

LUDOVICA GREGORI

preface by
MARIA DE SANTIS

afterword by
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Social reconstruction in post-seismic emergency

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EVEN IF A BUILDING
IS MADE OF PAPER,
IT CAN BECOME
PERMANENT IF PEOPLE
LOVE IT.

Shigeru Ban



foto Francesco Pittacchiale



“Il Senso
Della Vita”
(*The meaning
of life*),
Collegentileco
(RI), 2018.

I met Ludovica Gregori when she came to ask me to be her supervisor for her Major Degree thesis project and already in this first encounter I was amazed by the maturity of her approach to the topic's choice and the way she introduced herself. The motivational lever behind this research work was evident from the presented documents and, above all, from the accounts of the volunteer experience in the territories of Central Italy hit by the earthquake in 2016. The fruitful dialogue between her experiences and my knowledge of the state of the art of research on the topic, carried out within the disciplinary research group¹, was a valuable opportunity to broaden our view of project responsibilities and new topics for research. That heartfelt and personal account of the effects of the earthquake are clear in terms of social disaggregation and psychological trauma. They called for the need to add to the search for resolutions on the material effects of the earthquake; a type of research that would also consider the intangible effects that can often be even more damaging to people. In recent post-earthquake scenarios there has been a growing awareness of how the built environment is not only the first material reference for the affected populations, but also an intangible reference in many respects. Indeed, the destruction of the built environment compromises the collective memory on which a community relies for its history and identity². This aspect is independent from the size or function of the building to the point of assuming particular value in cases where, due to its historical and cultural importance, it also comes to assume a strong symbolic relevance for the inhabitants, as in the case of churches, monuments or historic buildings. Restoring these elements of identity is a task of great responsibility for the future life of the place, both in material and economic terms and, even more so, in the future relational and social developments that the reconstruction process can produce. The events and critical issues surrounding the construction of the S.A.E. (*Soluzioni Abitative di Emergenza* - Emergency Housing Solutions), also known as 'casette' (little houses), pro-

¹ Publications include: Bologna, Terpolilli (2005), *Emergenza del Progetto, Progetto dell'Emergenza*. Milano: Federico Motta; Bennicelli Pasqualis (2014), *Case Temporanee*, Milano: Franco Angeli.

² Grande, Migliorati (2016), *Maurice Halbwachs. Un sociologo della complessità sociale*, Morlacchi ed.

vide a basis for reflections and considerations on emergency management and its impact on the territory.

In Italy, studies on post-earthquake reconstruction, such as the example of Friuli, have highlighted how the possibility of preserving pre-existing neighbourhood relations and being able to verify *de visu* the progress of the reconstruction of one's home and village have undoubtedly influenced the progressive re-establishment of the equilibrium altered by the trauma of the seismic event.

For these reasons, urban planning solutions and, more generally, those concerning the construction of S.A.E. settlements, even if adopted in an emergency phase, should be the result of careful planning that adds to the merely technical aspects other perspectives related to the specificities of the territory and the population living there. Solutions should be effectively implemented with the concrete participation of local administrations and the population itself involved in seismic events.

Italian regulations and experiences for post-emergency living are meagre and lack social and environmental perspectives. The research shows how post-emergency temporary homes fail to meet people's needs and to help them accept the loss of their homes and towns. In contrast, a high-quality public space, designed not only according to the functional and rational canons of urban planning but also with community needs in mind, could promote active engagement by the affected community, accelerating trauma elaboration and combating social isolation.

In the absence of legislation on temporary urban developments, the research proposes tools to support the design of open spaces for temporary post-disaster settlements, offering a resilient method to promote social interaction and address critical social challenges.

The strong commitment of the architect to their social role underlies this work, and it emerges in the awareness of the need for an expert contribution. This role requires the ability to analyze and interpret spaces, places, and architectural pre-existences, while also translating the needs and expectations of the inhabitants, fostering their awareness in claiming their spaces both individually and communally. This is the ethos and intention behind this book, which demonstrates a commitment to integrating multiple facets while maintaining a clear, rigorous, and mature methodology on a research topic that is not only unique but also valuable in outlining new directions for project priorities, embodying Jan Gehl's sentiment: «First life, then spaces, then buildings.»

Introduction





Accumoli
case-study
before
the 2016
earthquake.

The reader should keep in mind that the whole research has been carried out focussing on the social aspects around the earthquake matter in Italy. In this case, analysis and assumptions are based on the post-seismic scenario of the 2016/2017 Central Italy earthquake swarms and compared with other case studies abroad and in Italy.

In these terms, these earthquakes affected around 32.800 people who were re-allocated¹, 388 were wounded¹ and 298 died². 66% of the population lived in cities and 34% in villages and small communities² when this earthquake happened. The population is mostly over 65 years old (28,3%) and the density is low (14,5p/km²)³ as the residents are spread across villages in a very mountainous landscape. Currently, 2.878.326 people live in the highest seismic risk area in Italy (Zona 1 - Area 1), which is where the epicentre of the first earthquake of the swarm was located. Numbers on aside, this research tries to look at the earthquake disruption from the point of view of the inhabitants leaving behind artistic values and buildings typologies to focus on the elements of the former daily life backdrop.

At first the aim was to gather information on the social effects of a calamity, a seismic event in this case, on individuals and communities. This was based on theoretical research first and an empirical one through direct enquiry to the inhabitants of Accumoli (Rieti), one of the Municipalities in Central Italy (676 people in 2015, 612 in 2019)⁴ which didn't gain much visibility from the earthquake as others nearby, Amatrice as the main example (Polidori, 2018). Accumoli presented itself as a good case study because of its layout, aspect, and activities typical of Central Italy village and its average size.

At this point, it was important to deepen the phases and effects of the trauma (Gordon, 2004) from a disaster and to clarify the meaning of community (Woelfel, Fink, 1980), identity, built environment (Mela, 2014) and resilience (International Development Dept., 2011). Social

¹ Martini A., *Perché la qualità del territorio genera competitività*, "Civiltà di cantiere" n°1, Democom, 2018, pp.5.

² Tortora F., *A tre anni dal terremoto nel Centro Italia ecco i numeri della ricostruzione*, "Corriere della sera", 2019.

³ Iannetti L.; Boschi M., *Reconstructing. L'Aquila, Po Valley, Central Italy: post-earthquake plans and resources*, Dossier: Analysis Document N. 21, Impact Assessment Office, Senato della Repubblica, 2018, p.86.

⁴ Istat, *Accumoli Population (2015-2019)*, 2020.



↑
Temporary
village of
Accumoli under
construction,
2017.

bonding is generally lost after the disaster and may not be restored before reconstruction: the risk is to reconstruct destroyed villages for a community that doesn't exist anymore, whose needs are changed (Calandra, 2016) or which members will be gone due to lack of attachment to the territory. The need to rebuild the sense of identity and community within the residents of Accumoli and its surroundings was confirmed by the direct experience in the area.

It was then necessary to identify when and how there it is an opportunity to recover from the traumatic experience as individuals and as a community. Residents of villages such as Accumoli in Central Italy have been rescued in tent camps at first, then accommodated between 2016 and 2017 into other locations which could be just temporary or definitive according to their choice. The reconstruction process is complex and lengthy, so temporary villages were built for the residents. Great part of the population preferred these would be placed near the destroyed villages and hamlets.

After surveys in the area, in depth interviews (Corrao, 2015) and walking interviews (Kanstrop, 2014) with residents, administration members and psychologists, it seemed clear that, in cases such as Accumoli, there was an opportunity, in the temporary villages, to rebuild the damaged community before facing the return into the re-built village. In the case study, public spaces and architecture don't promote socialization: this opportunity was lost here as in other temporary settlement scenarios.

Traumatic experiences

Surviving emergencies is not just a matter of what happens at the impact, but also of how the environment supports the complex and protracted processes of recovery. The social environment of the aftermath is crucial in determining how well people adapt to stress, change and emergencies (Coman 2003; Gist, Lubin 1999). Traumatic events shatter essential assumptions for psychological health, which are formed in the context of community life (Janoff-Bulman 1992; Kauffmann 2002). Recovery from disaster and trauma involves not only personal psychological work, but also support for the reconstruction of these assumptions as part of the social system in which they live.

Dr. Peter Rob Gordon
Clinical psychologist
Victorian State Emergency Recovery Unit, Australia
Gordon, 2004, p. 19

TENDA

7





Accumoli
tent camp,
2016.

Glossary of trauma

After a natural or man-made disaster the population and their territory are affected by more or less hash changes. Some of these effects can cause a trauma at a individual level and a wider community one. Before stepping into the description of the trauma and its phases, it is important to clarify the scenario in which this is analysed and other related concepts.

First of all, the title itself of this contribution wants to underline the contrast between the current approach to disaster recovery and the one assumed by this research. The term reconstruction is generally used to indicate the process of material re-building process of an area destroyed by an earthquake that is often seen as the solution to all the issues of these fragile territories. The word reconstruction is here instead referred to the social system of a territory hit by an earthquake, which is something that policymakers, planners and architects should focus on much more as many no-profit associations do instead.

It is evident how an earthquake puts in direct connection social and psychological difficulties with architecture due to the immediate loss of the built environment. Quoting E. L. Quarantelli (1999, p. 2) on literature cases: «Those that use reconstruction seem to stress almost exclusively the postimpact rebuilding of the physical structures destroyed or damaged in a disaster. For social scientists and most operational personnel that is not the most important dimension to consider. It is nevertheless what some individuals and groups primarily attempt to do—putting up buildings and material infrastructures to replace those impacted by disasters.»

Besides these contrasting concepts to be underlined here, the word reconstruction can be assimilated to recovery, at least in the English language, implying the attempt to “bring the post-disaster situation to some level of acceptability. This may or may not be the same as the preimpact level” (Quarantelli, 1999, p. 2). The idea of recovery as a process and its undefined outcomes are very important shades of meaning because the community identity is living a significant and long transformation due to the emergency experience.

The most relevant concepts to this research are: disaster, community, built environment, identity, resilience and, finally, trauma. According to different studies and approaches of

→
The sign of St. Francesco square rescued, Accumoli Red Zone, 2016.



research, in the literature consulted for this research there are different definitions for these themes and concepts. The following definitions are the ones considered most appropriate for this research: they have been then adopted to describe the scenario and the approach of the analysis.

The word disaster is here in reference to a natural event, not man-made one, which can affect both the population and the environment. The definition by the Cambridge Dictionary suits the approach of this research as it focuses firstly on the people: «A natural disaster is a natural event such as a flood, earthquake, or tsunami that kills or injures a lot of people.» In this text, other words such as calamity and catastrophe will be used with this meaning as well.

People and man-made structures are the elements affected by a catastrophe that are here analysed, so the concepts of built environment and community are fundamental. About community after an emergency, Gordon from the Australian Victorian State Emergency Recovery Unit stated: «Community is a large, relatively stable collection of groups and individuals, organised with coherent relationships on multiple dimensions represented in the members' minds with surprising consistency (Woelfel, Fink, 1980), and occupying a common locality with a relatively steady social structure of authority, power and prestige and a common culture (Alpers, 2002).» (Gordon, 2004, p. 21); «Although the idea of community is often criticised (Dyke, 2002), it is a necessary dimension of human existence (Miami Theory Collective, 1991). Community is not a static entity, but a combination of groupings defined by organising cultural beliefs and practices, constantly open to change (Masolo, 2002). Members of communities are united by what they have in common as part of their identity and sense of self, in spite of their differences (Wiggins, Schwartz, 2002). Loss of community threatens identity, and is distinct from the loss of primary relationships (Harré, 1993).» (ibid, p. 20).

In this context, the concept of identity is related to the community as well as to the

next page
Access paths,
Accumoli,
temporary
village, 2019.



individual and their territory. While approaching the study of the relationship between the space and the people's well-being, there is a key point in this concept. The personal identity is strongly connected to the built and natural context, which include for example the place of work, the family house, the friends' meeting point or the religious ceremony locations and so on. One can relate to these spaces and buildings and find a reference point also for their self-awareness. As for an example, the job can be the pivot point in a day where any activity has lost its previous location as mentioned during an interview by a Nurse Coordinator Paola in the area of the 2016 earthquake: «Now I can't hide that living here it's very complicated, more than what people would think because in reality there is no a life here, there is no daily routine anymore, there are no places anymore, there is nothing. To stay here to work means to keep an identity and a role in a situation in which you have no identity anymore. Obviously, there is the role of mother, wife, but the job it's something that settles you, it centralizes you, it gives you a routine.».

In relation to the context, a community can be also considered as a social system whose features developed, layered and changed through time in co-evolution with the physical environment (Davico, Mela, Staricco, 2009).

The concept of built environment is then directly connected to the community one. Built environment is the product of the relationship between the social system and the natural system due to the anthropization of the natural environment. This definition underlines that the built environment is shaped by the layering of events and the response to different needs in the community. It is not just a system of different building types, functions or artistic features (Mela, 2014). The strong link between these two concepts can be confirmed by the Italian case of Gemona in Friuli¹ described by the physiologist T. Cancian in an interview in

¹ Friuli earthquake (Italy, Friuli Venezia Giulia region, Gemona del Friuli and other 76 municipalities, 1976): one of the best-known case of reconstruction of the destroyed town as it used to look before the earthquake but with seismic-proof technologies..

→
 Accumoli,
 Via Tommasi,
 before 2016.
 The doorsteps
 were not just
 the threshold
 between private
 and public but
 a place to meet,
 sit and socialize
 naturally.



2001 (Fenoglio, 2006). He summarizes the feelings of Gemona's inhabitants about the "as it was, where it was" type of reconstruction: even if the architectural features of the community were built back as they were, the social community is forever changed.

Dramatic changes in community and living arrangement constitute stress (Farley, Werkman 1990; Kaminoff, Proshansky 1982) which can lead to a shock. In this context, trauma is intended as the consequences of events that shatter essential assumptions for psychological health, which are formed in the context of community life (Janoff-Bulman 1992; Kauffmann 2002). Here there isn't a discussion on the traumatic stressors: these happen before the post-emergency phase which is the focus of this text.

At the same time, this research can not go any deeper on analysing and categorizing persistent forms of disorder, which impede normal individual functioning (Van der Kolk, McFarlane, 2004) as it will step fully into the psychological and medical fields. Also, the traumatic episodes affect the individual as well as the community; the latter has the potential to support the individual crisis as well as the recovery of the territories intended as social, economical and environmental systems.

A community affected by traumatic events is not necessarily full of people with Post Traumatic Stress Disorders (PTSD) but it can change with negative repercussions in the long term, causing, in extreme cases that are not uncommon in small centres, even social dissolution.

In response to a traumatic event, the Department for International Development (2011, p.6) defines disaster resilience as «the ability of countries, communities and households to manage change, by maintaining or transforming living standards in the face of shocks or stresses - such as earthquakes, drought or violent conflict - without compromising their long term prospects.». One aspect of this definition is strictly related to the nature of the impact: in this text, only the ones of immediate destruction, specifically earthquakes, are considered. The concept of resilience has an increasingly central role in recent studies on post-emergency situations. It is here used to specify the preference for an approach that emphasizes the endogenous factors that help a community to cope with the impact of a disaster, rather than focusing solely on the factors of vulnerability. This method focuses more on the internal resources and the dynamic ability of a community to transform itself in response to a disaster (Mela, 2014).

Phases of post-seismic trauma

Architecture studies can often cross other subjects according to the circumstances. In this case, it seemed necessary to approach, even if just superficially, the field of sociology and psychology to understand the dynamics of communities struck by disasters.

What generally happens to each individual after a traumatic experience was described by two psychologists interviewed during this research who supported the Central Italy population after the 2016 earthquake. On the other hand, to understand globally the social responses of communities, the main reference was the study of traumatic phases by R. Gordon (2004) then re-elaborated by M. T. Fenoglio (2006).

This study is here used to defined general phases of a traumatic experience, changes in groups and social relationships. The observed community model considers the role of communication and interpersonal activities in creating social bonds. This is of interest for this research as it is believed that communication, and thus sharing, of the common experiences and the social activities can promote trauma recovery. Architecture can provide high quality space that can allow and foster these socially-engaging behaviours and happenings in general.

The adopted model is set out in the following stages subdivision related to the psychosocial phenomena delineated by Gordon in 2004: pre-impact, impact, post-impact, reconstruction. «Disaster impact causes a sudden, dramatic alteration in social structure [Fig. 1] with victims tending to “de-bond” [Fig. 2] from the social structure of their community under the threat. This is followed by a community-wide process of “fusion” [Fig. 3] bringing about a social system adapted to immediate needs but not to long-term recovery.» (p. 19). «Up to 75% of healthy survivors engage in rescue activities without waiting for official guidance, making

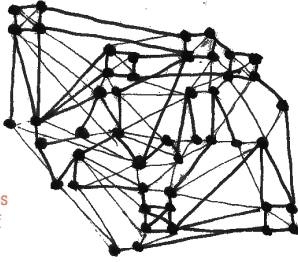


Fig. 1 - The community as a structure of social units

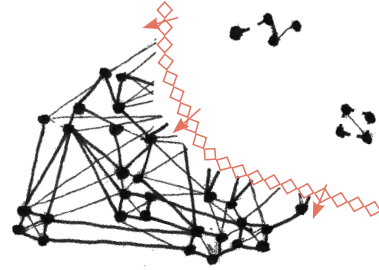


Fig. 2 - Disaster Impact
> Debonding

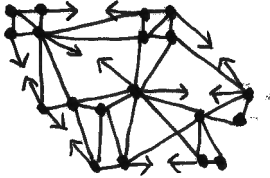


Fig. 3 - The Fused Community
> Rebounding

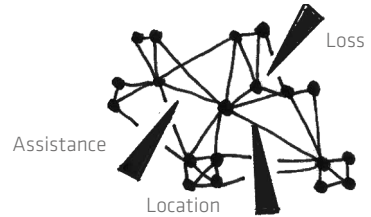


Fig. 4 - Divisions caused by different factors

their own way to medical or other resources, using their initiative and local knowledge (Drabek 1986). Pre-existing and emergent social networks are strengthened with common values of sacrifice and altruism, and barriers between them tend to disappear (Leiverson, 1977).» (ibid, p.24). Dr Nigro, the pharmacist of Accumoli who moved there 3 years before and lost his house and shop, tells his experience in the 2016 emergency: «[I live] In a tent, together with seven other people. A very strong bond was immediately created. The day before yesterday I went to Rieti for a coordination meeting, I decided to stay there at friends'. Late at night I was called by all the comrades, because they didn't see me coming. In a difficult time like this, these are the things that give you the strength to move on.».

«With time, tensions develop leading to the appearance of “cleavage planes” [Fig. 4] between conflicting groups. An alternative form of constructive social differentiation follows with coordinated recovery interventions.» (Gordon, 2004, p. 19).

The presented diagrams are an elaboration of Gordon's ones which were a starting point to guide the analysis of the case-study. A further step has been taken to create a more specific description of the effects of the earthquake and its emergency strategy in 2016/17 on the population. The attention is drawn towards the stage of “re-bonding” and the social division that suddenly follows it.

Generally, the state of fusion (“re-bonding”) is unsustainable: the normal demands of

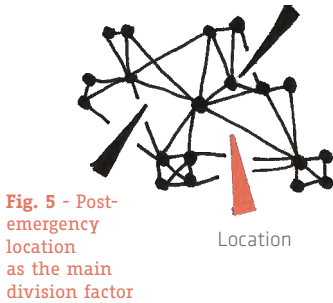


Fig. 5 - Post-emergency location as the main division factor

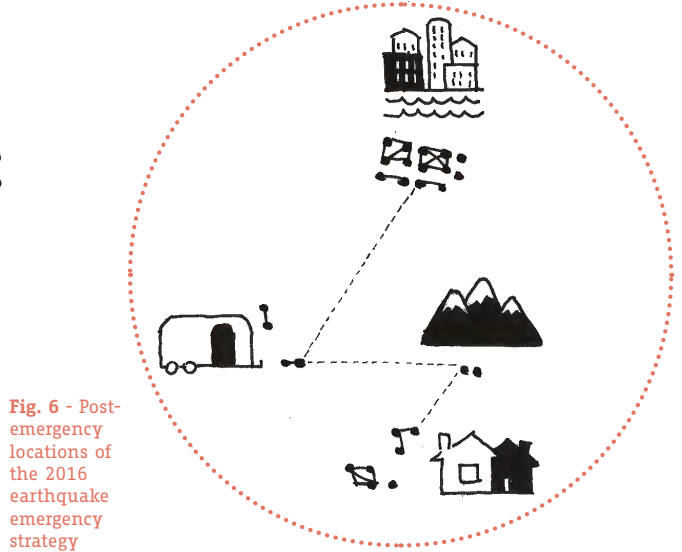


Fig. 6 - Post-emergency locations of the 2016 earthquake emergency strategy

life re-emerge, it is very hard to manage emotions and rumours about inequality of assistance amplify conflicts. In the 2016 earthquake, this stage of “honey moon” (Fenoglio, 2006) [Fig. 3] of the survived people happened in the tent camps and indeed, as usually happens, lasted a very short time. Soon afterwards, some division factors (“cleavage planes”) have arisen: compensation, resources, experiences, losses etc. The most relevant to this research is the location of the population [Fig. 5]. Some people were willing to stay in the areas where their destroyed houses were, some moved to other cities in private homes, most of them were hosted in hotels on the seaside [Fig. 6]. In this scenario communication and social links was also physically broken. A lot of people who lived in the hotels described that time as a “forced cohabitation” and an “exile” in which people experienced an exaggerated level of “welfarism” and lost their autonomy and daily routine.

The destructive consequences of these factors caused lasting social and psychological problems and cannot be ignored. Unfortunately, to propose a different strategy rather than the temporary allocation in hotels (or similar solutions) would mean digging into the Italian legislation. This research focusses instead on the possible resolutions of these conflicts and the trauma recovery after the first emergency phase (i.e. hotels in the case of the 2016 earthquake). Gordon suggests some actions to rebuild links in this phase that can be named of post-emergency: to provide or facilitate symbols and rituals embracing community identity and to inform about what people have in common despite their differences. In the case of the

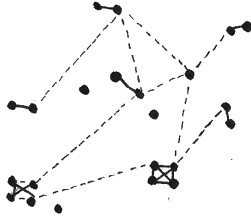


Fig. 7 - Poorly bonded community back in the original territory

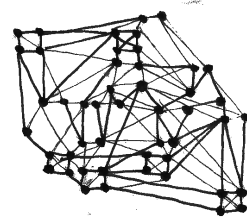


Fig. 8 - Creation of social bonds

hotels, this could not really be applied except for the supporting activities of the psychologists. When the first temporary villages were ready (around 6 months after the seismic swarms), the community was still very poorly bonded [Fig. 7]. This thesis proposes that in the 2016 earthquake scenario, these actions could have been possibly carried out in a more extensive manner after the stay in the hotels, i.e. in the temporary villages. Architecture could play an active role into making the temporary village a comfortable, liveable and socially active place where people could take the necessary time (as the reconstruction process can take years) to slowly and fully rebond [Fig. 8]. At the end, there will be a new “re-born” community: «The event becomes incorporated into the community life and a new reality is formed.» (Van de Eynde, Veno, 1999, p. 171).

Post-emergency management

Following the fracture of the residential fabric, there has been a rapid acceleration of the dynamics of dispersion and atomization of the population, which causes disorientation in individuals deprived of their usual identity relationship with places; uncertainty resulting from the trivialization of the complex dimension of dwelling to just the inhabited - or even just the dwelling itself.

Prof. Lina Maria Calandra
L'Aquila University, Human Sciences Dept., Italy
Calandra, 2013, p. 15





Area
Container,
Tolentino
(MC),
February
2019.

In Italy and beyond, the transition phase between a catastrophic event and a new permanent reality is essential to repair the ruptures in the fabric of the affected community and ensure a better future for it. For this reason, only the aspects of the so called “post-emergency” phase are considered. This research focuses only on post-emergency housing solutions.

There are similarities and contrasts with past Italian scenarios and foreign ones related to disasters and conflicts. Regardless of the structures used, the attention is placed on the layouts used in the various circumstances and where possible, dimensions are provided from literature or Google Earth. The amount of information on the villages and the circumstances in which they were built are not the same for all the examples shown. The attempt is to have a general understanding of the various planning strategies to identify trends, layouts and patterns used throughout the years.

Italian post-emergency evolution

The seismic risk of Italy has manifested its power repeatedly leaving visible signs on territories and people. In this section the most intense seismic events from the beginning of the 20th century to 2016 are considered. In this time frame, it is important to remember in 1992 the foundation of the Civil Protection Department [Fig. 9] that plays a fundamental role in all emergencies in Italy, replacing many of the functions attributed in the last century to the Genio Civile in emergency building.

Temporary villages appear in Italian history with different names: *Baraccamenti* (1908-1968),

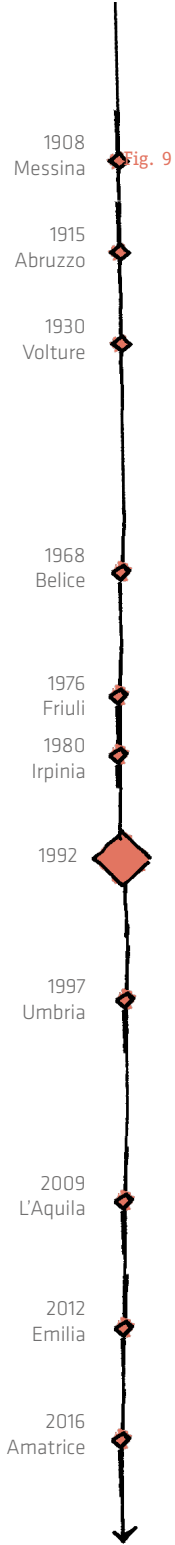
¹ Atomization of modern cities: individuals tend to live “atomized”, forming small isolated nuclei, foreign to each other. This is facilitated by the disappearance of large families, sense of neighbourhood, the old aggregative function of the squares and streets and the diffusion of the anonymity, the individualism, the high population density of the urban centres, the superficial relationships etc. Concept presented with different nuances in different contexts. The term “atomization” is used by H. Arendt (1906-1975) in *The origins of totalitarianism* (1951) to describe the social consequence of the punishment for “guilt of association” in the Stalinist regime. G. Debenedetti (1901-1967) in his novels develops the “particle-character”, alienated, excluded from any interaction, who lives its existence almost without realizing it, in a form of robotization of the being that exponentially implements a un-metabolized discomfort. More recently, Z. Bauman (1925-2017) in his *Liquid Modernity* (2000) faces the dissolution process of the modern idea of Citizen and the affirmation, by contrast, of the atomized society of individuals, such as to undermine the very meaning of living in society

baracche realizzate a titolo precario (1915), villaggi americani (1968), so on until the acronyms used in recent decades such as *M.A.M. (1997)*, *M.A.P. (1997, 2009)*, *C.A.S.E. (2009)*, *P.M.A.R. (2012)* and *S.A.E. (2016)* [Fig. 10].

Messina (1908), Belice (1968), Irpinia (1980), Umbria (1997), Abruzzo (2009), Emilia (2012): today, decades away from those terrible earthquakes, there are families who continue to live in post-earthquake structures. This underlines the relativity of the temporary nature of post-earthquake structures and their influence on the future reconstruction. «In the case of Abruzzo, as it is known, priority was given to the rapid completion of semi-permanent housing, through the project C.A.S.E. - which concerned the main city and created a complex of “new towns” around the historic center of L’Aquila - and the construction of temporary housing modules (M.A.P.) in smaller centres. The decisions relating to this process have been highly centralized and the actual reconstruction process has been slowed down, with the effect of giving an almost definitive character to a theoretically provisional layout of the territory. In Emilia, this type of approach has been consciously rejected and priority has been given to the reconstruction trying to limit as much as possible the creation of transitional residential environments. Thus, for example, direct research of housing by displaced persons has been encouraged, thanks to the provision of autonomous accommodation contributions in cash and it has been decided to allocate people into residential modules, intended for those who have chosen not to benefit from these contributions, a truly provisional character, foreseeing a rapid dismantling.» (Mela, 2014, p. 219).

→
Legend for the layout diagrams in the next pages to highlight a higher or lower level of social attractiveness of the analysed spaces.





Civil Protection
Department
Foundation

seismic event

Tent camps /
Sport halls /
public buildings

Trailers
/ Private
accommodation

Hotel

temporary
housing

Containers

M.A.M.
(1997)

M.A.P.
(1997, 2009)

C.A.S.E.
(2009)

P.M.A.R.
(2012)

S.A.E.
(2016)

RECONSTRUCTION
PHASE

EMERGENCY
PHASE

POST
EMERGENCY
PHASE

Fig. 10



↑
Comitato Milanese
temporary
district, Reggio
Calabria, 1908.

→
Calabria
temporary
settlement
layouts.

This seismic event is considered one of the most catastrophic of the 20th century, it mainly damaged the cities of Messina and Reggio Calabria with 120,000 estimated victims. First aid came from Russian and English ships, then from the Italian, French, German, Spanish and Greek warships.

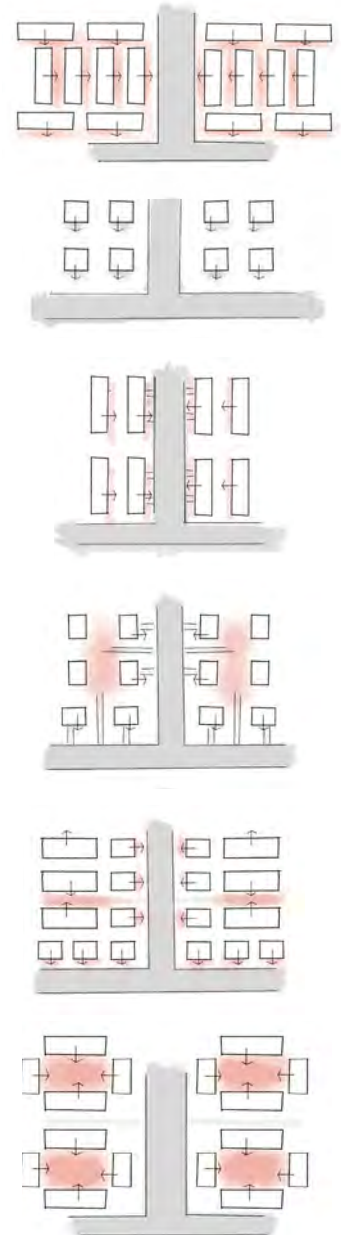
The need for temporary shelter was recognized as primary, so the Genio Civile was entrusted with the construction of the barracks and ancillary works. It was understood that the barracks, always preserving the form and nature of a temporary things, had to be such as to ensure the normal life of the new inhabited areas for a few years. 36,431 barracks were necessary throughout the damaged area, of which 14,459 were built in Messina and Province (Sciacca, 2008).

In addition to the construction of the shelters, special wooden buildings were built for public services. 608 special-type barracks for public offices and schools and 223 pavilions for public buildings, housing for state officials, were built. In this way in Messina there were temporary financial and post offices, courts, schools, and City Guards headquarters.

In Messina, between the mountains and the sea, it was necessary to go towards the North or towards the South trying to stay close to the port, a remarkable economic source. The streets, as well as giving easy access to each hut, also serve the restored trades and commercial relations that grew and became more intense. In the smaller centres, the streets vary in width from 5 to 8 mt; only in a few cases, due to slope and lack of free areas, it has gone down to 4 mt. In addition, Messina had 12,16,18 mt wide roads and the large Viale San Martino (from the sea to the edge of the housing, about 2,5 km) which reaches a width of 20 mt.

Most of the barracks were inhabited for almost 30 years. Gradually Messina was rebuilt, and the wooden barracks demolished. Yet on the outskirts of the city, the most desperate people begin to build shelters collecting cardboard and plywood. In 110 years, these slums have been used as a bargaining chip and as vote promises exchange (SkyTG24, October 24th, 2016). The favelas grew both North and South of the old town: the districts of Fondo Fucile, Fondo Saccà, Maregrosso, Giostra, Tirone, Camaro and the area by Via Bisignano. In 1961, 30 thousand people of Messina live in 5900 shacks. The families that in 2016 live in the shacks are 2871 but not all today's buildings are linked to the earthquake.

In 2016, The Municipality of Messina began to dismantle the barracks. The wooden buildings after 1908, no longer exist but two (in Annunziata Alta and in Tremonti, remnant of the exceptional former Swiss Village) which are recognized as artifacts of historical interest and therefore to be restored. In August 2017

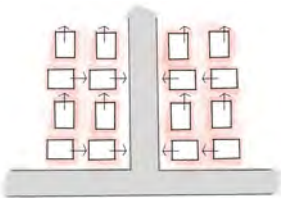




↓
Calabria
temporary
settlement
layouts.

↑
Palmi, Prenestini
district post-
earthquake
barracks, 1908.

→
Fondo Fucile
district:
temporary
reconstructions
led to slums,
Messina, 2020.



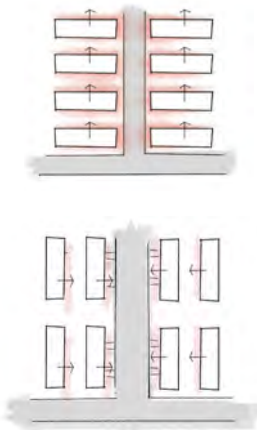
the “Capacity” project (Leone and Giunta, 2019) was presented in Messina with the aim of the rehabilitation of the South of Messina and in particular to redevelop the Fondo Saccà and Fondo Fucile areas. Even if the former barracks are gone, they left a trend in the urban development and policy of the city and its community’s life and citizens’ behaviour.





↑
Temporary sheds neighborhood, Parco del Castello, L'Aquila, 1915.

↓
Marsica temporary settlement layout, 1920.



This earthquake hit cities (Avezzano and L'Aquila the largest) and villages in Lazio and Abruzzo with more than 30,000 victims. The aid was inadequate and the Italian government didn't accept foreign aid because of the imminent entry into WWI.

In L'Aquila wooden shacks were built in public spaces, such as an actual neighbourhood in the Castle Park. Also post office, police, administration, hospital, and banks were arranged. In 1918 the demolition was mandatory due to epidemics risk. «[...] a lot of money has been spent to build them and they have been distributed in spite of the rules of equality, favouring more than anything the citizens close to the City.» (Castellani, 2018, p. 231).

This unequal use of resources will happen again in 2009. The writer I. Silone was a witness with a resilient perspective. «In the earthquake, nature realized what the law promised in words and in fact did not keep: equality. Once the fear passed, the collective misfortune turned into an occasion of wider injustices. [...] if humanity will eventually have to disappear, it will not be in an earthquake or a war, but in an after-earthquake or an after-war», emphasizing the difficult social dynamics of the post-disaster (Silone, 1965).

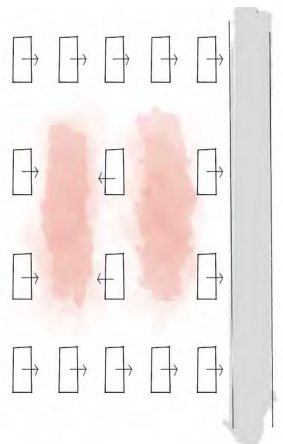


Auditorium del
Parco by Renzo
Piano BW, Parco
del Castello,
L'Aquila, 2013.



Pereto (AQ)
temporary
settlement
layout, 1920.

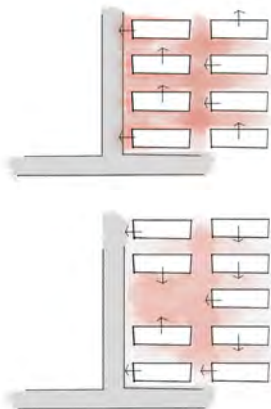
In Avezzano many families lived in temporary houses until the 70s, making the temporary nature of these solutions quite relative. The reconstruction of Borgo Modena in village of Pereto village (AQ) was done by Modenese Rescue Committee layering on top of the aligned barracks.





↑
The new village's layout, Aquilonia, 1930.

↓
Vulture temporary settlement layouts.



The shock hit southern Italy involving the provinces of Naples, Avellino, Benevento, Foggia, Potenza and Salerno. The towns that suffered the main damage were Lacedonia, Aquilonia and Villanova (Avellino). The victims were 1404 and the Mercalli degree was X. The territory affected was characterized by small villages scattered on the hills.

Due to the continuous tremors of those years, the Ministerial Decree of 15/12/1927 "Provisions for emergency services in the event of land-based or other disasters" was issued. It regulated the responsibilities of different bodies and the Genio Civile (Civil Engineers) should draw up lists of personnel and means of use for rescue, which improved the rescue management since then.

The government hospitalized the displaced people in tents and immediately started the reconstruction of standardized earthquake-proof houses. The delivery times widened, so Mussolini decided to build 1000 wooden barracks for the winter.

In the town of Aquilonia (Avellino) small anti-seismic houses were built on almost the entire destroyed town. These houses hosted



people for decades, being the background of social life and a symbol of the history of the town.

In 2017, there are 8 houses left and citizens opposed the demolition, defined as an act of destruction of collective memory. They launched a petition signed by notorious people (i.e. Franco Farinelli, Vinicio Capossela, Franco Arminio, Vito Teti, Franco La Cecla), referring to studies on the re-functionalization of the remaining buildings (University Federico II and Camerino, Politecnico di Milano) that could constitute a living and attractive core.



The post 1930 streets are still lived by the citizens, Aquilonia, 2017.



The shantytown of Acquanova's district, Santa-Ninfa (TP), 1975.



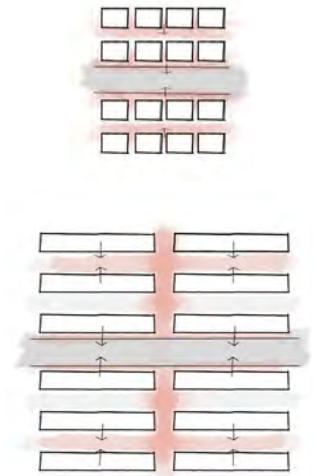
Gibellina exposed in "Arcipelago Italia", Italian Pavilion, Venice Architecture Biennale, 2018.

This event took place in Sicily, and it was the first large-scale emergency after World War II. Around 300 immediate victims briefly rose to 900 for bad aid management. The wounded were more than 1,000; the rural constructions were 90% destroyed; the towns of Gibellina, Salaparuta, Montevago, Santa Ninfa, Poggioreale and Santa Margherita di Belice disappeared.

