

REBUILDING THE SCHOOL ACCORDING TO THE LANDSCAPE WIDE OF THE LOCAL COMMUNITY

Abstract

Can a local community, rooted in its daily landscape, upon a dramatic event such as an earthquake, come up with a vision and rise once more from its own "idea" of landscape?

Set by a team of the University of Brescia, the project of the new school in Gualdo (Macerata, Italy) started with an interactive Workshop aligned with the orientation of the European Landscape Convention on the theme of recognizing the quality of places by inhabitants. This experience has demonstrated that it is possible. The children involved in the Workshop have elaborated their idea of school through indications of spaces and functions; but, above all, they expressed their desire for landscape in the form of detailed and precise indications of panoramic views that the new building had to have. The experience of this participatory Workshop, clear in the new building, has confirmed that the local community recognizes the landscape as a place of identity: the landscape idea may be the starting-point to live again in a town that has been damaged.

Keywords: Gualdo, Earthquake, Participatory Laboratory, Landscape, School

Introduction

Can a local community, rooted in its daily landscape, upon a dramatic event such as an earthquake, come up with a vision and rise once more from its own "idea" of landscape? This question is even stronger if the members of the community are children between the age of three and thirteen.

It is this issue that gives rise to the research hypothesis which is the baseline of the field experience illustrated here. Our aim is to investigate whether, following a traumatic event, a local community made up of children has a common and shared perception of the place where it lives and, at the same time, whether it is cohesive and pro-active in providing indications and scenarios on new school spaces, to restart daily activities safely. Since the project was directed to an age group ranging from childhood to pre-adolescence, one of the approaches chosen relied on their memories and/or perceptions of the landscape itself and of the buildings no longer existing. In other words, has the young community an emotional attachment to the local heritage, described as "sense of place" [1]?

Another approach used was to stimulate the imagination of functional spaces as never seen

before according to the specific needs of the population that would occupy them. The focus was on the integration between memories and imagination reflecting upon the characteristics of the new school building, making it be familiar and unprecedented at the same time.

The entire paper focuses on the phases and results of the project itself rather than on the theoretical framework. The objective was to bring real-life proof of the post-seismic reconstruction which also helped the inhabitants to psychologically process the loss and mourning of places and spaces lived on a daily basis. In this case, the key to understanding does not consider the risk of "alteration, decay, depletion or loss of material and immaterial assets that mark out landscape" (to mention the topics of the Conference); it shows instead that, in the case presented, the "risk of alteration or interruption of the relationship between community and places" did not occur.

A field research experience: first assumptions

The project we would like to present is part of an institutional activity of the University of Brescia¹, and it started after an environmental event that had a strong influence on the landscape of central Italy: the earthquakes that struck Marche region on August and October of 2016. Many school buildings in those areas were destroyed or seriously damaged. After these events, the newspaper "Giornale di Brescia" launched a public fundraiser to help the community of Gualdo (a little village in the area of Macerata) in the reconstruction of the school, so severely damaged like the historical downtown declared red zone and completely impassable (Fig. 1).

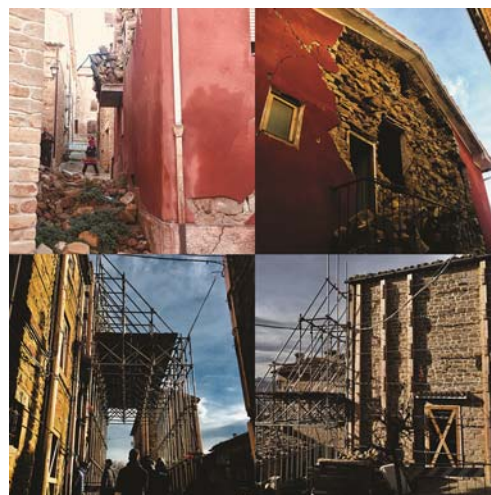


Fig. 1. Some photographs of the historical downtown of Gualdo, all red zone (photo credits: I. Passamani, 25/11/2017).

The Department D.I.C.A.T.A.M. of the University of Brescia² offered its skills to analyze the destroyed building and the opportunity to arrange the new layout of the area where the school is and to plan a new building. The entire study and the proposal were offered as a donation to the community of Gualdo.

This activity needed to be coordinated with an Association founded by a local newspaper ("Giornale di Brescia"); it was called "Don't leave them alone".

A similar title was given to our procedure: "School in Gualdo#Don't leave them alone".

