benefit of civilization and citizens; it made it possible to recall a locus and to associate and place the *imagines*, images that were easy to memorize and addressed the memory of 'things' (*res*) and 'words' (*verba*). The unknown author of the treatise *Rhetorica Ad Herennium* was concerned with distinguishing between two kinds of memory, a natural one to be considered an innate faculty and an artificial one to be strengthened and consolidated through education, exercise, and dissemination. In one case, the images made it possible to remember topics and concepts, that is, the real subject of the speech. At the same time, the *imagines verborum* were an expedient to remember every word, that is a common language used to communicate the subject. They were both a kind of artificial memory: *memoria rerum* and *memoria verborum* to provoke an indelible emotion in memory.

Between 1292 and 1296, a pictorial cycle of 28 views called *Stories of San Francesco* was painted in the lower part of the Basilica of Assisi. Never before had an artist and his community narrated a landscape as a cultural synthesis of the time, in the specific case the Central Italy medieval one, steeped in devotion to St. Francis. That work introduced landscape as a common good, a new psychological space made tangible by pictorial consciousness and narrative invention. Like the universal library of Diodorus Siculus, the pictorial cycle of

San Francesco is a narration of the cultural landscape as the summa of time. Characters, inserted naturally in architectures articulated on planes and perspective wings that create practicable spaces, represent the landscape and the contemporary environment with all its peculiarities and scales. The frescoes of Assisi are the expression of a mental form, perception, and figurative memory that reflects the society and culture of that historical era; a painting capable of "stimulating our tactile imagination", as Bernard Berenson wrote in the volume *The Italian Painters of the Renaissance* [Cappelletto 2017, p. 17].

The Italian National Institute of Statistics has included the one on "Landscape and cultural heritage" among the 12 fundamental domains to measure "Fair and sustainable wellbeing" using the definition of Renato Biasutti: "The sensitive or visual landscape, consisting of what the eye can embrace in a turn of the horizon or, if you like, perceptible with all the senses; a landscape that can be reproduced from a photograph [...] or a painter's painting, or from the brief or minute description of a writer" and the geographical landscape, which is "an abstract synthesis of the visible ones, as it tends to detect from them the elements or characters that have the most frequent repetitions over a more or less large space, higher, in any case, than that comprised by a single horizon" [Biasutti 1962, pp. 1-3]. Therefore, the geographical landscape is to be considered a widespread heritage or cultural landscape according to the international meaning of UNESCO: representing its intangible form means dealing with the living heritage as the protagonist of the cultural diversity of humanity. "By intangible cultural heritage the UNESCO Recommendation of 2003 addresses the practices, representations, expressions, knowledge, know-how – as well as the tools, objects, artifacts and cultural spaces associated with them – that communities, groups, and in some cases individuals recognize it as part of their cultural heritage" [UNESCO 2003, art. 2.1, p. 2]. In the Japanese tradition of cultural heritage protection, the term "*Mukei*" is used, which refers to what has no form, which is perceived, relies on the senses, and envelops itself in sacredness. The term, for example, indicates the privileged position in the art of the sword, wherefrom the 'formless' posture, the other positions evolve with a single movement. Therefore, a posture that indicates true strength, as reported by Sun Tzu, is credited with

collecting an oral tradition two centuries long, probably the oldest extant military art text (about 6th century BC). When the narration of events plays a sacred role because it describes the evolutionary forms of a people, mythos appears as a universal concept. The human figure becomes heroic, unique in the context, worthy of an exemplary undertaking where the protagonists unfold their stories. The myth is a tale entrusted orally to men and their language that retrospectively sinks into the past from the present, between the memory of things, reconstructing links, and reconnecting knowledge to places through practical examples by individuals. The drawing becomes the bearer of the myth when its ability to reduce historical episodes narratively adds symbolic and experience dimensions: this capacity is now enormously increased by the multimedia of digital tools. The drawing, through its representations, traces the facts, decisions, imagination of men and communities to provide new and in-depth explanations of social, historical, religious phenomena and innovative construction techniques. The representation process through signs, stories, and figures means symbolically handing down information on collective history, and this is the mythology. Visual communication emphasizes the sacred aspect of this history, the great religious or civil architectures, rather than the mysteries of civilizations that have now disappeared. Myth answers endless questions of humanity, who build bridges between the past and the future in the living exercise. Therefore culture evolves continuously as a living expression of individuals and represents the social organization of communities and cannot be described exclusively as a phenomenon that produces tangible manifestations. When the myth represents reality, it manages to tell the stories directly without filters, in subjective, as these stories were handed down in the past: live, by oral tradition.