Immediately after the main hit, the inhabitants camped in open places, building huts of branches. The reports of the Technical Office of the Civil Engineering of Agrigento in the last days of January reported about 80,000 homeless. About a month after, in the province of Trapani alone about 9,000 homeless were hospitalized in public buildings, 6,000 in tent cities, 3,200 in scattered tents and 5,000 in railway wagons, while 10,000 people emigrated. There were about 47,000 people were still left to settle. A migratory phenomenon started: in few years, about 3% of the population moved from Sicily to Northern Italy, Switzerland, and Germany. The authorities facilitated the migratory movement granting free train tickets and easing passports issuing.



↑
Families that still
live in temporary
shelters,
Montevago (AG),
2016.



↑
Belice
temporary
settlement
layouts



Temporary housing solutions were built insufficiently and late. On January 22, the Minister of Public Works ordered 5,235 barracks expected in a span of 20-40 days. On March 2, the number of barracks installed, according to published data, was only 92 (Guidoboni and Valensise, 28 March 2018). The temporary constructions were built between the ruins of the old cities and the new areas of reconstruction, allowing the inhabitants to access their land properties for agriculture and rural livelihoods. The lack of building materials on site further delayed the reconstruction work. In 1976, according to a survey of the Public Works Commission of the Chamber of Deputies, over 47,000 earthquake victims still resided in the slums. The works on which the interventions had been concentrated, lay unused: their destiny of “cathedrals in the desert” was irretrievably marked. Several factors failed the urban utopia of the designers of the reconstruction of which probably Gibellina is the most famous example.

Thanks to the resistance of the mayors and residents, towns were eventually rebuilt. In some cases, they preserved the historical look, even integrating the ruins (Santa Margherita di Belice); in others, modernization ideality prevailed (the garden city, the community city), which today seems empty as Gibellina’s main squares. The coordinator of the mayors of the Belice Valley and mayor of Partanna (TP), N. Catania explains: «The mistake was to decide where and how to rebuild without involving those who live and know the territory.» (SkyTG24, October 24, 2016). In the Italian Pavilion at the 16th Venice Biennale (2018) M. Cucinella chose the unfinished theatre of Gibellina (1972) to divert attention from the big metropolis to the physical space of Italy where communities have historically expressed themselves in a different relationship between urban dimension and territory.

In Belice, 48 years after the earthquake, many temporary houses are still in use. In Montevago (AG) families still live in containers and even mass continues to be celebrated in a container-church.



The youngsters find the village playful, Camporeale (PA), 1968.





Temporary slums,
San Giorgio (UD),
1976.

Two very powerful shocks in May and September took 989 lives in Friuli Venezia Giulia region (Regione autonoma Friuli-Venezia Giulia, 2016). The impact on economy and building stock was enormous.

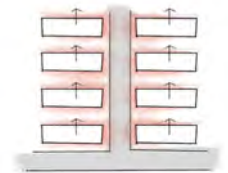
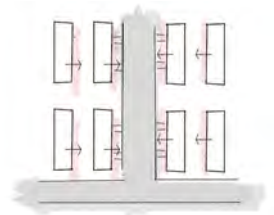
In the hours following the shock in May, the strong military presence in Friuli ensured that the rescue operations were sufficiently effective, facilitating the clearing of rubble, the preparation of temporary shelters and camp kitchens, the reactivation of services, thus reducing disruption to earthquake victims. Under the tents the Friulians lived in a new frontier climate, trusting in the arrival of the prefabricated buildings and in a first reconstruction of the least damaged buildings.



Maria, the baker of Peonis, in front of the barracks where she offered bread and comfort to the earthquake victims of Friuli in 1976.



Friuli temporary settlement layouts



Friulians fought to stay close to their destroyed houses and keep alive the spirit of community and the urban fabric. In the precariousness of the tents, in forced cohabitation, edgy health conditions, thunderstorms and cold, they put in place that local self-management that would have been the pivot to the next reconstruction. Dignity and pride rooted in the local population, which led to the choice not to follow the example of Belice. E. Passanisi wrote on the pages of the *Corriere della Sera* of those days: «In front of tens of thousands of homeless it is inevitable that you think immediately, almost by a reflex conditioned, to set up shacks and prefabricated housing. But it is a wrong answer, which carries within itself the carcinogenic germs of amorphous



Some of the arrangements create spaces for socialization, Friuli, 1976.



gatherings, such as the slums of Belice, without hope of life». Monsignore Alfredo Battisti of Udine declared on May 12, 1976: «First the factories, then the houses and then the churches», leading an approach to the main importance of the services.

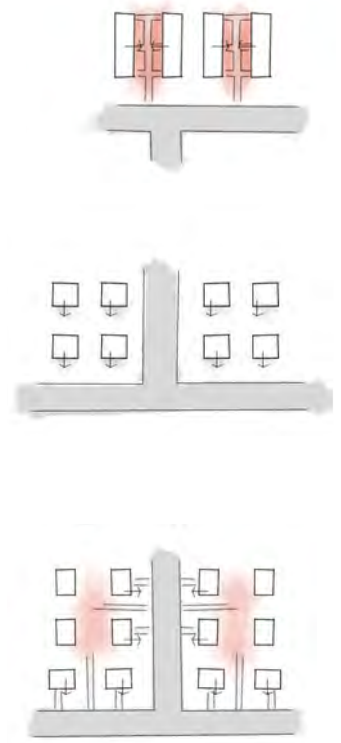
After the first hints of reconstruction and safety, another earthquake hit these areas in September 1976. Central authorities evacuated 30 thousand Friulians in hotels on the coastline at least until March 1977, when prefabricated structures in the destroyed villages were completed. In that limbo, the detachment from their land and the - momentary - humiliation to be ousted from the reconstruction was added to the loss of their loved ones, homes, and jobs.

To create temporary housing, the municipalities identified suitable

areas for hydro-geological security and ease of connection to public networks. They chose centralized temporary housing systems to reduced expenses and connections and spread-out housing units creating a flexible and mixed system. For the homeless linked to activities such as agriculture there was a plan for 5,200 caravans.

The Civil Protection Department has not yet been officially founded (1992) but a former body under the leadership of Zamberletti offered assistance for the population and the reconstruction in close collaboration with local institutions: a great example of effectiveness.

The Friuli earthquakes had a strong impact on the debate about reconstruction methods. The approach “as it was, where it was” was successfully applied here which started a long tradition in Italy. To date, this method often leaves no room for alternative and contemporary solutions that would make reconstruction a time to improve people’s future. This was also the first earthquake in which television carried the images of destruction in all Italian homes and international solidarity played an important role.

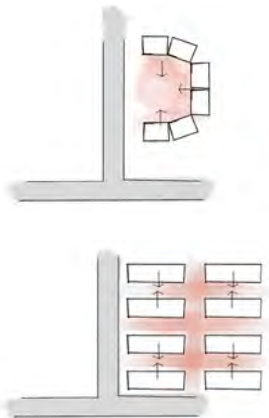


Friuli
temporary
settlement
layouts



↑
The prefab buildings will last twenty years. Teora, Irpinia, 1980.

↓
Irpinia temporary settlement layouts.



This tragedy started on Nov. 23 1980 with an earthquake of magnitude 6.9 MW that hit Campania, in particular the province of Avellino and northern Basilicata. Seismic tremors also triggered numerous landslides, some of which were massive and caused further damage. A grade X of the Mercalli scale was also assigned for the large number of victims that reached 27,344 (on a basin of 4,918,664 people in 679 municipalities affected) and that of the homeless to 807,000. The enormous difficulties shown by the relief system, recognized from the first moments by the President of the Republic Sandro Pertini, demonstrated the urgency of the implementation of the Civil Protection which was finalized in 1992.

The coordinated work of the military, volunteers and foreign aid managed to remedy the needs of the homeless in the most affected towns, through the setting up of tent camps and caravans. Soon after the earthquake, 1231 railway wagons and 10,000 tents were set up, 7 military field hospitals and 113 military health units were installed. As winter was close, it was necessary to provide less precarious shelter. 32000 caravans, 2018 prefabricated homes and 626 containers



were made available and later the Civil Engineering and Military Engineering built more than 2,000 barracks.

20900 people were transferred to hotels on the coast, 29805 were transferred to safer provinces. However, the operation of moving people to receptive structures and second houses on the coast proved to be a failure. The earthquake victims of the internal areas preferred to stay in their countries, finding refuge in the tents, rather than move many miles away. The number of homeless in the most affected countries decreased because many of them found refuge with relatives who had emigrated to other areas of Italy and therefore, the temporary housing built near the rubble of the towns, housed both homeless and volunteers.

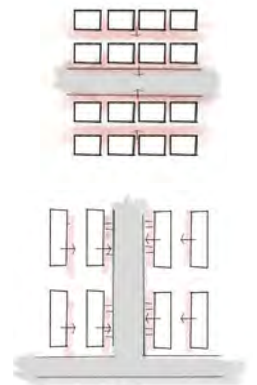
In Irpinia, 36 years after the earthquake, in Cava de' Tirreni (SA) there are 10 containers occupied by earthquake displaced people. In Palomonte near Salerno (L'occhio di Salerno, 19 November 2014). families still live in post-emergency buildings waiting on the allocation of 57 social housing made with regional funds. In 2017, families have been assigned to the social housing, which were never running (Sky Tg24, 24 October 2016).



Families still waiting for new accommodation. Palomonte (SA), 2016.



Irpinia temporary settlement layouts.





↑
Play areas are built for the first time in post-emergency temporary villages, Serravalle (MC), 2017.

→
Main square with bar and shop, Verchiano (PG), 2011.

→
Umbria and Marche temporary settlement layouts.

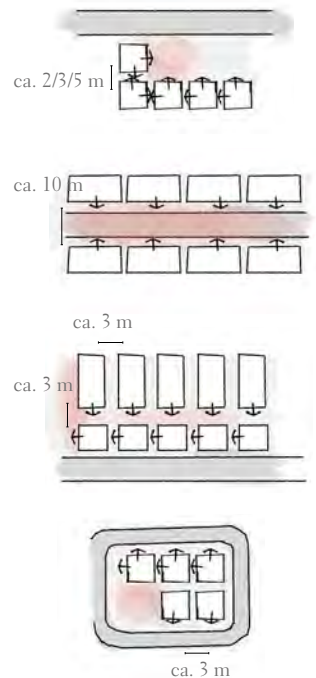
In September 1997 a first earthquake struck in Central Italy along the Appennini mountains: a seismic sequence continued to affect for few months Umbria and Marche regions. The historical heritage lost or damaged was enormous.

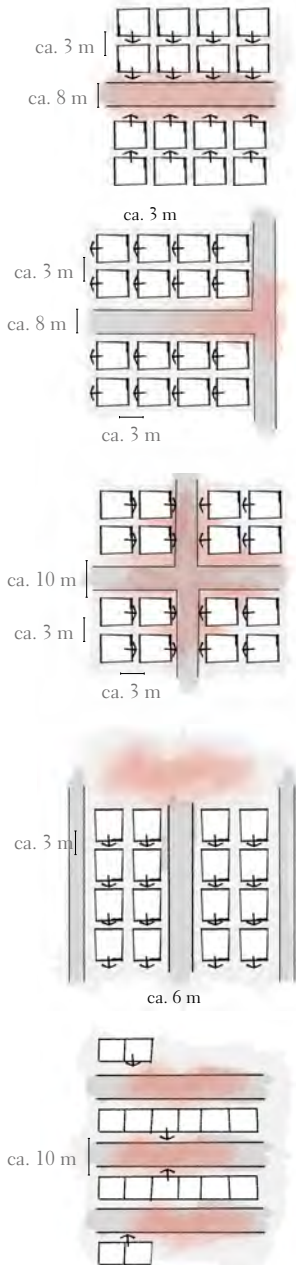
In the early stages, the regional interventions included static checks of buildings and infrastructure, the management of camps, prevention of vandalism and recovery of cultural heritage. Hence the need to buy, transport and install equipment in the vicinity of farms, allowing tolerable living conditions and the continuation of farming activities.



The second phase of the emergency consisted in the arrangement of the so called M.A.M. (Moduli Abitativi Mobili - Mobile Housing Modules): metal prefabricated shelters for 1925 people, but not suitable for mountain weather. In May 1999 Marche Region created 230 temporary housing spread throughout the whole territory called M.A.P. (Moduli Abitativi Prefabbricati - Prefabricated Housing Modules): small wooden houses in place of the M.A.M., 45 m² for families up to four components and 65 m² for those with four or more components (Moretti, 21 September 2018).

Since 2003, the ownership of the M.A.P., now unused, is transferred to the municipality, suggesting a reuse for services, tourism, emergencies, shelter for immigrants or sale. A difficulty has arisen because the M.A.P. are not easily removable and transportable: it could be done but only a part would actually be recovered. Perhaps Marche and Umbria should have built these higher living comfort villages at an early stage, skipping the M.A.M. phase.





In 2016, when another strong earthquake struck Central Italy, Liberrati, the Umbria Regional Councillor, explained: «in Umbria there already are 730 prefabricated wooden units, located in the municipalities affected by the earthquakes of 1997/98. The structures, now entrusted to the municipalities, are largely uninhabited and are mostly in good condition thanks to the onerous maintenance charged to local authorities.» (Ansa.it, 10 September 2016). Then the Civil Protection made the announcement for new modules to ensure the right comfort for displaced people. It would take seven months of which the majority for the urbanization of the areas (De Simone, 28 September 2016).



Temporary
village layout,
Villamagina (PG),
2011.



Some new houses are not ready
yet for people in the temporary
shelters,
Giove di Valtopina (PG), 2016.



Umbria and
Marche temporary
settlement
layouts.



Street between
M.A.P. houses,
Montorio al
Vomano (TE),
May 2010.



M.A.P.
settlement
layouts

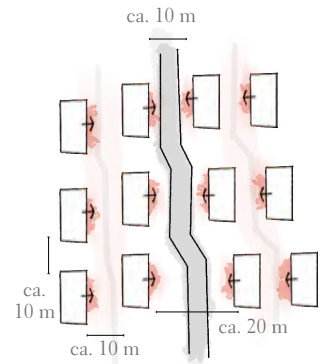
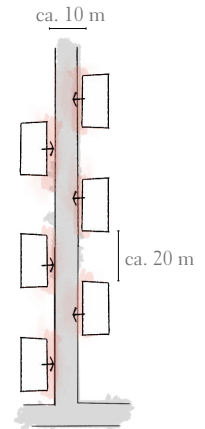
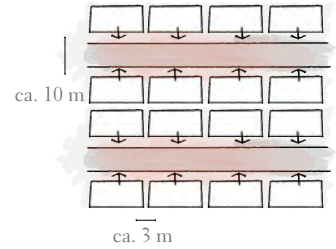
In 2009 a violent earthquake affected L'Aquila and other municipalities of Abruzzo. G. Bertolaso, head of Civil Protection Department, is appointed Emergency Deputy Commissioner. In the first 48 hours, 30 reception areas are set up to give assistance to nearly 18 thousand people. At the end of April 2009, the number of the assisted population will rise to 67,459, the maximum value reached in emergency management ever. The earthquake caused 309 deaths and over 1500 injuries, serious damage to public and private structures and to the artistic and cultural heritage of the affected area.

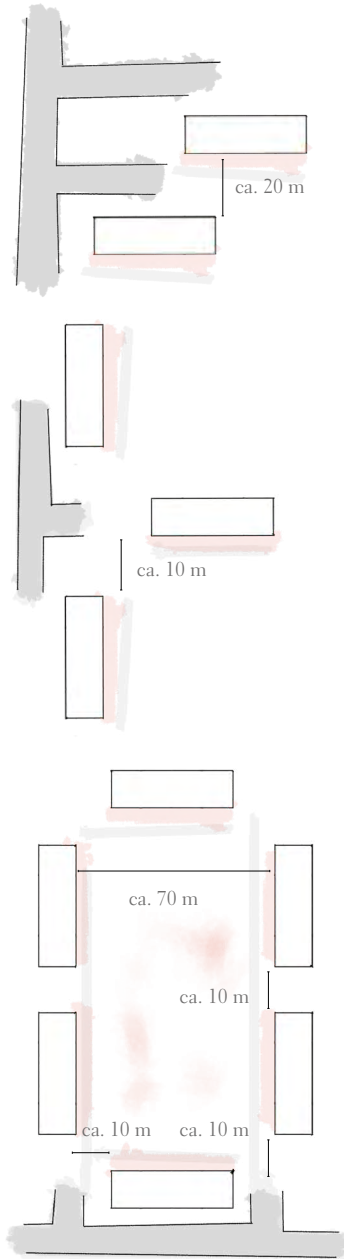
The M.A.P. (Moduli Abitativi Provvisori - Temporary Housing Modules) for residential and public functions, such as the M.U.S.P.

(Moduli ad Uso Scolastico Provvisori - Temporary School Modules) were similar to the ones used in the past. Subsidized rentals and accommodation in hotels were again available. In alternative, there was the C.A.S. (Contributo di Autonoma Sistemazione - Autonomous Accommodation Contribution), a debated tool as it supports the de-population of the territory.

The main novelty are the C.A.S.E. Project buildings (Complessi Antisismici Sostenibili Ecomcompatibili - Sustainable Environmentally friendly Seismic Complexes). 185 buildings with an average of 24 apartments located in 19 areas around L'Aquila, few kilometers from the destroyed villages, to accommodate over 15,000 people. It was expected a long time for the final reconstruction, with a very large number of residents to be housed, resulting in the need to build safe temporary housing without occupying much soil.

There has been criticism on these “new towns”, actual residential neighborhoods. The biggest problem is the effect of estrangement. Presented as dorms sprung up in the void, they lack services that would make the new settlements a livable neighborhood. A sort of “golden prison” from which people can get away only by car or public transport. The article published shortly after the earthquake on *Abruzzo24ore* states: «If the New Town proposed at the beginning by the Civil Protection could seem charged with risks of radical change of the “sense of the before”, surely enough the current layout decided for these dwellings, even if started with the will to defend identity, it will result in a New Town exploded on the territory, literally dis-integrated, as intrinsically lacking in integration that could have ensured a separate settlement body, but close to the city and organic, that would have brought an integration certainly “other” compared to the one before April, but still an urban integration respecting the difference of the rural territory. [...] For the city, this ring of “houses brought by the earthquake” can be lived in the vicinity





as an opportunity to cultivate, in the long times of reconstruction, an aesthetic of the emergency [...] It will bring signs that must be given meaning if we want to fight for a future devoted to the recovery from trauma by a process of conscious crossing that will give back to L'Aquila at least the rank of before.» (Ciccozzi, 18 May, 2009). In 2010 the management of C.A.S.E. passed to the Municipality and they can be assigned to young couples, carers, low-income residents, and other particular social categories.

←
C.A.S.E.
temporary
settlement
layouts

↑
One of the C.A.S.E.
housing 15,000
inhabitants, L'Aquila,
2010.

→
99 M.A.P. units,
San Gregorio (AQ),
2009.





P.M.A.R. village,
Emilia-Romagna,
2013.



Concrete inner
path in the
P.M.A.R. village,
Mirandola (MO),
February 2017.

In 2012 an earthquake mainly hit Modena and Ferrara provinces, causing 19,000 families to leave their homes and 7 deaths. 14,000 homes, 13 thousand productive activities, 1,500 public buildings and socio-sanitary structures were damaged (Emilia-Romagna Region, March 2014) as well as many valuable cultural, artistic and historical buildings.

About 2000 P.M.A.R. (Prefabbricati Modulari Abitativi Rimovibili - Removable Prefabricated Housing Modules) were quickly arranged in 10 municipalities and various hamlets. They are insulated prefabricated units or containers used to integrate the lack of vacant housing availability or where the Autonomous Contribution Accommodation (C.A.S.) fail to meet the real estate demand

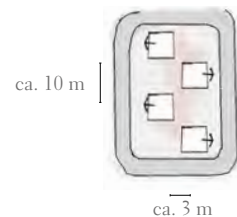
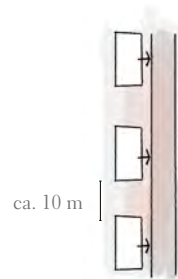


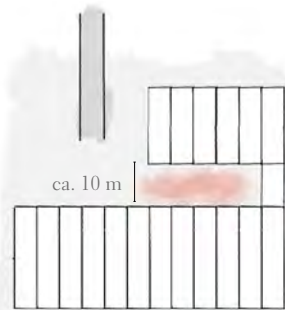
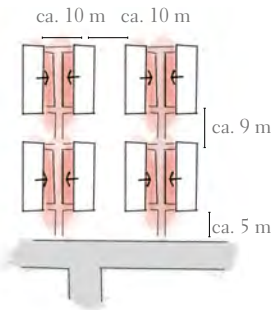
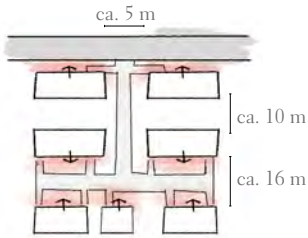
of displaced people. Also 187 P.M.R.R. (Prefabbricati Modulari Aree Rurali - Prefabricated Modular Rural Areas) offered housing to farmers.

The chosen location for the M.A.P. was a critical element. Most of them were in suburban areas, increasing the gap between the centre and the periphery and relegating to the margins the problems of this reality. Anyways, there was a will not to transform these residential areas in “new towns”, more or less permanent. In fact, «the Commissioner Delegate intends to promote the purchase, supply and installation of prefabricated modular housing not fixtures but simply resting on the ground, therefore immediately removable to the lack of housing need and in order not to consolidate precarious settlements over time both from the building and social point of view.» (Ordinance n. 40 of 14/09/2012).

In few cases, the location was close to towns' centres to keep alive the socio-economic links of the community. On the other hand, this created speculation on sought-after areas that were released once the P.M.A.R. were dismantled.

↓
P.M.A.R.
settlement
layouts

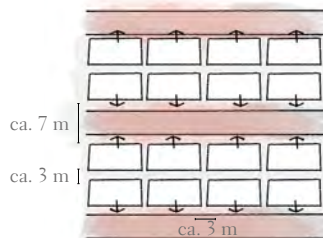




A local newspaper defines a standard P.M.A.R. village: «It looks like a lager. Despite the commitment and goodwill of those who worked to provide accommodation to the displaced people, this is the first impression that is derived from what is seen in Rovereto sulla Secchia. It's just that: stacked one behind the other, the temporary modules create rows of plastic and grey that convey a depressing sense of barracks. What was to be a short-term accommodation is becoming something different [...] Tenants, to try to distract themselves from the distress to which they are forced, invent verandas and small squares improvised between a block and another to meet and have a chat, since meeting places for children or elderly they have not been designed. There are no trees. Flowerbeds cling to the asphalt on the side of the road.» (Modenatoday, 12 August 2013).

In December 2015, the occupied modules have gone from 468 (about 1,400 displaced persons hosted) to 180, 35 of which would be released by early 2016. However, 145 modules were still inhabited, for a total of about 450 people (Dall'Oca, 25 January 2016).

The network established in the first emergency became the “Sisma 12” committee to share awareness among displaced people, to defend their rights, to contact press and media, to organize meetings, demonstrations and to weave relationships with other realities.

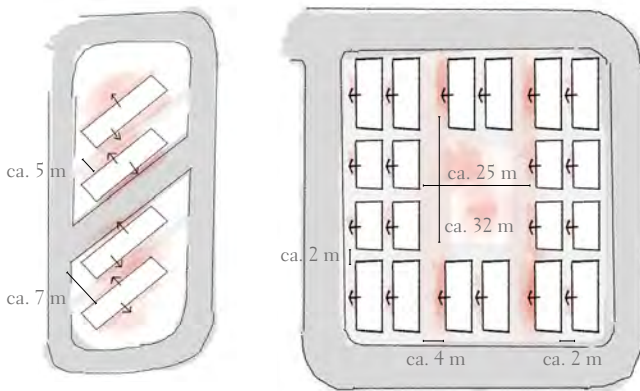


←
P.M.A.R.
settlement
layouts



↑
Signs of place
appropriation,
Rovereto sulla
Secchia (MO),
August 2013.

↓
P.M.A.R.
settlement
layouts





↑
S.A.E.
temporary
village,
Amatrice (RI),
August 2021.

→
Central Italy
temporary
settlement
layouts

Between August 2016 and January 2017 earthquakes hit Central Italy, affecting Abruzzo, Lazio, Marche and Umbria causing 299 victims. The first interventions: rescue of people in isolated hamlets, restoration of infrastructure and essential services also compromised by snowfalls (in January the earthquake caused a landslide with 34 victims).

In August the Civil Protection could set up tents and temporary multi-purpose structures but in the winter the population had to move to hotels along the coast. The state of emergency is declared until December 2020.

The Civil Protection organized the S.A.E. units (Soluzioni Abitative d'Emergenza - Emergency Housing Solutions), similar to the

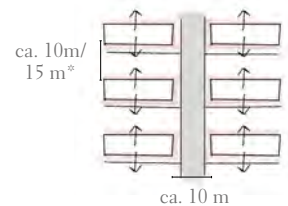
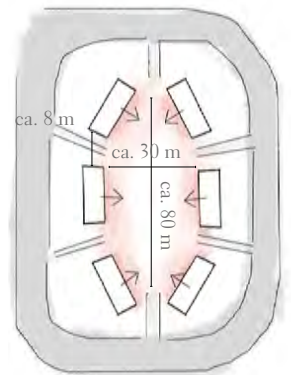
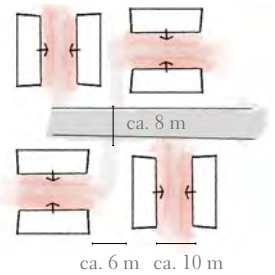
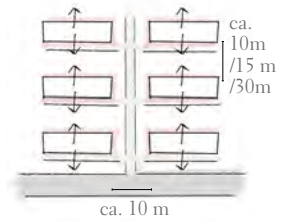
2009 M.A.P. units, with an estimated life of 5 years. Generally, they got built by the hamlets where there was a minimum of 5 families to request them, spreading out the population and requiring more urbanization works. Also, Central Italy is mainly mountainous, so it was necessary to excavate many areas for all the spread out temporary villages.

From the producer's specifications, they can be arranged on isolated distribution, around a courtyard (Norcia is one of the very few examples) and in contiguous rows with double aspect. Basically, in all S.A.E. villages the linear arrangement has been preferred, probably more functional for services. In few cases (Arquata del Tronto), the entrances of the houses face each other while mainly the orientation is front-back, not favoring socialization.

For the community, there often are the so called "aggregative centers": structures of various materials and forms often positioned without considering the need to be central or to have a suitable public space nearby. There are several play areas for children but often in dispersive open spaces. They usually have an outdoor porch that turns out to be one of the few spaces of socialization. The S.A.E. villages are mostly arranged as residential neighbourhoods without services, which are reachable only by car. They are generally located by the old villages, often overlooking the rubble, creating a health risk due to demolitions dusts, and worsening the sense of nostalgia.

Some municipalities opted for collective containers for people that weren't able to leave the territory before the winter. 23 settlements were built in 9 municipalities for about 1,100 people. Containers include offices, bedrooms, bathrooms, common rooms, connected through corridors. There are shared bathrooms and common kitchen to provide canteen meals (almost hospitalized assistance).

*Note: on steep areas the distance can reach 30 m





People share space between homes, Arquata del Tronto (AP), 2018.

M.A.P.R.E. units (Moduli Abitativi Prefabbricati Rurali Emergenziali Moduli - Temporary Rural Emergency Housing Modules) accommodated farmers near to their workplaces. The Autonomous Accommodation Contribution was also available.

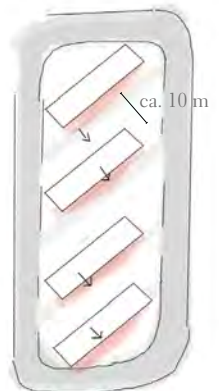
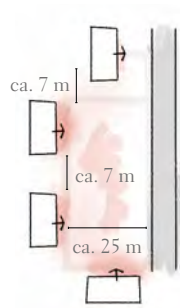
A peculiarity of this territory is that there are few residents and many non-residents who returned periodically. The latter represent a fundamental social and economic resource as well as an expression of attachment to the territory. In the hamlet of Configno (Amatrice), non-residents built a new village with services and community centre.



Back to front orientation generates isolation,
Muccia (MC), 2018.



Central Italy
temporary
settlement
layout.



FOCUS: TOLENTINO CONTA



Container area,
Tolentino (MC),
March 2019.



The access to the
containers are the
only spontaneous
meeting places
in addition to
the playground,
Area Container,
Tolentino,
February 2019.

«The inhabitants of the containers are mostly foreigners, but there are also Italians, mostly elderly and large families, but there are also professionals and workers who take the car every morning and go to the office or factory. The situation is complex, the only thing clear is that here there are mostly the last of the last, those who even with the contribution for the autonomous accommodation (in Tolentino 3,400 perceive it) can find a house to rent. [...] The volunteers show up once in a while: twice a week there is the psychological assistance service of Emergency, the Scouts run a tent to play for the little ones, the entertainment room is a room with four sofas, three broken chairs and a few broken coffee tables. Last December, outside the container, a playground with slides and swings was inaugurated».

Mario Di Vito, Il Manifesto, 5 March 2019

INNER VILLAGE



«The first chapter of “Vite in Scatola” (Canned Lives) was made in Tolentino in February 2019. Here there are no houses that the bureaucrat call SAE (Emergency housing solutions) because the Municipality of Tolentino was the only one in the whole crater not to ask for them, following the strategy to reuse of unsold private property and the construction of new non-temporary housing settlements. The fact is that the earthquake in Italy also reinvents the category and the idea of temporary, so that from the end of 2016 about 250 people were housed in a container complex in the industrial area. A trap of dust and plastic, empty spaces and narrow, everyday decomposed, de-constructed, broken and then rearranged to get an order that is only apparent, because in the containers the prevailing feelings are the restlessness and alienation with respect to a reality that, “out there”, seems to go on, while “in there” everything is still. And there is also the fear of those who, fearing who knows what consequences, is willing to talk to you yes but with cameras off. Without putting on the face. And it is not enough, as it happened at the end of May on the initiative of the Council, a billboard in nothingness announces the new housing settlements, “our Sae” arriving at a date to be defined but not before autumn 2020, to rekindle hopes».

“Vite in scatola”, Lo stato delle cose
 (“Canned Lives”, The State of Things),
 31 May 2019





Post-Tsunami
Housing
designed by
Shigeru Ban
Architects in
2007,
May 2013.

The examples shown in this section are from different continents, time and contexts and they all relate to the design and arrangement of temporary urban centres. Most of them are related directly to a post-earthquake scenario. Others show emergency solutions for other natural disasters such as tsunami, hurricanes, floods, and wars. Also, the example of refugee camps is listed as the temporariness and the loss of a home is in common with a post-seismic scenario.

Some of the scenarios include the use of completely removable structures while others have adopted longer-term solutions; in some cases, structures designed for a few years have remained in use for decades.

The time range of the projects shown goes from the First World War but most of them were developed after disastrous events of the last two decades.

Sources and images are often collected from newspaper articles to give the most up-to-date and recent information possible of the illustrated projects. There are also several studies from which descriptions, interviews and results have been drawn regarding the contexts in which the projects were carried out and the modalities.

It was not possible to make a dimensional approximation of the layout of the projects, so their explanation relies on photographic material and text.



↑
Social interaction
in a T.H.U.
temporary
settlement,
Minamisanriku,
Tohoku, Japan,
2015.

Post-disaster social difficulties

An earthquake struck Japan offshore, triggering a tsunami which caused the worst nuclear crisis in decades. Nearly 400,000 buildings as far as 3 km inland were damaged or destroyed. Dead and missing people are about 22,900 and 470,000 people were forced to find temporary homes.

In 2016, 60% of the town's pre-tsunami population still live in temporary prefabricated structures (Temporary Housing Units - T.H.U.) intended to last 2 years (Spitzer, 10 March 2016). In 2018, approximately 30,000 people are still hosted in temporary prefabricated homes.

The T.H.U. villages generally have 50-100 units in each cluster with a community hall in an open common space. The units are aligned and usually the entrances face into each other. Sometimes the paths are too small to allow any activity besides passage and greeting. Most T.H.U. have a sheltered entrance and a step/ramp where people added pots or a seat. T.H.U. are wooden shelters made with logs, they are simple and easy to construct. Therefore, Alliance for Humanitarian Architecture took these shelters to Nepal when it was hit by an earthquake in April 2015. As special skills are not required to build them, anyone can help construct which is one of their core ideas of this project to be built together (Alliance for Humanitarian Architecture, 13 June 2019).

The authorities in Fukushima are going through processes to ensure participation in recovery planning: surveys and town hall meetings, workshops, focus group discussions and idea diaries (Mosneaga and Yoshiaki, 14 January 2015).

Dr. Oikawa noticed an increase in post-traumatic stress disorder: «the tsunami, but above all the evacuation deplores an increase in depressions and obesity problems in a farming population now trapped in temporary housing. There is tension between people, in particular, because of differences in compensation.» (Mesmer, 11 March 2016). The problem comes from the «destruction of communities. Here, many small festivals are no longer celebrated. I miss deeply what has been lost», Tokuun Tanaka, priest of the Doukeiji Buddhist temple (ibid., 2016). According to the reconstruction agency, 3,407 survivors died from psychological consequences of the trauma (ibid., 2016).

In Minamisanriku Town, ONG Peace Winds Japan built a facility for various activities; PWJ representative of Tohoku Program said: «Projects that connect people, however, are best carried out on a grass-roots level. We will continue our reconstruction program that can connect people and help rebuild the community.» (Peace Winds Japan, 12 March 2015).

The Rikuzentakata Temporary Housing project by Sugawaradaisuke Architects comes from the collaboration with locals. Architects found rich material and social resources locally. Instead of inserting “fullpackage supports” from outside, the attitude was to “link” local resources and preserve the natural landscape. Housing units were arranged to maximize space still providing gardens. Each house visual axis is specifically oriented to enable views from interior, creating possibilities for resident to interact with others through windows and external green space, while appropriately protecting private spaces. Even if this complex is recently built (2011), it has an ever-lasting village-like atmosphere. The project lacks “magnificence” on purpose.

For the town of Onagawa suffered extreme damage from the Tohoku earthquake in 2011. Architect Shigeru Ban responded by designing a multi-story temporary housing complex for survivors due to the lack of flat land. The minimalist checkerboard-like pattern successfully created the necessary housing units with open living spaces along with internal storage. Shigeru Ban explains the aims of the project: «In an ideal situation, people who were neighbours before the disaster would still live close to one another after moving to temporary housing. In reality, things don’t usually work out that way. We wanted to design the temporary housing in a way that would allow residents to easily form a new



↑
Rikuzentakata
Temporary
Housing, a
village-like
complex, by
Sugawaradaisuke
Architects,
Otomocho
2011.

community. We included a meeting area, a workshop for children to read or study in, and a market where residents could do some basic shopping. When disasters happen in Japan, pre-fab housing manufacturers and other large companies typically mass-produce simple temporary housing units very quickly. Architects haven't really gotten involved in the past. I think you can say architects have opened up the possibility of building temporary housing that's more attuned to the quality of disaster victims' living environment.» (Yagi, 30 April 2012). Shigeru Ban Architects has created a central market covered by large tents to provide a place where people in the city can open their shops, as well as to overcome the difficulty of shopping and getting everyday objects. In addition, this can become an active place where people from adjacent temporary housing can gather. A small bar encourages socialization and staying in this space.



← Market and community center by Shigeru Ban, Onagawa, Japan, 2011.



← Temporary housing in the school ground, Minamisanriku, Tohoku, Japan, 2015.



↑
Outdoor shelter
and patio by
Shigeru Ban,
Mifune, Japan,
2016.

Kumamoto was a series of earthquakes, including a magnitude 7.0 mainshock in April 2016 beneath Kumamoto City in Kyushu Region, Japan.

Shigeru Ban Architects designed a housing complex of three wooden temporary buildings with a community space for ten families who were damaged from Kumamoto Earthquake at Mifune Town (Kumamoto Prefecture). The structure of the temporary house is built from structural panels comprised of wood and plywood. The panels are prefabricated at the factory and then brought to the site. In this way, it enables to shorten the construction period at the site. By using the structural panels as the final finishing material, it can minimize the use of finishing material. The community space is a collaboration project between Shigeru Ban Architects, Voluntary Architects' Network, Keio University SFC Shigeru Ban Lab, and Kumamoto University.



←
 Commercial
 zone and the
 community center,
 Mashiki, Japan,
 2017.

This space has a wooden shelter and a patio that encourage people to seat, rest, meet or socialize in this space.

The main consideration in the design of Mashiki-Machi Transient Housing was the fast deployment of the pre-fabricated modular houses stocked by the national government for emergencies. The units are delivered via trucks and can be quickly assembled and set-on on prepared footings on-site. Residents with physical disabilities have been identified as well, making accessibility modifications to units possible. For example, ramps are incorporated in some houses for the elderly, and their units were located near major access roads and community facilities. Modifications such as balconies have been permitted as well, to allow some level of personalization for the residents.

The relocation area was an existing industrial facility. It was reverted to its original function once the two-year grace period has expired. To evoke a neighborhood feel, the site was planned much like a scaled-down residential community with features such as commercial shops, clinics, parking areas, bus stops, recreational facilities, and a community center. A simple grid layout serves to organize the site. A wide main avenue divides public zones (community center, shops and clinics) from the private residential zones. A specific number of housing units are clustered per block. Each block would have its own small meeting area and recreational space. This serves to disperse the density within the reloca-



Temporary
buildings with a
community space,
Mifune, Japan,
Shigeru Ban,
2016.
2017 Good Design
Social Award
(Disaster Recovery
Design).

tion site evenly. Maps and wayfinding elements are also distributed around the site to aid in identifying evacuation routes in case of another emergency.

The project was noticeably planned with the integration of basic utilities. The prefabricated housing units already come with preparations for rough ins of electricity, gas, water even heating and air-conditioning. Also, the grid layout was intended to make distribution of utilities throughout the project more manageable. Public wash facilities, toilets, waste segregation areas even smoking areas are allocated within the project. Many of those who were temporarily relocated wanted to have their own small businesses in the site, as such the front zone of the project was allocated as a commercial area. There is a small convenience store, barbershop, some restaurants, a laundromat and a clinic. A community center is also visible from the main road. This is where meetings, classes, and psychosocial therapy sessions for residents are held: it's the heart of the project.

For the residents to have something to look forward to, a display of model housing units was constructed adjacent to the community center. They serve as examples of actual housing units that the residents can hope to see once their homes have been repaired. This provides a sense of guarantee that indeed what they are currently experiencing is temporary, and that ultimately, they will go back to living their normal life.