The following considerations were made clear and evident at the first official survey and after the meetings with the community of Gualdo:

- the local community was very fond of Gualdo and did not want to abandon it for any reason;
- the local community considered the school as a relevant building;
- the local community was afraid and did not accept the idea to go back to the old building, despite the widespread affection to the institution itself;
- the local community wanted the new building in the same site and having the same size. The old building, actually, had a very particular position in the urban context, as we explain here later [2].

All these considerations led us to the decision to involve the beneficiaries of the new school in a Laboratory project activity (a simplified version of "Participated Planning Laboratories" mostly used in urban space design³, preventive and functional to the project itself. After the dramatic event of the earthquake, we thought the students could envision a design taking off from their idea of landscape. The interactive Workshop was aligned with the orientation of the European Landscape Convention on the theme of recognizing the quality of places by inhabitants. This involvement is very important and meaningful, because it increases awareness and education for a landscape culture [3].

In the book "Mindscapes" [4] it is highlighted that in the Convention the psychological aspects of the landscapes are not dealt with. However, in the case of Gualdo, it was evident that there were situations of damage or risk, shown in the words and drawing of the children. In some maps drawn by memory, for example, the young students marked with red pencils the barriers used to divide the red inaccessible area, severely damaged by the earthquake (Fig. 2).

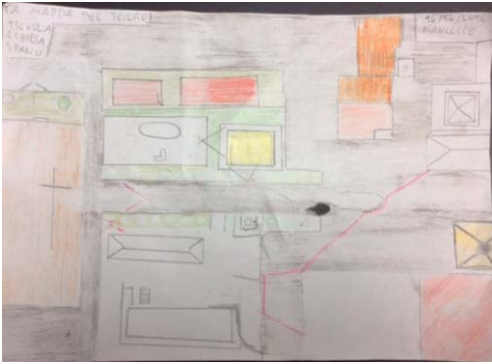


Fig. 2. Map of the area of the school and its surroundings, by memory: the red line clearly divides the inaccessible red zone downtown (Francesco, 16/12/2016).

Methodology

The field experience "School in Gualdo#Don't leave them alone" was organized in three different phases:

- Phase 1_Workshop "The school from which we'll see the world" by DICATAM⁴; Assisted workshop, aimed at girls and boys, to prepare the project activity of the new school as a multifunctional building;
- Phase 2_Project of the new building (Surveys of the area, detailed plan, architectural project) by DICATAM⁵;
- Phase 3_Final executive project by professional Association of Architects and professional Association of Engineers, with participation of DICATAM⁶.

The children involved in the Workshop "The school from which we'll see the world" elaborated their idea of their school building through indications of spaces and functions; but, mostly, they expressed their desire to see the landscape in the form of detailed and precise indications of views that the new building had to have.

The workshop "The school from which we'll see the world" (Phase 1)

Based on the age, three groups were formed (kindergarten, elementary school, middle school); the workshop had different activities, depending on the grade level: games, practical-graphical activities and discussions allowed the children to think about the school as a place from which to look at the future with recovered confidence. We proposed some questions: which features should be saved from the old building? What would they like to recover in the new setting? We invited children attending the elementary classes to reflect about the links between the location of their school and the surrounding space. They expressed an impressive "sense of landscape" requesting panoramic views of the Sibillini mountains and of the high trees, swaying with the wind; the kindergarten children worked with modeling clay on wood tablets and they suggested familiar and comfortable spaces they would like to have in the new building. The older boys and girls of the middle school, with sense of responsibility, designed new spaces to take care of, even during extracurricular time.

The suggestions of the children found confirmation in the indications received from the entire community of Gualdo, during our meeting.

School is an important landmark and it plays a role as a significant symbol, a fulcrum of the collective life; for this reason, it is consolidated in the landscape. It is important that its image, its perceptibility remains unchanged.

In summary, two thoughts emerged:

- the school (blue) as a link (red axis) between the historical downtown and the ancient monastery, present day nursing home;
- the downtown has been defined as "the heart of the village, where life pulsates" and the nursing home as "the heart of the memory, where grandparents preserve the history of the community";
- the position of the building on the ridge of the hill allows a double panoramic view of the gentle landscape of the Marche hills on the north, and of the Sibillini mountains on the south, making the school an amazing "view-bridge" (Fig. 3).

Those thoughts demonstrate that young people identify themselves with landscape [5].

We are dealing with "mindscape: paesaggi raccolti nella psiche e psiche immerse nei paesaggi. Percezioni visive che diventano visioni mentali" [6] which can be translated as "mindscape: landscapes gathered in the psyche and psyches nestled in landscapes. Visual perceptions that become mental visions".