The mythos is a circular tale that represents the story within a social framework which extends temporally and becomes multiscale thanks to digital technologies' introduction. Representing an action rather than a situation is today the frontier of the discipline when it brings innovation to the cultural and creative sectors. New traditions of transmission and communication advance disciplinarily, as evidenced by the wealth of contributions presented for the *Mnemosyne* focus of the 42nd UID 2020 Conference entitled *Connecting/*

drawing for weaving relationships to deal with the daily urgencies of the territories that have lost a part of their heritage, not only tangible. The answers they expect are often complex and go beyond conventional practices. They also address the listener's consciences to allow him, as in the story of fairy tales, to reach an understanding of phenomena even in an unconscious form. In this sense, it is a question of drawing to go back to the original thought, that is, to the cause of things to explain how they took shape, becoming architectural material or rather habitat.

All this is dramatically urgent when a community suffers a severe loss which, pending its reconstruction, reflects not only on the material aspects but also psychological state of citizenship.

Representing the memory to imagine the future

After the loss of the cultural heritage begins, a psychological and material re-appropriation of the common goods the community has lost. The re-elaboration of memories becomes oral testimony and material documentation of what does not exist. Then it becomes the primary common good to represent, connect the different tangible expressions of knowledge, and reconstruct the narrative concept as a myth. This act of social responsibility extends the meanings of everything that has had physical form or allows us to enhance what has survived.

Amatrice, Notre-Dame, and Palmira demonstrate that the study of monumental heritage as episodic, material, and reserved for specialists is an innovative approach where the intangible, continuous, and participatory component of cultural heritage is at the center. A heritage of legacy as highlighted by the recent recommendations on intangible heritage and the 2005 *Faro Convention* [Faro Convention 2005]. The Convention transfers the need for identity to the territory and its individuals who transform and appropriate it according to a scale of meanings and uses that people attribute and self-represent themselves in daily practices. To this end, it introduces two innovative concepts:

a) cultural heritage is 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 tra-

ditions. It includes all aspects of the environment resulting from the interaction between people and places through time;

b) a 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.

In Italy, only in 2008, after the ratification of the UNESCO *Convention on the Protection of the Intangible Cultural Heritage* [UNESCO 2003; 2005], with an integration to the *Code of Cultural Heritage and Landscape* [2004, art. 7 bis], relating to *Expressions of collective cultural identity*. The statement “they are subject to the provisions of this code if they are represented by material evidence” does not consider the value of most of the cultural expressions of the territories related to popular culture [Tarasco 2004].

Even today, the intangible aspects are not included in national legislation despite the emerging issues introduced by the 2003 *Convention* [UNESCO 2003] have a notable impact on the research of our disciplinary sector. The survey experience transforms and extends culturally by representing the cultural processes and the definition of cultural heritage according to evolving methodologies and tools. Safeguarding does not mean conserving or protecting the monumental, landscape, or cultural heritages to avoid transformation by protecting original or authentic characters. It contributes to the construction of contexts favorable to the transmission and vitality of heritages in constant movement, recognized by the same social actors responsible for its conservation. Establishing inventories is one of the obligations to which States undertake with the ratification of the Convention to identify elements and the cultural expression context. The most important place to think about the evolutions underway, in the context of national cultural policies, are the choices related to the establishment of inventories of intangible cultural heritage and the participation of cultural communities [Lapicciarella Zingari 2015].