↑
All refugees
can meet in the
Maidan tent,
Ritsona, Greece,
2018.

Gathering places

The Ritsona refugee camp in Greece, about 65 km north of Athens, welcomed over 800 refugees in 2018 awaiting permission to move to other European countries. Here was installed the first prototype of the Maidan tent based on a humanitarian project stemming from the commitment of Italian volunteers and architects, supported by important sponsors including the UNHCR (United Nations Agency for Refugees) and a fundraising. As of 2018 there are over 60,000 migrants in Greece, hosted in numerous informal settlements in areas designated by the government (Gibello, 12 December 2018).

Visconti di Modrone among the designers of the Maiden tent explains: “We chose this field among the many present in the country for various reasons: the small size would



The Maiden project provides a covered area for the community to gather, breaking linear repetivity, Ritsona, Greece, 2018.

have allowed all inhabitants to enjoy the tent, in turn and without too many conflicts (and indeed at that time, as still now, the funds collected did not allow more than one)” (Domus, 28 April, 2017).

Beyond the conditions of life in the camp. Fortunately not in such emergency, the main handicap that afflicts its guests is the precarious condition dictated by the uncertainty of tomorrow, even the most immediate. Maybe, paradoxically, a temporary structure can take on this precarious feeling. This is the meaning of the bet launched by the two young architects Bonaventura Visconti di Modrone and Leo Bettini Oberkalmsteiner through the conception of a meeting space, a place of aggregation - not by chance to central plan - that served as a square (in Arabic, indeed, “maidan”) to chat, pray, eat meals in company, read, learn, play, weave relationships. So, after two years of studies, tests, inspections, comparisons with the population of the settlement, meetings with NGO, public and private bodies, the tent is hosting an organized program of activities aimed at sharing and socializing. A way to “make community”, moving at least a little away from the minds of asylum seekers, the scenarios of devastation and misery from which they come, waiting for them to resume with a minimum of confidence their journey to new destinations. Among the partners of the initiative, the University Mouthfuls - through the Laboratory for Effective Anti-poverty Policies - is in charge of measuring the impact of the new public space compared to the routine of the daily life of guests in the field (Gibello, 12 December 2018).



Low-rise Uni-Seco prefabs still inhabited, Excalibur Estate, London, 2011.

Identity and harmony

After World War II, Britain had a major housing shortage. In a radical solution, the Churchill government built thousands of prefabricated homes with the 1944 Housing Act. Erected quickly, they were designed to last the time while bombed areas would be rebuilt.

Although the prefabs were supposed to be a temporary solution, with a structural life-time of between ten and fifteen years, some of them still stand today and challenge the tower blocks that were built during the 60s to replace them. The villages of Eckington and Killamarsh in north-east Derbyshire, two estates have reached the end of their lives in 2013. Others are still up and debates are open for demolition or conservation like the cases of Peckham, South London, and the “Excalibur Estate” in Catford, South East London, built between 1945 and 1946.

After the Second World War, 150,000 “palaces for the people” (Hardman, 25 September 2011) as prefabs were called became synonymous not only with comfort and luxury but also with freedom. People liked them straight away: each house was the same in size and similar design, so nobody felt poorer, creating a kind of community. For the homeless bombed-out families across Britain, these two-bedroom prefabs were a godsend: detached houses with the then astonishing luxury of a garden and an indoor toilet.



Open House London at the Prefab Museum, 17 Meliot Road, Excalibur Estate, London, 20-21 September 2014.



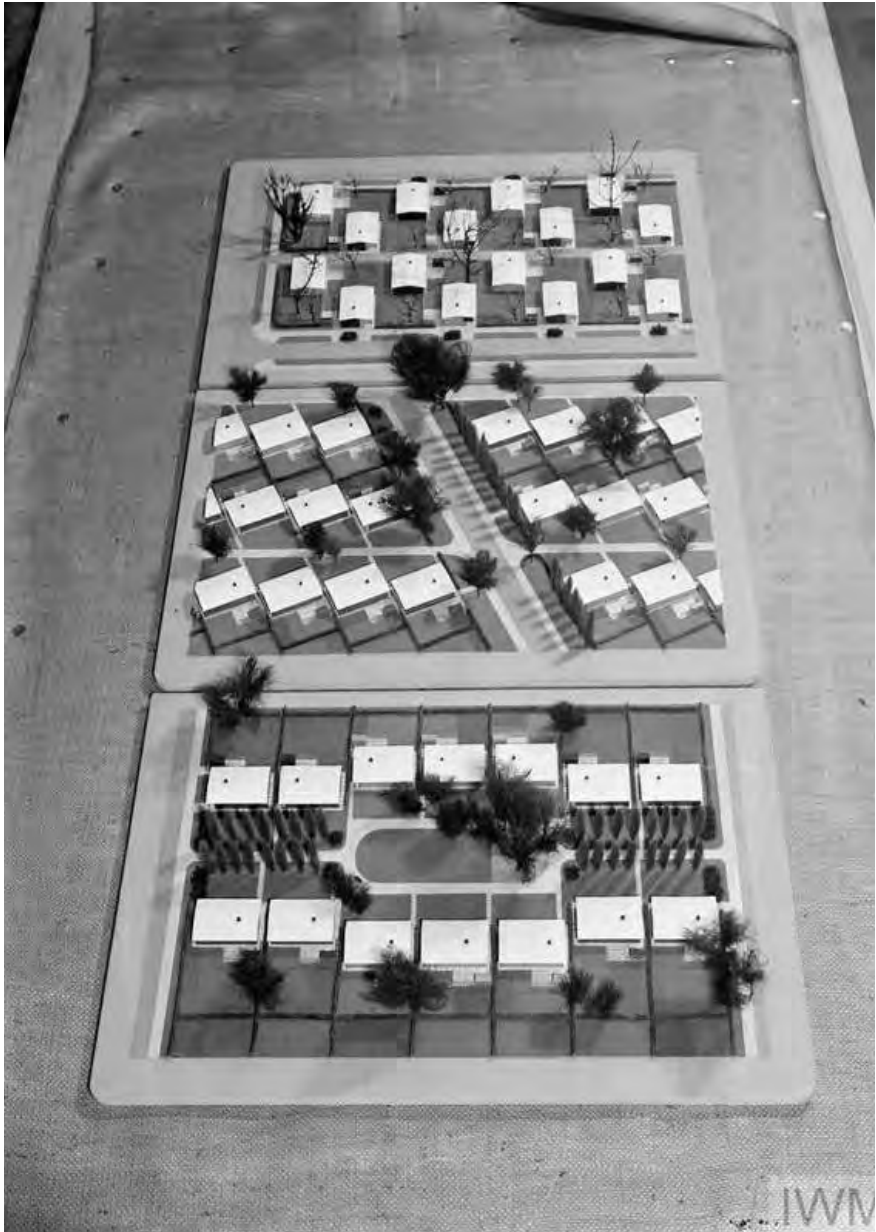
In the 60s, multi-storey concrete utopias were popping up all over Britain's skylines and most of the prefabs came down. As the years went on, the script went badly wrong. Many people found that they hated living in high-rise blocks, no matter how much the architects and the councils told them how lucky they were. In the end, the tower blocks started coming down again. The post-war prefabs are indeed part of British social history. That is why English Heritage has fought to give them a Grade II listing, ensuring that future generations will at least retain some idea of what post-war life was like for a large chunk of the population. Many of these prefabs in England were set to be given a Grade II listing by the Culture Minister in 2008.

There is even a Prefab Museum Archive that holds information about post-war prefabs, their history and design, as well as photos, stories, and recordings from former and current prefab residents.

People in the prefabs districts state that it is not just about the buildings. It is about preserving a way of living which is anything but prefabricated.

Paul, 47, resident of the "Excalibur Estate" in Southeast London: «I have spent thousands on this place. People ask why I bother, since I'm a council tenant, but I'm proud of this place. It's like a country village in the summer. No one overlooks you and there's no trouble. And where else are you going to find outdoor space like this in London for £60-a-week in rent?» (Hardman, 25 September 2011). Another resident, Jim, loves the

→
Post war
planning in
Britain: design
models of
prefabricated
housing,
Ministry Of
Information
Second World War
Official Collection,
1945-1989



neighbourhood harmony: «Round here, people still look after each other. Say “hello” to a stranger anywhere else and they think you’re a nutter. But not here. We’re old school.» (ibid., 2011).

Eddie is still living there after moving in during the summer of 1946. «I wouldn’t swap it for Buckingham palace. Even if they included the Queen». (ibid., 2011). But the Government has agreed in 2011 to safeguard just six of these buildings.

The other 181 homes on this quiet, graffiti-free estate are not being protected. Officially, these dwellings are damp and unfit for 21st-century standards. Some are only because they have been neglected by the council which owns all but 29 of them. Many others, cheerfully maintained by their owners and tenants, turn out to be dry, warm, and much-loved.



↑
Market area and
main street,
Kakuma Refugee
camp, Kenya,
2019.

Market place

African LGBT+ refugees settled in north western Kenya's sprawling Kakuma refugee camp since 1992 when large groups of Ethiopian refugees escaped following the fall of the Ethiopian government. Somalia had also experienced high insecurity and civil strife causing people to flee. The camp is located on the outskirts of Kakuma town, which is the headquarters for Turkana West District of Turkana County. Kakuma camp and Kalobeyei Integrated Settlement had a population of 196,666 registered refugees and asylum-seekers at the end of July 2020 – making it one of the 7 largest refugee camps in the world .

«We call it a camp, but it's really a city» Tayyar Sukru Cansizoglu, the United Nations Refugee Agency Head of Sub-Office Kakuma, told the OFID Quarterly published by OPEC Fund for International Development. «It is providing a place with opportunities for refugees that can't be found anywhere else in Kenya.» (Fattah and Elshhati, 31 October, 2018).

The complex comprises four parts (Kakuma I-IV) and is managed by the Kenyan government and the Kenyan Department of Refugee Affairs in conjunction with the United Nations High Commissioner for Refugees (UNHCR). Each ethnic community occupies a separate and somewhat discrete location. Each neighbourhood built its own market stands, coffee shops, library, and places of worship. New arrivals nor-

mally receive one piece of reinforced plastic 4 by 5 meters with which to construct their shelter. The other half is thatched roof huts, tents, and mud abodes. Staff members are housed outside the camp in three large compounds with various amenities, including a swimming pool, bars, shops, recreational centres, and exercise rooms for weights, yoga, and aerobics.

At the Kakuma Refugee Camp, inhabitants are redefining what it means to be a refugee. In 26 years of existence, Kakuma has transitioned from a place of temporary asylum to an urban center, complete with its own market. Referred to by many as “Hong Kong”, the market is home to over 1,200 refugee-run businesses, which offer a variety of products and services to both the camp’s residents as well as the host community (Fund for International Development, October 2018).

The environment in the camp has allowed refugees to rebuild their lives and search for solutions to become more self-reliant. This does not mean that refugees here are no longer in need of humanitarian aid. Rather, it represents Kakuma’s environment which provides opportunities for refugees to make the most out of their resources. M. H. Mohamud, a Somali refugee living in the camp, adds: «In the last couple of years, there has been a shift in the mindset of refugees in Kakuma. We have gone from seeing ourselves as hopeless victims who rely on food aid and NGO assistance to viewing the camp as ours, and becoming active and productive members of society.» (Fattah and Elshhahi, 31 October, 2018).

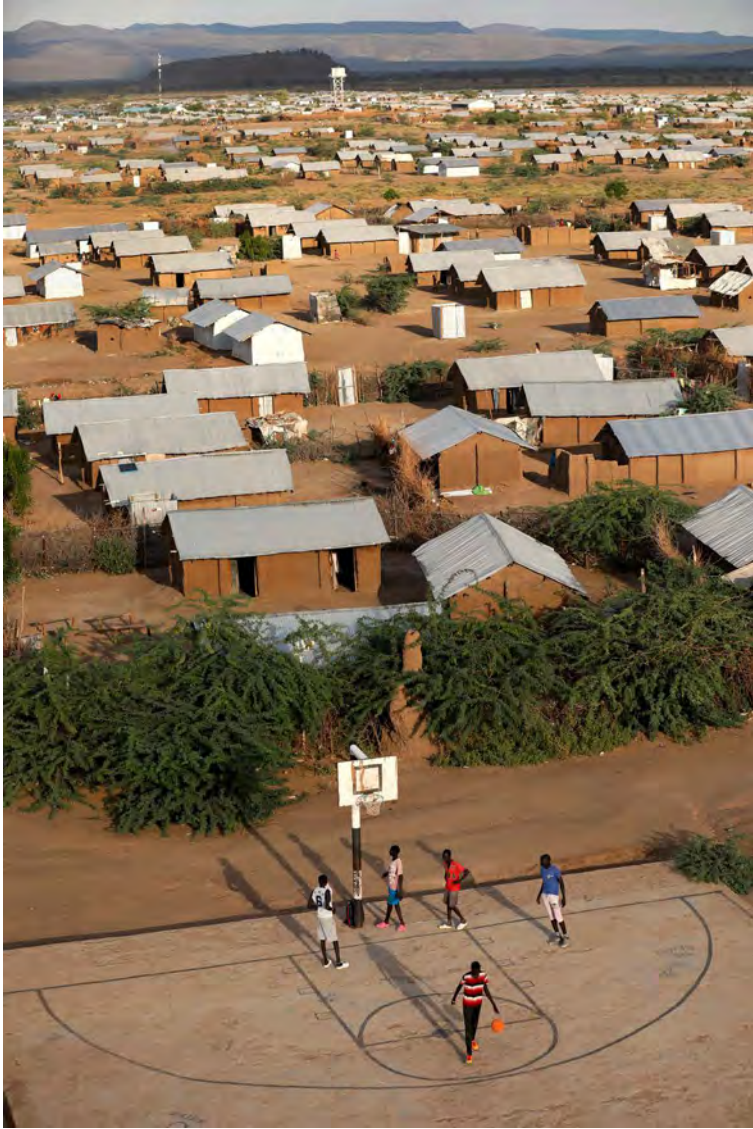
Development institutions including the World Bank support this shift. «Including refugees in development planning and national systems is a key part of this approach» says Franck Bousquet, Senior Director of the World Bank Fragility, Conflict and Violence Group (FCV). In this way, the World Bank believes refugees can become active recipients of aid developing their own skills. A recent report by the International Finance Corporation (IFC) supports this claim and illustrates a unique dynamic between Turkana locals and Kakuma refugees. The report finds that the refugee entrepreneurs in Kakuma have not only been able to support themselves, but also members of their host towns. In Kakuma, the report notes, refugees have employed locals in camp jobs and town residents sell resources to refugees.



Social gathering outdoor spaces, Kakuma Refugee camp, Kenya, 2013.



Kakuma Refugee camp, Kenya, July 2018.





↑
Camp clustered into neighbourhoods. Azraq Refugee camp, Jordan, 2018.

Semi-private outdoor space

Zaatari refugee camp in Jordan was established in July 2012 in response to the sudden influx of refugees from Syria. In early 2012, it was an anonymous patch of desert in the north of Jordan but by the end of 2013, it was a city of 156,000 Syrian refugees, the fourth biggest population centre in the country. In 2015 has shrunk to almost one third of its former size as Syrians desperate for a better future migrate to other parts of the Middle East or attempt the dangerous journey to Europe (Oddone and Reznick, 7 October 2015). Tents were initially provided for the refugees. From 2015 caravan-like structures have replaced tents and in 2016 only 11% of these were static caravans with screed flooring. The general rule was that one caravan was provided for every family of up to six members. However, they now follow the Sphere project guidelines (set of standards for humanitarian response established in 1997) of a minimum of 3.6m² per person (Albadra, Coley and Hart, 2018).

→
One of the main routes in the camp, Refugee Camp Zaatari, Jordan, July 2013.

Royal Institute of British Architects (RIBA) in 2017 awarded the “Toward healthy housing for the displaced” research on housing by University of Bath. This included surveys and interviews in the Zaatari camp. «The refugees in Zaatari camp had a relative freedom in arranging their caravans according to a layout that was favourable to them. Only 8% of the families interviewed did not make any adaptations to their shelters. At least 70% had built an extension or enclosed the space between their



caravan units creating shaded makeshift courtyards. The floor of the created courtyards and extensions were made of cement mortar over rubble while metal sheeting and tent like materials were used for the walls and roofs. 16% had created and planted a front or back garden.

Most families cooked outside their caravan units in makeshift kitchens regardless of the number of caravan units they had and regardless of the season (67% in summer compared to 57% in winter). Moreover, in summer, over 55% of the families spent the daytime hours in the semi-outdoor makeshift spaces that they have created, while less than 30% did the same in winter. When asked to rank the most important considerations in shelter design, safety and security came first for 63% of the respondents, thermal comfort for 28%; privacy also for 28%, flexibility of design and ease of adaptation by 40% and appearance by 52%.» (Albadra, Coley and Hart, 2018).

Another enormous refugee camp is the Azraq one in Jordan that in 2017 was at its full capacity of 53,000. Until 2015 one of the main concerns was that the camp felt more like a prison than a home. Azraq was a very planned, and controlled environment. Unlike Zaatari Camp, Azraq is highly decentralised. It is currently divided into four districts or "villages" that will each house 10,000 to 15,000 refugees (Knell, 30 April 2014). A cabin has a floor space of 24 sq m and can take a maximum of 5 refugees. Each group of 6 cabins will share lavatories. Each village has a clinic, playgrounds and other facilities. There



↑
 Front doors
 conversation,
 Azraq Refugee
 camp, Jordan,
 2018.

are two schools for 10,000 pupils, a central hospital run by the Red Cross. There are just two main supermarkets serving the camp and people aren't allowed to spend their monthly food allowance in other shops.

«Seven years into the war, people's mental health is increasingly stressed. People want some kind of normality, and for most adults that means working. However, there has been only slow progress on jobs and work permits. This was a major focus at the London Summit on Syria in February 2016, where the Jordan Government promised one work permit per household for Syrian refugees. Only a few thousand have been issued, and almost all to men. [...] For children, one of the advantages of living in Azraq camp is that the majority attend school, compared to only about two-thirds of Syrian children living in town and cities in Jordan. [...] Mental health is a concern in the camp. CARE has built four community centres in the camp and a sportsground

which is well used by children and adults. On my previous visit I was told that the women and girls were only using an inside gym, but now there are Taekwondo lessons for girls, and I saw girls running around and playing outside. It gives them some sense of normality in a situation that is far from normal» (Lee, 23 November 2017).



↑
Common FEMA trailer park, no grass, all stone, and trailers contaminated, Biloxi, Mississippi, September 2007.

No community feel

The FEMA trailers are temporary manufactured housing assigned to the victims of natural disaster by the Federal Emergency Management Agency (FEMA), intended to provide intermediate term shelter longer than tents. They can be described as mobile homes. There are only a handful of FEMA trailer designs, so nearly all mobile homes have the same layout. Furniture is attached to the trailer, and it would be illegal to make changes inside or outside. Trailers can be very cramped and offer little or no privacy. Generally, they are designed to accommodate two adults and two children. Many FEMA trailers are installed on the private property of homeowners, usually on lawns and sometimes in driveways next to the house. However, there are also numerous FEMA operated trailer parks where many storm victims have been living. The trailer parks operated by FEMA range from small lots, consisting of a dozen trailers in the parking lots of office buildings and supermarkets, to several massive parks occupying large plots of land with hundreds of trailers. The parks can be very similar to camping sites with small lawns to park on or simply bare concrete or gravel and no vegetation at all. The layout is generally just to place the trailers on the sides of a large parking lot or in rows next to an access street. In some cases, larger parks are surrounded by a chain-link fence and brightly lit. FEMA has also provided police security and controlled access to the larger parks. FEMA trailer parks have developed into small

communities, with both the benefits and problems that are involved like “ghetto” effects. They never have a common designed area to be shared by the people living in the trailers or some sort of landscaping and hardly ever some vegetation.

FEMA trailers were used to house thousands of people in South Florida displaced by Hurricane Andrew in August 1992, some for as long as two and a half years. After Hurricane Charley in 2004, 17,000 FEMA-issued trailers and mobile homes were successfully deployed. At least 145,000 trailers were bought by FEMA to house survivors who lost their homes during the 2005 Atlantic hurricane season due to Hurricane Katrina and Hurricane Rita. FEMA trailers were also made available after extensive flooding in parts of New York, Pennsylvania, and New Jersey due to Superstorm Sandy in 2012.

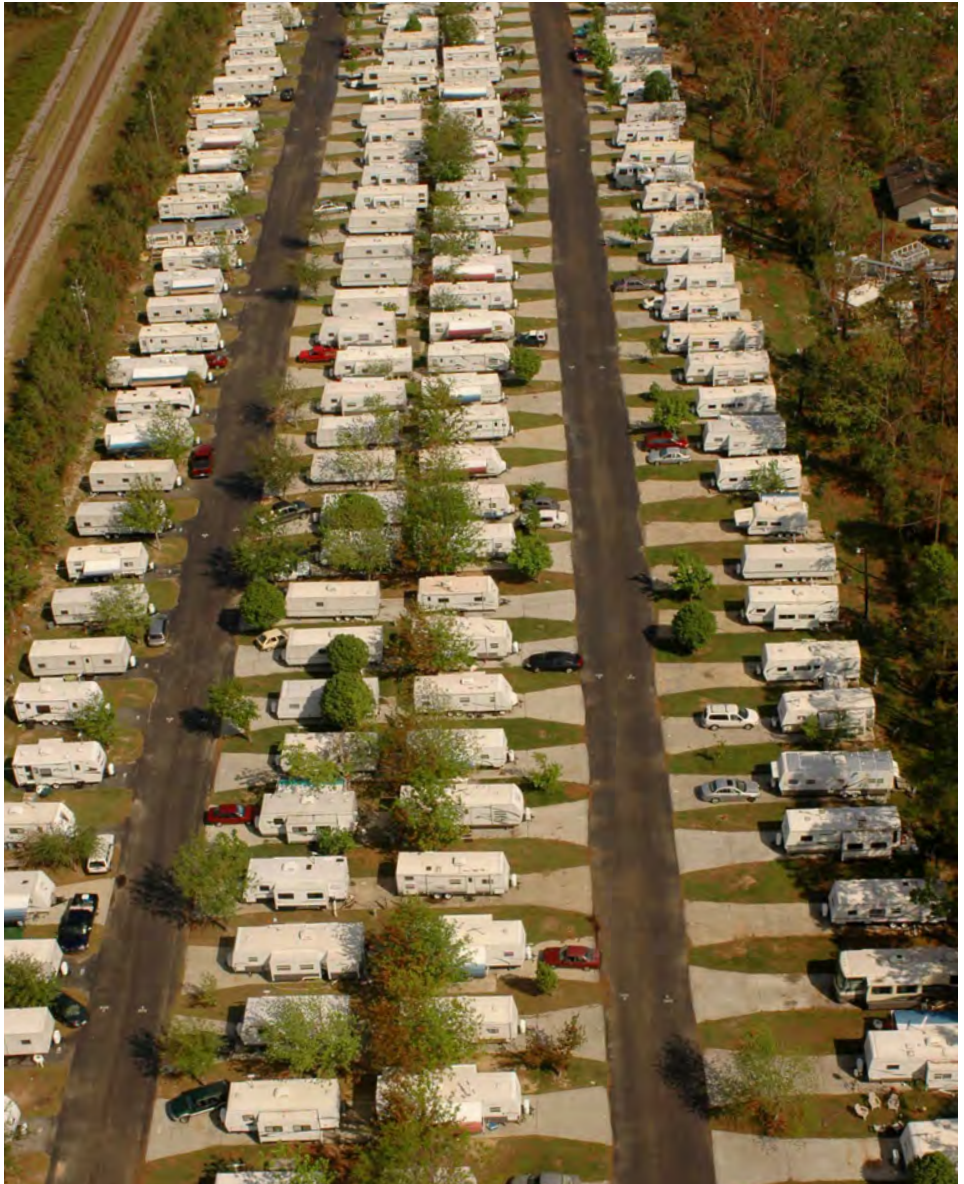
In the case of the Katrina Hurricane in 2005, 80% of New Orleans, plus a whole lot of Louisiana, Mississippi, and Alabama coastline had been flooded, so the need for housing was overwhelming. At the time, there were about 14,000 trailers in lots around the country which were then included in the provision for emergency housing. So New Orleans once had more than 23,000 FEMA trailers. In 2007, most trailers were still living in the FEMA parks which occupy playgrounds, churchyards, parking lots and fields around southern Louisiana (Eaton, 29 November 2007). In New Orleans, 926 families were living in smaller FEMA camps, some of which were supposed to close within 2007 (*ibid.*, 2007). FEMA trailers were used for housing for University of New Orleans students and faculty in New Orleans up to August 2006. The last of the FEMA trailers has been removed from New Orleans more than six years after floodwalls during Hurricane Katrina. In 2012 FEMA said there were three trailers still left elsewhere in Louisiana from the 2005 hurricane season.

Concerns about formaldehyde contamination arose after 2005 and not long after the trailers were declared too dangerous to live in. The trailers showed up again later, in 2010 at the Deepwater Horizon spill. Then in 2011 in Alabama, Mississippi, Georgia, and Tennessee, in neighbourhoods that had been flattened by tornadoes. A month after the installation of the “remediation device,” the formaldehyde levels had fallen: a decade after Katrina had summoned the trailers into existence, these homes might “almost” be safe to live in.

→ FEMA Trailers residents, Hancock County, Mississippi, October 2005.



→ FEMA Trailers camp, Biloxi, Mississippi, October 2005.





↑
The Chilean military coordinates the relief effort, Dichato Emergency Housing, Chile, Spring 2011.

Respect community's location

An earthquake and tsunami struck south-central Chile in 2010, affecting 75% of the population and damaging 370,000 houses (Comerio, 2013). Immediately after the tsunami, more than 600 families had no shelter, utilities, and food. The first step was to give minimum emergency shelter for three to six months. After this period, people received a small house for a two to four years period, before getting a permanent house.

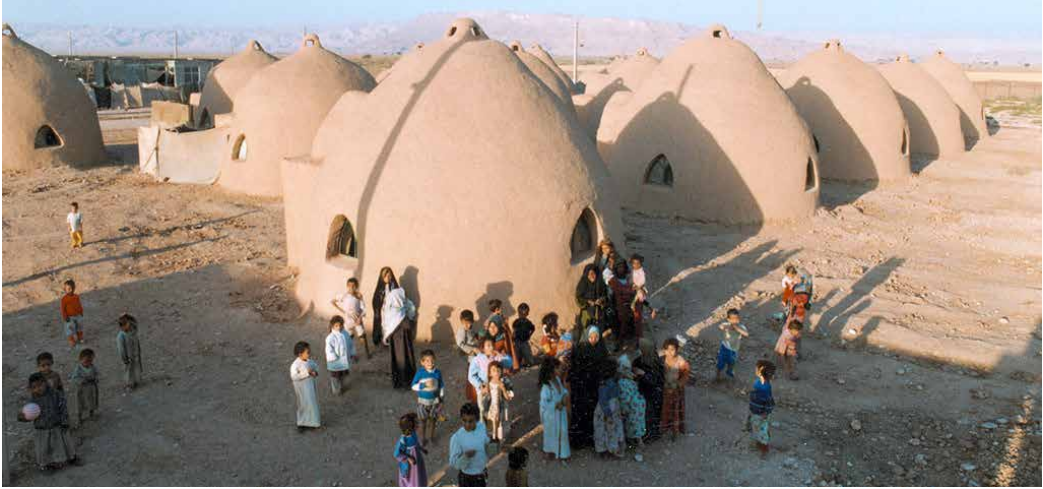
In Dichato 70% of homes were washed away by the tsunami (USAID Asia, 2008). The government provided 4 temporary housings villages for 500 affected families for around 2 years. In these emergency housings, there are utilities like street lighting, power network, sanitary units, and water. However, these facilities are communal:



Housing units with communal facilities, where numbers of families share the water source and toilet, Dichato Emergency Housing, Chile, Spring 2011.

families share the water source and toilet. NGO worked on the mental health, social assistance, and education for children. The people of Dichato call this new tsunami refugee camp outside of town 'the big neighbourhood'. This one camp will have 519 'homes' in it, each measuring 3×6 metres (18 square metres, or 193 square feet). The borders of Dichato will host four or five more such camps, albeit much smaller, before they're done.

The temporary houses were built by the existing home to keep people in their communities, with access to their jobs and family members, and the recovery was on their land, where they could monitor the construction. «Land use is an important element of community resilience when they are implemented effectively, they enable communities to absorb the shock of the tsunami. Therefore, effective land use management and well design structures allow community to recover more quickly after the tsunami event» (Rahman, 2011).



Baninajar
refugee camp,
Ahwaz,
Khuzestan,
Iran, 1995.

Courtyards and housing clusters

Aga Khan Award for Architecture for the 2002-2004 Cycle was given to the Sandbag Shelters Emergency housing for refugees, sponsored by United Nations agencies and designed by the California Institute of Earth Art and Architecture (Cal-Earth).

Sandbag shelters were first popularised by Iranian architect Nader Khalili in 1992 and called “Superadobe”. The Cal-Earth was founded in 1986 by Khalili. In 1995, Khalili partnered with the UN Development Programme and the UN High Commissioner for Refugees to apply his research for Iraqi refugees seeking safety at the Baninajar camp in Iran. Using only “the tools of war”, barbed wire and Superadobe sandbags, refugees built 15 domed shelters as a pilot cluster to be repeated.

A study of the habits of the Marshland Arabs would have shown beforehand that the design of the Sandbag Shelter was not suited to their norms of private home life, even if it was suitable for community life. In a society where the separation of the genders is so important, a communal living space for both sexes posed considerable complications for the inhabitants. Since the design of the Sandbag Shelter is such that it may be varied to meet the specific needs of different cultures, it is worthwhile to take these needs into consideration before construction.



The projects of the Sandbag Shelter in Ahwaz, Iran, realized for UNHCR Tehran have received the Aga Khan Award for Architecture 2002-2004 Cycle because the sustainable approach is further strengthened by the fact that they can be built by the occupants with minimal training. The structure scale and clusters' arrangement can vary to be suitable for different numbers of individuals or for differing social needs. Due to their strength, the shelters can also be made into permanent housing, transforming the outcome of natural disasters into new opportunities (Aga Khan Trust for Culture, 2004). This concept has become very popular across the world and used in several disaster relief housing projects including Haiti and Pakistan and has been most recently used in northern Syria to house internally displaced people.



CalEarth campus,
Hesperia,
California, 2017.
Prototypes.

Case study



Procession greeted by people on doorsteps and balconies. Narrow and steep streets with parked cars. Feast of SS. Maria Addolorata, Via Duca degli Abruzzi, September 2008.

One of the aims of this research is to assume the residents' point of view on the earthquake and its consequences. It is irrelevant in this case to develop an extensive analysis of the history, territory, and artistic values of the village of Accumoli (Rieti). Any village like the case-study in these circumstances would have lost important buildings or monuments but here only the ones that people recall with affections are considered very relevant. It is the activity that used to be held in that building and its public surroundings that is taken into account. The latest use of the old buildings is what mostly matters as it represents the unmet need in the post-seismic scenario.

Most residents were and are not aware of the artistic value of certain buildings, but they keep memory and feel the nostalgia of them as they were the backdrop of their daily life. We should be aware of the value of the lost buildings especially if the goal is the reconstruction which nevertheless is not the topic of this project. The description of the village is brief because the selection of relevant information in this situation is entirely part of the process of research of this analysis: in the following there are only relevant characters of the buildings, territory and history and a brief explanation of their value for this research. This research could be considered a simulation of the process of analysis before the design of temporary accommodations. There does not seem to be any need to collect further information because there would not even be time in a post-emergency scenario.

The 2016/2017 earthquake in Italy

So far, the phases of traumatic experience were briefly presented. These can be very personal, and they are strongly related to the psychological sphere. To move onto the field of space and architectural design another type of time division is adopted. Specific phases are named and identified to suit this research so to clarify the focus of the analysis in the broad time frame generally labelled as "post seismic". Also, there was a need to define time frames specifically for the 2016 earthquake and its recovery strategy. The phases here presented try to



Getting fresh air and look at the activities of the rest of the community is a necessity. The entrance of any type of "home" is the perfect place for it.

Tent camp, Illica, 24th August 2016.

correspond to the residents' state of mind and necessities rather than match other factors such as the mere solar year or the move out from a place to another. Different approaches of both analysis and space design must be applied for the different stages.

The seismic swarms of the Central Italy started on August 24th, 2016; weaker tectonic movements happened since then until two strong ones in October 2017. Due to the time-extended nature of this earthquake and to the generalized use of the word "post seismic", in this research, the post seismic period includes all the events from the earthquake of August 24th, 2016. Within this time frame, three main phases are identified (Fig. 11). According to this research, a first emergency phase starts just after the seismic event, so it includes the stay in camps. At this stage, people are very emotional and bounded together: they survived. There are primary needs to be satisfied (clothing, bedding, food etc.) which are provided by no-profit association, Government, and private donors.

Not long after, people move to safer accommodation, even if it was still temporary (hotels): the post-emergency phase begins. This will cover the timeframe in which temporary villages will be designed and then actually built in the affected territory. In the case of Accumoli, the residents would gradually move into them as soon as the Emergency Housing Solutions (S.A.E.) were ready. The population didn't move back all the same time and priority was given to elderly people. On one hand, this could be a wise strategy but, in the aftermath, elderly people found themselves alone waiting for their neighbours, the community was physically torn apart even more, and the priority given to some residents seemed unfair to the others.

From here on, the reconstruction phase would firstly overlap with the post-emergency one as it is happening in 2020 and then, eventually, be completed. The first private house has been completely reconstructed with anti-seismic technologies in February 2020. Other 3 sites are under construction but the number of private households to be restored



Fig. 11
When people are not keen to engage with others, a generic entrance and formal seating are not enough to bring people outside.

Temporary village, Amatrice, November 2017.

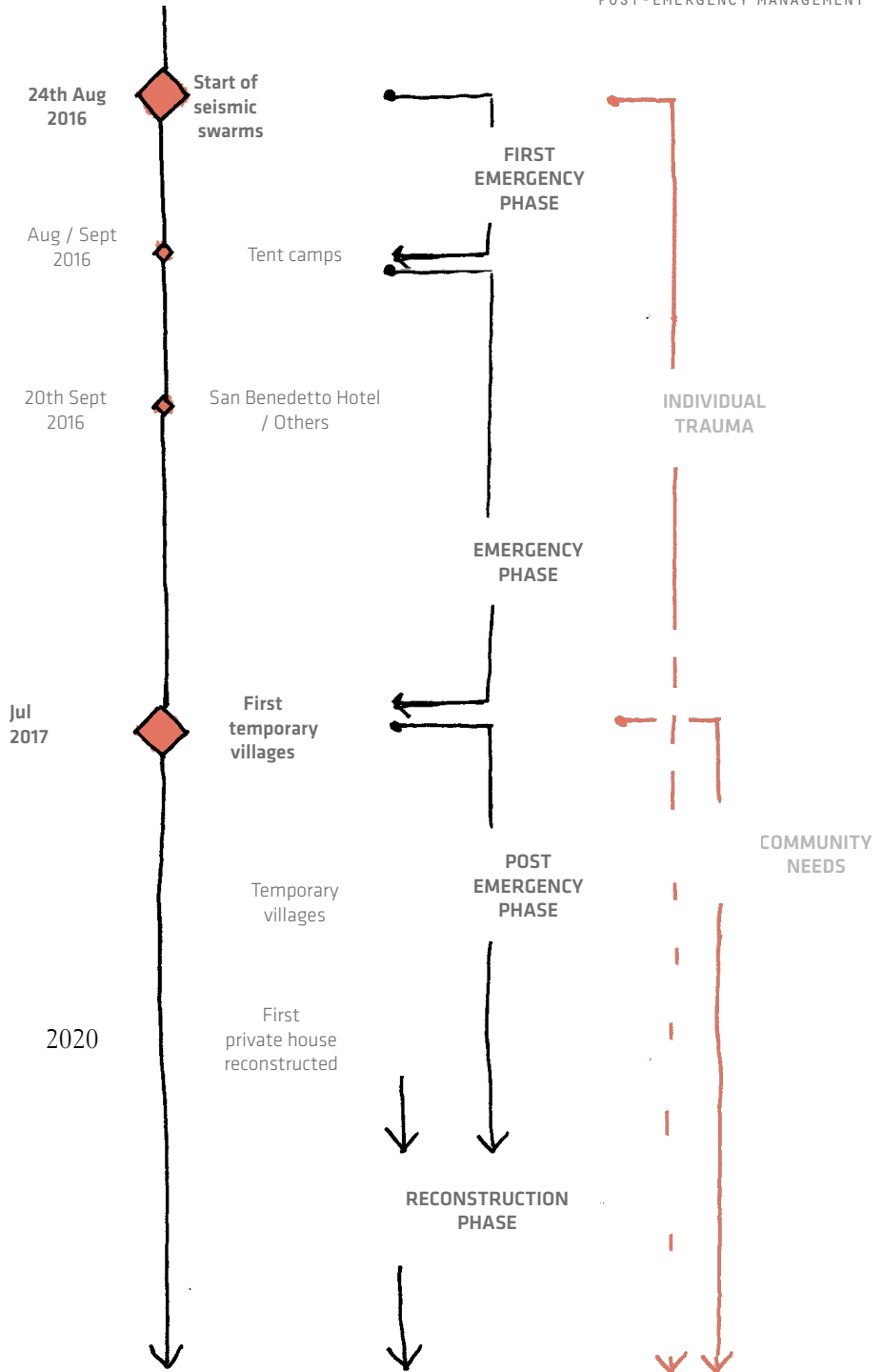




Fig. 12

in Accumoli only is around 3650 (Tini, 2020). This is labelled as “heavy construction” of private households in the Italian legislation.

The post-emergency phase as described above is a fundamental phase between the emergency and the reconstruction. During the analysis, some finding of this time appeared so important that the focus of the study zoomed from a general view of the post-seismic period to a more specific situation: the temporary villages scenario. The lack of literature on this specific subject and its characteristics determined the choice of the final topic of this research.