Characteristics of the project

A traumatic event, such as an earthquake, causes a sudden change in the characteristics of the building and, in general, of a consolidated landscape, imposing serious reflections on what must be done when you think you can carry out its reconstruction⁷.

Each building becomes a case in itself, being the object of diagnostic investigations, mainly aimed at identifying the damage and possible consolidation interventions, but when all this testing highlights structural problems that do not justify its maintenance, the conclusion is to demolish the construction.

A similar situation has been found for the school of Gualdo with evident static issues and a constant fear of accepting its reuse (Fig. 4). Being any technical insurance, not possible in the case in question, the community did not accept that their children's return to that building, despite the widespread affection that the institution possessed.



Fig. 4. Gualdo, the old school "Romolo Murri" after the earthquake: the main façade and a classroom (photo credits: R. Marmorì, 16/12/2016).

It was therefore necessary to choose to operate the demolition/reconstruction intervention. The first aspect to deal with was to confirm the location of the construction, as well as to establish the formal arrangements, especially volumetric, of the new building.

These assessments were significant, since the introduction of any variation would have produced an alteration of the characteristics of a consolidated landscape, sufficiently homogeneous for the type of construction and finishing materials.

For this reason, workshops with children were activated and, at the same time, discussions with the community, well represented by its Mayor, Giovanni Zavaglini.

Following the meetings, it was understood that the school should have been rebuilt in the same place, being a site always designated to host it, and that a compact volume with typical finishes of the place should have been proposed in order to recall the ones in the historic center of Gualdo.

Project of the new building (Phase 2)

Thanks to these indications and to the commitment made by the University of Brescia, in particular to DICATAM, we began to develop a general design, addressing all the possible aspects of future intervention.

As a matter of fact, the city of Brescia, which wanted a concrete gesture towards compatriots who lived difficult times, had chosen to offer the reconstruction of a symbolic building using the money quickly collected with the subscription launched by the "Giornale di Brescia".

In the spirit of solidarity, the University of Brescia also wanted to offer its contribution. It was decided to donate to the Association "Non lasciamoli da soli", which was specifically set up

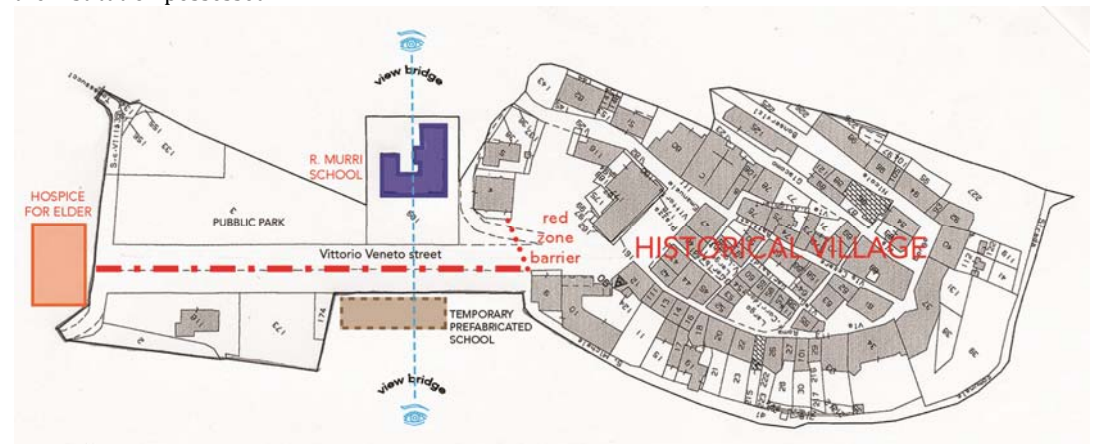


Fig. 3. Gualdo, cadastral map with some focus and remarks during the briefing with children: it is evident the role of the school both as a "view bridge" to the landscape, and as central point between the nursing home and the hearth of the historical downtown (source: I. Passamani, 16/12/2016).

for the initiative, a design hypothesis to verify the feasibility of the intervention and make it possible.

In order to operate, a working team was created at the DICATAM, involving the Professors of the design disciplines, in which I played the role of coordinator, because of my decades of experience in the professional field. Thanks to the awareness of the indications provided and the expectations of the children, it was created a new school building that would improve the quality and functionality of the spaces compared to the pre-existing ones, respecting every municipal, supra-municipal ruling aspect and every directive about the construction of school buildings.

