

From Suffering to Hope. The Survey of Rubble as a Measure of Resilience

Paolo Belardi, Giovanna Ramaccini

Abstract

As in the Japanese art of kintsugi, where fragments of broken ceramics are recomposed using the gold dust insert, in the installation Canapa Nera, presented by the Regione Umbria at Milan Design Week 2018, the preciousness of the material was substantiated by an alchemical mix of the hopes that vibrate in the fibres of the black hemp of the Valnerina with the memories that permeate the rubble of the diruti walls of Norcia following the seismic events that in 2016 upset Central Italy. Canapa Nera was a long two-faced wall, characterised on one side by a polyptych of eleven large canvases of hemp inspired by the plots and colours of the annual flowering of the Pian Grande and on the other side by a chaotic explosion of variegated rubble, the recovery of which entailed both operational and interpretative difficulties, because they were linked both to the extraction and to the identification of the most suitable survey techniques. As part of the study undertaken, the measurement and graphic restitution of the individual rubble was aimed at enhancing its identity value, celebrated through the recombination of a fragmented whole, scattered among voids. Making measurable the poetic space that marks the gap between suffering and hope.

Keywords: earthquake, resilience, identity, rubble, measure.

Rubble is the conscience of history

“The sight of the ruins makes us fleetingly sense the existence of a time that is not what the history manuals talk about or that the restorations try to bring back to life. It is a pure, undated time, absent from our world of images, simulacra and reconstructions, from our violent world whose rubble no longer has time to become ruins. A lost time that art sometimes succeeds in finding again.” [Augé 2004, p. 8]

The seismic events that shook Central Italy in 2016 brought highlighted the concept of resilience, not just in terms of the ability of a building to withstand the shock wave caused by a telluric shock, but also in terms of the ability of a community to react to the psychological anni-

hilation caused by a seismic event. As Paolo Crepet pointed out, after a seismic event “we worry, rightly or wrongly, about material aspects. Which is right, but there is a loss of identity that is not taken into account in the same way. [...] That is the most difficult part to repair” [Scianca 2016]. What follows is the need to start again from “what remains” [Teti 2017], with a proactive attitude that somehow finds a symbolic incarnation in the Japanese art of *kintsugi* in which the fragments of broken ceramics are recomposed through the gold dust insert [Santini 2018]. Although *kintsugi* is an artistic practice rooted in a distant culture, both from a historical and geographical point of view, Italian architects (but also artists) have always been sensitive to the evocative power of ruins (and rubble),

Fig. 1. Norcia (PG), the Basilica of San Benedetto after the earthquake of 30 October 2016.



demonstrating a marked propensity for the reuse of what remains through the innovative recombination of broken unity: from Leon Battista Alberti to Donato Bramante, from Antonio da Sangallo il Giovane to Carlo Fontana. Until Piero Bottoni, who in 1946, taking advantage of the need to remove and dispose of the rubble produced by the bombing of Milan during the Second World War, launched the idea of erecting Monte Stella (better known as the *montagnetta di San Siro*) within the QT8 district, accumulating the most intimate wartime evidence and surrounding it with a panoramic road that still provides an unusual panoramic view of the city [Bottoni 1995].

When it comes to the inventive reuse of rubble, Monte Stella represents an essential cornerstone, because Bottoni, transforming an icy environmental hygiene initiative into a pioneering work of land art, anticipated what happened more than twenty years later in Gibellina, when the most established artists of the time, accepting the provocative invitation of mayor Ludovico Corrao (“Let the flowers of art and culture grow in the desert of earthquake, fate, oblivion”), actively participated in the epic of post-seismic reconstruction: namely Nanda Vigo, who with her work *Tracce antropomorfe* (1978) reassembled in the heart of the Gibellina Nuova the finds

Fig. 2. Left, *Souvenir from Shanghai* (Ai Weiwei 2012), detail (photo Paul Lloyd). Right, *Ningbo Historic Museum* (Wang Shu 2008), detail.

Fig. 3. *Norcia* (PG), rubble deposited at the former quarry of Misciano (photo Giovanni Tarpani).