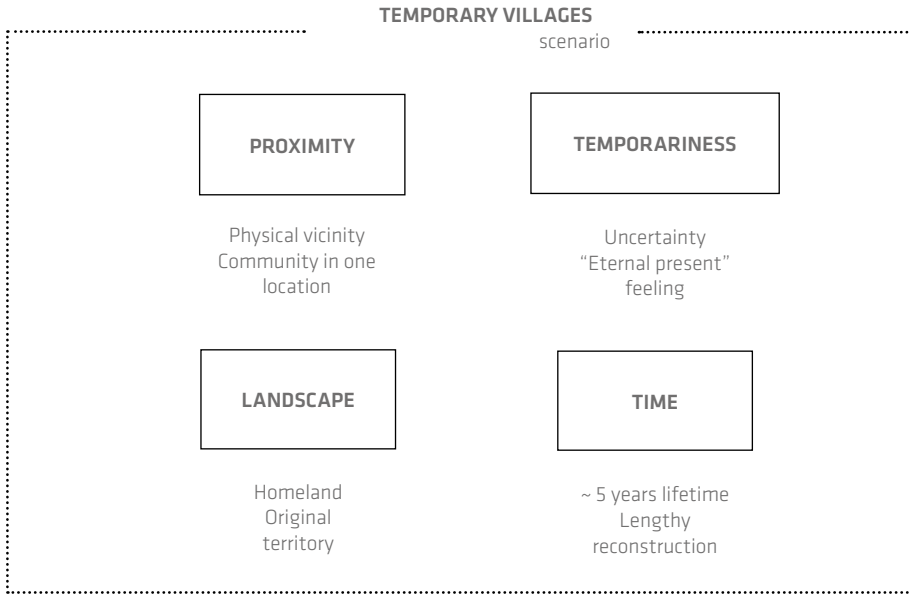
The main features (Fig. 12) of the temporary villages’ scenario are:

- The settings in the original territory;
- Same location for almost all the residents;
- Temporary nature;
- Long transitional time before reconstruction ends;

There are two general existing preconditions during the post-emergency phase [Fig. 13] which make the temporary village the right place for a greater opportunity to recover from trauma and to bond the community back together:

- There was time to design and built the villages meanwhile people were safely hosted in the hotels as the first emergency phase was over;
- Community-oriented needs appeared more prominently in 2018 as individual trauma was too overwhelming until then;

To support the last point, G. Scurci, General Secretary of PSY+ and on-site clinical psychologist, said during the interview about this trend: «The lines of intervention are the same as psychological support, mobile units, community empowerment, psycho-pedagogical desk in schools, labs for minors etc. What we find in everyday practice is that while in the last project [Project “Ricostruiamo le persone” - “Rebuild people” by PSY+, April 2017 - June 2018, San Benedetto’s hotel] individual support was the intervention that made the high numbers, that is, people came to us because of a need, now [Project “Percorrere” - “Walk” by PSY+ and ActionAid, August 2018 - January 2020, Accumoli temporary villages] more community needs emerge, there seems to be a need to feel again part of a community.». The PSY+ psychotherapist and psychologist L. Di Bernardo added: «These are subjective processes. The context certainly is influential: the various location steps (San Benedetto etc.) are stages. The transition from individual to community needs cannot be linked to a precise phase, even if it has occurred more in the third phase [Project “Percorrere” - “Walk” by PSY+ and ActionAid, August 2018 - January 2020, Accumoli temporary villages]. It is a data analysis: evaluating the numbers



monitored of psychological support first and community empowerment after, the numbers of psychological support were high and low those of empowerment in the first project [August 2016 - September 2016, Accumoli emergency camp]. Now there has been a tilting: evidently, in this period the population expresses more the need to feel part of something greater.».

At this point, it is clear that the phase of the temporary village is very delicate: their design can enhance or ruin the scenario and possibly have long-lasting effects on the population. This is the moment in which people have to feel strongly connected to the territory and to one another otherwise there will not be anyone left willing to live here. Is it worth rebuilding entire villages for fragmented communities? The opinion of Federico (37) resident in Accumoli: «I rebuilt a house, but for whom? This [Accumoli] had already become a summer village because few people had remained during the winter. Only a few people kept coming at times. Now: do we make this territory restart? Ok. I'd like the territory to restart, get people back, repopulating. But the situation now, the reality: you rebuild a house...Why? So that I will have a house tomorrow, with the elderly population that in ten/twenty years is no longer here. People no longer stay and the house remains: what for?».

According to this research, high quality design of the temporary villages could avoid these risks and make these spaces places of comfort and socialization. Opportunities and risks are directly linked to the features of the temporary villages (Fig. 13):



Construction site of Accumoli temporary village. As people were hosted in hotels, there was time to design and build the villages. About 7 months passed from planning approval to end of construction. 2017



- Design for the future vs. Sense of “eternal present”;
- Original landscape can restore the emotional attachment to the territory vs. Increase fear and nostalgia;
- “Re-bonding” thanks to proximity of community members vs. Increase of conflict or avoidance of contact;
- The long time before reconstruction gives the possibility for trauma recovery vs. Loose hope for the future

There is also to understand that for S.A.E. villages layout design there was no process of co-design, community consultation or participatory activities. The residents had a voice only about the locations of the different housing developments: they all preferred to be nearby the old villages, which, in the aftermath, created even more issues. This is lately creating awareness of the lost chance to gather all the residents in one bigger centre. There were of course reasons for which it would have been really hard to deeply consult the population, such as time constrain in the emergency phase. Also, people that are directly affected by the disaster, even members of the Council as they are citizens first, are emotionally involved. Sante (58) gives an example about the reconstruction topic: «In 2020 we will rebuild our territories according to the medieval logic of when our territories were built. We, who are here, and we are interested, do not have the space of mind to understand if this is an absurdity or not.».



Fig. 13

EXISTING PRECONDITIONS



FUNCTIONAL:
Time spent in temporary accommodations (hotels) after the first emergency

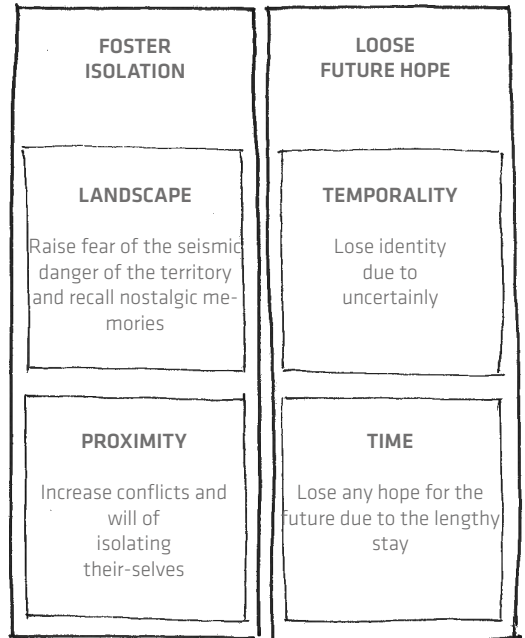
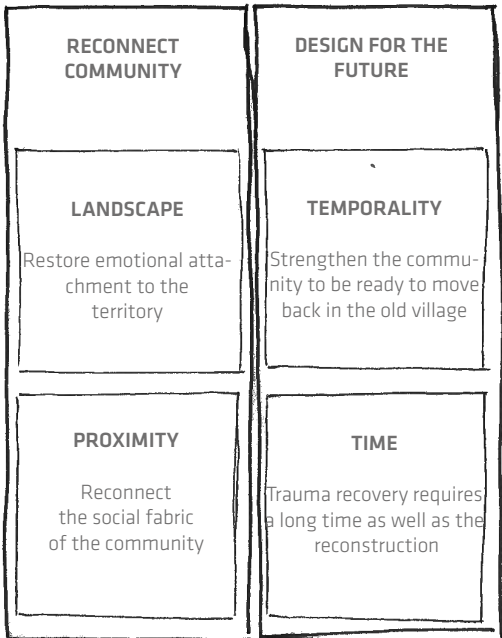


SOCIAL:
Community-oriented needs arise after the individual trauma is "under control"

DESIGN OF TEMPORARY VILLAGES

OPPORTUNITIES

RISKS



In hindsight, it is believed in this research that it was worth make a time and effort investment in participatory and cultural awareness processes together with the first empowerment activities by psychologists in the hotels. Don Stanislao explains how hard it has been to keep communication between the administration and the population due to the stressful situation: «The reality is very, very complicated. I agree it wasn't easy. Initially I noticed from the administration a certain openness towards the population, which was informed every Friday, especially those people who were moved to the Adriatic coast and had no direct access to everything that happened here on the territory. They were informed during Friday meetings. But as it happens in society, instead of appreciating what is given, we move on to the bad words. So, it was. Some people were attacked verbally, so they ended up with meetings. So now to say that the administration did not seek dialogue with the population is not true. But the population will say, yes, then they didn't tell us anything anymore. The problem is also that verbal participation, that is, commenting on everything on Facebook, is not enough.»

There are tools through which a community can be educated to take part to decision making conversations as a team member with designers and administration: possibly their attitude could be different if they weren't treated just as an audience on the topic of the temporary villages. The Council is not to blame either as they need to be aware and knowledgeable of participatory tools. One of the tools that could have been used is, for example, the process of cultural mapping as the de-population and the weak territory attachment were well known in these areas even before the earthquake.

In this process it would have been interesting to involve non-residents who seem to be very fond of the territory and who used to determine its social liveliness. Cultural or community mapping (Parker, 2006) could have helped keeping the population together despite differences and problems and foster place attachment and, therefore, “human territorialism” (Chiesi, 2016); this is the so called “identity effect” (Chiesi and Costa, 2016) which could have been promoted during the stay in hotels together with participatory activities and empowerment. «Community mapping and co-design practices promote territorialism because they focus on the community's relationship with space. [...] This process can foster many forms of territorialism that are intended as bottom-up appropriation of space; it thus constitutes an antidote to the deterioration of space. One hypothesis is that de-territorialisation is also caused by progressive decay of the spatially related elements diffused within given culture and community mapping and co-design favour precisely the collective and deliberate elaboration of such essential components of culture.» (Chiesi and Costa, 2016, p.148). Therefore, this process would not only awaken the affection towards

these places but also a greater awareness, appreciation and probably care of the new village, which could also be born from the consultation of the population.

The contractor for the Accumoli villages was the RTI CNS – Cogeco7 Srl. The Government has seen a succession of several Extraordinary Commissioners for reconstruction in the Regions of Abruzzo, Lazio, Marche, and Umbria, creating difficulties in the management of the processes. In the following pages there are summarized the phases and the actors of the planning of the S.A.E. villages in the municipal territory of Accumoli, also summarised in a diagram (Fig. 14).

The time between the choice of the area, number and types of housing needed by the Municipality and the approval by the Council of the project of the layout of Accumoli proposed by the National Consortium Services society - Cogeco7 happened in a little less than a month so a very short time that probably suited the emergency. However, since citizens were already transferred to safe places, and since this is what is called the post-emergency phase according to this research, it would have been appropriate to consider in more depth some choices with long-term effects for citizens and the territory. For example, Pasquale (60), like many others, seems to think that it might be worth waiting longer to have far-sighted results, the outcomes of longer evaluations and not only dictated by the emergency: «They sent us to the hotel, two more months, another four months more. Instead, they should have made structures all merged in one place for all.». Perhaps a different consideration of the influence of the post-emergency choices on the future of Accumoli and synthetic informations obtained from participatory processes could have led to the creation of temporary villages more suitable for residents, non-residents and their needs.

In relation to the design of temporary villages, the outcomes of cultural mapping of the old town could have helped to collect few main important elements to the social life of people and the spaces related to it. These could have been synthesised into very simple points being aware of the extremely challenging context. These could then have been inputs to the design process of temporary villages layouts. This point raises some questions: could have cultural mapping of the lost village increase territory attachment and help fight de-population? Could these participatory tools help the designer (if they had an interest in this) to collect information of what people needed to keep carrying on what it used to be a normal and simple life? Could these activities generate awareness of how important social gathering spaces were in the village, both for designers and people? Could these help shifting the attention from the “where and how” reconstruct to the design of quality community spaces in the temporary villages meanwhile?

The idea is that the activities should have been done with the residents of Accumoli during

Fig. 14

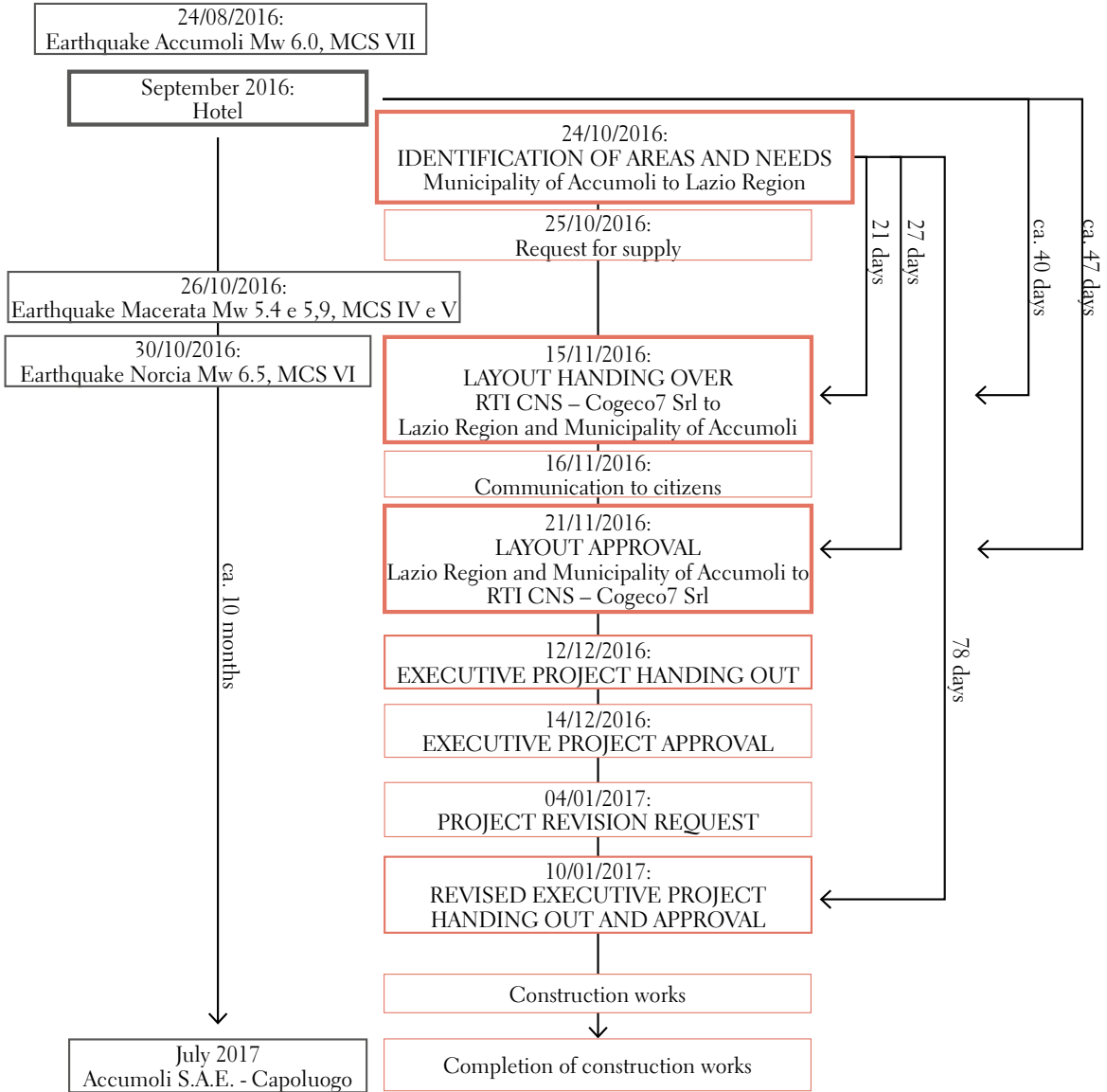


Fig. 15

S.A.E. temporary villages in Accumoli Municipality				
Location	n° S.A.E.	S.A.E. 40 sqm	S.A.E. 60 sqm	S.A.E. 80 sqm
Accumoli Capoluogo	71	36	20	15
Fonte del Campo	26	15	5	6
Grisciano	16	8	3	5
Grisciano Palazzo	26	13	8	5
Grisciano - ampliamento	1	-	-	-
Illica	7	3	3	1
Libertino	10	5	3	2
Macchia	12	7	5	-
Poggio d'Api	2	1	1	-
Roccasalli	13	7	2	4
Roccasalli 2	1	-	1	
Terracino	11	5	4	2
Tino	5	5	-	-
SAE total	201	105	55	40
SAE villages	11			
Hamlets without SAE	8			

their stay in the hotels, before the design of the layout of the temporary villages. To support this hypothesis, it is necessary to clearly explain the time scale of project design and decision making of the 2016 post-earthquake strategy for the Council of Accumoli, guided by the Lazio Region.

The village of Accumoli

« [...] Then there was the “little wall”. There we saw the life of Accumoli. Where the old people sat and then afterwards it was our turn. [...] Surely then you could go for a walk, to the Cross, to the Madonna delle Coste, to Villanova, to collect strawberries, brought them home saying: “Mom! here I have brought strawberries back!” And everything else. There was life. It was your life. [...] Then there were our festivals: there was our life. There were preparations for the summer festivals, the historical parade, the Amatrice “donkey palio”. We dressed in historical costumes and paraded with the dama. There is a life and there was a tradition. And even there we were all divided! »

Rita (49), Resident in Fonte del Campo (Accumoli),
Member of local cultural association “ProLoco Accumoli”, July 2019

The council

In the Province of Rieti in Lazio Region, this Council covers a mountain area of 86.89 sqkm in the Central Apennines. It includes 17 hamlets with a total of 612 residents in 2019 and 676 in 2015 (Istat, 2020). This area is at the cross of all the 4 regions affected by the 2016



The ‘little wall’ was one of the meeting places where the population would hang out spontaneously. They were particularly attached to it. Accumoli, Diaz Largo, before 2016.



earthquake. It is a good case study due to its generic typical characteristics of villages in the Central Apennines area of the 4 regions. The rugged terrain, the maintenance of traditional activities and the low density of population have allowed preserving intact mountain, forest, and lake ecosystems.

Etimology

There are two credited hypotheses on the origin of the name Accumoli - originally “Acumulu”. One from Latin “cumulus” (cumulation) as «the union of some villas» in 2111 (Leggio, 2011, p. 97-98) highlighting the dense building construction. The other refers to its perched position on a rocky spur- Latin “ad-cumulum” (Colucci, 1999, p.3). The lack of building land in mountain areas and in safe positions from possible aggressors has caused the towns of these areas to have a high density of buildings on steep slopes. As a result, the streets are narrow and steep, and the public space begins right on the doorstep. These are among the easy-to-identify features that need to be considered in this type of research.

Connections

Road transport is the only existing connection. Almost all the journeys were made by private means using the Salaria road SS4 (3km from the old town centre), state road of

next page top
Engraving of ancient Accumoli.

bottom
East view of Accumoli. The village overlooked the valley and the surrounding mountains. Before 2016.



considerable size on viaducts that connect Central Italy from Rome to the Adriatic Coast. There was a very scarcity of public transport already before 2016. The school bus was in service in the old town because some children enrolled in the larger schools of the neighbouring areas; this was also used by the elderly during the retirement wage period. The population tends to reach more often the nearest Ascoli Piceno then Rieti and seems to feel more connected to the Marche territory in general. These conditions leave the village, although centrally located, very isolated and with reference points scattered in the 4 regions.

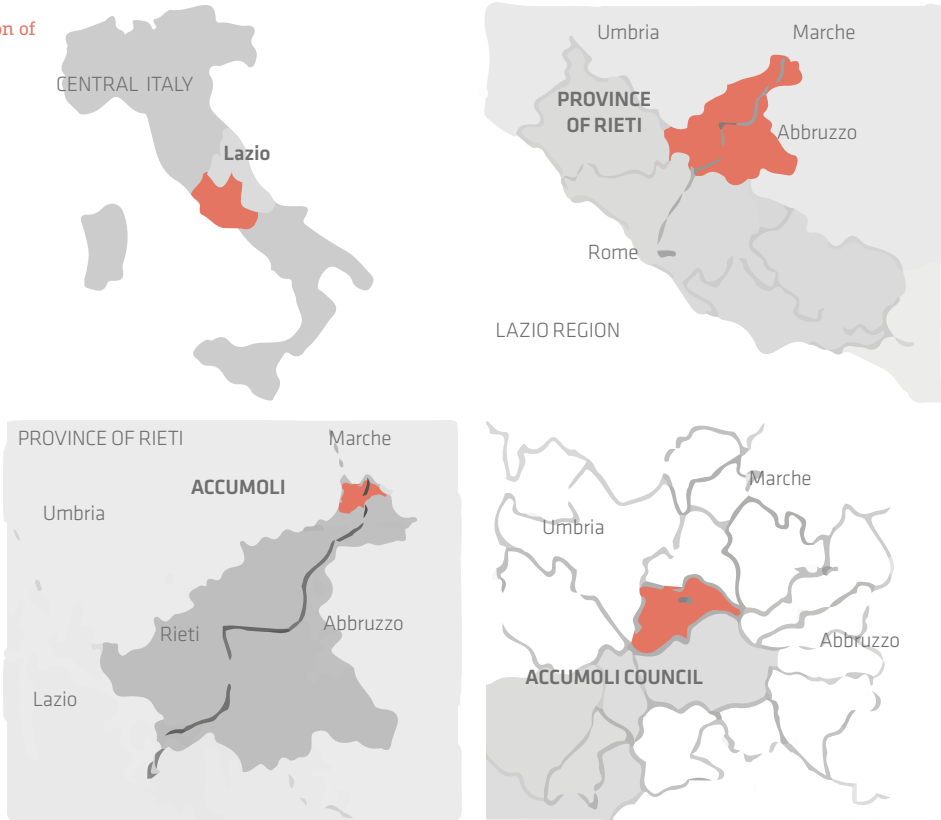
History

According to the local historian Agostino Capello (1829), Accumoli was founded in 1211 when the population of the various villages rose against the feudal lords, creating a common centre to defend themselves. The choice fell on the village of “Acumolo” for its strategic location overlooking the mountain and the main road (Via Salaria).

For several centuries Accumoli passed under the rule of various governors including the Medici family of Florence, the Pope, and the kingdom of Naples until 1860. From then, it used to be part of the Province of L'Aquila and since 1927 is part of the province of Rieti, of which it is the extreme north-eastern part.

Main earthquakes events of 1639, 1703 and 1819 caused great destruction but the population still reconstructed the village, showing an ancient knowledge of seismic risk.

Fig. 16
Localization of
Accumoli



next page

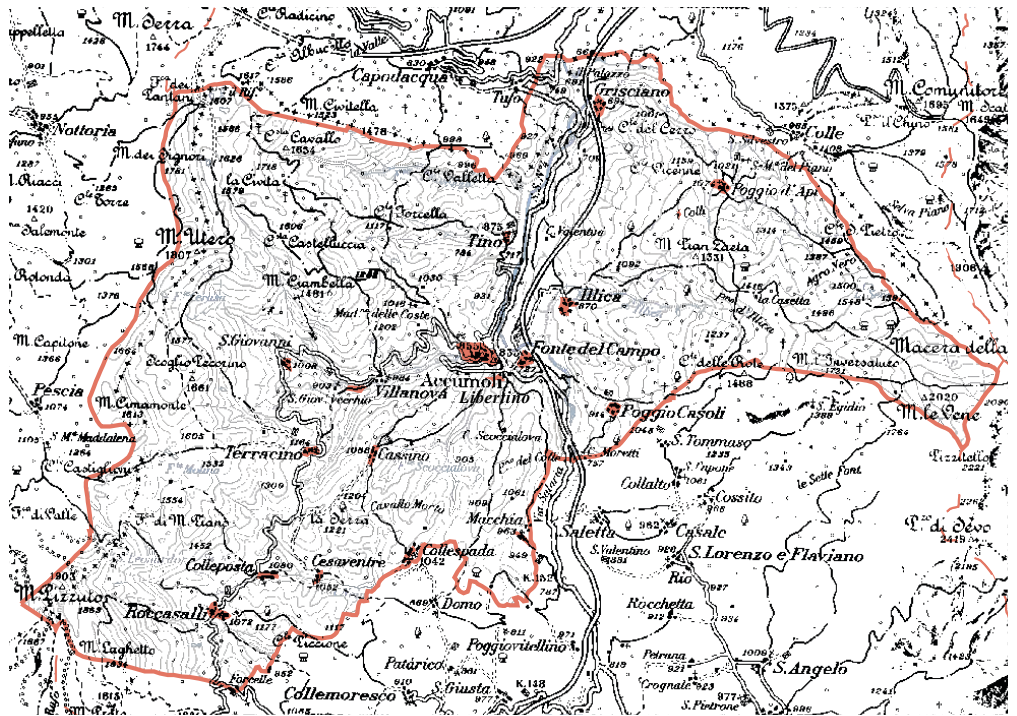
top
Fig. 17
Territory of
Accumoli
Council with
its hamlets.

bottom
Fig. 18
Territory
section with
altitude of
Accumoli
and nearest
hamlets
(m s.m.l.)

The history of Accumoli includes also battles between the hamlets and the main town. History was translated over the centuries into a very strong parochialism that remains until today. After the earthquake of 2016, almost all families have expressed the desire to return to their place of origin, even temporarily in the S.A.E. villages. Only recently the population began to express a more communitarian sentiment like that of Giovanni, 74 years old, originally of Villanova and now resident in Accumoli: «All together it could become a new, beautiful town. Many people say: “I am of Accumoli and I want to stay in Accumoli”» (2019).

Symbolic buildings

The nickname “village of palaces” represents the importance in history of Accumoli which held buildings of artistic and architectural value (at least 9 palaces). Only the latest



activities in these buildings and their premises are taken into account here as they represent unmet needs in the post-seismic scenario due to the lack of these facilities. This method of cataloguing by function allows to assimilate Accumoli to neighbouring towns in the other regions. Almost all the larger villages had, for example, the council offices, post offices, food shops, etc. Often the administrative functions were set in buildings of greater value as it is typical of all Italy, the *Bel Paese*.

In this analysis, buildings of historical value with only residential function are held in consideration only as landmarks of the population's "mental map" (Lynch, 1960), not for their artistic/architectural value: the lost built environment has a passive role, although not less important, preserved in the recent memory. Below are listed the palazzi of Accumoli with the most recent public functions (Colucci, 2012): Palazzo Del Podestà (c. XIII), Palazzo Comunale (c. XVI) and City tower, as Council offices, Palazzo Marchese Cappello (c. XVII) as the



ACCUMOLI

ACCUMOLI AND SURROUNDING HAMLETS
AUGUST, 2010



Via Salaria

Fonte del Campo

Libertino



ACCUMOLI S..A.E..

ACCUMOLI

**ACCUMOLI AND SURROUNDING HAMLETS
APRIL, 2018**



Via Salaria

Fonte del Campo S.A.E.1

Fonte del Campo

Libertino

Libertino S.A.E.





OLD ACCUMOLI AND ACCUMOLI S.A.E.
2018



Concert of the band under the arc of the Town Hall. Enclosed, cosy and covered spaces created lively corners of the village. Largo Diaz, before 2016.

Feast of SS. Maria Addolorata. All the streets of the village become a festive place: the sidewalk and the balconies become part of the altar. Via Tommasi, September 2013.

Natural Museum of the Gran Sasso and Monti della Laga National Park with educational area.

There were three religious buildings to which traditions, ceremonies or simple everyday life were linked; these functions are considered more relevant than the churches' appearance and artistic value. San Francesco Church (c. XII), in the square of San Francesco, was part of a monastery. The latter had been used in recent times partly as Carabinieri police headquarters and part commercial activity (tire dealer and gas station). The church of San Francesco suffered damages in previous earthquakes, so it was used less often than the Church of Santa Maria della Misericordia (or dell'Addolorata) (c. XV) in Via Roma, near Largo Diaz. Don Stanislao, priest of Accumoli, recounts the use made of these churches: «That of San Francesco was used for Sunday mass in the summer because it was cooler but at the same time more inconvenient for the population because the many elderly people who in our days come to church struggled to come down and then to walk up, while the other church was more central and therefore for practical reasons I used that other church [Chiesa di Santa Maria della Misericordia]». The accessibility of these territories is indeed reduced especially for elderly people (most of the population) or ones with disabilities. The centrality and accessibility of some functions is essential so that all people can easily get access to the building and enjoy its surrounding space: these

elements encourage not only the passage of people but also meetings and sociality. Also, a portion of this church was in use by the Music Band Città di Accumoli and the cultural association ProLoco of Accumoli. Given the density and the historical stratigraphy, it is not rare to find in these towns a mix of functions in the same building which generates liveliness and encounters in the streets.

The Church of Santa Maria delle Coste (c. XII) is at 1,5km uphill from old Accumoli, facing a lawn with fixed outdoor furniture and swings, the destination of sunny days. Gaetano (91 years old) and Pierina (90 years old) residents of Accumoli remember these events: «We used to eat out all together at Madonna delle Coste. There were no tables before, so set on the grass. The whole village, in small groups, families. We exchanged what we ate. We never went there after the earthquake.». Currently, only the lawn and pic-nic area is accessible due to the damages to the church and, even if is now closer from the temporary village of Accumoli, is less popular.

Monuments

The walls, the city gates, and the tower of S. Pietro (sec. XII) were lost in the last earthquake. They were in the perimeter of the town and they did not represent attraction points. On the contrary, the large fountain was still in use and recently restored: the inhabitants used to wash cars, large items or the fish for the summer festival. Another activity was the walk along Viale delle Rimembranze up to one of the access points to the village: here 3 crosses on a rock spur surmounts benches in the shade. It is important to underline the significance of the access to an inhabited area. For the design of new towns, obviously other tools must be found rather than historical doors or monuments. For recent times we can talk about vehicle access: communicating the entrance to a populated area, especially in places with mixed traffic as Accumoli, increases safety for pedestrians, helps the drivers to feel they arrived and the inhabitants to feel at home on arrival. Also, the entrances to a populated settlement represent interesting places for the people, where they can easily meet and watch the passage of cars and people.

The war memorial and the monument to Salvatore Tommasi (important for medical research in 19th century in Italy) partially survived the earthquake. They were all in San Francesco square. Their restoration took place thanks to the cultural association Radici Accumolesi and the Music Band. In October 2019, the inauguration ceremony for the war and the Tommasi monuments was held in the forecourt of the S.A.E. area. They were placed next to the monument to the victims of the earthquake. The interest in the recovery of these monuments testifies the attachment of the population and their symbolic value.

Materials

Accumoli, a centre of ancient nobility, in recent times it was a modest town, which, however, preserved in the urban fabric and architectural heritage some signs of the old prestige. The widespread pietra serena stone is a grey sandstone destined for an inexorable slow flaking and therefore many decorations or constructions didn't last over time. The materiality of the stone as well as the magnificence of most homes (hardly any house was smaller than 100 sqm) cannot be recreated in a temporary town. From the interviews with the inhabitants, it is clear that any building completed after the earthquake has little or no value to them. The Accumoli Mayor's opinion: «The thickness of the stone. We were used to mighty things.» (2019). Post-emergency dwellings will never meet the needs that the lost houses used to satisfy, so in this research it is believed that a high-quality public space could instead meet some of these needs, stimulating social involvement. The materials of the paving of the village were varied according to the buildings' premises. The pedestrian areas tended to be cobblestone, light anti-slip concrete, asphalt, slabs of squared porphyry or rough concrete. Sidewalks were in porphyry or asphalt. Roads and squares were in asphalt if vehicle accessible or cobblestone for pedestrian and mixed-use traffic. The differentiation of paving and possible use of materials similar to the old ones could be considered for the design of temporary villages.

Traditions

Events, celebrations, and ceremonies represented a moment of great participation by the residents, the non-residents who returned to the village for the events and the inhabitants of the hamlets. These are concentrated in the summer period during which all the hamlets organize other celebrations as well. Below are the most important festivals and the public places where they were organized: Pentecost in Madonna delle Coste Sanctuary, 14th Aug as Food Festival/Markets in San Francesco square, SS. Maria Addolorata Festival in the town centre, and a horse show in the sport fields.

The official associations were and still are now the Pro Loco Accumoli and the Band Complex City of Accumoli. Despite discussions between the two groups in the past, several events were organized together in recent years. After the earthquake, the band was one of the strong points of reference for the population; it had great visibility and is the largest and most active group in the town with members from 70 to 8 years old. One of the earthquake victims was a child of the band. The ProLoco needs headquarters and support, so it is basically inactive from 2016. Understanding which are the strong and weak groups of the before and after earthquake helps to better respond to the needs of the population.

next page
 Medieval parade
 in front of Palazzo
 Bonamici,
 property of
 the Bonamici
 family, one of
 the buildings
 that was the
 background to
 everyday life and
 events.
 Via Tommasi,
 before 2016.



During the interviews, people mentioned many small groups of inhabitants of the hamlets that used to organize events and activities for young people. At the same time, it seems evident that there were some spontaneous groups, unofficial, mainly divided by age and by the attendance of the bars, the card tournaments or certain corners of the town.

«Already in 1500, there was a theatre, an important cultural institution for the period, if you think that it was still missing in many large cities.» (Colucci, 2012, p.94). The theatre was heavily damaged by earthquakes (1627, 1819) and then lost due to a recent questionable renovation. Roberta, who worked at the Museum of Accumoli, explains: «In Accumoli there really was the tradition of theatre and improvised singing “a braccio”. They [her parents] performed in the one of the churches.» Renzo Colucci president of Radici Accumolesi explains: «The depopulation in the middle of the 60s was one of the causes of the end of the tradition of theatre and cinema in Accumoli.» (2019).

Commercial activities and services

There are considerations on the economic and work resources of the territories of Central Italy according to the Report of the Extraordinary Commissioner: «First of all, reference is made to the global economic context, as a result of which the territories arrive at seismic events after years of economic crisis and recession that have impoverished local

next page
The village was made of high density clusters of tall buildings nestled on a rocky steep spur. Accumoli and the hamlets of Libertino and Fonte del Campo, East view, before 2016.

economic resources, have generated unemployment and have, at least in part, led to the depopulation. The very limited resources which have had a significant impact on the viability of the production system have led to a lower response ability, both of a social and economic nature, to what could have been achieved if the same seismic events had affected an economically strong and stable territory. Moreover, it is necessary to consider that the fragility of the institutions and the territory is, even more, penalizing if one considers the complexity of the normative framework and the inconvenience to proceed in exception to the ordinary norm.» (2017, p.28).

Inside the village of Accumoli there were several shops which are listed with their location: Minimarket Bonamici, Minimarket Emporio di Fabiola, and Bakery Pasquale Conti (closed in 2015) in Via Tommasi, Food shop Mirella (former tavern) in Diaz Largo, Mattioli Butcher in Via Roma, Romolo Colucci (miscellaneous, closed recently) in S. Francesco square.

The usual meeting place was the Bar Momy in Diaz Largo, open until 8.00pm every day. It was popular thanks to the outdoor space on the edge of the street (“edge effect” - Derk, 1967) and a game room not far away. The central location in the town, at one of the entrance points to Accumoli, the proximity to the offices of the Municipality and the outer space made this space much appreciated by all age groups.

In the centre was also active the restaurant/bar/pastry shop La portella in S. Francesco square: as it was open until late, it was the backdrop to many evenings of the inhabitants of Accumoli or events. The two bars responded to needs in different circumstances (daily routines, events etc.) and at different times (day, evening etc.) allowing people to stay longer together. The concept of “length of stay” is outlined by Gehl: «[...] it is important to note that life between buildings, the people and events that can be observed in a given space, is a product of number and duration of the individual events. It is not the number of people or events, but rather the number of minutes spent outdoors that is important. [...] This implies that a high level of activity in a certain area can be stimulated both by ensuring that more people use the public spaces and by encouraging longer individual stays.» (1971, p.77).

Dr Nigro, pharmacist-owner of the pharmacy in Largo Diaz, provided an excellent service and was a reference point as he tells in the first emergency: «We know each other. This is the everyday life of the village pharmacist. I have been here for 3 years [...] I have since long ago established a very solid relationship with the inhabitants of Accumoli, and this explains why after the earthquake I wanted to stay here anyway: in 3 years I received so much, now I try to pay back. I will continue to go around, as I did before the



earthquake: again, it is the daily life of the town pharmacist, you never really go off and when you close the shop you don't go home right away but you go around to those who need a drug and can't move or need some comfort. I repeat, human relationships are an invaluable asset here.» (2019).

Accumoli had a medical practice opened only on certain days in S. Francesco square. Three years after the earthquake was inaugurated the Presidio di Assistenza Socio Sanitaria (Medical Assistance Department) of Accumoli along the Salaria road. Nursing Coordinator Paola talks about the work in the medical field since the earthquake: «We absolutely continued to do our work well, with courage, firmness.» (2019).

The nearest hospital was that of Amatrice (15km) which has yet to be rebuilt. The largest hospitals are now Rieti (70km) and Ascoli Piceno (50km) exposing to a serious risk an elderly and fragile population in the event of a major emergency.

The Municipality offices continued to provide services despite the difficulties and are in containers. The postal A.T.M. in the new shopping centre was a positive addition as there were no fixed banking services in the old town.

The accommodation facilities in the Accumoli centre were 2 B,Bs, both destroyed and not replaced. This implies difficulty for non-resident to visit their relatives and friends and a consequent greater sense of isolation: the S.A.E. are not sized to have guests. The nearest accommodation are facilities in Arquata del Tronto and agritourisms in the hamlets. Accommodations, hotels and others are 24 on the territory with a total of 208 beds¹. Other services in the old town: tire dealer, gas station (only one in the Municipality of Accumoli, destroyed in the earthquake and not rebuilt), post office (open on specific days), and Carabinieri police in S. Francesco square, a joiner in Via Piave.

¹ ISTAT dossier "Characteristics of territories affected by the earthquake of August 24, 2016".