The ultimate goal was to create a building ready to be used at the opening of the school year, despite the difficulties encountered. In fact, the building should have housed in addition to the kindergarten classes, primary school and middle school classes, as well as a series of spaces for the community, in order to allow a rapid recovery of public and social activities, explicitly requested by the Mayor.

The timing was immediately very tight due to the fact it was not easy to reach the definition of a shared compact scheme and it was necessary to carry out several meetings on site. Not to mention that, once our part was completed, the executive project would have started, the urban/building procedures to legitimize the construction completed, the process for awarding the contract activated and finally the building physically built. This is why it was chosen to develop the project in depth, in order to contain the subsequent times and to delegate the definition of construction details, the structural and plant engineering aspects to the executive.

All regulatory issues were previously addressed and in this way, it was possible to set up documents that did not encounter any problem when issuing authorizations.

The first aspect to resolve was the preparation of a "Piano Particolareggiato" expressly required by the town planning legislation in force in the Municipality of Gualdo.

This implementation tool, including a precise Implementation Standard, could only be used after the overall volume had been shared, accepted and verified.

For this reason, the path followed was to prepare an architectural distribution draft, question it with future users, with the explicit request to be able to introduce only minor variations, and develop on the proposed dimensional data the "Piano Particolareggiato", safeguarded by appropriate margins of flexibility.

In the tables prepared for the Piano it is possible to recognize the fundamental choices of the entire architectural project. It is clear how the new construction follows the legacy of the pre-existence, respecting a desire of the Community, but also a hierarchization of the external spaces due to the levels of use. It is evident the presence of open spaces, well exposed and oriented towards the best panoramic view, available only for classes for younger children, as well as the presence of an open space, located inside the new building, therefore well protected with perimeter walls,

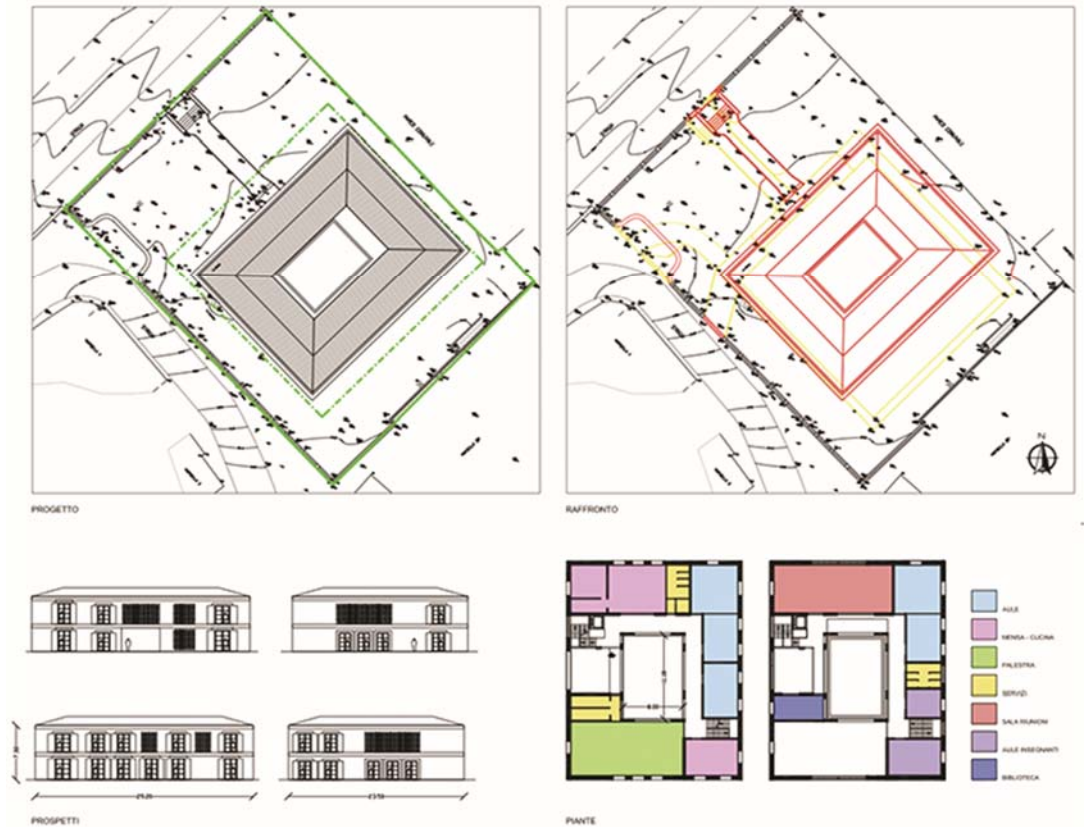


Fig. 5. Project of the new school "Romolo Murri" of Gualdo. Planivolumetrico and typological model: classrooms (light blue), refectory and kitchen (pink), gym (green), toilets (yellow), meeting room (red), teacher's rooms (violet), library (blue) (source: R. Marmorì, 24/03/2017).

available to all students.