Fig. 4. *Canapa Nera* (Paolo Belardi, Daniela Gerini, Matteo Scoccia, Paul Henry Robb 2018), photographic documentation and recomposition of the rubble (elab. Giovanna Ramaccini 2018).

of 'spolio' taken from the rubble of the Gibellina Vecchia [Cangelosi 2013, pp. 120, 121], and Alberto Burri, who in the *Grande Cretto* "solidified the memory in a powerful image, freezing forever the ruins of the old settlement, a place of pilgrimage for the people, under a concrete shroud" [Pioselli 2015, p. 91]. Gibellina opened a new poetic field, animated by the awareness that rubble is the consciousness of history. The Norman arch of Nanda Vigo and the cement shroud of Alberto Burri, in fact, were followed by a long theory of works based on the inventive reuse of rubble. Both in the field of art and architecture. The itinerant sculpture *Souvenir from Shanghai* by Ai Weiwei springs to mind, a true anti-monument composed of the rubble of his own studio in Shanghai framing a bedhead of the Qing dynasty [Galansino 2016, p. 136], and the installation *Kounellis Trieste* (2013), set up by Iannis Kounellis in the Salone degli Incanti of the former Pescheria suspending a swarm of rubble above the wrecks of old wooden boats [Kounellis 1993, p. 92]. Just like the face-to-face coverings of the *Ningbo Historic Museum*, made by Wang Shu using the *wa pan* technique to reassemble a multitude of material finds recovered from the ruins in Zhejiang Province [McGetrick 2009], and the temporary shelter for the Nepalese homeless, conceived by Shigeru Ban as an archetypal building made of bricks recovered from the rubble heaps of the buildings that collapsed after the devastating earthquake of 2015 [Corradi 2015]. Hence the reasons why, when the Regione Umbria decided to participate in *Milan Design Week 2018* with an installation aimed at expressing the desire to transform the suffering of loss into hope for rebirth, the designated interdisciplinary team took up the thread of memory, imagining the installation *Canapa Nera*, aimed at critically re-elaborating the seismic catastrophe by offering a second chance at life not only to the destroyed churches, but also and above all to the collapsed houses. And, with them, the identity of the Valnerina. Because, contrary to the *Direttiva per le procedure*



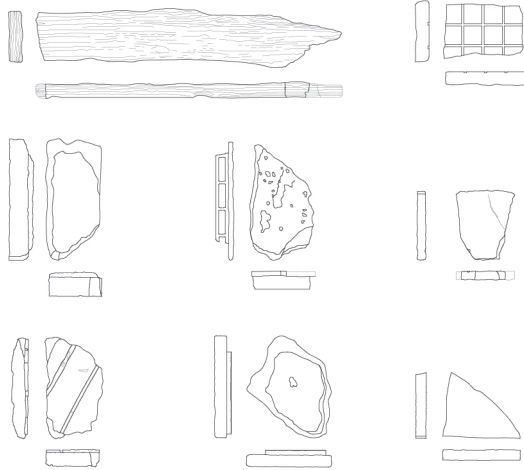
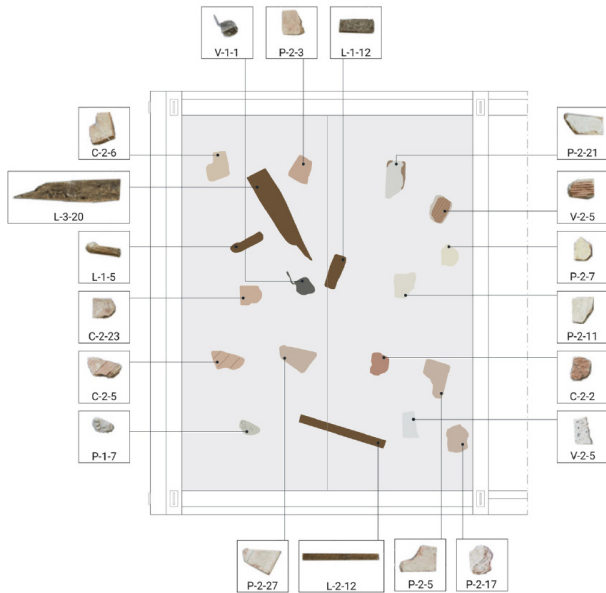


Fig. 5. *Canapa Nera* (Paolo Belardi, Daniela Gerini, Matteo Scoccia, Paul Henry Robb 2018), graphical restitution of rubble (elab. Giovanna Ramaccini 2018).

Fig. 6. *Canapa Nera* (Paolo Belardi, Daniela Gerini, Matteo Scoccia, Paul Henry Robb 2018), cataloguing and recomposition of rubble (elab. Giovanna Ramaccini 2018).

0 10 cm



0 50 cm

di rimozione e recupero delle macerie di beni tutelati e di edilizia storica issued by the Ministry of Cultural Heritage and Activities and Tourism on 12 September 2016, which classified rubble in a strongly hierarchical manner; the stones of the houses deserved the same respect as the stones of the churches [Ministero dei beni e delle attività culturali e del turismo 2016].