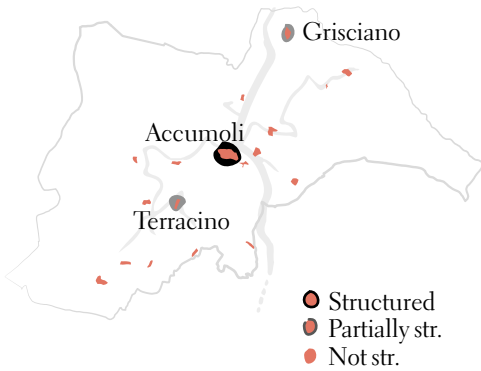


Fig. 18 - Urban centers

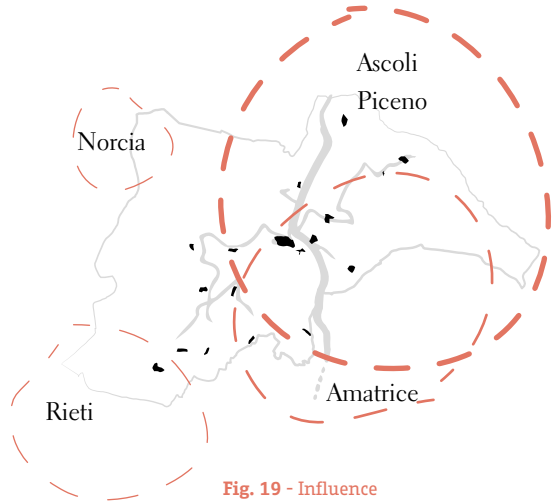


Fig. 19 - Influence

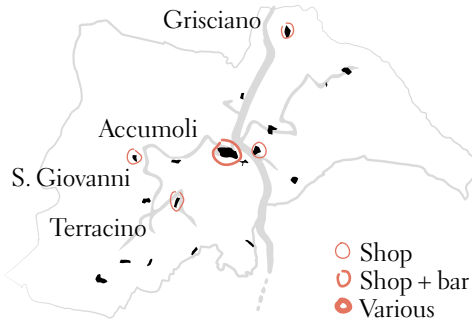


Fig. 20 - Services

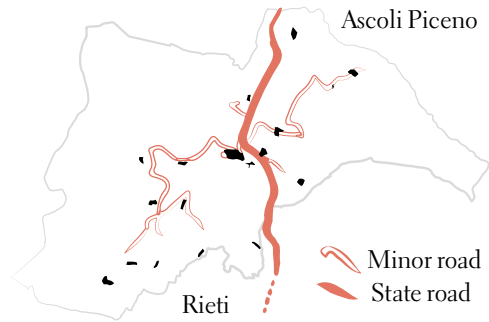


Fig. 21 - Connections

The farms of the territory affected by the earthquake are on average 4 per 100 inhabitants, compared to a national density of 2.7 per 100 inhabitants. The farmers represent that part of population strongly attached to the territory by necessity and passion. Many of them as Mario of the Grisciano Cooperative have experienced the emergency phase detached from the rest of the population which was transferred to the hotels. Their different experience was considered relevant for this research. The farms are mainly located in the hamlets and only very few started after the earthquake thanks to external funds (saffron cultivation and brewery).

Public spaces

Accumoli is a small town but the largest of its municipal territory. Its hamlets are many, they have a different plant from this village but they will not be taken in analysis. The village has a plan based on the needs and traditions of 1200, period of its foundation with alterations in 1600/1700. Some of the information about the village was also taken from the place names (toponym) of the village, collected and published by the local cultural association Radici Accumolesi (2016)².

In the last 150 years no modifications have been made to the layout of the village except the construction of a covered parking not far from the Civic Tower. It is evident that some of its features are anachronistic and cannot really be considered as design cues. Sante (58), a technician resident in Accumoli, speaks of this incongruity of necessities: «If you had planned the reconstruction of our villages you could say: “This is a town that was made like this, we make there a road that before was 180 [cm] and where only a [Fiat] 500 could get passed, the wheelbarrow and the mule with the burden. Already the [Fiat] 500 was tight there in the 70s. Today it can not be more so. We will rebuild the post earthquake with what were the concepts of 1700-1600. In 2020 we will rebuild our territories according to the medieval logic of when our territories were built. We, who are here and we are involved directly, do not have the mind space to understand if this is an absurdity or not.» (2019).

The focus is on the characteristics of public spaces and the use that was made of them according to the functions of the neighbouring buildings. Design ideas can arise from the interpretation of a space that naturally led people to live the public space and interact. Federico (37) talks about how the community and the way of relating in space have changed: «Maybe in the village it was different, willing or not, in the evening you went out in front of the house and you started talking to these non-residents who came back during the summer, you had a dinner...there was more union, more group, even if there were the discords there as always.» (2019).

The main street for importance and social relevance is definitely Via Tommasi, which connects the highest part to the lowest part of Accumoli. Here remain the few local shops of the village: certainly this street is also a place to rest and not only to pass through. It is a pedestrian and driveway access road and there is the Council offices from which the Civic Tower stands out, symbol of the village along with its noble palaces. Via Roma, sloping and paved with cobblestones, leads to the Church of Santa Maria Addolorata to which the headquarters

² They are described below as a tribute to the history of traditions and to those who have dedicated their studies to them: *Bervedè, li Piano di Cappella/Piano de Sor Paolo, l'arena de Mevi, l'ara di Sacconi, a Madumella, la Croce, Santiache, u casale de Furletta, u casale de Temperine, u muritte de Marziella, u prate de Fuscone, la Capannina Belvedere, rione dei Magnagatti, Capolaterra/ il rione dei Tassi.*



↑
The mix of function made this square lively as many people would come and go. The gas station was an attraction that would create encounters. San Francesco square, before 2016.

of the Proloco is attached and across the street from it there is a games room run by the bar. Viale delle Rimembranze is the access road to the village for those coming from Villanova and neighbouring hamlets; being one of the very few roads almost flat, it is the perfect place to go for a walk even for older residents. Skirting the village on the South side, it offers a beautiful view of the landscape until the intersection with another access road, symbolized by three crosses on a spur of rock and benches (“Le Croci” - The crosses). Since 2017, this road leads to the new village S.A.E. and is much less used for walks. This street, on the occasion of the summer festival, is even occupied by the Proloco with long tables and chairs: people block the passage of cars to enjoy a dinner with a nice view while Diaz Largo is used to dance, celebrate and drink at the bar. Via Duca degli Abruzzi is a street in cobblestones, steep and narrow onto which several doors of the houses extend with steps and informal seats such as garden chairs, portions of wooden beams on the ground or old benches. The main access to the village is Via Salaria State Road from the lower part of the village.

It should be noted that despite the change of flooring, all the mentioned roads had both vehicle and pedestrian access: this coexistence made it necessary to decrease the speed of travel by car and the possibility of reaching almost all residences for those who struggled to move. In addition, the absence of a clear division of pedestrian and driveway area leaves the possibility to the population to take over and live the public space of the streets



The streets can be a place where all age people are welcome. The gradient of the stepped street can be a seat for the youngsters. Accumoli, Via N. Sauro and Via Duca degli Abruzzi, before 2016.

as they prefer: it was not uncommon that during dinners and parties, tables and chairs occupied roads normally carriageable, as in the case of Via Tommasi and Via delle Rimembranze. Parking lots were also in the most diverse corners of the town. The passage of a car always aroused the curiosity of passers-by or those who were outside the door of the house or at the bar: maybe it is a friend or a relative, or a couple that generates gossip.

The roads and accesses of the village vary in size according to their function and period of implementation. They go from the narrowest of all “La Ruetta” (tiny steep path), a shortcut of 80cm between Via Duca degli Abruzzi and Via Tommasi, to the recent double lane of about 8m Provincial Road Via Salaria Vecchia that gives access to the town. Via Tommasi, which can be defined as the Corso (main street) of the town, measures about 6m wide in the pedestrian portion and it extends up to about 8m including a row of parking lots and two narrow sidewalks. About 6 meters is the size of the other access road to the village but the oldest and interesting ones from a social point of view and use of public space are on average 3 - 4m wide. These often include access steps to houses sometimes of considerable size; there are no sidewalks and the flooring generally varies from concrete, asphalt and sanpietrini (cobblestones).

It is important how as the semi-private space of the accesses to the houses often extends into the semi-public or public one of the streets. It therefore seems that the semi-private space/semi-public transition represents an interesting area for people: from here they can feel part



The doors of the houses are always an attractive and comfortable place. The spontaneity and naturalness with which these small areas are used underlines the importance of the spaces of transitions between the private and the public.

Accumoli, 2000s.



Proloco's dinner along the road temporarily closed to traffic that becomes part of the festival in the nearby Largo Diaz.

Accumoli, Viale delle Rimembranze, August 2015.

of the community that uses the public space but at the same time they can return home when they wish. Facilitating the transition from public to private certainly increases the possibilities of residents going outside. It is not by chance that often in the houses of Italian villages the door is always open. Gehl stresses the importance of transition spaces to entice people out: «Flexible boundaries in the form of transitional zones that are neither completely private nor completely public, on the other hand, will often be able to function as connecting links, making it easier, both physically and psychologically, for residents and activities to move back and forth between private and public spaces, between in and out. This very important issue is examined in more detail in a following section [...] Being able to see what is going on in public spaces also can be an element of invitation.» (Gehl, 1971, p. 113).

The squares of Accumoli are three: Capolattera Largo, Diaz Largo and Piazza San Francesco, all three with really different location, size and characteristics. Largo Capolattera is in the highest part of the village and it is very steep: although of considerable size, this public space is not used for events or meetings because of its steep slope. On the contrary, this is a meeting place of the neighbourhood, as it is even more tiring to reach going along narrow streets which are not all accessible by car. Here only the inhabitants of the houses that overlook the square, like a little square of a small neighborhood, the district of Capolattera in this case, once identified as that of “Magnagatti” people, stop on the benches on the walls of the buildings. There was another district in the lower part of Accumoli: the “ringhierino” (little railing) in the middle of Via Tommasi was the classic demarcation point between “Tassi” towards Capolattera and “Magnagatti” towards Piazza San Francesco, districts divided by a strong dualism at the time (Colucci et al, 2019). Piazza San Francesco is the largest public space so it is an event space. On the other hand, it is not for this reason more appealing at a social level as explained by Giuseppe, 32 years old, President of the Music Band of Accumoli, when he speaks of the “giardinetti”



Despite the reduced width of some roads in the village, the procession crosses it making it part of the background of social life and events. Accumoli, August 14, 2015.



Some of the roads of the medieval town are inaccessible to cars, but are man-sized. There are always benches next to the steps at the entrances of the houses. Accumoli, before 2016.

(little gardens) of Piazza San Francesco: «It was frequented in the summer by elderly people to spend the afternoon, rather than winter, but it was not the meeting place of Accumoli.» (2019). In this square there are several services and a bar/restaurant that overlook a large asphalt area and only a portion of the square is pedestrian, the one to which Giuseppe refers to. The usual meeting place where most of the population find themselves spending time together is Largo Diaz. This is located in the central part of the village, favouring accessibility to all both on foot and by car, and there are other services, such as the pharmacy and the municipality, and shops.

The housing census conducted by ISTAT in 2011 shows that 28.7% of buildings are occupied by a non-residential functions. Although this value seems small, it is higher than the average of the villages of the crater (10.5%) and Italy (11.5%). There are in fact several functions in Accumoli, mostly in the buildings in S. Francesco square. Among these, the first of all is the “Centro Diurno Polivalente” (Community Hall), where the preparations for parties, cultural activities and exciting card tournaments are organized. Other services are in this building and in the one adjacent to the Church of S. Francesco, including a bar/restaurant with outdoor space. Romualdo (70+), a non-resident frequent visitor of Accumoli, recalls: «Until 30 years ago there were three bars/tavern. About 20 years ago the one in P.zza S. Francesco ceased to exist... for several years it was also a tavern. Only a few years ago there was once again “La Portella” pastry bar and restaurant.» (2019). Shops and groceries are located on Via Roma and Via Tommasi. The school, which also houses the band’s rehearsal room, is near Largo Diaz but it is rather detached because of the altitude difference: this does not allow an integrated use of the surrounding spaces of the building in the context of the town.

The shortest way to reach the school is a staircase from Largo Diaz that makes this square even more lively. The band represents a very active group and their performances are often done in the streets or squares, leading people to live public spaces. Approximately, the distance to walk to reach a service from different points in the town is about 200m. The sport fields just outside the village have undergone improvements since the earthquake. In this area, along with the emergency tent camp, a large tensile structure was installed. It was in use for a long time after to host events with large participation. The Onlus association PSY+ carried out many sports and recreational activities in this field, especially for the youngest, also shooting several short movies.

OLD ACCUMOLI BUILDINGS

Entertainment

1. Community room
2. Game room
3. ProLoco headquarters

Hospitality

4. Antiche mura B,B
5. Bonamici B,B

Education

6. Music band studio
7. School
8. Natural Museum of National Park of Gran Sasso e Monti della Laga

Commercial

9. Emporio di Fabiola
10. Mirella Food shop
11. Mattioli Butcher
12. Bonamici Minimarket
13. Romolo shop (various, closed recently)
14. Pasquale Bakery (closed in 2015)
15. Pica Gomme tire dealer
16. Paluzzi joinery
17. Gas station
18. Farmacy

Worship

19. San Francesco Church and little theatre
20. Santa Maria Della Misericordia Church

Bar/Restaurant

21. Momy Bar
22. La portella restaurant/bar/pastry shop

Service + admin

23. Post office
24. General practitioner
25. Carabinieri police
26. Council offices
27. Forestry police

Monument/Palace

28. Fountain
29. Tommasi monument
30. War memorial
31. Palazzo Del Guasto
32. Palazzo Bonamici
33. Palazzo Organtini
34. Palazzo Durante- Testa - Mattioli
35. Palazzo Moscati
36. Palazzo Marini
37. Palazzo Marchese Cappello
38. Palazzo Comunale (Council offices)
39. S. Pietro Tower door (ancient walls)
40. S. Maria door (ancient walls)
41. Pescara door (ancient walls)
42. City tower and Palazzo Del Podestà



Via
Tommasi

Piazza
S. Francesco

ca. 220m

Largo
Diaz

ca. 340m

ACCUMOLI
MAY, 2016

OLD ACCUMOLI BUILDINGS



Entertainment

1. Community room
2. Game room
3. ProLoco headquarters



Hospitality

4. Antiche mura B,B
5. Bonamici B,B



Education

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8. Natural Museum of National Park of Gran Sasso e Monti della Laga



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Worship

19. San Francesco Church and little theatre
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42. City tower and Palazzo Del Podestà



ACCUMOLI
before 2016

BUILDING FUNCTIONS
INFLUENCE AREAS
OLD ACCUMOLI





*next page**top*

Weekly outdoor market. Via Tommasi, 1980s.

center left

The entrance of the Commune is often attended and when it is not, the steps become an informal sitting.

center right

The central part of Via Tommasi is accessible to traffic, has two sidewalks and a parking lot at the side of the road.

bottom

The public space becomes part of the ceremony: an altar is set up in the central part of the village in honor of St. Mary Our Lady of Sorrows patron saint in the village.

Via Tommasi

Via Tommasi is defined as the Corso of Accumoli as it is the street to which the residents refer, where there are many of the historical buildings and shops. The road crosses the village running from East to West from P.zza S. Francesco in the lower part up to Largo Capolattera in the higher one: the slope is remarkable and the difference in height is about 40m. A multitude of planters and benches testify to the importance of this street and the care for public space by the citizens themselves as if it is owned by everyone.

The lower part of Via Tommasi towards Piazza S. Francesco is pedestrian but accessible for residents to park on the cobblestone pavement without sidewalks. This portion of the road is separated from the rest by the small railing and the attached stairs. The railing indicated the border between the two districts of the town (“Tassi” at the bottom and ‘Magnagatti’ at the top) but recently it is just a convenient meeting point from which to move onto other more attractive places. The central part of the street is accessible to traffic, it is paved with sidewalks (about 70cm wide) and there is a parking lot on the side of the road. Its width increases to about 8m. The highest part is pedestrian, accessible only to the Municipal Police and about 6m wide: the change of paving in cobblestone again communicates to people the access limit. A band of smooth stone in the middle characterizes almost all the high part of the road, a more comfortable material to walk on. The last part of the route is so steep that it is made of terraced steps.

The municipal offices are located in Via Tommasi flanked by the Civic Tower, symbol of the town. Under the great arch of the Town Hall there is a tourist sign; a sign on the tower indicates the direction to reach the Museum of the National Park of Monti della Laga, located inside Palazzo Cappello that overlooks Via Tommasi and the rest of the village.

The entrance of the Council is often populated and when it is not, the steps become an informal sitting. On Via Tommasi many houses have steps access to the doors and benches to linger to talk with those who come to visit a friend or relative. The terraced highest part of the street is used to sit in small groups like in others in the village (i.e., Via Nazario Sauro).

Certainly, the offices create meeting opportunities, as well as the shops along the street. A grocery shop in the lower part, a emporium in the central part next to the arch of the Town Hall and a baker in the upper part. A grocery store on Largo Diaz is a few meters away on foot from these: such distance is convenient to cover on foot but allows customers to choose the trusted store without the other being able to see it clearly.

In the past, seasonal fruit and vegetable markets were held along Via Tommasi, right in front of the doors of the houses along the road. Only the shop at the Town Hall, recently



emporium, remains of this activity. Via Tommasi is the protagonist of the procession in honour of the patron saint of the village that takes place in August every year and during which an altar is set up in the central part of the street.

VIA SALVATORE TOMMASI MAIN STREET

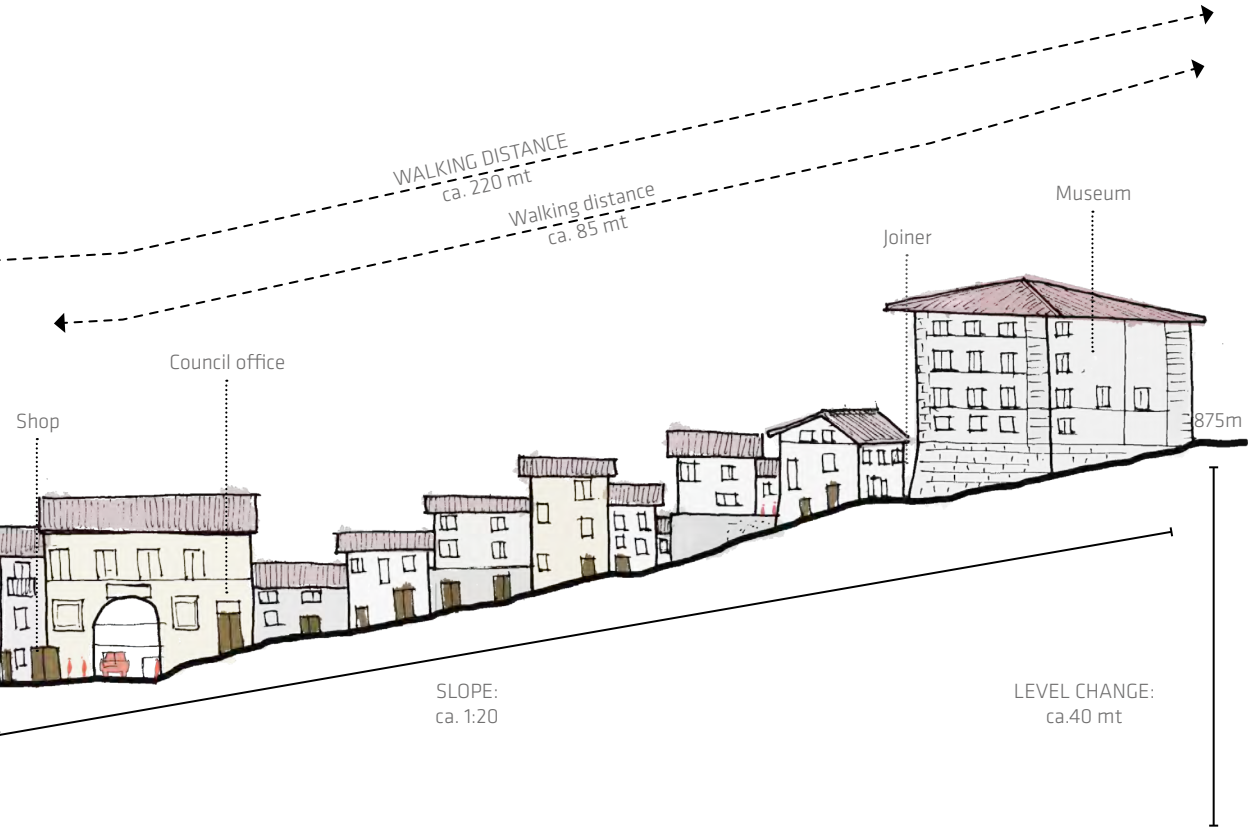
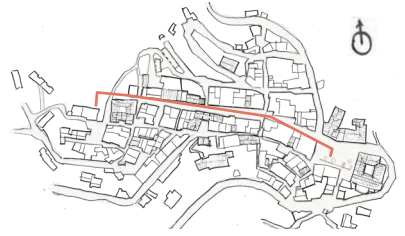
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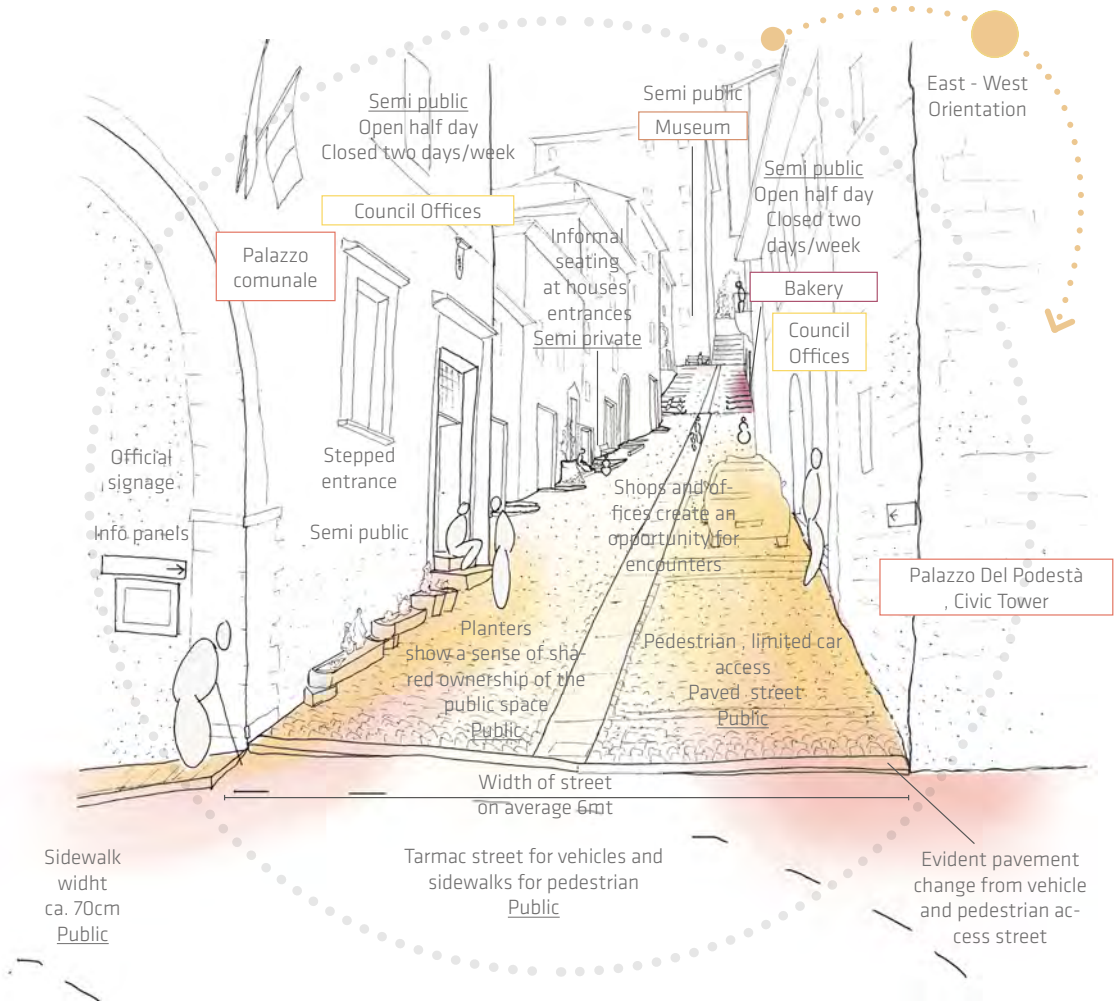


S. Francesco
Square

Building functions

- Commercial
- Bar/Restaurant
- Education
- Service + admin
- Monument/Palace





VIA TOMMASI



In the first editions of the town festival, dinners took place along the main street instead of Piazza San Francesco. Via Tommasi, 1990s.



The procession through the streets of the village. In the background the 'little railing', dividing line between the two districts of the village. Via Tommasi, before 2016.



The doorstep is always a good spot to sit, look around and linger. Many houses had stepped access and benches. The stepped street on the highest part was sitting spot too. Via Tommasi, before 2016.

Largo Diaz

This public space is not a square in the orthodox sense of the term according to the Italian tradition, but precisely a “largo”. At the intersection of 4 streets (Via Roma, Via Duca degli Abruzzi, Via IV Novembre, Via delle Rimembranze) the space is slightly enlarged and in two corners outlined by the buildings there are spaces that people have inhabited over time.

On Largo Diaz there is the Momy Bar, open during the day along with a games room not far away on Via Roma. The bar occupies the outdoor space with furniture and umbrellas, and it has always been the most popular meeting place in the town. Its position in one of the corners of Largo Diaz puts at ease those who stop to sit at the tables, not feeling in the middle of the street or the open space. From here, it is possible to see who passes by and interact with who goes to the pharmacy or to the shop. In fact, on the short road Via IV Novembre there is a grocery store right at the corner with Largo Diaz, almost at the entrance of the village: once tavern, this position made it easy to find it by travellers. The pharmacy, the only one in the village, is open during the day and it is an important point of reference as there is no medical assistance active every day in the town: it is therefore very popular. Council offices are very close so often some of the employees or those who come or go from the Council stop at the bar. The school, where there is also the rehearsal room of the band, is several meters below Largo Diaz, reachable through a long staircase that serves as a short cut; at the intersection of the staircase and Largo Diaz, there is a shady passage corner equipped with benches with a beautiful view of the landscape and the square.

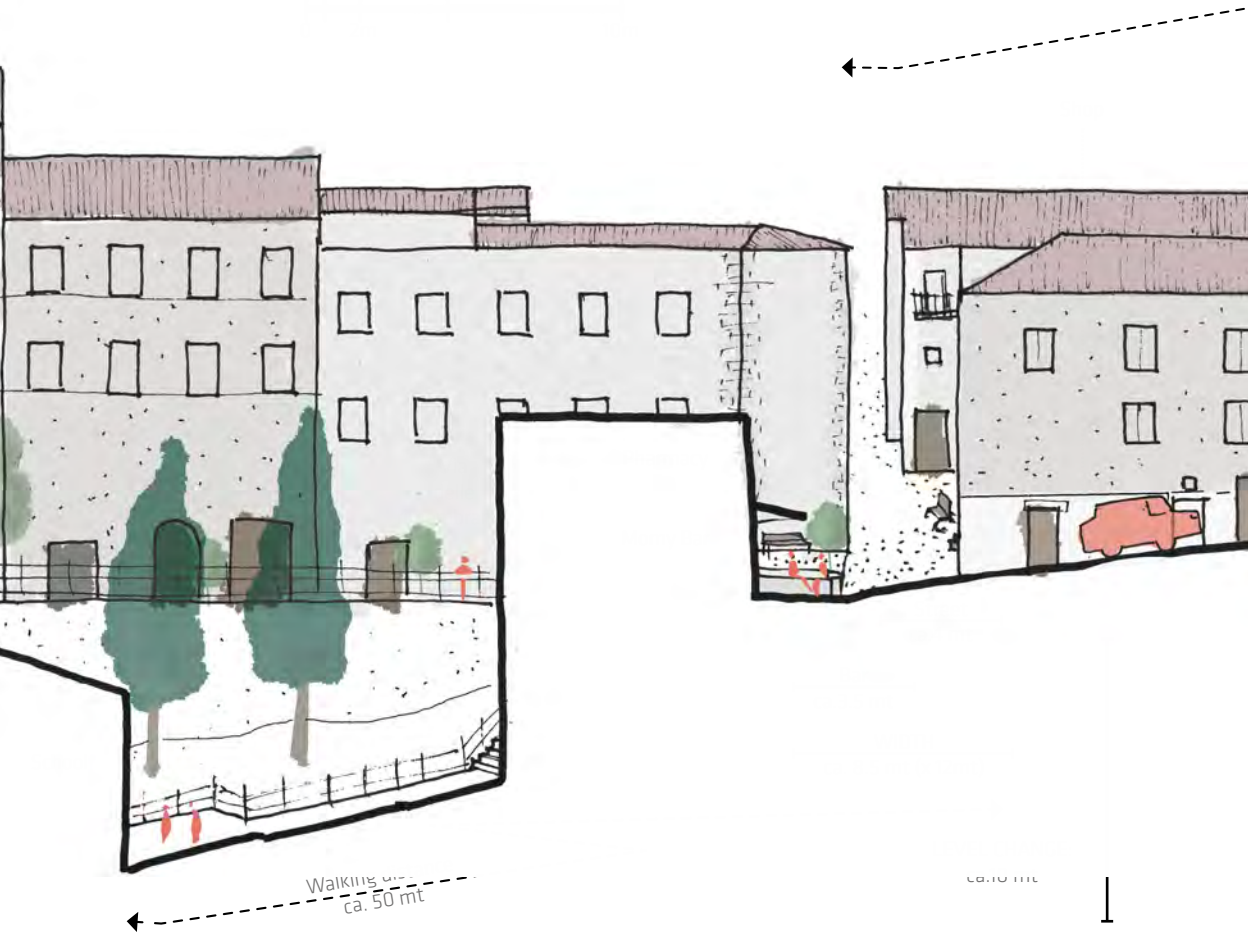
Of the 4 streets, only Via delle Rimembranze is practically flat, great for walks or even to dine with friends during the summer evenings with outdoor tables and chairs. Via Duca degli Abruzzi is the steepest street and in the lower part it ends on Largo Diaz: the meeting point is outlined by the change of flooring and the presence of a low stone wall. The latter is nicknamed “il muretto” (the little wall) by the residents and is an informal meeting point, a sitting and observation point of the activities in the square and of the access to the town from all 4 roads that cross here. From the wall, people can feel part of the square without necessarily having to use the bar: a good position to feel at ease whether you want to take part in the activity of the square or abstain from joining others and look only, but without feeling left out. Via IV Novembre is the asphalt road coming from the Corso, Via Tommasi, passing under the arch of the Town Hall where there is a small fountain with drinking water.



The public space and the one in front of the bar merge to host events and dance. The nearby Via delle Rimembranze is occupied by tables and chairs to dine in company. Accumoli, Largo Diaz, August 2015.

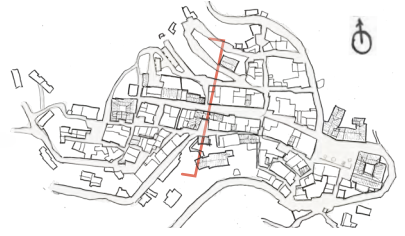
From Largo Diaz, looking towards Via Roma, you can see the bell tower of the Church of St. Maria della Misericordia and hear the sound of the bells that mark the day and call people for ceremonies. In the field of vision of those who are in Largo Diaz there is always something interesting to look at even when the town is not celebrating anything: those who enter and leave the bar, the church, the game room or commercial activities, social interactions in the square, the context in the visual field.

The width of the roads varies from 3 to 6 meters creating Largo Diaz, a space with an irregular shape of about 13m long and 4 meters wide. All roads that meet in Largo Diaz are both pedestrian and vehicular despite the change of flooring: Via Roma and Via Duca degli Abruzzi are paved in Sanpietrini, while the rest is asphalted. Here the pavement does not demarcate the pedestrian areas but increases the sense of place of the two corners mentioned above: the one in front of the bar Momy on Largo Diaz and the one of the “little wall”, at the end of Via Duca degli Abruzzi. All the simple and spontaneous elements and the various functions mentioned are here condensed into a man-sized space.

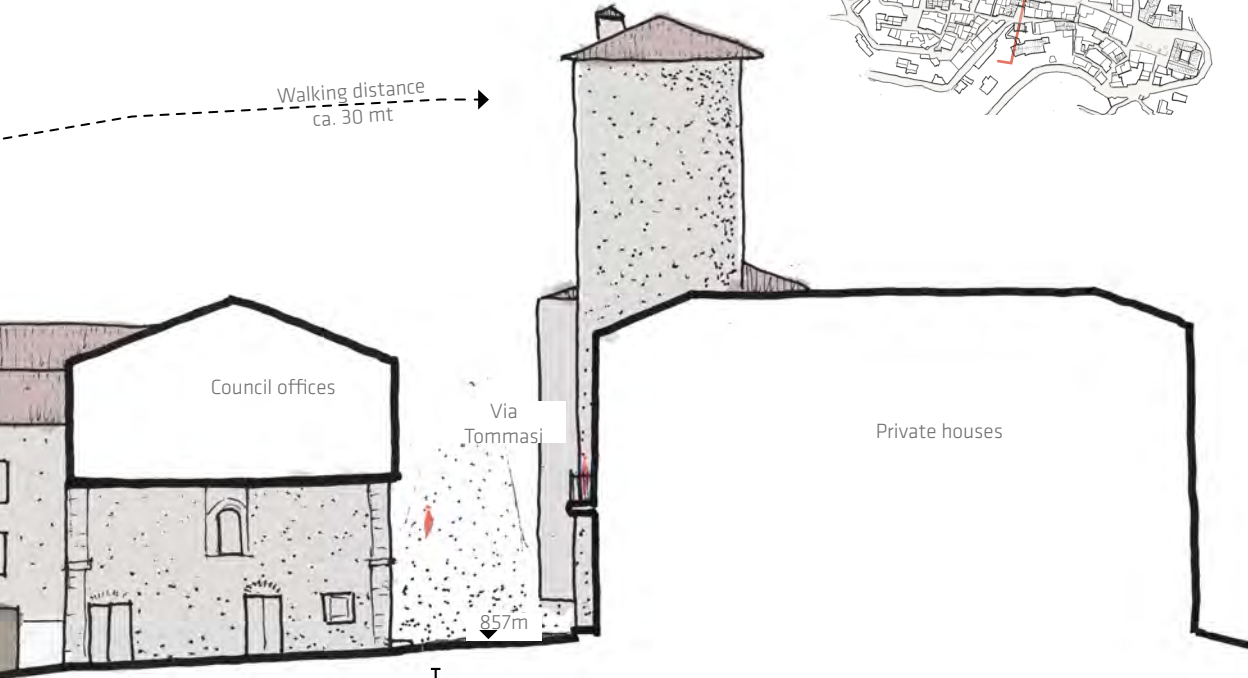


Building functions

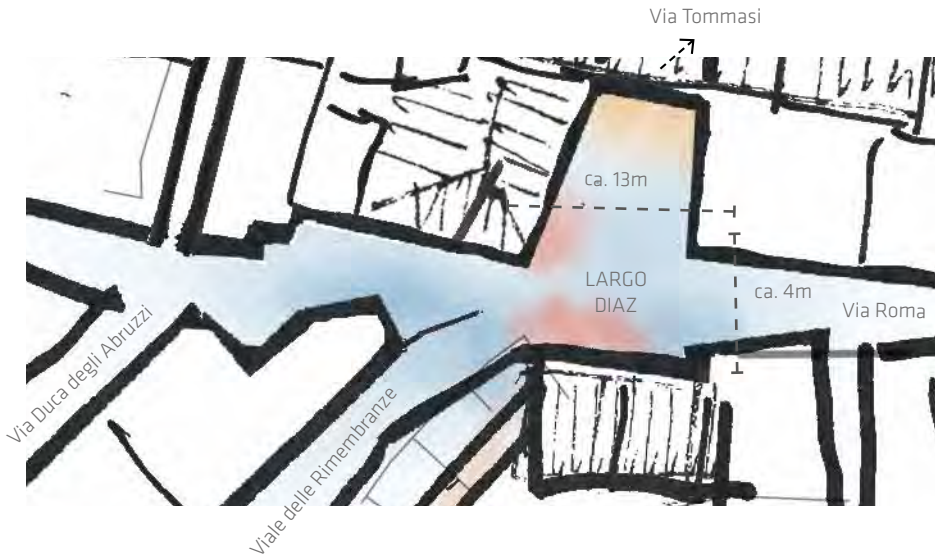
- Commercial
- Bar/Restaurant
- Education
- Service + admin
- Monument/Palace

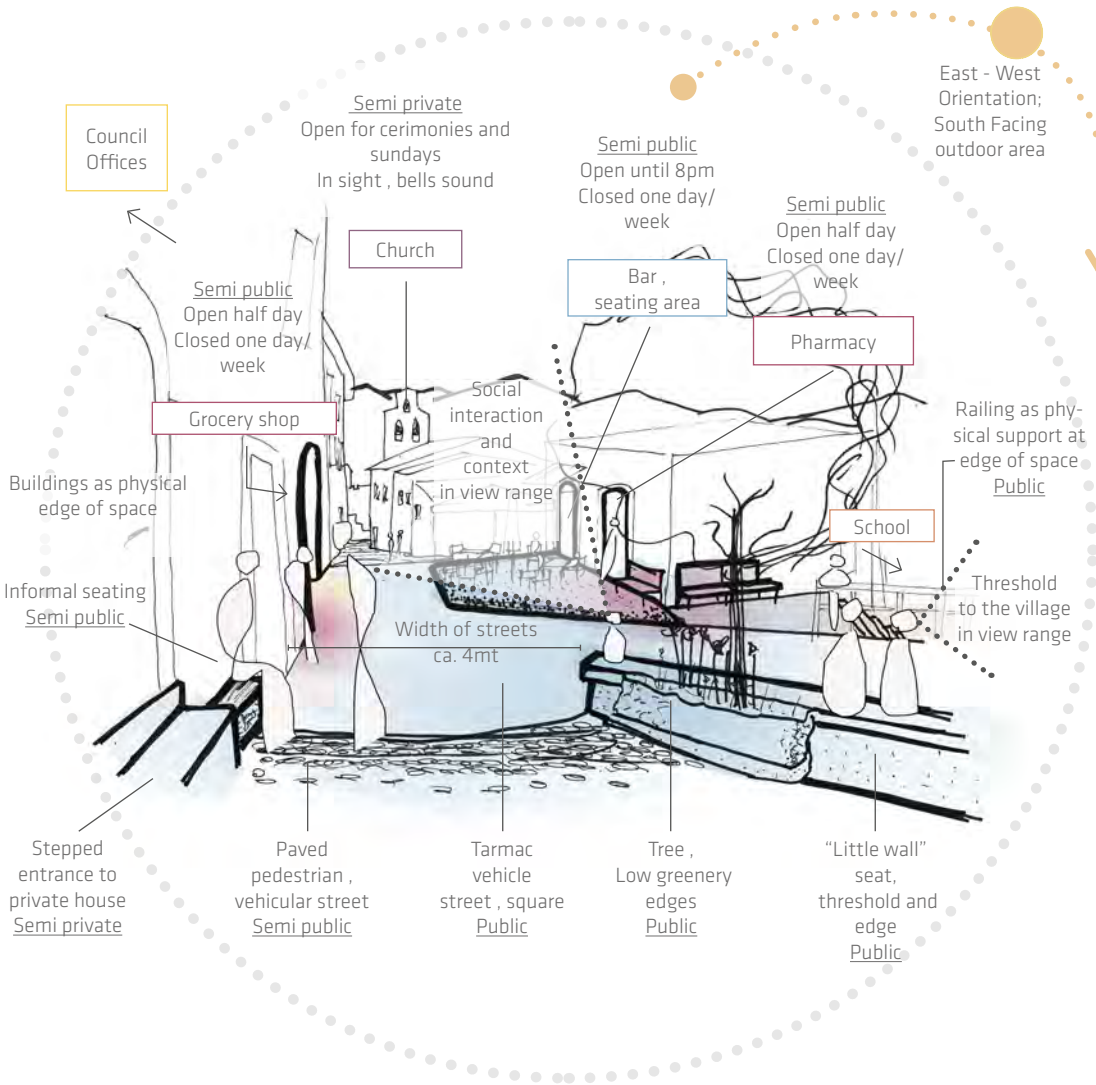


Walking distance
ca. 30 mt



LEVEL CHANGE:
ca. 2 mt





LARGO DIAZ



An angle between the school and the pharmacy, shaded and with benches. From here: a beautiful view, the school, the square and the access road to the village from Villanova.
Accumoli, Largo Diaz, 1980s.