For the entire Community, however, are the garden space of access to the building, around which the parking areas for public and private transport are appropriately identified. The bureaucratic times for the approval of the urban variant were used to define the architectural project on time: thus, all the distribution choices were made, in order to definitively establish where to locate each activity, at what level to insert it and which were the spaces of relevance for each class group (Fig. 5). Therefore, each room was checked and calibrated in its optimal sizing, in reason of the number of students, of furnishings and equipment to install, in order to offer the best functionality. Moreover, some large rooms have been inserted in the building, with independent entrances, to be used in moments of closure of the school activity, by the Community of Gualdo. This has led to the definition of plans in plan, elevations and complete sections, which constitute the basis for the executive project, indispensable for activating the tender procedures.

The scheme coherent with what was then carried out included, on the ground level, the kindergarten and primary school, and on the first level the secondary school.

In addition to the classrooms, the canteen and the gym were also located on the ground floor; on the first level the remaining functions such as the library, the teachers' room, the multimedia room, the laboratory and the multipurpose room (Fig. 6). At the compositional-architectural level, an attempt was made to give an internal breath to the "closed", monolithic volume of the building thus obtained, with the creation of the so-called

"cloister".

It is a space – a place – inside the school volume, but outside, not covered, not air conditioned (Fig. 7, Fig. 8). A choice with an important functional and symbolic value, as a "central reference", perceptible from all environments, as well as the portico, a point of contact, the border between



Fig. 6. Project of the new school "Romolo Murri" of Gualdo. Plan of the ground floor with the open space-cloister and a covered space-Agorà for socialization, 3 classrooms for primary school, a classroom for kindergarten school, a gym, a kitchen, a canteen, toilets, classrooms for middle schools, 2 laboratories, a multipurpose room, a teachers room, a library (source: L. Notarantonio 22/09/2017).

the interior and exterior of the building, and “sign” in the prospect that identifies the entrance to the school.

Overall, the project proposes a new block-type building, with a rectangular shape, whose sides measure 29.46 x 24.27 m, for two floors in height, inside which there is a square courtyard, 8.16 m per side, which offers adequate brightness to all internal views.



Fig. 7. The main staircase with two continuous ramps of the new school “Romolo Murri” of Gualdo, from the square courtyard (8,16 m per side), which offers adequate brightness to all internal views (photo credits: I. Passamani 15/09/2018).

The total gross area is 1,251.60 square meters, more precisely 615.40 square meters on the ground floor and 636.20 square meters on the first floor. As children requested during the Workshop, the project has also been set up to guarantee the use of some spaces, such as the gym, the library or the multipurpose room, even outside the school hours so that the community could have new public areas: in fact both gym and library have a completely independent access or use vertical connections placed in immediate contact with the main entrance.

Phase 3: Final executive project

A working team was established between professionals outside the University, in order to gather all the professional skills necessary to develop the documentation of a contract.