Measuring rubble

“A pulverised apple and a pulverised orange are finally the same thing, aren’t they? You can’t tell the difference between a good dress and a bad dress if they’re both turned to shreds, can you? At a certain point, things disintegrate into muck, or dust, or scraps, and what you have is something new, some particle or agglomeration on matter that cannot be identified. It is a clump, a mote, a fragment of the world that has no place: a cipher of it-ness” [Auster 2018, pp. 33, 34]

The etymological analysis of terms is often valuable in revealing their deeper meaning. It is not surprising, then, that the introduction of the Italian word ‘*maceria*’ is linked to the verb ‘*macerare*’ [Bonomi 2004]. An origin which expresses the sense of indistinctness associated with the fragment and which is mainly linked to the loss of the unitary integrity of the original object, or the deprivation of an apparent usefulness. Nevertheless between the part and the whole there is a relationship of circularity and interdependence [Cacciari, 2000]. This is demonstrated by recent experiences arising from the disasters related to the war in Syria. While on the one hand, with particular reference to the monumental heritage, a philological approach is adopted, aimed at reconstructing the lost fragments in order to restore the original object [Denker 2017], at the same time, with particular reference to the ordinary heritage, the world of culture and scientific research opens up to an inventive approach, aimed at giving a new meaning to the rubble, interpreted as the memory of the lost



Fig. 7. *Canapa Nera* (Paolo Belardi, Daniela Gerini, Matteo Scoccia, Paul Henry Robb 2018), selection and setting up of the rubble at the Totem srl laboratory in Perugia (photo Giovanni Tarpani).

original [Engels 2016]. The part is what has been excluded, so far from the order of form that it is incomprehensible but, for this very reason, it represents an opportunity to build something else [Marini 2009, p. 255]. Thus, Kevin Lynch's exhortation, "take pleasure in discarding; do it skillfully; don't just minimize it" [Lynch 1992, p. 227], is an invitation to look at the discard as the alive matter of the project, an opportunity to look to the future [Ingold 2019, p. 43; Malanski 2015]. It is in this perspective that the study dedicated to the rubble of the houses collapsed following the seismic events of 2016 is placed. 'Ex-objects' observed adopting an 'archaeological' look, because aimed at rediscovering fragments produced, accumulated and 'buried', replacing them in time and space [Bianchi Bandinelli 2011, p. XXV]. But every activity of 'retrieval' and documenta-

tion presupposes a method of survey necessarily open to knowledge [Cundari, Carnevali 2005, pp. 70-74]. In this sense, the recovery of the fragments has led to both operational and interpretative difficulties. In fact, while it was bureaucratically complicated to obtain authorisation from the Ufficio Speciale of the Regione Umbria (Comune di Norcia, mat. 004/2018) to remove the rubble, it was even more complicated to identify the most suitable surveying techniques for measuring it. It is no coincidence that the preliminary operations took a long time and were implemented in subsequent phases. During the first phase, carried out in the field, by rummaging through the pile of rubble deposited at the former quarry of Misciano in Norcia, 120 fragments were removed. The delicacy of the operations made it necessary to act promptly. Each piece