The "little wall" is a seat integrated into the square thanks to the usage people make of it.
Accumoli, Largo Diaz, 1990s.



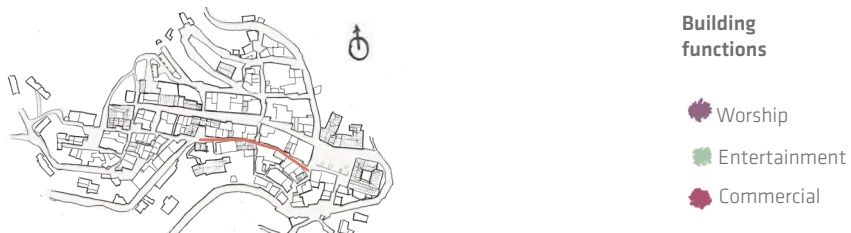
The Momy bar was the favorite hangout for residents and not.
Accumoli, Largo Diaz, before 2016.

Via Roma

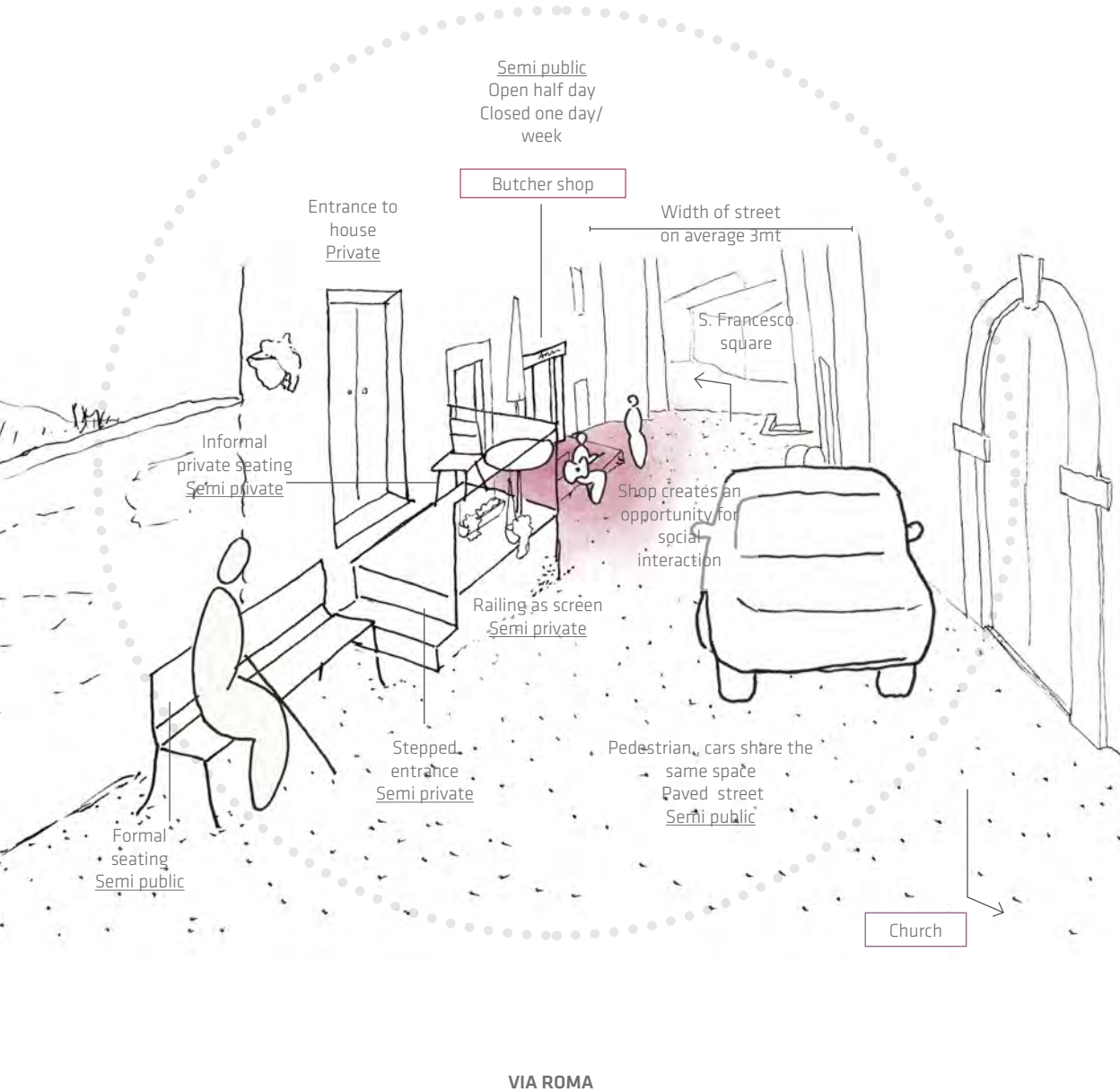
Via Roma runs almost parallel to Via Tommasi connecting Largo Diaz to P.zza S. Francesco. Like most roads, although narrow, it is carriageable and has no sidewalks but a pavement in cobblestones.

In the upper part of Via Roma, near Largo Diaz, there is the Proloco headquarters and the music room of the band next to the popular Church of S. Maria della Misericordia; then the band was moved to the school. In front of these there is a game room run by the bar of Largo Diaz. In the lower part of the road there is a butcher shop, historical business in town. A commercial activity is a point of attraction and becomes a pretext to stop so much that in this case a bench next to the entrance has been added. The store thus creates an opportunity for interaction not only between shopkeeper and customer, but also between neighbours, passers by and customers.

The width varies along the route: in some points it is just 2m up to a maximum of 6m. This street, like others in the village, has some flat side widenings that were used by residents of the surrounding houses as a meeting place, equipping it with chairs and umbrellas. On the contrary, the road is very steep and at almost all the entrances of the buildings there are steps and landings. In some cases, the residents have added outdoor furniture to make use of these small spaces that are located between the private sphere of the house and the public one of the street. They are in fact often screened by railings, plants and flower boxes. Steps and chairs become informal seating added by people.









The headquarters of the Proloco and the rehearsal room of the band were in the same building attached to the Church of St. Mary of Mercy before the band was moved to the school. Accumoli, Via Roma, before 2016.



A commercial activity is a point of attraction and becomes a pretext to stop. In the case of the Butchery in Via Roma, a bench was added where once the butcher went out to play the guitar and entertained with friends and customers. Accumoli, Via Roma, Google Street view 2011.

Piazza San Francesco

Located along the Via Salaria Vecchia road, the main access street to Accumoli, this square is the first public space that anyone arrives into in the lower part of the town on the East side.

In this square easy access square, there are different commercial activities and services also for residents of the other hamlets. One of the few fuel stations in the area is in this square. Despite the questionable aesthetics of the presence of this service in the piazza, refueling is an activity that attracts people at all hours, making public space more lively if accompanied by other functions such as in this case: stops at the gas station can be accompanied by a break at the bar/restaurant or run some errands at the post office. These are among the activities in Piazza S. Francesco, collected all in the building that once housed the school. The post office and the general practitioner are services offered on certain days a week and they occupy spaces in this building. A large part of the structure is occupied by the so-called “Centro Diurno Polivalente” (Multi-purpose Community Hall) where people organize different cultural and recreational activities. Thanks to the kitchen of this structure, it is possible to organize the village festival that includes a dinner for a large number of people. Here there is also the bar/restaurant/pizzeria “La portella” which, unlike the bar in Largo Diaz, had an extended opening time after dinner providing an alternative meeting place. The outer space of the bar is almost an extension of the square but creating a safe corner from cars passing behind its low boundary wall. Several games attract children and people of all ages who stop in this area. The younger ones are also attracted by the playground next to the building with a beautiful view of the valley: in fact, here there is a public telescope to admire the various villages. In addition to the former school, another building stands out in this square that is the former convent and the Church of St. Francis. In the first structure there is a tyre dealer and the Police. The Church has been recently restored but it is not often used because it is uncomfortable to reach: this, and the square in front of it, are in the lower part of the village compared to almost all residences.

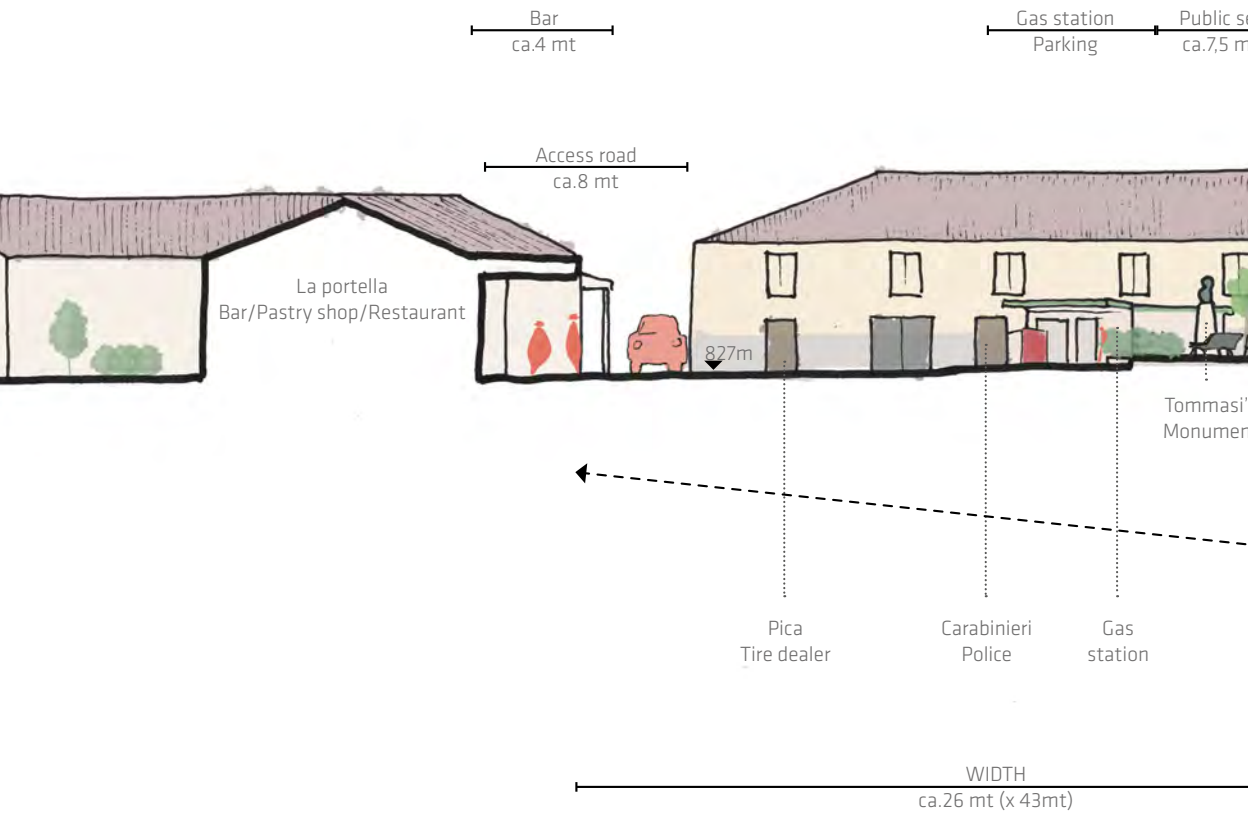


Building functions

- Worship
- Bar/Restaurant
- Entertainment
- Service + admin
- Monument/Palace
- Commercial



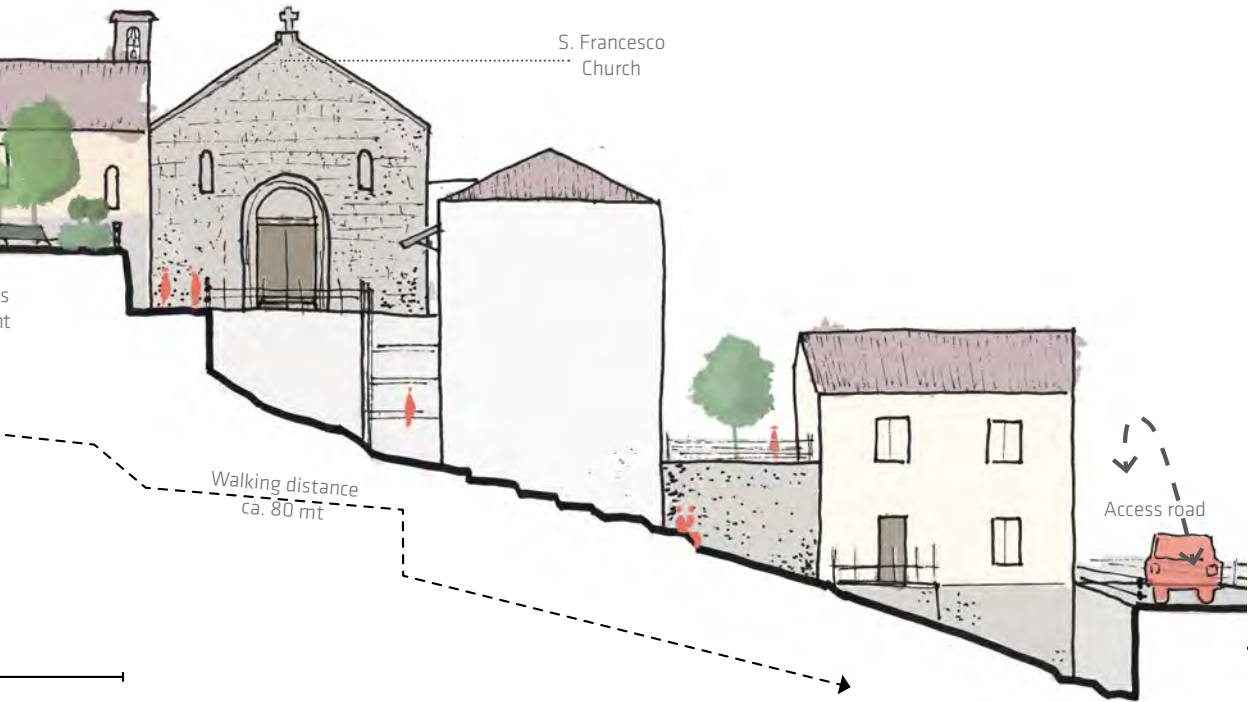
LARGO DIAZ
MEETING PLACE

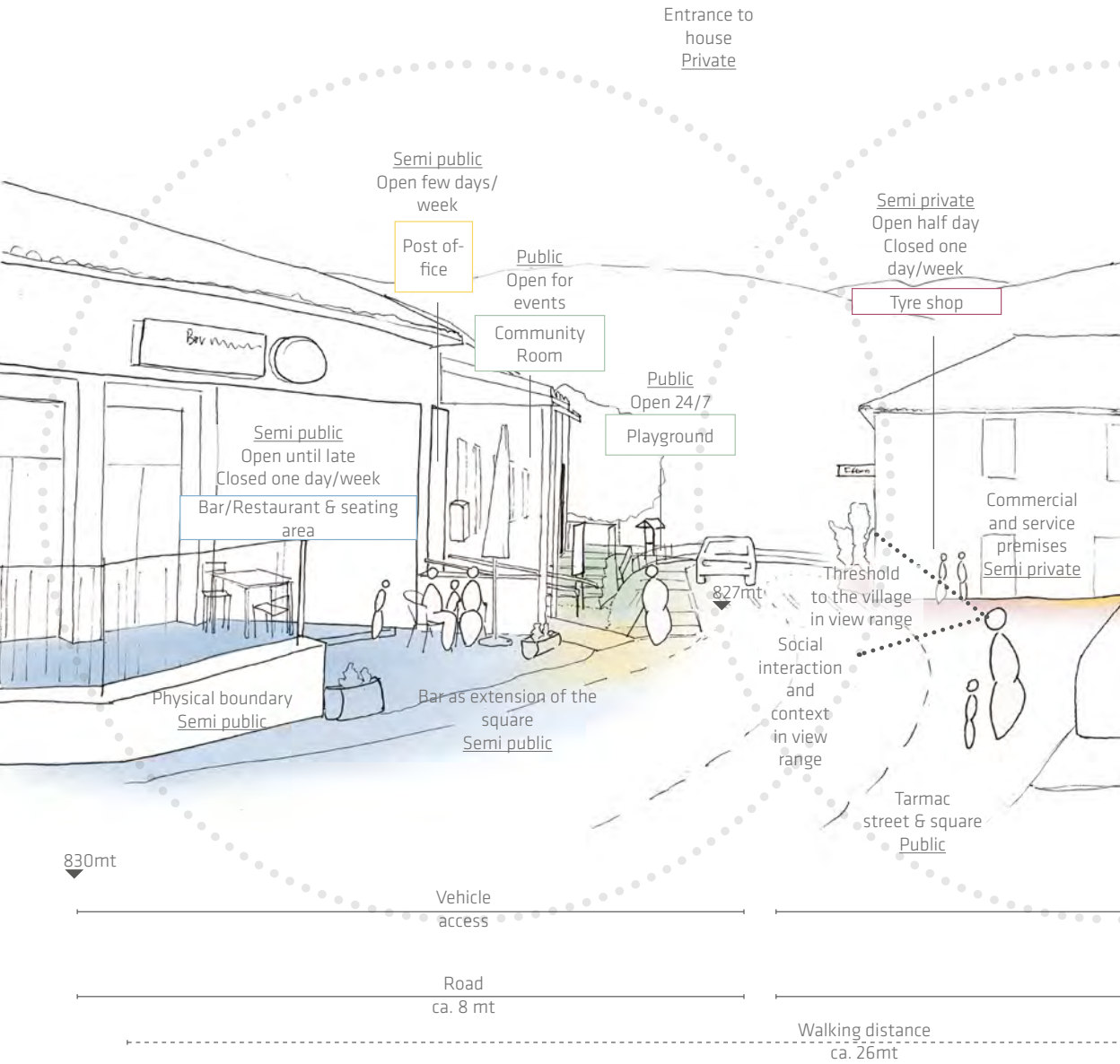


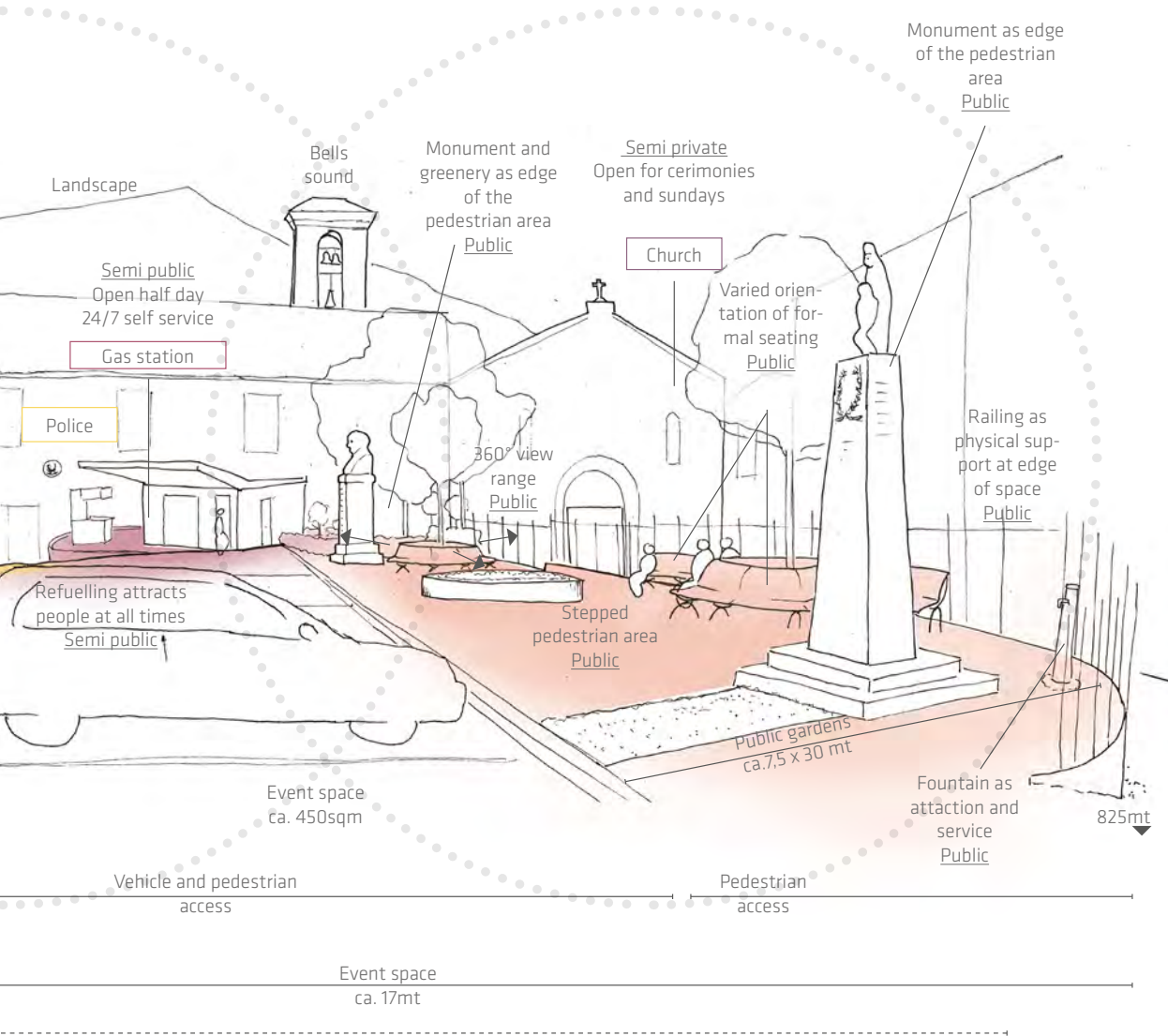


Seating area
ca. 30 mt (x 30mt)

Church square
ca. 12 mt (x 11mt)







PIAZZA SAN FRANCESCO



The parking area is occupied by the stands of the seasonal markets, leaving free the passage of cars along the road but creating a large forgiving area. Accumoli, Piazza S. Francesco, May 2015.

The bar restaurant extends to the square creating a safe corner from passing cars. Several games attract children and people of all ages stop in this area.

Accumoli, Piazza S. Francesco, before 2016.

A part of Piazza S. Francesco descends towards the Church creating a difference in height of about 2m. A supporting wall and attached railing mark the end of the pedestrian area that is the limit to the south of the square. Restored in 2016, this area is called “little gardens”, due to the presence of trees, flowers and bushes and benches. Here, old people usually sit down, but also the children take advantage of the old fountain turned into a flower pot and the new fountain to play. Characteristic elements of this public space are the two monuments that delimit it to the East and West: the War Memorial and that dedicated to Tommasi. All the “little gardens” are raised one step above the asphalt area and have a stone pavement. The dimensions of this space are approx. 7x30m. The benches installed have a circular shape around the trunk of the trees allowing people to look both towards the bar and towards the lower part where the Church is located.

These activities and services in the buildings are reflected in the external public space on which they overlook, making Piazza S. Francesco something more than a wide dispersive asphalt area as it might seem at first impression, but a public space full of varied corners, suitable for different moments and various needs.

This public space is the largest in size (about 450sqm). This feature makes it suitable for events with greater attendance: seasonal markets, festivals and celebrations. The width of the area, the direct access to cars and the presence of identifiable elements only at its sides make the definition of “piazza” of this public space rather discussed among the residents interviewed. Indeed, the presence of the central parking breaks the view between the services and the pedestrian area. Here, any day the impression is not of being in a typical square instead of other Italian villages. In addition, one side of the square is simply the Via Salaria Vecchia street that enters the village by cutting Piazza S. Francesco. On the contrary, this dispersive effect is reduced in occasion of the markets where the parking is occupied by stands of the sellers, the space between these and the street becomes pedestrian and the passage along the access road is left open. On the occasion of the village



The parking lot and the small public park with benches, monuments and trees (in this photo before the recent restoration that included the removal of some trees and the fence). Accumoli, Piazza S. Francesco, before 2016.

festival, stands are set up in front of the Community Hall, where there is a kitchen available for the organizers of the festival (Proloco). The parking area becomes pedestrian thanks to the use of barriers of the Municipal Police during the preparations, so free access to cars along the access road is open until the beginning of the party. The raised part of the square on the South side is equipped for outdoor dinner. The large space between the dinner tables and the stands of the organizers becomes a large dance floor for celebrations and musicians.



The pedestrian part of the square has been recently restored with the addition of seats and the arrangement of greenery.

P.zza S, Francesco, before 2016.

On the occasion of the village festival, stands are set up in front of the Day Center Multipurpose. The parking area becomes pedestrian thanks to the use of barriers, while it is left free access to cars along the access road to the village during preparations.

P.zza S, Francesco, 14 August 2016



next page - top
The raised space in correspondence of the "little gardens" identifies the area for tables and chairs for dinner while the rest of the square is used for musical performances where people can dance.

P.zza S, Francesco, 14 August 2016.

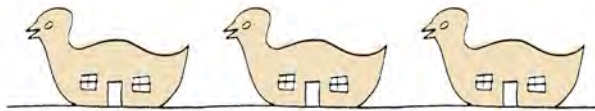
next page - bottom
The pedestrian part of the square has been recently restored with the addition of seats and the arrangement of greenery.

P.zza S, Francesco, before 2016.





The non-village of Accumoli S.A.E.



« [They look like] “ducklings” lost in the middle of the sea. Where he lives, [Pasquale resident in Accumoli S.A.E.], who decided to make all those “ducklings” has spent a million euros just to flatten the site. Because, you know, so yellowish, in rows... they really look like “ducklings”.»

Sante, technician, resident, 58 years old,
July 2019

In the strategy of the post-earthquake of 2016, the type of accommodation adopted for the population was that of temporary villages, places where people can live in dignity on the territory of origin for a few years pending reconstruction. In almost all the villages of Lazio, Umbria, Abruzzo and Marche the Housing Solutions of Emergency (S.A.E.) have been used, from which these temporary villages take their name, as the case study “Accumoli S.A.E. Capoluogo”.

This temporary village is located about 100 meters higher than the old one in northwestern direction. It preserves some of the previous views on the landscape and it is not possible to see the old village from the new one. The choice of the area on which to build the S.A.E. village was influenced by the scarcity of flat land, the desire of residents to stay in the upper part of the mountain and the hydrogeological danger of the downstream areas. The chosen land is owned by a resident of Accumoli and despite a part was almost flat, several and expensive stripplings were necessary to install the S.A.E.. These operations raised doubts among the residents whether or not building in the valley was the right choice.

Not all the non-residential buildings were inserted at the same time as the S.A.E. in the project, obtaining a result evidently without a comprehensive vision. This results in the low quality of some public spaces. In addition, structures with a different function from residential have followed a different bureaucratic iter from the S.A.E.. This has affected their integration into the project: while the housing solutions have been designed and implemented in derogation from certain standards, the aggregative structures needed further permits and approvals. So, some buildings were built later than the S.A.E. and often as a result of donations. It was not possible to determine with certainty whether the

next page
The temporary village is located about 100mt higher than the old one. It keeps some of the previous views over the landscape. It is not possible to see the old village from the new one.
Accumoli, 2017.



layout designed for the village allowed spaces for aggregative structures in the first place. It does not seem, however, that a priori study of public space in which to insert them has been made. Considering the unpredictability of the types of donations, it is clear that this process can be difficult, but it could be at least outlined regardless.

All S.A.E. are very similar structures and all look the same when they are assigned to the residents. Over time, the inhabitants began to change the furniture, make vegetable gardens and decorate the front yard to customize them. Their terraced disposition and the identical appearance repeated throughout the area spread the sense of anonymity and lack of identity. In addition to the same appearance, all the various lots have a semi-detached row layout, despite the fact that there were other solutions provided by the suppliers themselves. This research does not evaluate the appearance of housing structures as much as their layout, the relationship with the views on the landscape and between them. It is then carried out an analysis of a



Cemetery

Agriculture
field
(privately owned)

Sport fields

ACCUMOLI AND SURROUNDINGS
MAY 21st, 2016



Via
Salaria

ACCUMOLI



Agriculture
field
(privately owned)

Cemetery

Tent camp

ACCUMOLI AND TENT CAMP
AUGUST 30th, 2016



Via
Salaria

ACCUMOLI



ACCUMOLI S.A.E.

Cemetery

Sport fields

ACCUMOLI AND ACCUMOLI S.A.E
JULY, 2017



Via
Salaria

MUNICIPALITY
SERVICES
SHOPS

ACCUMOLI





ACCUMOLI S. A. E. VILLAGE
JULY, 2017



Construction site almost completed. Lot 4 in the foreground. KREA Costruzioni carried out most of the urbanization works together with Valeri Lanfranco Electric Enterprise, Calzoni Spa, Eulero Engineering. Accumoli S.A.E, July 2017.



design outcome of the S.A.E. village case study, Accumoli precisely, but with some reference to others built in the hamlets.

Some residents have created a garden in the green space assigned to them in the front or back of the house. Luca never had a vegetable garden before living in a S.A.E. of Accumoli where he made it in the narrow strip of land on the back. Often, in fact, the sizing of the garden on the front and back of the house is unbalanced due to a skid, a street, a pedestrian path. In addition, the distance between buildings is often considerable and this does not favour the beginning of a conversation or interaction between neighbours. When they lived in the old town, people were used to having neighbors right on the doorstep and if even they lived on the same street but further away, the road was usually narrow. This narrow size and this high density are in contrast to the layout of the S.A.E. which have instead large spaces between houses (where the routes are only pedestrian) that are equal or even greater than the width of the roads of the old village or a driveway access in general.

The relationship between front and back of the buildings seems to have been ignored in the project. This precludes the possibility of creating meetings and communication between people who enter and leave the house, who work in the garden or fix the yard or simply sit in the porch. The variation in height between the various rows of S.A.E. is obviously due to the breakdowns necessary for the installation of the structures and this makes it even more difficult the relationship between one row of residences and the other. For all the lots, a back of a house always repeats after a front, except in Lot 3 whose houses overlook the parking lot and the street without other rows of S.A.E. in the front. In this case the level of Lot 3 is lower than that of the main road, precluding the view of almost all the rest of the village.

All paths in the village have the same flooring and width. They often force residents to take the longest route to their home, for example from the squares. This, on the one hand, can be a positive element that increases the chances of meeting someone and lengthens the time spent outside and, on the other, annoys some residents or fatigues the elderly. Often the elderly do not spend time walking but just give up to leave their homes. This lack of desire and interest for what happens outside of one's home is also widespread among other age groups and it is mainly due to the lack of a structure that can act as an informal meeting place. The so-called "aggregative structures" are open only for events, meetings, particular activities and none of the residents have the keys except for the band in the case of the rehearsal room. This last structure becomes in fact a place not only for the group's practice but also meeting.

The orientation and views of the landscape were taken into account in the analysis. Earlier considerations had been made about the importance of having the same view of the landscape as the one from the former house. Speaking with Roberta (57), among the very few



The land at the beginning of the works for the temporary village. It is owned by a resident of Accumoli.

Some buildings were built as a result of donations and not as a result of previous design of public space in which to insert them.
Accumoli S.A.E., 2017



people who practically see the surrounding mountains from the same angle as her lost home, this seems to be a relevant factor. The South West side of Lot 4 where she lives is the only one that faces the panorama practically from the same angle of the South part of the old village. Although it is definitely nice to have this view from one side of the house, on the other hand the resident only has their own garden and no one to interact with except the neighbor on the side of the row of residences. In the case of Roberta, who is at the end of a row and near the driveway, the possibilities of interaction become minimal. Roberta's parents, Pierina (90) and Gaetano (92), live in the last house of a row of houses even higher, so they are really isolated. Roberta says in this regard: «They [parents] put them here in a very high point, while in what is the square or under my house [SAE 15] people stop, here [the parents' house] people pass straight. They remain very isolated. Here they put old people without thinking. [...] They locked themselves in here and never went out again, especially her. Dad goes out in the morning and goes shopping. She is here and should get out more. [...] This village was not thought through... Many are also elderly... We lived in an sloped village, but it was never so uphill and isolated. You find yourself completely out. He can move because he has a car, he goes shopping and so on. I involve him a little in my stories. Mom instead goes out less, in fact, she does not go out at all.» (2019).

In the village, stairs in pedestrian routes were necessary but this implies that often the only accessible solution is to walk on the road, since no ramps have been built. Don Stanislao, parish priest of Accumoli, offers a clear picture on this theme: «The [S.A.E.] villages are not “rebuilt” in the same way, so you can not put everything in the same bag. If I have to give my own personal opinion on how the village of Accumoli is built, I must say that I like it very much. And I would say more: that of all the countries that have built in the area, the most beautiful is that of Accumoli. I speak visually, because the houses are not on the same level. Looking at this town in the context of the mountains that surround it,

next page
Although part of the chosen area was almost flat, it was necessary to do several and expensive excavation works. This operation made many residents wander if it was worth choosing to not build the new town in the valley.
Accumoli S.A.E., 2017.



with all the lights that light up in the evening, it really touches the heart. So in my opinion, it is a beauty. Certainly, it couldn't be different because the structure of the territory here is decisive, and logically in the mountains the houses can not be put at the same level. But I like what came out. I repeat: from a visual point of view. If we talk about ladders and so on, of course one appreciated it, or rather, appreciates it now what they had before. It used to be despised, because stairs, especially for older people, were a problem. Now that they are gone, people remember them so nostalgically. But I lived in Accumoli 10 years before the earthquake and I know that stairs were a big problem especially for the elderly. One can say that among the beautiful things that we have after the earthquake and that we did not have before, is the fact that we do not have stairs. Accessibility and the ability to move is a great advantage for me. Only that by saying it I find myself a bit "in trouble" because it is as if it is forbidden to speak about the positives.» (2019).

In the lower part of Lot 4 there is the largest square with parking, church, community centre and a small play area. The latter is located far from the houses where most children live and, although it is in sight being in a high and well visible part of the town, is not much used. On the contrary, in Lot 1 and in the nearby Lot 2 almost all children seem to live. The proximity allows them to meet easily and feel safe to move alone without the worry of the parents. Between Lot 1 and Lot 2 a flat green space was not designed as a playground but residents made it so spontaneously. It is located in a well visible point of the village so children can easily see if some peers are out playing and reach them. At the same time parents can more easily maintain eye contact, sit on the benches around and relate with other adults and children.

It is noted in the new village that residents have added additional fences and fencings to close their gardens, both for protection from wild animals and as a further delimitation of the property. Inserting these signs could also be a declaration of appropriation of the assigned area. Almost all S.A.E. rows are enclosed by a fence, basically to protect people from falling from artificial escarpments; fences are also present along the roads, probably for safety reasons.



↑
All the S.A.E. are very similar structures and they all looked the same when they were assigned to the residents. With time, people started to change the furniture, make a garden and decorate the front yard to personalize them. Accumoli S.A.E., Lot 3, July, 2017.

next page
The strong illumination in the town is a sign that the village is still alive. Accumoli S.A.E., September, 8 2017.

This remarkable presence of barriers integrated in the project and others added by the population appear as physical barriers between the private and public, between a group of neighbors and the other and the various lots.

In the hamlets and in Accumoli it is evident the absence of a suitable and dignified signage for temporary villages. The lack of signs, signage, symbols and even names for the new squares and streets fosters the difficulty to give an identity to the place and to locate it mentally, not only physically. In the analysis of the public spaces of the temporary village, the squares are nicknamed with the name of the most characteristic building or the only one that had a real name (for example the Church of SS. Pietro and Lorenzo and the “Accupoli” multi-purpose structure).

Usually the parking lots are along the road closest to the lot they serve. Such proximity helps the eventual loading and unloading and the displacements of those with mobility difficulties. On the other hand, if the journey from the car to home is really short, the chances of meeting someone are almost zero. The division between pedestrian and road routes is clear throughout the village except for the squares where the pavement also allows access to cars or other vehicles in case of need (loading/unloading, maintenance, preparation of events, emergency, etc.).

The traditions of the town are maintained and become almost the only time when the community meets in the streets. Among these, the largest one in Lot 4 is not always a



comfortable place to organize a party because of its exposure to strong winds. During the festivities, the band maintains its traditional activity and plays through the streets of the village regardless of its current appearance. Through the band events with prominent guests were also organized, but that spontaneous sociality that is not typical of major events but of daily life seems to be always lacking. In summer there are many festivals and celebrations that are still organized in Accumoli and in the hamlets but sometimes there are also some less formal dinners in the neighbourhood. It should be kept in mind that none of the residents would have a large enough space to have guests for dinner and that to use the multifunctional facilities they need a permit. So tables, chairs and maybe a gazebo often turn a parking lot into a convivial corner of the village. The external public space is then “conquered back” by the people in absence of other spaces due to the post-seismic scenario. Both in Accumoli S.A.E. and in the temporary villages of the hamlets, parking lots often become the squares of the people who live around them, without constraints or formal organizations and driven by a spontaneous social need.