Only a few months have passed since January

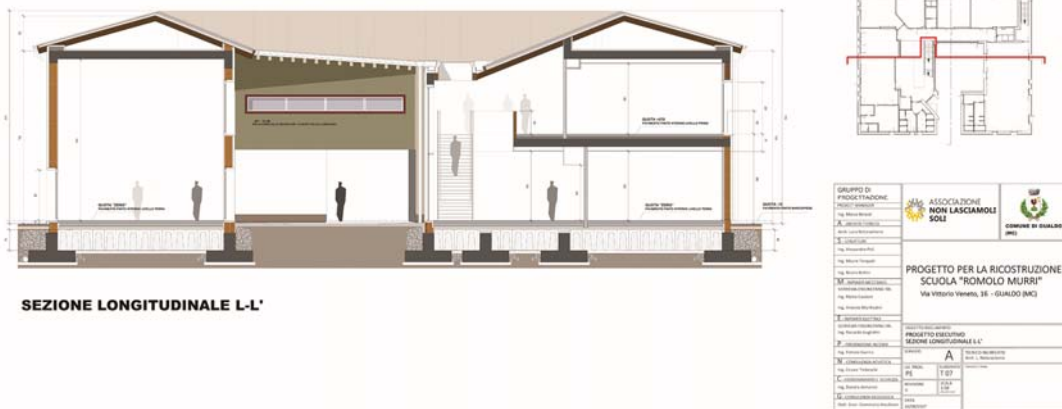


Fig. 8. Project of the new school “Romolo Murri” of Gualdo. Cross section of the open space-cloister in the middle and of the covered space-Agorà. The maximum height are 7.43 m at the eaves extraction and 9.16 m at the top higher (source: L. Notarantonio 22/09/2017).

2017, the start date of the adventure, and the rest belongs to real life: the executive material is ready at the end of summer, the contract is awarded, the first stone is laid on 25 November and the “Romolo Murri” School is inaugurated on 15 September 2018, ready for the new school year.

The very short time and quality of the work carried out have been extremely satisfactory for all those who participated and the correct crowning of the exceptional gesture of solidarity made by the Brescia community.

Results

Can a local community, rooted in its daily landscape, upon a dramatic event such as an earthquake, come up with a vision and rise once more from its own “idea” of landscape? The question, at the end of this particular field research experience, got an affirmative answer. The young citizens were at the same time both actors and spectators of their own daily landscape, according to the interpretations by Turri [7]. They were able to give their definition of landscape [8].

The experience of the Workshop confirmed that they recognize the landscape as a place of identity: the landscape idea may be the starting-point to live again in a damaged town and to help and steer the project too, supporting the choices of the best solutions not only for the safety but also for the well-being of the future users. In this way, they moved from the “identity” point of view to one of “belonging” [9].

The Workshop, aligned with the orientation of the European Landscape Convention on the theme of recognizing the quality of places, helped young students become better citizen in the future. The children that lay their “first stone” during the official ceremony will remember this meaningful gesture in the future: touching the stone to create a new architecture [10]. Probably, while they reflect on the dramatic event that destroyed the school, they will think about the different steps of their experience: the tents, the temporary prefabricated wooden school, the demolition, the groundbreaking... and finally the new building also designed by themselves (Fig. 9, Fig. 10).

Acknowledgements

Despite having shared objectives, methodologies and results of this field research experience and planning activities, it is highlighted that Passamani is the author of Abstract and Paragraphs 1, 2, 3, 4 and 8; Marmorì of 5, 6, 7.



Fig. 9. Some steps of the experience about the new school “Romolo Murri” of Gualdo. The old unfit school; the classrooms-tents; the official groundbreaking; the opening of the new school (photo credits: I. Passamani 14/11/2016; 25/11/2017; 15/09/2018).



Fig. 10. One of the panoramic views from the classrooms of the new school “Romolo Murri” of Gualdo, according to the requests of the children (photo credits: I. Passamani 15/09/2018).

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NOTES

1. I. Passamani coordinated the whole institutional project "Scuola a Gualdo #Nonlasciamolisoli" as Rector's Delegate for Buildings and Properties of the University of Brescia.
2. The first official proposal was by the Director of the Department, Giovanni Plizzari.
3. <http://www.mappadicomunita.it/>
4. B. Badiani (D.I.C.A.T.A.M.) designed and coordinated the Workshop, teamwork B. Badiani, C. Manfredini, I. Passamani.
5. R. Marmorì was the team-leader of the equipe of D.I.C.A.T.A.M. (Angi, Arenghi, Badiani, Clerici, Colleselli, Fappani, Longo, Metelli, Passamani, Plizzari). To ensure a cultural-compositional continuity and not significantly modify the basis handed over to the "Don't leave them alone" Association, the development of the architectural executive (Phase 2) was by arch. Luca Notarantonio, who has collaborated with the studio of Marmorì.
6. M. Belardi was the Project Manager of the equipe of experts: "Don't leave them alone" Association (Belardi, Ferrari, Meini, Seccamani, Strepavara Torri); UNIBS-D.I.C.A.T.A.M. (Marmorì, Metelli, Passamani, Plizzari); professional Association of Architects (Camadini), professional Association of Engineers (Armanini, Bettini, Castioni, Guerra, Manfredini, Perani, Poli, Tininini, Torquati).
7. Bibliographical references about the focus earthquake/consequences/activities mainly deal with relevant and technical aspects about survey and reconstruction activities [11] [12] [13] [14].