On April 15, 1935, in Washington, representatives of twenty-one nations signed the *Treaty On the Protection of Art and Scientific Institutions and Historic Monuments* known as the ‘Roerich Pact’, named after the Russian anti-militarist artist Nikolai Konstantinovich Roerich and based on the principle of the inviolability of goods and values belonging to humanity.

Roerich believed that all cultural values carry a spiritual charge and that by destroying them, humanity destroys the basis on which it can develop spiritually. The Roerich Pact was the first international act explicitly dedicated to the protection of cultural heritage. His words foster the most advanced and contemporary approaches to the economy of culture and address the disruptive capacity of his thought: “The man who cannot understand the past cannot think of the future” [Mironenko 2019, p. 147].

Conclusions

On April 15, 2019, the Notre-Dame de Paris cathedral rescue program began under the global gaze of the world. The story of the crown of thorns and that priest who had found it intact among the ruins is still a living; precisely the remains of the burnt cathedral, that ‘shapeless’ context, will be the subject of the most critical contemporary technological challenge applied to cultural heritage.

As a first step, the cathedral reconstruction depends on the three-dimensional simulations and the aggregation of data allowed by new cloud computing technologies to create a virtual clone and map every helpful element for the reconstruction.

Livio De Luca, research director at the French CNR, was the first to propose this challenge: the billions of points images will be integrated with high-resolution panoramic photographs to create the most technologically advanced virtual model designed for an asset belonging to the UNESCO World Heritage. With the help of artificial intelligence applied to the three-dimensional recognition of objects, it will be possible to identify and recognize the surviving architectural and ornamental elements. Comparing the images before and after the fire will make it possible to reconstruct the destroyed elements using the anastylosis technique [Marrazzo 2021].

Reconstruction practices have always created opportunities for reasoning on the future of cities. They have provided an exceptional wealth of technical and cultural experiences related to the conservation of monuments and territorial systems.

In the reconstruction of Amatrice, the integrated methodologies of documentation of historical urban

landscapes [UNESCO 2011], defining a typological representation protocol supported by Heritage BIM systems, propose algorithmic predictive simulations of the reconstruction scenarios. *The Prince's Charitable Trust* of London granted the research project *Regenerating Amatrice. The resilience of local identity* activated at the Politecnico di Milano (under the supervision of the author). The project is donating the graphical reconstruction of the historic center, drawings illustrating the traditional architectural character, the architectural lexicon, and the guidelines for the facades to maintain the identity of Amatrice. In the exercise of documentation and reconstruction of a lost landscape, knowledge technologies work together to produce an advanced and cost-effective approach for modeling, semantic representation, and documentation of the architectural heritage damaged by the earthquake, combining 3D investigation, critical investigation, and virtual reconstruction. Among the tangible and intangible benefits, more excellent knowledge of the urban landscape and local expression, an impulse to regenerate memory by integrating active participation and collaborative planning activities [Amoruso, Mironenko 2019; Amoruso, Mironenko 2020].

The representation of the expressions of intangible heritage as participatory cultural activity is now central to the social processes of re-appropriation of that cultural heritage lost after a catastrophe. In fact, in this unfortunate circumstance, instead of adding a level of subjectivity to tangible forms of heritage, these being lost or severely damaged, the multiplicity and diversity

of stories, memories, and experiences of the inhabitants become the only possible way to preserve what still remains in the memory. If putting the rubble back together is not always possible, the use of technological but human-centered solutions can instead help to put together the experience and widespread knowledge of an entire community.

According to the Nobel Prize winner for economics Amartya Sen, social participation depends on what he defines as "capabilities" or how citizens need to exercise their rights. Citizens need to emotionally connect to places before participating in any cultural process [Erasmus 2020]. In this passage, our role can support social growth and well-being: in the enhancement of specific skills that can allow universal and collective access to knowledge. The focus called *Mnemosyne*, with its 169 authors, presented a set of experiences, methods, and techniques to identify the disciplinary role of Drawing in the narration of the myth of cultural heritage and good documentation practices to transfer this same heritage to future generations. So what must and can we do to save beauty and transmit that myth by using emerging scientific achievements? These will be the questions with which the 43rd UID Conference will open (fig. 1).

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