This concept is concluded by quoting the disaster recovery clinical psychologist R. Gordon: «The informal social system is most important in this process, but is often overwhelmed and people have to draw on their neighbourhood and the formal social systems of their community, often for the first time. It is crucial to their recovery that the social system is adapted to these needs, which means specific communicational relationships and



Santa Maria delle Coste



Accumoli Cemetery

AREA
c.a. 5 Ha.

ca. 430m

Sport fields

ca. 160m

ACCUMOLI S.A.E. PROJECT AREA
before 2016

Accumoli

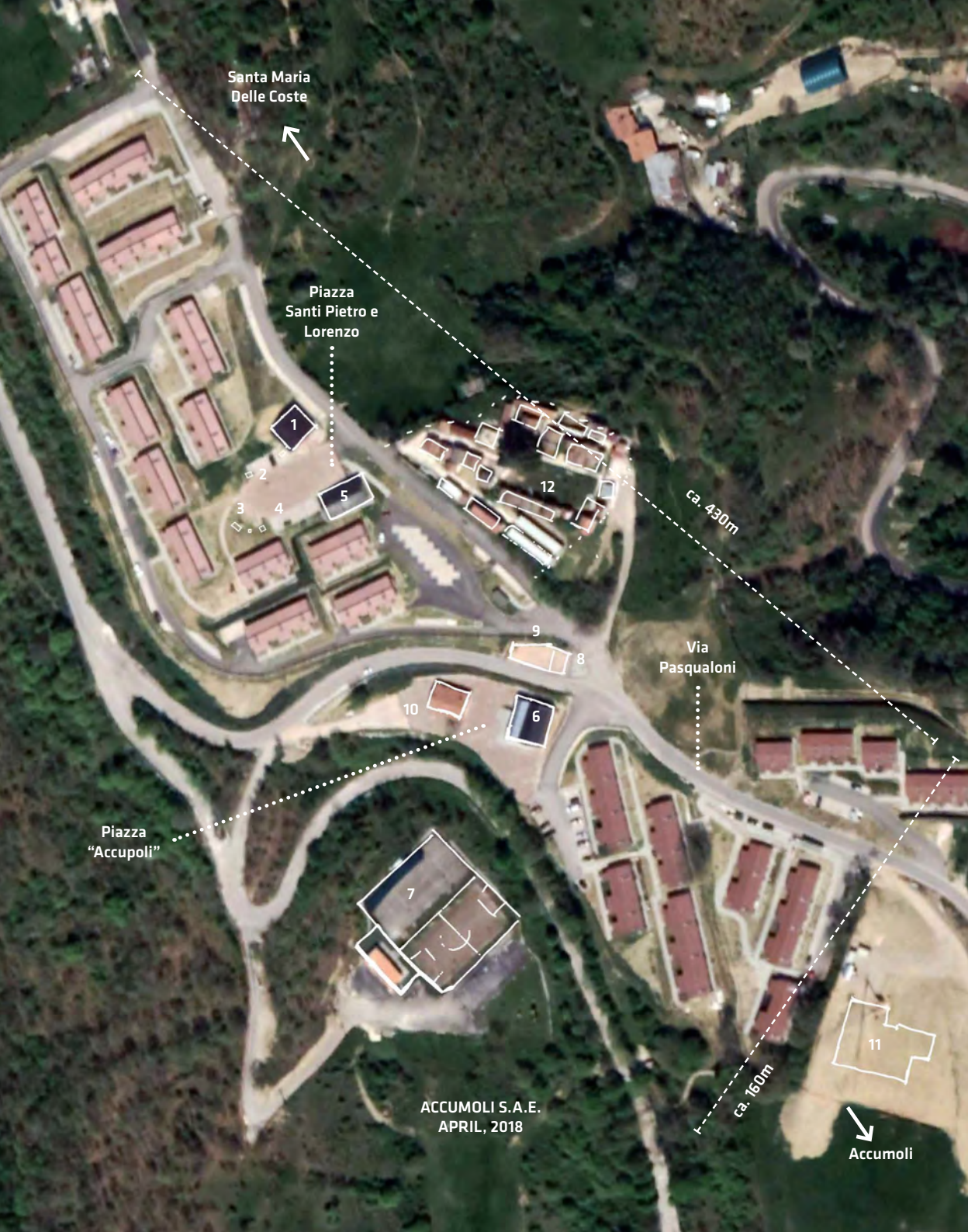


The project area was farm land near the cemetery. Accumoli, Google Street view, December 2011.



opportunities. To provide these, the social process needs to be understood and managed.» (Gordon, 2004, p.22).

During the Meeting of the Committees of the Residents, one of them coming from a fraction points out the difficulty in the village to put the light on the road that serves those houses (5 in total); his desire, like that of his neighbours, to have the light in the street is explicitly explained there: the light gives a sense of civilization and is a kind of advertising to say that the village is not dead. Street lighting is not a matter of analysis but it is pointed out that lamppost in the residence areas are present in high number throughout the temporary village of Accumoli giving a sign of life. In addition, the lighting of public spaces determines its quality and effectiveness in making people feel at ease, especially on a warm summer evening.



Santa Maria Delle Coste



Piazza Santi Pietro e Lorenzo

1

2

3

4

5

12

ca. 430m

9

8

Via Pasqualoni

10

6

Piazza "Accupoli"



7

ACCUMOLI S.A.E.
APRIL, 2018

ca. 160m



11

Accumoli



ACCUMOLI S.A.E BUILDINGS

Worship

1. Santi Pietro e Lorenzo Church

Monument/Palace

2. Tommasi monument
3. Earthquake victims memorial
4. War memorial

Entertainment

5. Sala Piovan Community room
6. Accupoli Multi-purpose room
7. Sport fields

Bar/Restaurant

8. Bar - Not opened yet in 2020

Commercial

9. Shops - Not opened yet in 2020

Education

10. Music band studio
11. School

Other

12. Accumoli Cemetery



Some residents worked to create a garden in the green space assigned to them in the front or back of the house. Luca had never made a vegetable garden and began in his S.A.E. of Accumoli in the narrow strip of land on the back. Accumoli S.A.E., Lot 2, July 2019.



The relationship between front and back of buildings seems to have been ignored in the project, precluding the possibility of creating encounters and communication between people entering and leaving the house. Accumoli S.A.E., Lot 2, July 2019.





The village festival was held in recent years in the tent structure of the sports field, recently put down. Accumoli, Sports field, 15 August 2018.



left - An association for animation and activities for children uses a tensile structure for outdoor activities. Grisciano Palazzo S.A.E., July 2019.

right - With fewer people, lunch for the village festival can be held at one of the aggregative structures. Accumoli S.A.E., "Piovan" Community Hall, 15 August 2019.





All routes in the village have the same floor and width. This passage that connects the largest square to the row of houses nearby forces residents to walk the longest way. Despite the proximity to the square and the presence of a wall, no one uses this space to sit in company. Accumoli SA.E., Lot 4, July 2019.



The relationship between front and back is widespread throughout the village except in Lot 3. In addition, the distance between the buildings does not encourage the beginning of a conversation or interaction between neighbors. Accumoli SA.E., Lot 2, July 2019.





Lot 4 is the most isolated because of the distance and slope of the route to reach the squares. In this lot there are both elderly people and children who find it difficult to interact with other people outside of their next-door neighbour. Accumoli S.A.E., Lot 4, July 2019.



Lot 4 overlooks the landscape. Although it is pleasant, it leaves few chances of relationship, only with the side neighbor. Stairs are common so the only accessible solution is often to walk on the road in the absence of ramps. Accumoli S.A.E., Lot 4, July 2019.



A small play area far from the houses where children live. Here residents added additional fences to close their gardens, both against wild animals and as a further property delimitation. Accumoli S.A.E., Lot 4, July 2019.



Almost all children live in Lot 1 and 2. The proximity allows them to meet easily and go around alone. Residents made this playground spontaneously. It is located in a well visible point of the country so children can easily see if some peers is out playing and reach them. Accumoli S.A.E., Lot 4, July 2019.





During the festivities, the music band maintains its traditional activity and runs through the streets of the country regardless of its current appearance. Accumoli S.A.E, Lot 4, 2018.



The traditions of the country are maintained and become almost the only time when the community meets along the streets of the country and its squares. Among these, the largest one in Lot 4 is not always a comfortable place to organize a party because of its exposure to cold winds. Accumoli S.A.E, Lot 4, 2018.



In Accumoli and its hamlets actual signs for temporary villages are often missing. The lack of signs, symbols and names for the new squares and streets doesn't foster place identity and mind mapping.
Grisciano, July 2019.



Further partition of the common path created by the residents: this can be a declaration of appropriation of the assigned area. Unfortunately, technical outdoor paving solutions aren't thought for the local climate. Accumoli S.A.E., Lot 4, June 2018

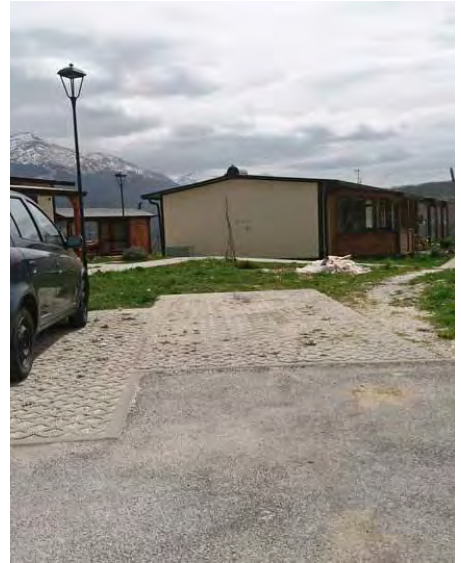


The outdoor spaces allow you to enjoy the good time in the company, carrying out small activities of daily life such as, for example, teaching a nephew how to clean vegetables. Fonte del Campo S.A.E., October 2019.





In summer there are many festivals and festivals but also less formal neighbourhood dinners. Here tables transform a car park into a convivial corner of the village. Accumoli S.A.E., Lot 4, August 2018.



Both in Accumoli S.A.E. and in the temporary villages of the hamlets, parking lots often become the squares of the people who live around. Accumoli S.A.E., Lot 4, March 2020.



A resident on social media comments this image: «Of course you have to stay outside because inside we almost all bought a sofa bed to accommodate someone else or we would be doomed to death by solitude. Delinquents those who gave us 40 sqm!». Fonte del Campo S.A.E., October 2019.



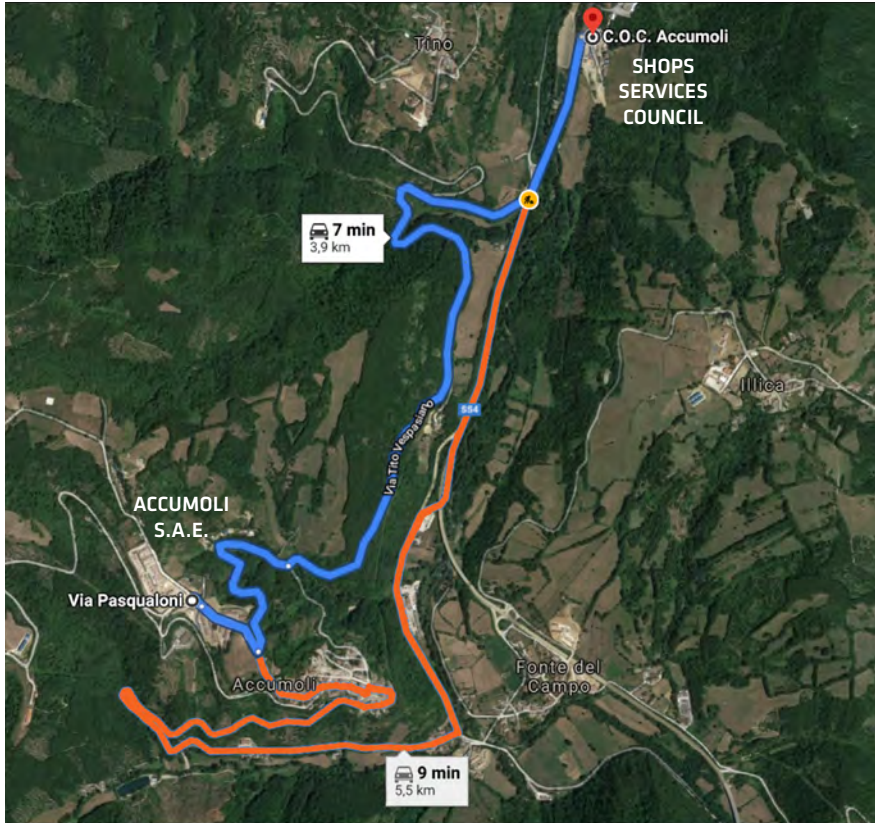


Connection route from Accumoli S.A.E. to the shops and services.

Routes

 Connection route

 Damaged route (not accessible)



Services

In the temporary village of Accumoli there isn't any shop or service. All the services, the bar and the shops are for now in the area downstream from the village along the Via Salaria. To reach them it is necessary to drive about 4km in the mountain road so those without their own means, for example the elderly or some young people, can not reach it. The area in which they are located is the one where initially, immediately after the emergency, the C.O.C. (Municipal Operations Center) was established and from which it was never relocated. By choice of the shopkeepers, all the commercial activities are in this point, collected in the "Monti della Laga" Commercial Area, that is a "L" shaped group of containers with a small equipped courtyard and a large car park shared with the municipal offices and the headquarters of the Municipal Police and Carabinieri. On the theme of disarticulation of functions and urban centers after an earthquake the

research of Castellani, Palma and Calandra (2016) “The territorial reconfiguration of L’Aquila after the earthquake of 2009 and the change of places and behaviors of everyday life” of Department of Historical, Geographic and Antiquity Sciences (University of Padua) and Department of Human Sciences, Cartolab Laboratory (University of Aquila) is quoted. In particular, this research refers to the high density structures of the C.A.S.E. Project (Sustainable Eco-friendly Seismic Complexes) and the M.A.P. (Provisional Housing Modules), the latter being similar to the S.A.E., used in the post-earthquake strategy of 2009. «These sites lack not only any affective and symbolic reference point, but also - in most cases - material and organizational, with services absent or otherwise lacking. Depending on the site, from 200 to 2,000 people are accommodated. Other artifacts of the temporariness and city provisional state are added to the C.A.S.E.: the temporary housing modules (MAP) and the temporary school modules (MUSP). The result is that the city stretches, reaching to extend on an east-west axis of about 35 km: from a geography of more or less concentric circles drawn in decades from the historic center and dotted all around by historical castles (among others, Coppito, Preturo, Bazzano, Assergi, Pescomaggiore, Civita di Bagno, Paganica), we pass to a linear geography that makes the suburbs and hamlets poles generators of new spatiality. Also because, at the same time, functions and activities relocate (when they do not disappear) without coordination. Public offices, in particular municipal offices, are fragmented into several detached and distant locations; shops, professional firms and the like are closed or relocated; proximity-oriented relationships and practices are broken, such as those related to postal services (before the earthquake 60% of people went to the post office near home) or to the family doctor: in the first months after the earthquake, 25% of people are forced to change doctor because “they are too far away” or because “we don’t know where they went”. So for thousands of people, what used to be obvious and natural becomes a problem: shopping, retirement salary collection, receiving mail, going to work, accompanying children to school. The behaviours linked to purchases that occurred before the earthquake mainly on the basis of relationships of trust and proximity were also modified.»

The creation of this pole of services is a sensible choice from the point of view of the merchants being more visible to those who are passing by and they were also supported by the Bodies in the supply of commercial spaces. From the point of view of the residents, of which the shopkeepers themselves are part, the separation between residential and commercial area is really unfavourable not only logistically, but also socially as Roberta says (57): «Shopping is communication.». She continued: «Anyway, I like it better up here, it’s better to breathe, and it’s better. Accumoli had the shops, and the shopkeepers made the choice to put themselves there. That area where they put the shops down there is practically at hydrogeological



Parking, commercial area and container of the C.O.C. in the background. Guys, including an employee of a business, play football in front of shops. The mix of functions around an open space encourages contact, communication and, in this case, recreational opportunities. Commercial Area Monti della Laga, September 2019.



next page
Some people entertain themselves in the equipped area in front of the shops or the bar. This area is protected from the wind but not from the weather or the sun in summer. Commercial Area Monti della Laga, 17 September 2018, inauguration of the commercial area.

risk: there's a river there. So I did not feel absolutely safe there, think that we also had the petrol pump in Accumoli that they tried to put it there, where there are shops, and can not open.» (2019). The shortage of basic necessities in the village is compensated by the home delivery service offered by some individuals who have been able to give an answer to this problem: bakers, grocery shop owners, frozen food companies, greengrocers. In addition, weekly a merchant sets up a small market of household goods and objects in the largest square of the village S.A.E.. Another larger market is organized monthly in the commercial area and it also includes clothing.

The town's bar, the centre of everyday social life, is also missing. In 2020, a structure ment to be for bar and shops was completed within the village S.A.E. of Accumoli but has not yet been inaugurated. The Momy Bar of Accumoli has then moved into the Commercial Area but does not seem to be the attraction that it used to as Irene and Stefania (19 and 17) of Grisciano say: «It's a meeting point a bit for all... But we don't go out much in the afternoon, we go out more in the evening and here the bar is closed in the evening. So very often they [inhabitants of Accumoli] come in Grisciano. They are at the S.A.E. and in the evening they have nothing to do. Even before the earthquake not only Accumoli but all Arquata came to Grisciano because it is in the middle and it becomes a nice meeting point. There is a beautiful football and volleyball field and various games. And there was the bar. The sport field was used publicly, maintained by the association



“Amici di Grisciano”.» (2019). The Giuseppe (32) and Fabrizio (53) inhabitants of Accumoli agree: «The biggest mistake was the division between commercial activities and dormitories. Here on the day there are people at the shops and in the evening here is closed and everyone goes up. They are two separate entities. Regardless of the place, if here [Via Salaria] or up there [Accumoli], they had to be all around this “shantytown”. It was fine to have all here, because we are 500 souls...an emotional choice. But sometimes it is wrong. We were all here in the middle of the Salaria, services at hand: everything was more comfortable. In the evening when you went out, you found more people. Now in Accumoli you can find 4, 5 people to have a chat until 10.30 at night. When you come back, you don’t even want to go back out. Maybe if there was a stronger sense of community, even between the various hamlets or within Accumoli itself, maybe there wouldn’t have been all this attachment to say: “I want even the S.A.E. to be back there next door [to the old houses]”. These, in my opinion,



A grocery shop owner deliveries their products during their tour of all the towns in the area to serve those who have no way to move and reach the shops of the commercial area or those of other cities. Grisciano, July 2019.

are more decisions that were made by the Council. To me, if the houses was made here or uphill, it didn't change much. But given how it is now, I would have been more interested in these four commercial activities to be in the village. Now the evening is a graveyard.» (2019).

Here are the activities in the “Monti della Laga” Shopping Area on the Via Salaria (km 141,600):

Originally in Accumoli

- Bonamici Grocery: Center (Via Tommasi)
- Grocery by Mirella Organtini: Center (Largo Diaz)
- Fabiola Emporium: Center (Via Tommasi)
- Pharmacy: Center (Largo Diaz)
- Bar Momy: Centre (Largo Diaz)
- Pica Tyre dealer: Centre (P.zza S. Francesco)
- Petrucci technical practice: Centre (Via Tommasi)

Originally from the fractions:

- Cooperativa Rinascita 78 farmer shop: Grisciano
- Il Botteghino Grocery: Grisciano
- Santi technical practice: Cesaventre

Based outside the commercial area Salaria km 141,600:

- Michelini Raniero building company(Fonte del Campo)
- Dei platani bar (Grisciano)

Other services:

Municipal Operations Centre (C.O.C.), ATM, Municipal police, Carabinieri police, Health Care (P.A.S.S.)

The functions present at Accumoli S.A.E. - Chief town, in addition to residential:

- Sports ground
- SS: Pietro e Lorenzo church
- “Sala Pioval” community hall
- Music band practice room
- “Accupoli” multifunctional centre
- School of Accumoli



The following pages assess the area of influence on public spaces by buildings with various functions; some of open spaces are then studied by analyzing the elements that characterize them. The activities typically carried out in the spaces taken in analysis are also described.



Santa Maria Delle Coste

ACCUMOLI S.A.E. FUNCTIONS



Lot 4

Piazza Santi Pietro e Lorenzo

1

2

3

4

5

12

ca. 430m

9

8

Via Pasqualoni

Lot 3

Piazza "Accupoli"

7

Lot 2

Lot 1

Accumoli

ca. 160m



ACCUMOLI S.A.E. BUILDINGS



Worship

1. Santi Pietro e Lorenzo Church



Monument/Palace

2. Tommasi monument
3. Earthquake victims memorial
4. War memorial



Entertainment

5. Sala Piovani Community room
6. Accupoli Multi-purpose room
7. Sport fields



Bar

8. Bar - Not opened yet in 2020



Commercial

9. Shops - Not opened yet in 2020



Education

10. Music band studio
11. School



Other

12. Accumoli Cemetery



Piazza
SS. Pietro
e Lorenzo

FOCUS: ILLICA VILLAGE



The peculiarity of this village is that the entrances to the houses look at the retaining wall in the back. Illica S.A.E., March 2020.



«It was said that it was done simply for the weather, well knowing the place and the area where they were made, there was the problem of the strong wind and so they preferred to make the entrance here [in the back of the SAE area], then I do not know. I mean, the wind is really annoying. Because here before there was nothing, it was a field right out in the open space where it is exposed to so much wind and all these things, since they had to build I think they took it into consideration, also under advice of those who live here! I live here and if I think about this wind thing, I can tell you that it makes sense. Actually, here luckily we have no houses in front of ours, they are all lined up and then in front of the entrance [from the back of the house] we still have a nice view! Behind there is the entrance, which is a bit 'hidden', sheltered, in my opinion, for this reason of the wind. I'm not a technician, I'm just guessing.

It also allows us to stay by ourselves and also to communicate with the neighbour. There are people who maybe made his veranda by themselves to stay in privacy, but still always seeing the neighbour every now and then, and who remained as it was but still always doing his own things with the fact that the entrance is so sheltered or hidden.

We are really few inhabitants so even before at social level there was not much, I talk about Illica, with these houses is a bit as it was before, in the sense everyone does his own things, but there is also who has created a common space with the neighbour. But about the view...I don't think it's even a big deal.

Illica is a world apart! But in general it has always been. Here really there are 7 houses. But we did not suffer much. That there was a little of "make do" is true from this point of view, but it is not that this thing bothered us. We have the parking lot that we use as square...but yes, maybe there should be. I mean, around the houses maybe they could have organized better. But we have great parties here in summer! We placed benches, we put tents and we stay there. Here people often go often for a chat, a cigarette, even alone. In summer is very convenient for people who come back for just one day: at least there is a table to eat on! We have gazebos and we put them up, but only in summer.»

Livia Micozzi, 21, resident of Illica S.A.E.



Illica S.A.E. plan. The houses are build in a open field where there is strong wind.



There was no plan for a square for Illica S.A.E. village. Residents use the parking area instead where they places tables and benches.



The entrances to the houses are cosy and private, this creates opportunities to make the "back" of the house lively. The "front" faces into the common access path.



“Accupoli” area

The public space here in analysis is where there is the “Accupoli” aggregative structure and the rehearsal room of the Music Band of Accumoli. This square is central in the town but it is located much lower than the rest of the buildings, which makes it visible to almost the whole village but also uncomfortable to reach.

“Accupoli” is a structure with an aggregative space designed by the University of Turin. It includes a ramp and steps for access. These elements create cues to stop in the square, sit, talk or even play football for the youngest also when the structure is not in use. In fact, the building is open only for events and meetings and inside it has services, kitchen and an event space. The other structure in this space is the rehearsal room of the band, characterized outside by a large porch that protects from sun and rain. In this sheltered space people stop during the meetings and the support of the columns allows them to extend their standing stay outside.

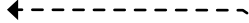
The entrance of the rehearsal room is oriented towards the side entrance of the Accupoli aggregative space: an area between two entrances is always interesting to live as there is a going from the doors, people who linger near the entrances and the opportunity to observe what happens in the square. The square intended as a social space is therefore the one between the two structures at a distance of about 15m from each other. The part of the square in front of the Accupoli structure coincides with the main access to this public space and seems to be an area with different characteristics, less enclosed and welcoming. Some benches have been placed as urban furniture. One surrounds a tall tree next to the rehearsal room, outlining the Southwest boundary of the square. The seat with this shape adapts to the tree but perhaps does not allow the participation of those who are sitting not facing the square. The other benches are located in the rearmost part of the aggregative structure, between the retaining wall and the one that supports the entrance steps to Accupoli. This turns out to be a space really enclosed, almost hidden, but from which you can observe the activities of the square and near the entrances.

Not far, in a central area as well, there is the structure meant to host bar and shops, completed, never inaugurated and not in operation yet in 2020. Giuseppe (32) and Fabrizio (53) talk about what the Accumoli S.A.E. bar will be: «The space could also be created, I don't think that's the problem. Come on, 2 tables are enough in the front. There was so much space...Above there is parking, it is comfortable. We think that it is fine there since it is a passage road, the few people who pass see that it is open, if it was higher up no one would have found it. It is also a point sheltered from the wind. Up to the church the wind pushes you away. Even below, there is the wind so there, at that point, instead, it is

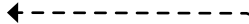


“ACCUPOLI” SQUARE
Scale 1.200

Walking distance
ca. 100 mt



Walking distance
ca. 200 mt



Lotto 4



Square

Lotto 2

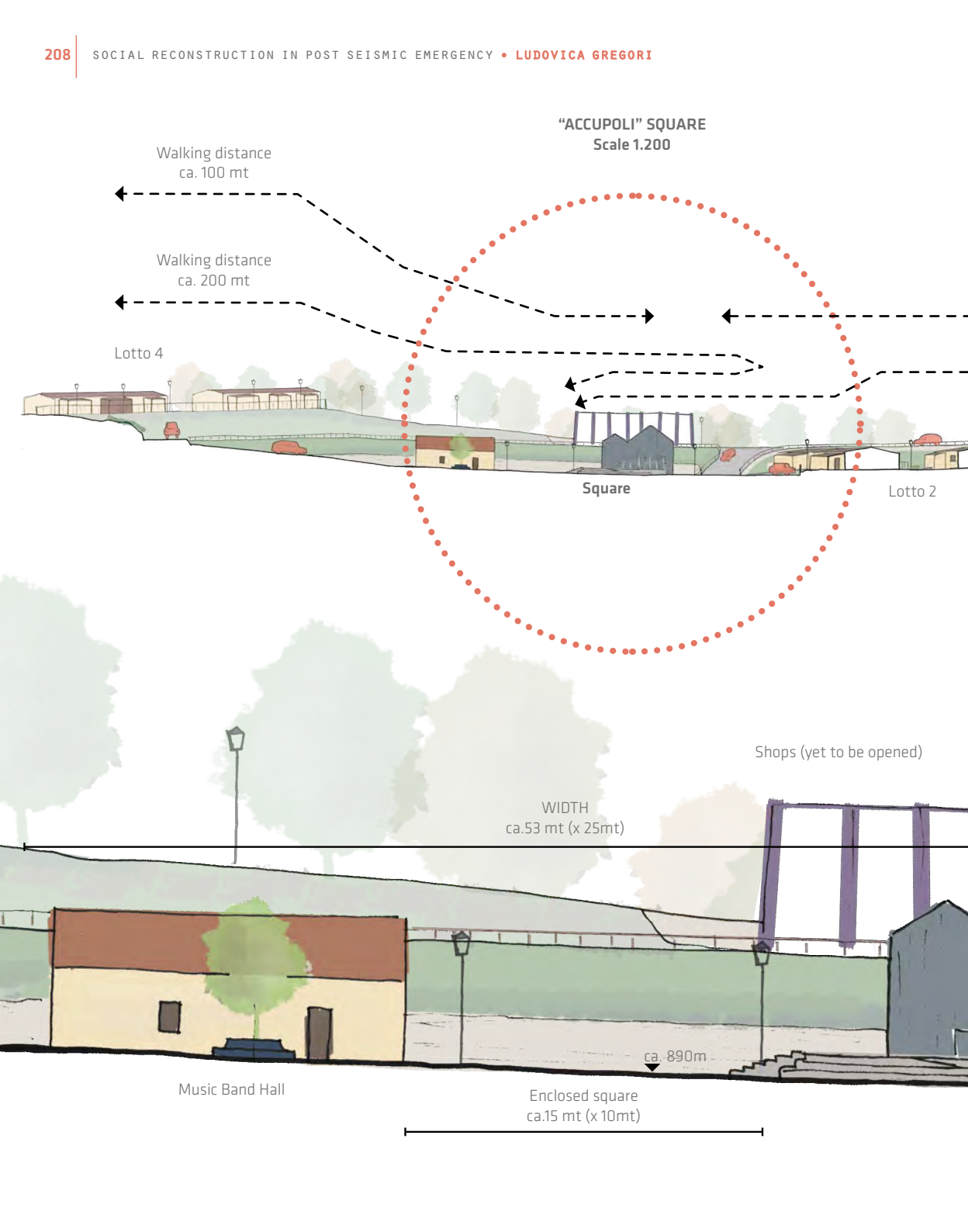
Shops (yet to be opened)

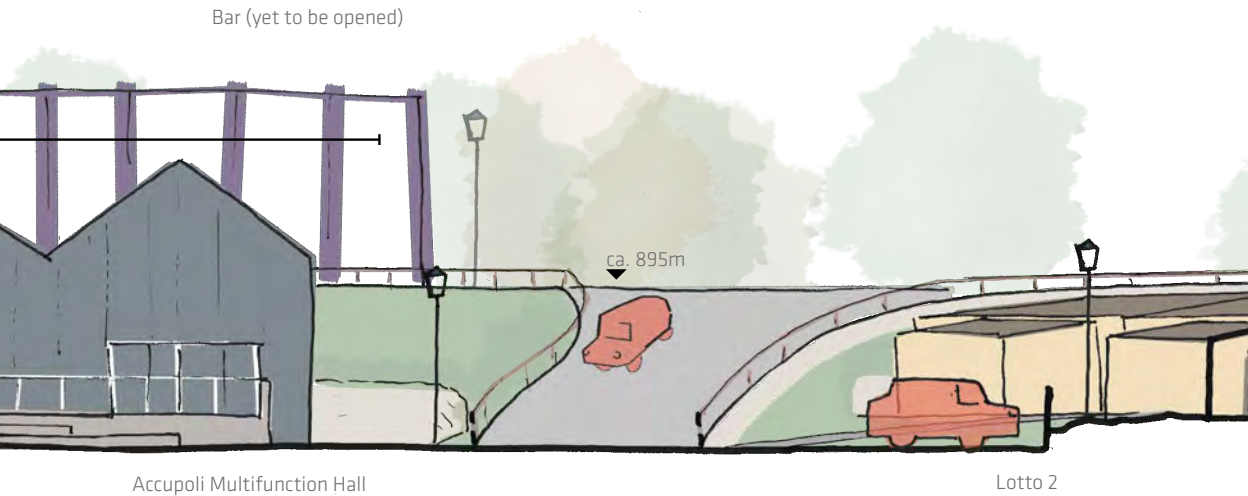
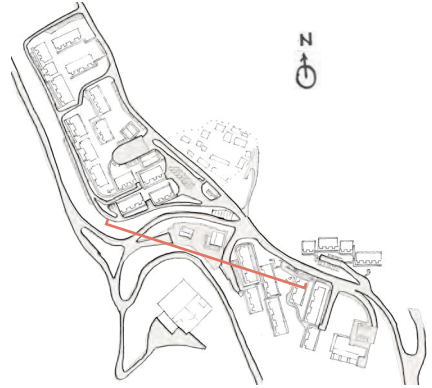
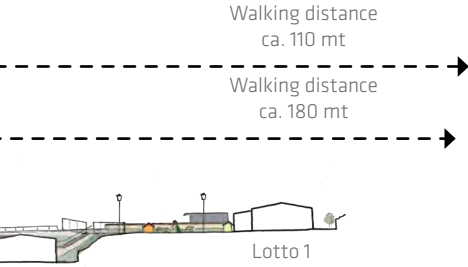
WIDTH
ca. 53 mt (x 25mt)

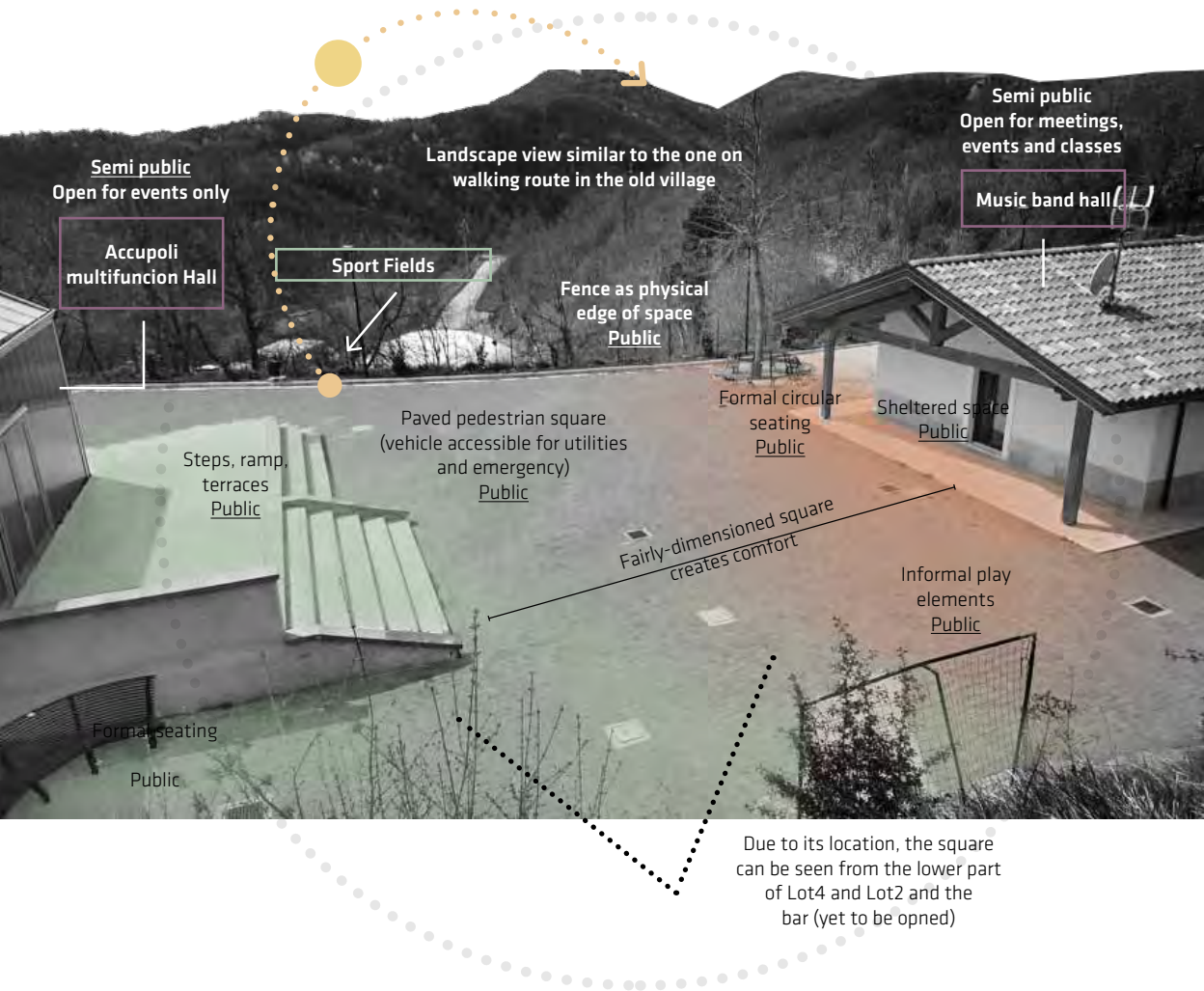
Music Band Hall

Enclosed square
ca. 15 mt (x 10mt)

ca. 890m







"ACCPOLI" SQUARE



The square, that is the space between the band's rehearsal room and the multifunctional structure, is large enough to host events but not too big to become dispersive. This space appears to be sheltered from the wind as some residents confirmed. Accumoli S.A.E., "Accupoli" square, October 2019.



The external elements of the structures, such as steps and ramps for Accupoli and the porch for the music room, create points of attraction, rest or shelter for people. Accumoli S.A.E., "Accupoli" square, October 2019.



The square is not fully visible from the main access point and it is visible fully from the lower parts of Lot 2 and 4. The position of the structures creates 2 smaller areas. Accumoli S.A.E., "Accupoli" Square, March 2020.





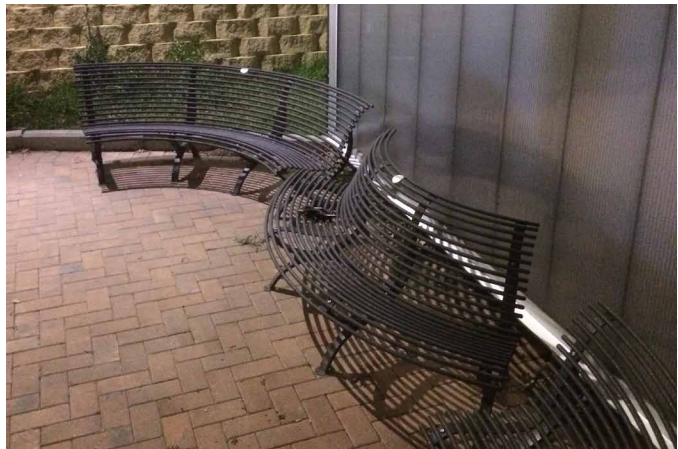
The steps, terrace and ramp around the Accupoli multifunctional room creates opportunities for children to play, ceremonies, seating and meetings. Accumoli S.A.E., "Accupoli" square, May 2019.



The bar and the commercial spaces attached to it have not yet been inaugurated after 3 years from the earthquake. Residents seem wary of the unconventional structure, the small size of the spaces and especially the large windows on the street. Accumoli S.A.E., July 2019.



Signs of usage show how these benches are in use. They are located in the corner between the steps and the support wall, in a very sheltered and cosy place but from which people can see the square and the accesses of the structures. Accumoli S.A.E., "Accupoli" square, December 2019.





Spaces sheltered from the sun and wind are very popular. Elements such as the porch columns are informal supports that create a pretext to stop to look at what happens in the square or chat. The entrance to a building that looks at a square is usually interesting as there is something going on that you can watch. Accumoli S.A.E., "Accupoli" square, May 2018.



Young people take advantage of the well-defined side of the square closed by the support wall to create an improvised football pitch despite the winter cold. Accumoli S.A.E., "Accupoli" square, December 2019.



sheltered. The village person has to see whoever passes. [The bar] has to stand in the middle of the street. A car passes by and everyone: "who passed?" That is the typical discussion of the bar, if you take that away, you take away the soul of the bar. The bar is the fun for us. I hope someone takes it and makes it work. The convenience of having it there, maybe you pass at 11.30 at night and see if it is open or closed, see if there is a light on.» (2019).