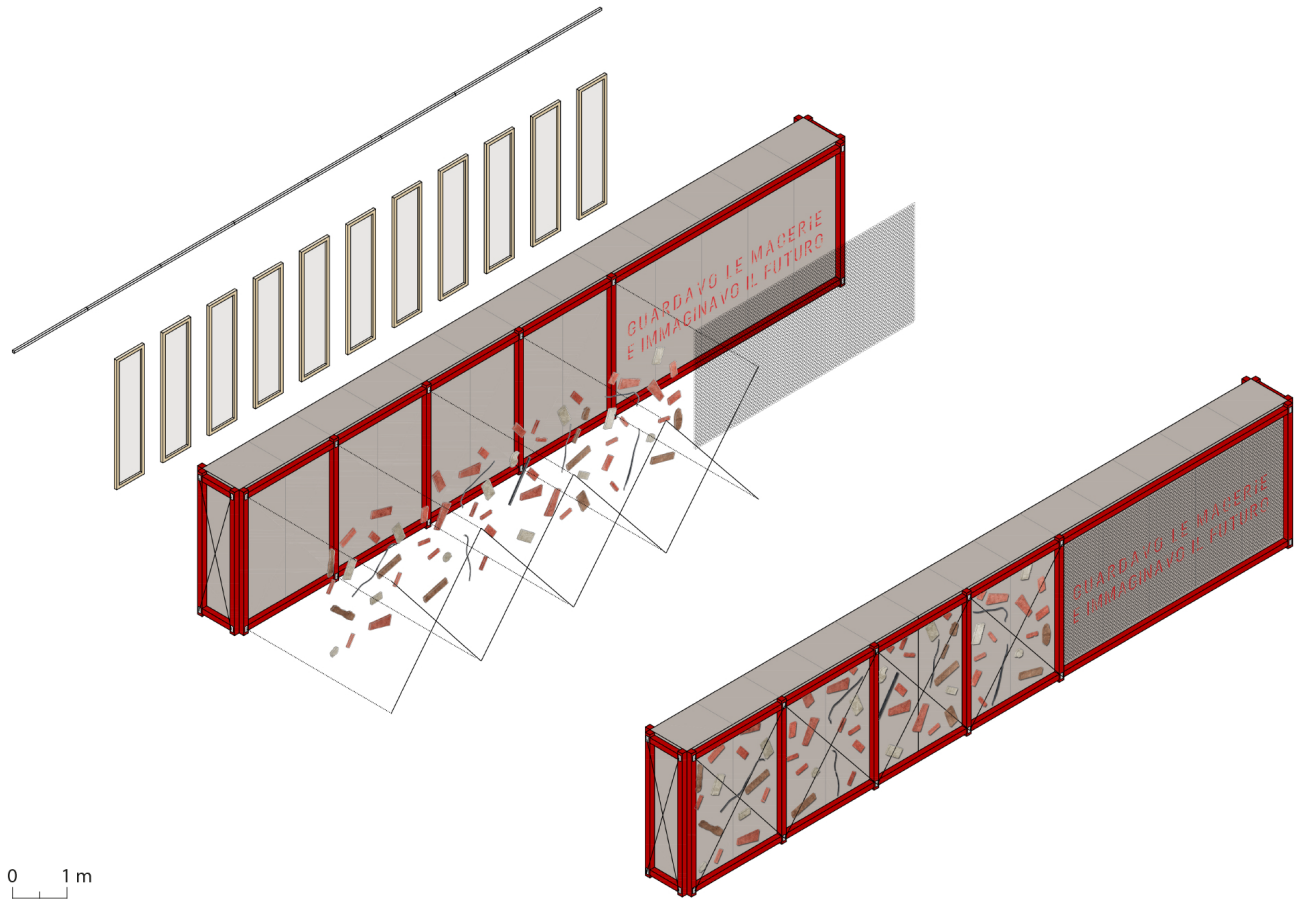


Fig. 8. *Canapa Nera* (Paolo Belardi, Daniela Gerini, Matteo Scoccia, Paul Henry Robb 2018), exploded axonometry.



Fig. 9. *Canapa Nera* (Paolo Belardi, Daniela Gerini, Matteo Scoccia, Paul Henry Robb 2018), installation in the Courtyard of honour of the University of Milan (photo Federico Monti).

was then signed and recorded with some photographic shots, and then transferred to the Totem srl laboratory in Perugia, where the elements were analysed. Once isolated, the fragments were documented through a capillary photographic documentation campaign, classified according to a comparative criterion based on material and dimensional parameters, and filed by defining an alphanumeric identification code that takes into account the recurring materials (terracotta, stone, ceramic, wood, iron, plastic, fabric, cement), the dimensional development (defining three ranges) and the relative number (defined with a

progressive number). The measurement operations were aimed at detecting the morphological and material qualities as well as the state of conservation of the fragments, in order to obtain a consistent documentation, useful to give an overall reading in view of the subsequent exhibition project. Data acquisition activities saw the integration of different methodologies [Docci, Maestri 2010; Ippoliti 2000; Saint-Aubin 1999].

In fact, if on the one hand the possibility of exploring object allowed an immediate contact with its material and dimensional qualities, allowing the use of direct

Fig. 10. *Canapa Nera* (Paolo Belardi, Daniela Gerini, Matteo Scoccia, Paul Henry Robb 2018), installation in the Courtyard of honour of the University of Milan (photo Federico Monti).



Fig. 11. *Canapa Nera* (Paolo Belardi, Daniela Gerini, Matteo Scoccia, Paul Henry Robb 2018), installation in the Courtyard of honour of the University of Milan (photo Federico Monti).





Fig. 12. *Canapa Nera* (Paolo Belardi, Daniela Gerini, Matteo Scoccia, Paul Henry Robb 2018), installation in the Courtyard of honour of the University of Milan, detail (photo Federico Monti).

measuring instruments [de Rubertis 2011, p. 11], on the other hand, the complexity, irregularity and geometric heterogeneity of the fragments analyzed suggested the use of analytical photo-straightening instruments [Bianchini 2012]. The operations of direct survey have been developed taking into account a homogeneous level of depth, setting a scale reduction equal to the ratio 1:10 [Docci, Maestri 2010; Medri 2003]. Each fragment analysed was described through two-dimensional drawings, in orthogonal projection, with the creation of a frontal view and two side views (the latter ritually positioned to the left and at the bottom of the frontal view) graphically characterised, in order to restore the material quality of the surfaces and their state of conservation [Medri 2003, pp. 139-142]. Each fragment has also been represented with its own orientation, real or conventional, taking into account, where possible, the original 'position of use' [Pennacchioni 2004]. The restitution phase, developed through the use of homogeneous graphic conventions, was a necessary tool to return a coherent whole in relation to the information obtained, making it possible to compare the fragments analyzed and a synthetic reading useful for the design operations of the installation. 81 exemplary fragments were then selected with the aim of showing the multiple origins of the rubble: from the portions of building elements (such as beams or stones) to the architectural

finishes (such as tiles or frames), visibly referable to the dimension of everyday living. Contrary to a traditionally intended archaeological approach, in which the measurement operations are mainly aimed at obtaining data useful for the identification of the missing parts, or for the compensation of the gaps, in the context of the study dealt with, the measurement and graphic restitution of the individual rubble were aimed at enhancing its identity value, celebrated through the recomposition of a fragmented whole, scattered among voids. Nor could it have been otherwise. Because just as the task of reconstruction is not only to return a house, but also to preserve an identity, the measurement activity cannot only return a material quantification, but must also return an immaterial qualification. Making measurable the poetic space that separates suffering from hope.

Macerie prime

"Rubble represents not only an end, but also a beginning"
[Kiefer 2008]

The installation *Canapa Nera*, conceived as an ode to resilience and solidarity written with the language of feelings, was set up in Milan from 16 to 28 April 2018 in the southern portico of the courtyard of honour of the University of Milan on the occasion of the exhibition-event *Interni House in Motion*, curated by Gilda Bojardi and organised by 'Magazine Interni' as part of *Milan Design Week 2018*, involving internationally renowned designers such as Mario Bellini, Aldo Cibic, Michele De Lucchi, Massimo Iosa Ghini and Piero Lissoni [*Interni House in Motion* 2018]. Sinking its roots in the deepest sense of *kintsugi* (where gold dust became an alchemical mix composed by mixing the memories that permeate the rubble of the diruti walls of Norcia with the hopes that vibrate in the fibres of the natural fabrics of the Valnerina), *Canapa Nera* looked like a long two-faced wall, made by the Totem Group of Perugia by assembling on site thirteen prefabricated modular elements in mdf wood, made solid by an internal structure in metal carpentry and painted with the grey colour of the typical Valnerina's stone [Belardi 2016, pp. 93-117].

The facade towards the courtyard, which was marked by a slogan visible in the background of a rockfall net ('*guardavo le macerie e immaginavo il futuro*'), was marked

by a chaotic accumulation of rubble taken from the former nursery quarry of Misciano in Norcia (iron bars, shreds of brick, pieces of stone, etc.), anchored to the load-bearing structure by means of threaded steel bars and framed by an apparatus of providential works made with wooden beams painted red.

While the facade towards the portico, in addition to the terminal parts dedicated to the illustration of the concept and the list of credits, was marked by a polyptych of eleven large canvases of hemp in which the Milanese artist Daniela Gerini was inspired by the plots and colours that every spring, on the occasion of the flowering of the Pian Grande, make the panoramic view of the inhabited of Castelluccio unique, scattered hands, spirals, lightning, labyrinths, stairs, hourglasses and eyes with the aim of celebrat-

ing solidarity and, with it, the yearning for brotherhood that one breathes in the deserted streets of Norcia.

On the other hand, as Claudio Magris sharply notes, "destruction is also an architecture, a deconstruction that follows rules and calculations, an art of breaking down and recomposing, or rather creating another order" [Magris 1986, p. 13].

Credits

The installation *Canapa Nera* was designed by an interdisciplinary team coordinated by Paolo Belardi (University of Perugia) and with Daniela Gerini (Atelier Daniela Gerini of Milan), Matteo Scoccia and Paul Henry Robb (Academy of Fine Arts "Pietro Vannucci" of Perugia). The activities of surveying the rubble were carried out by Giovanna Ramaccini as part of a post-doc research grant developed both at the Civil and Environmental Engineering Department of the University of Perugia and at the M&G Engineering studio in Spoleto.

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