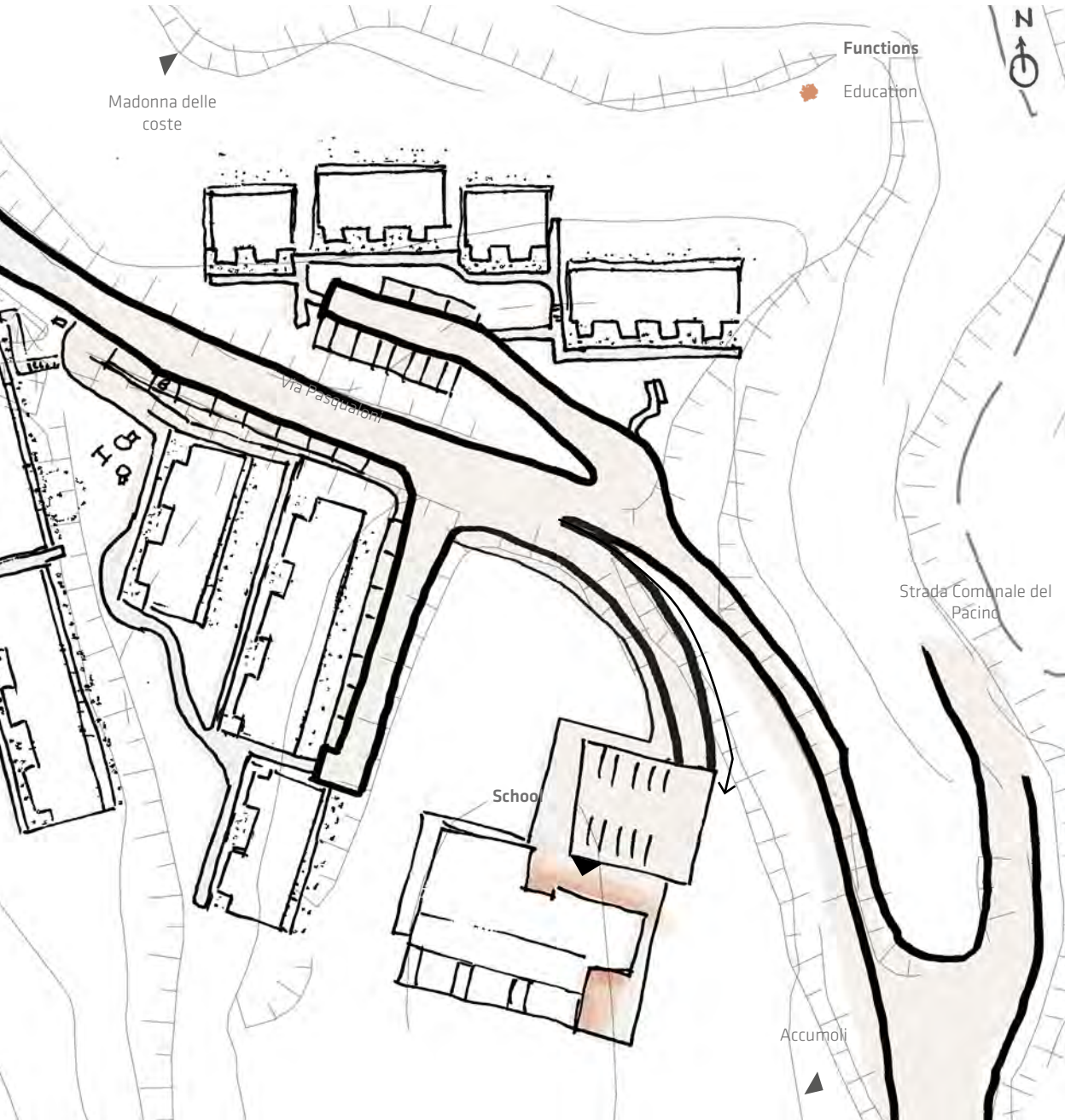
School area

The School of Accumoli was designed by the Department of Architecture and Project (DIAP) of the Sapienza University of Rome (Carpignano, 2018). As it has not yet been opened, it is not possible to develop an analysis of the structure in its context. The contribution of this new building on the social life of the people of the country cannot be assessed. Normally, a school increases the possibilities of meeting children, parents and teachers and of carrying out extracurricular activities. Its outdoor space, if close to other functions and residences, can be the focus of spontaneous activities of play and meeting even out of school hours.

Arch. Ph.D. F. Lambertucci, associate professor at La Sapienza University of Rome, Diap - Department of Architecture and Design, is among the designers of the School and he explains the design process: «The design of Accumoli was an episode limited to very short time and decisions already taken elsewhere and not negotiable, including the position of the available lot, part of a new alleged “acropolis” of collective services of which we have not had the opportunity to know practically anything, as well as the functional programme, set in I do not know which situation; in essence, we had no way of getting in touch with stakeholders, users or operators, as the procedure remained under the strict control of Invitalia. We have therefore had to appeal only to our modest abilities to interpret the request in the best way, without being able to develop a comparison. The centralized and indisputable ways in which they wanted to manage the thing can therefore be useful elements to evaluate; it might be interesting to promote a post-occupancy assessment [...]» (2019).

The school, being on a hill on the edge of the town, does not appear to integrate with the rest of the settlement. The building is fenced for security reasons so even outdoor spaces are not accessible on a daily basis if the school is not open. The building is accessible by a steep driveway and a sidewalk leading up to the entrance through the fence. The school enjoys a magnificent view that is not exploited if the building is not in use. The institute is therefore on a hill and surrounded by trees and is not really visible from the whole village, which breaks even the visual connection between the residential part of the country and this function.

The school was born as a primary school but designed to facilitate its flexible use. The number of people of school age is very small in the village and in its hamlets and, since the advent of the earthquake, many children have begun to go to school in other cities, not favouring therefore the return to the village for studies.



Madonna delle
coste

Functions

Education

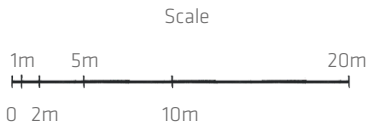
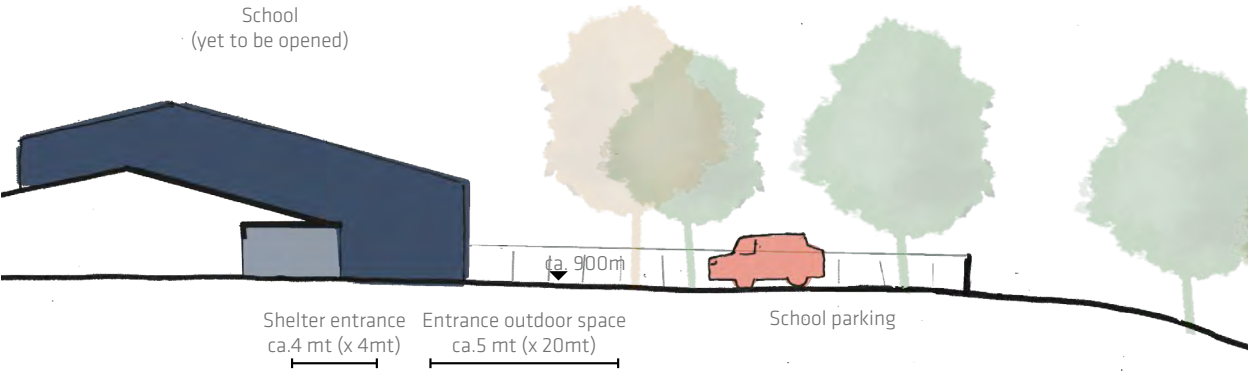
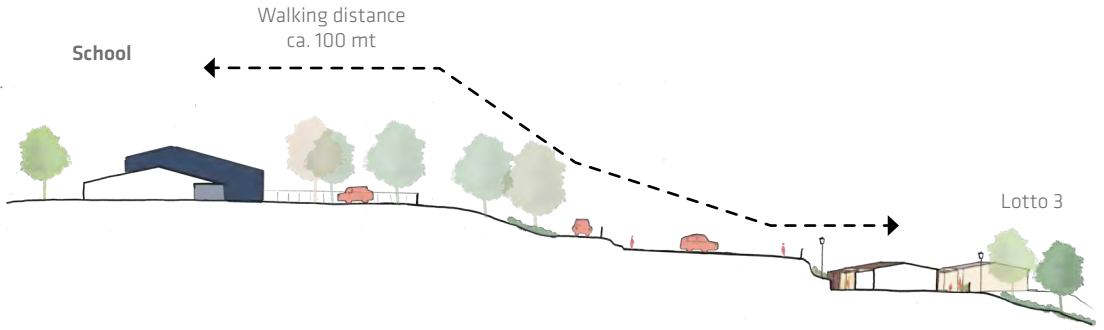
Via Pasquolini

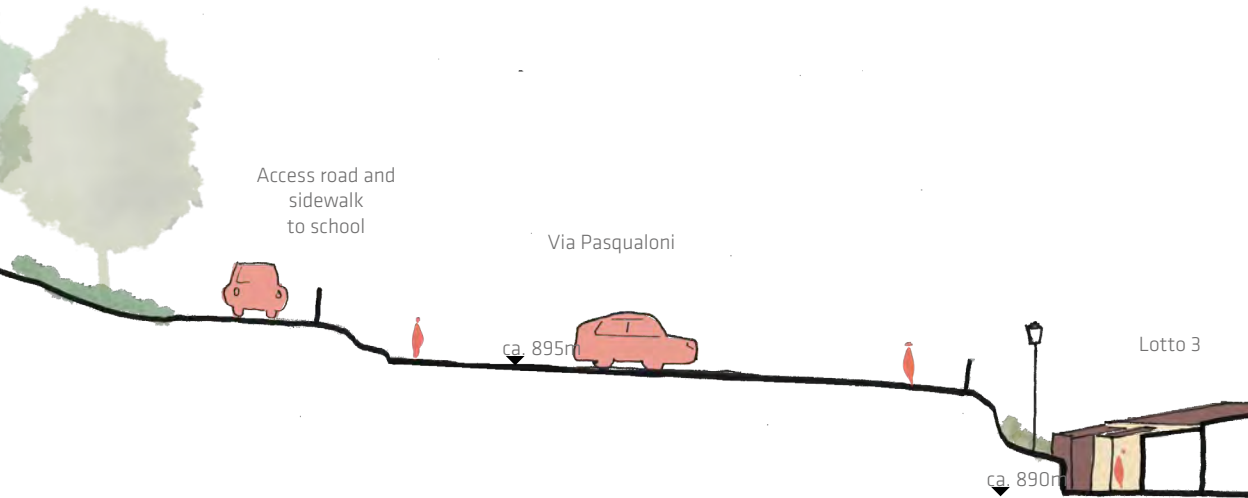
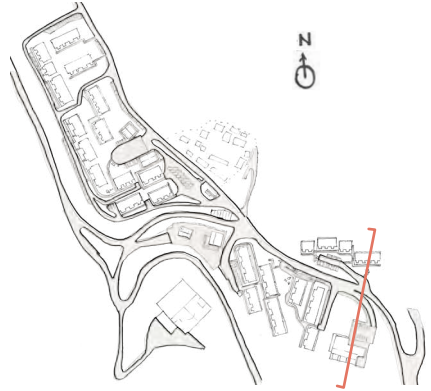
Strada Comunale del
Pačino

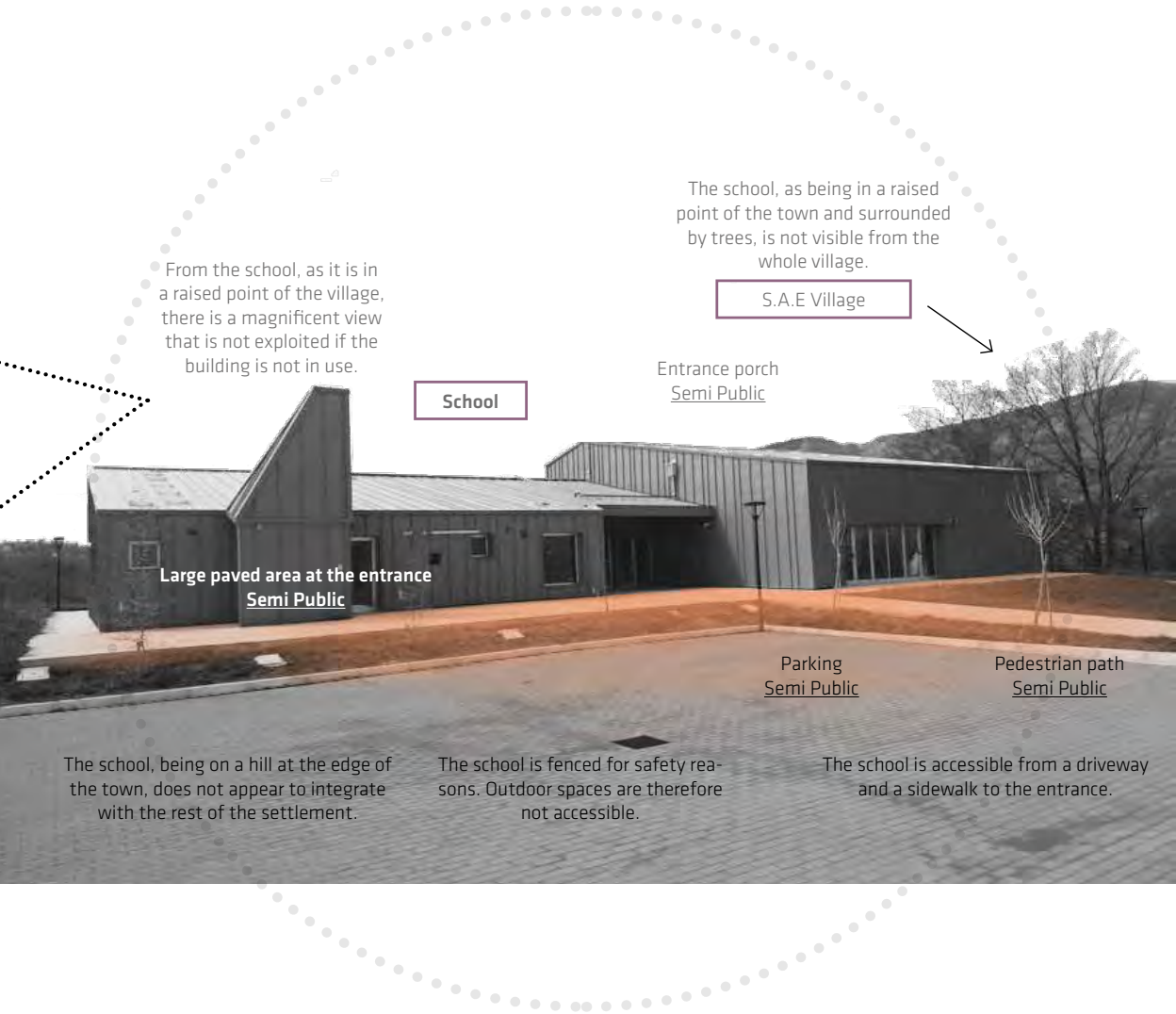
School

Accumoli

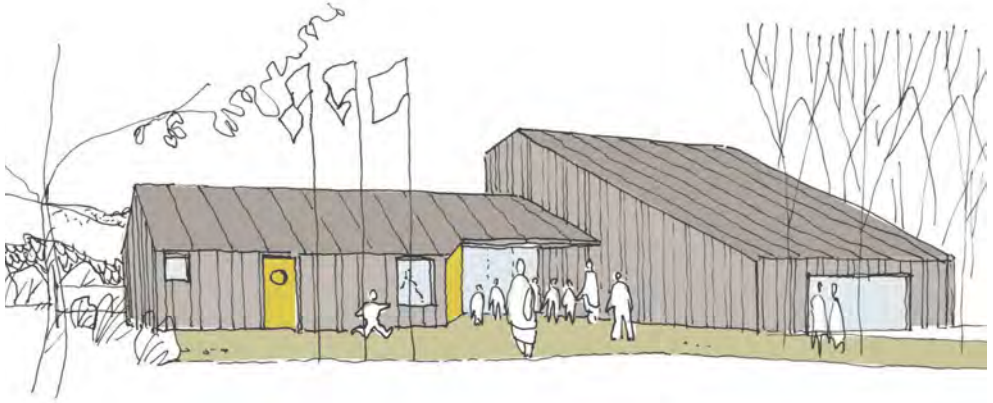
SCHOOL AREA
Scale 1:1000







SCHOOL AREA



The project was carried out by the Department of Architecture and Project (DIAP) of the Sapienza University of Rome. As it has not yet been used, it is not possible in this case to develop an analysis of the structure in its context.

Image courtesy of Prof. Arch. O. Carpenzano, Director of Diap. Sapienza University of Rome.

There is an agreement between the Accumoli and the Donau Universität Krems (Austria) for a proposal to use the facility. In fact, in November 2019, the memorandum for the implementation of the “School of Reconstruction” was signed with the Donau-Universität Krems. As the website of the City of Accumoli cites: «The Building and Environment Department at the Faculty of Education, Art and Architecture deals with the study of the reconstruction of cities destroyed by earthquakes, the protection of cultural heritage and the long-term use of buildings of historical and architectural value. Since 2016, Donau-Universität Krems has been involved in teaching and research at university level, as well as international conferences on the reconstruction of Accumoli. Students, attending lessons in Accumoli, in the structure intended for the school, will have the opportunity to deepen and study the effects of the earthquake on the field and to simulate the design of reconstruction. The study path will be included in the network of the Erasmus project, with important socio-economic impacts on the territory of the city [...] A foundation stone for the reconstruction of the social fabric, even before the buildings, to keep alive a town facing depopulation. A first step also for the reconversion of the structure destined to the school, that it will maintain however its vocation tied to education.» (Comune di Accumoli, 2019).

Church area

This is the area the residents refer to as “piazza” and it is in fact the largest public space. It is located in Lot 4 of the town, in the highest lot to the north compared to the others; for this, it is not visible when entering the village by driving and it is not visible from any of the residences apart from those around it.

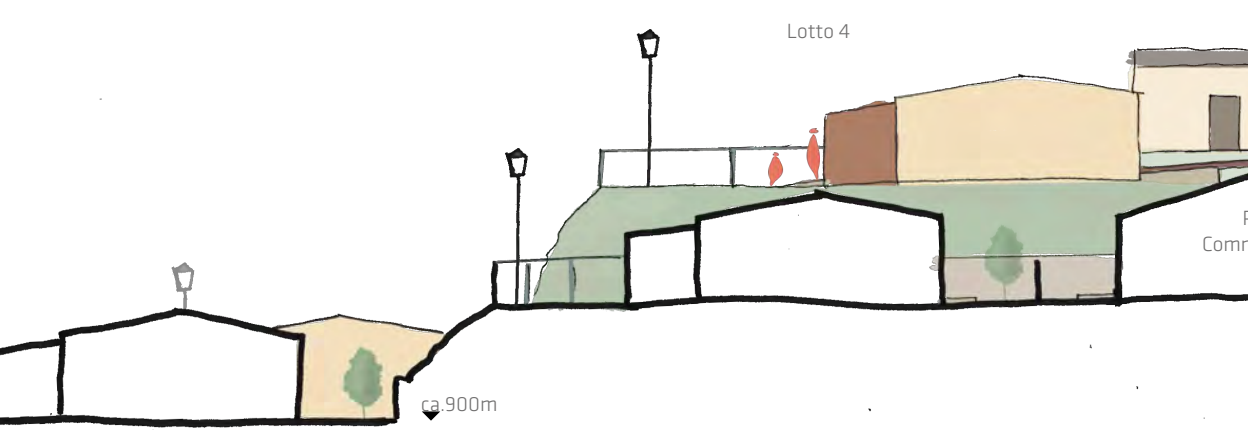
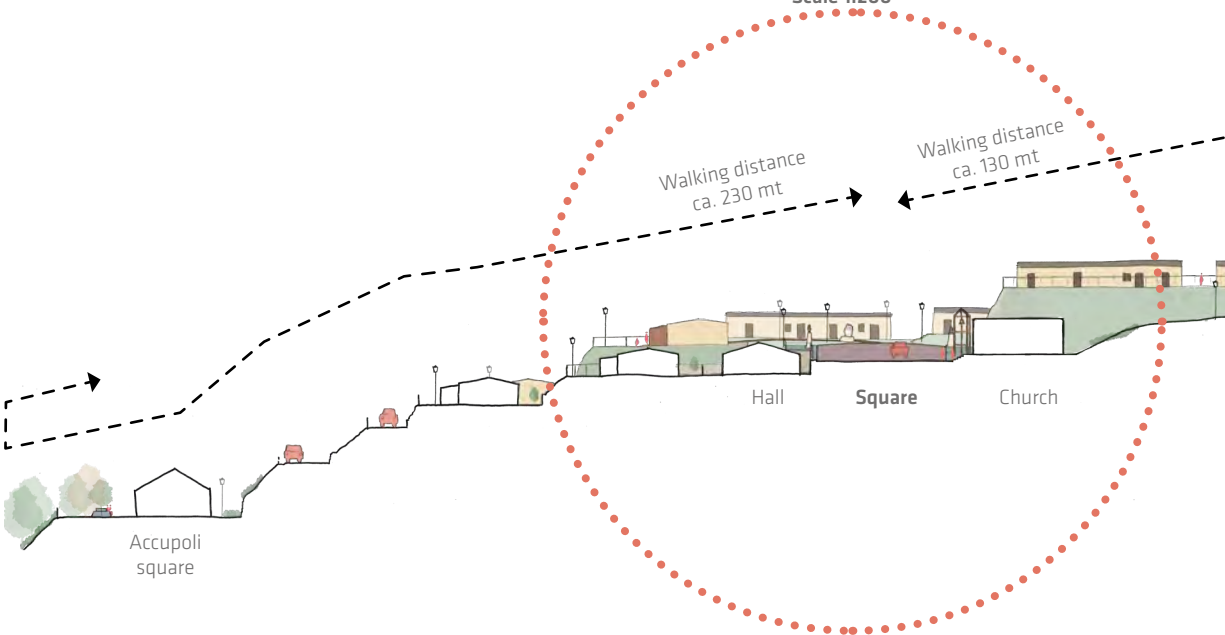
An area of flat land of the lot was probably exploited for the construction of the square from which the location derives. Nevertheless, a good part of the space is steeply sloping as well as the public parking nearby. For this reason it is not possible to see the whole square when if looking at it from the highest or lowest point.

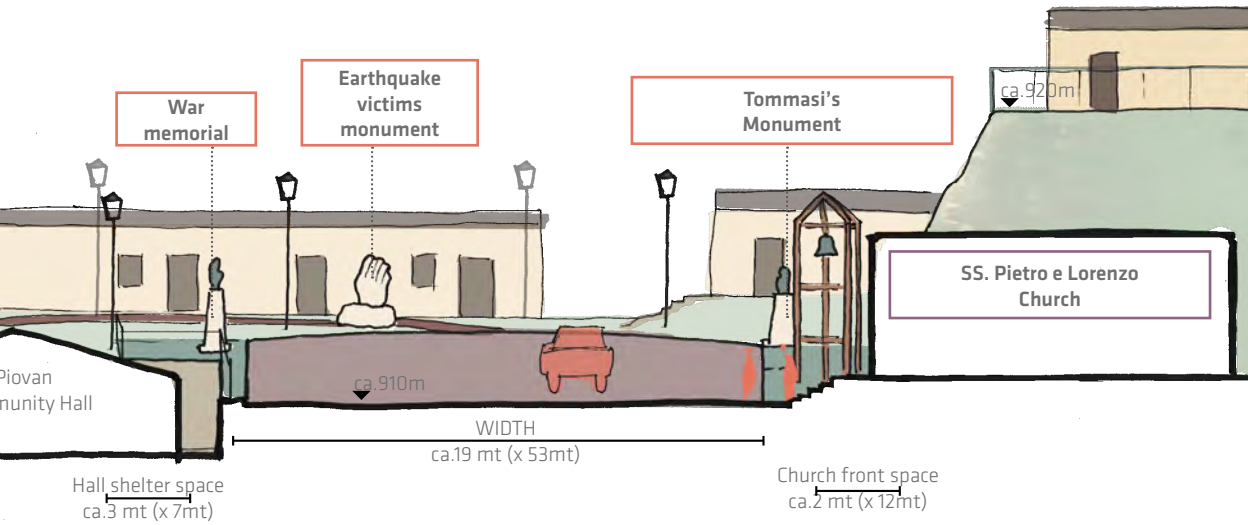
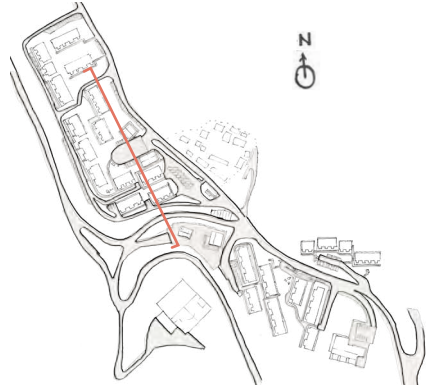
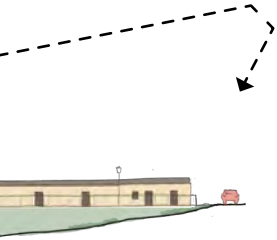
On the longer sides of this square of about 53m by a width of about 19m there are two buildings: the church and the community hall. The church dedicated to “SS. Pietro e Lorenzo” is accessible via a staircase or a short ramp from the square. The space in front of the entrance of the church is rather narrow and bordered by a fence. The Sala Piovan is the community space for events and meetings that includes a large porch with columns and fence; this covered space is useful because the square is exposed to cold winds as confirmed by the residents. Unfortunately, the porch is located in one of the sloping corners of the square, creating an uncomfortable sharing of public space with the hall because of the difference in height: between the highest part of the square and the Sala Piovan there are about 4 m of difference. Both structures are opened only a few times a week, not making the square a real pole of attraction.

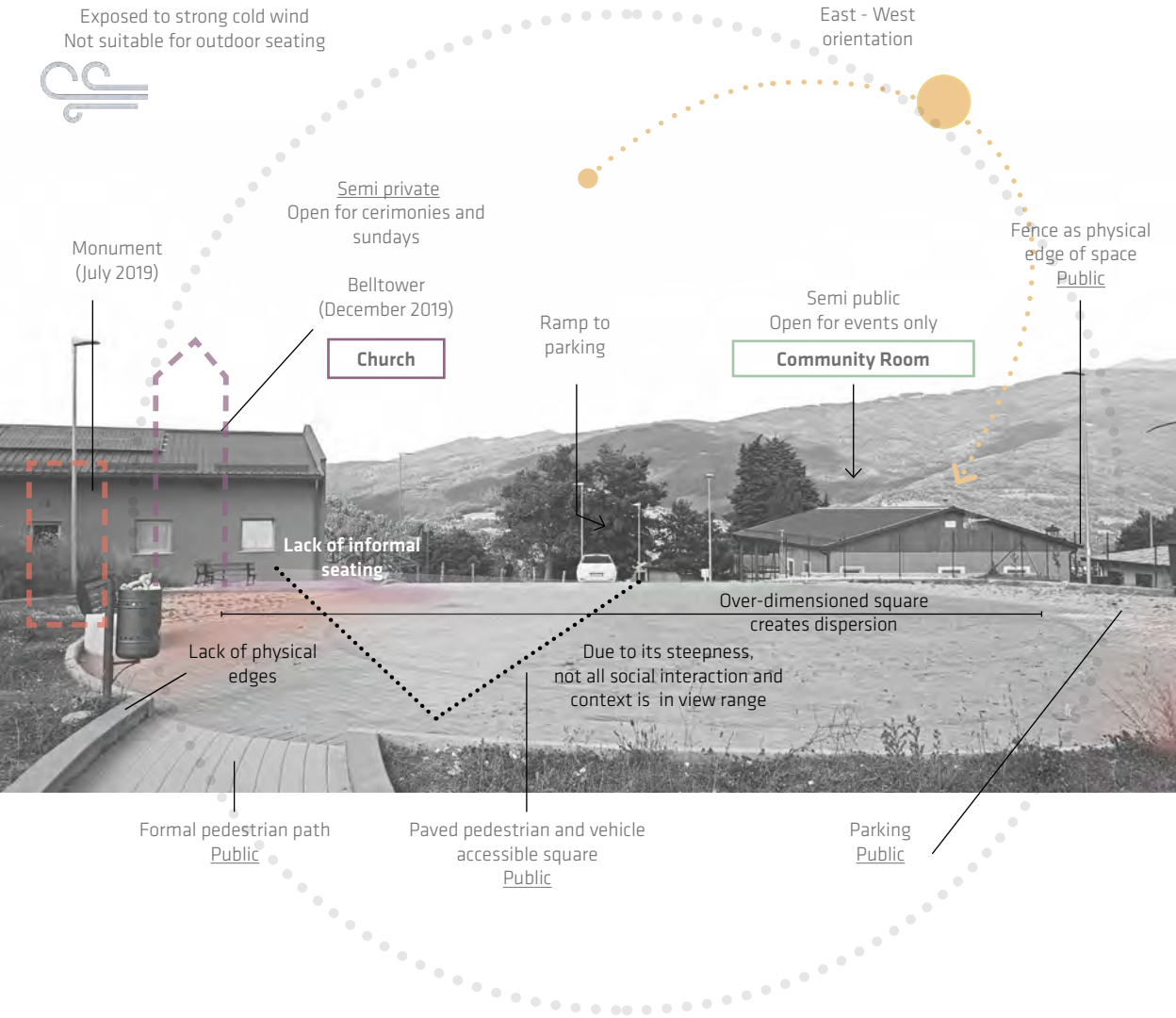
There are other elements that delimit this square but they are not able to demarcate the space in a strong and perceptible way: they are not able to create what is called “edge effect” (De Jonge, 1967; Hall, 1966; Gehl, 1971). These elements are car parking lots bordered on one side by a fence, the bell tower and monuments. Among these, the Wall Memorial and the one dedicated to Tommasi were added after the inspection of this research but are still reported. The other monument is that to the victims of the earthquake placed near the flag pole and a small fountain. The monuments have taken the place of some benches of which only some are left around the bell tower, which is a prefabricated structure also used in other S.A.E. villages. Friar Carmelo explains the meaning of the construction of the bell tower finally after 3 years from the earthquake: «The bells are the symbol of eternity in our villages: they indicate a presence, a voice or a beat that goes far. These bells arrived by the grace of God here in Accumoli and many people put an effort so that the inhabitants could have a strong point of reference again. Although the bell tower was built after the stony note of the earthquake, that stony note is now part of our life and we must tell it. The story of our starting over is the story of a new possibility. Our



SS. PIETRO E LORENZO SQUARE
Scale 1:200







SANTI PIETRO E LORENZO CHURCH SQUARE



← The entrance to the church can be narrow between the stairs, the ramp, the flower boxes and the fence. At the same time a small space is always more interesting than a dispersive one. Accumoli S.A.E., Chiesa SS. Pietro e Lorenzo, August 15, 2019.



← The square works well for folkloric events with the use of seating, tables and gazebo. Accumoli S.A.E., SS. Pietro e Lorenzo square, 2018.



The porch of the Sala Piovan and the lower part of the square are not at the same altitude but the residents, with a little effort, overcome the inconvenience. Accumoli S.A.E., "SS. Pietro e Lorenzo" square, August 26, 2018.



Immediately after the return of the residents, Mustafa, a street vendor in Accumoli since years, returns to sell his home products every week. It's a sign of normality. Accumoli S.A.E., SS. Pietro e Lorenzo square, August 2017.





The monument to Tommasi and War Memorial were restored after the damage caused by the earthquake and finally returned to the population with a ceremony of the Alpini. Accumoli S.A.E., October 2019.



The new prefabricated bell tower wood is installed in the main square bringing back the sound of the bells after 3 years from the earthquake. Accumoli S.A.E., February 2020.

life is not made to throw in the towel, on the contrary, it is made to go forward, according to the value of the Resurrection: Accumoli will not be able to return as it was before, but will rise in a new way.» (2019).

The pavement of the square is the same as that of Accupoli, which differs in color from that of pedestrian paths. The curb that surrounds the square separates it from the grass around, the only element of vegetation. Parking lots are in driveway lawn.

To access the square, it is necessary to go through a curved formal pathway from the residences on the west side. The other access is from the street and the parking, in fact the whole square is both pedestrian and driveway.

Considering its size, this space is mainly used for open-air celebrations, parties, numerous meetings and conferences. On these occasions, seating and tables are stored in the Sala Pivov.



Preparations for the festival of Accumoli for which tables, chairs and a stage for music are installed, despite the slope of the square. Accumoli S.A.E., "SS. Pietro e Lorenzo" square, August 14, 2018.



The Sala Piovan was not yet finished when the residents returned so, taking advantage of the good weather, a conference and concert organized by MARIC (Artistic Movement for the Recovery of Cultural Identity) in the square. Accumoli S.A.E., "SS. Pietro e Lorenzo" square, August 27, 2017.



next page

The construction company KREA mainly carried out the urbanization works of Accumoli. They donated to INTERSOS ONG and PSY+ a container used during construction located at the sport field to create a space to meet together to play cards, read newspapers, use a free trade library, watch tv programs together and discuss. The container's location did not make this facility popular among residents.

Accumoli, March 2018.



Band and choir often perform in the square where the audience can listen to them sitting on outdoor chairs or standing. Accumoli S.A.E., "SS. Pietro e Lorenzo" square, August 26, 2018.





Difficulties in post-seismic communities

This section starts with a summary of the opinions of the team of psychologists that followed the residents of Accumoli from the first days after the earthquake until today. It will then move to a collection outcomes of researches and analyses in post-disaster scenarios. In the end, there are opinions of some architects on the approaches to designing for communities affected by an earthquake.

G. Scurci, General Secretary of PSY+ and on site clinical psychologist, and PSY+ psychotherapist and psychologist L. Di Bernardo were interviewed in Amatrice in July 2019 following a specific interview track. There were some questions on the reconstruction as well as it is considered a generally interesting topic but it is not central in this research. The main questions were about:

- Characteristic of the culture and the attitude of the population of Accumoli that helped them to overcome individual and community challenges;
- The age ranges most affected by the earthquake and which ones are instead more reactive and projected to the future;
- The earthquake strengthens or separates the community;
- Old contrasts between people as an unconscious attempt to bring things to normal;
- When and how do people start to feel a community identity after just an individual one;
- The identity value of lost architecture;



Word Cloud of the interview with the psychologists.

- The view of the old landscape can help a healing process;
- Participatory activities related to the design of new villages can improve the empowerment process for people and the place identity;
- Difficulties in accepting help and projects that don't follow a "bottom-up" approach;
- The proximity and the view of the old destroyed villages helps facing and overcoming the trauma.

The following pages summarise their answers which are extensively explained in other chapters. Also, the "word cloud" graphic method is here used to show the most used words by the two psychologists in the interview. The bigger words are the more repeated by the interviewee. It is clear that the words repeated many times are not always the most meaningful ones, but this images can be a direct way to understand which themes are most important. For this reason in this case the words that are more relevant for their meaning more than their frequency are highlighted. The following are the most relevant words:

psychological support	elderly	games
music band	children	de-localized
project	support office	discomfort
San Benedetto	process	sharing
community	bar	together
space	need	layering
individual	aggregation	groups
activity	hotels	hamlets
aggregative	analysis	organized
daily life	dialogue	social
relational	youngsters	complex
square	excuses	monitoring
territory	residents	past

It appears that the most vulnerable age range is the one of teenagers as they couldn't have a specific psychological support and activities, also being in that age during which people are hard to engage with. A lot of work has been done on the process of empowerment of the residents. These activities were carried out soon after the community feeling started to arise back up again, that is when the individual trauma started to ease off.



One of the S.A.E. villages of Amatrice faces the back of the restaurants of the "Area of Taste" designed by Stefano Boeri Architects without integrating the residents. Amatrice, July 2019.

other hand, a sort of negation of what happened could take place instead of overcoming the trauma for each individual.

Moving on from a specific case to a more general view, the studies by R. Gordon (2004) were taken into consideration for the social effects of the trauma after a disaster. Gordon, clinical psychologist who has been working in the field of disaster recovery since Ash Wednesday in 1983¹, says: «The integrity, organisation and processes of the social environment comprise the greatest resource for personal recovery, mediate the impact of stress and trauma and determine the effects on health and well-being following disaster (Freedy et al. 1992). The informal social system is most important in this process, but is often overwhelmed and people have to draw on their neighbourhood and the formal social systems of their community, often for the first time. It is crucial to their recovery that the social system is adapted to these needs, which means specific communicational relationships and opportunities. To provide these, the social process needs to be understood and managed.» (Gordon, 2004, p.22). Gordon makes some very interesting points on the well-being of the individuals and the understanding of community as a whole. «However, there is widespread degradation of the quality of life and erosion of the fabric of relationships (Gist & Lubin 1999). While such problems are not easily identified as psychiatric illnesses (American Psychiatric Association 1994), they have lasting effects, meaning that people are unhappy, go through the motions of life without enthusiasm, lose the heart of relationships and neglect goals that motivated them. Recent research has identified social embeddedness as a crucial characteristic related to impact, greater embeddedness associated with reduced psychosocial impacts (van den Eynde & Veno 1999). Such effects are part of the social environment formed by the emergency. People with identifiable psychological disorders can be referred to services, but degraded quality of life needs to be addressed by environmental social health interventions based on an understanding of the community processes within which they unfold. Social phenomena are more than the summation of individual problems; they are social dynamics. The community must be understood as a whole, composed of individuals and groups, bound together to respond collectively.» (ibid., p.20).

M. T. Fenoglio (2006), Professor of Emergency Psychology at the University of Turin and President of Psychologists for the Peoples - Turin, follows the line of Gordon but underlines the importance of giving help to people to overcome a trauma working on community endogenous resources and strengths: «Studies to date reveal that change does not

¹Ash Wednesday (16 February 1983) experienced over 100 fires swept across Victoria and South Australia, killing 75 people and causing widespread damage



necessarily leads to trauma, unless the subjects have scarce resources economic, no power of control over their own lives and no social support (for a bibliographic review of these studies see Gist and Lubin, 19- 99). What is stressful, therefore, is not so much the change itself, but the position from which one undergoes it, and the perception one derives from it. It is evident, therefore, that the point of view to “look” at providing aid cannot be only that of “bring help”, but of strengthening social support, that is, the role of the actors, their decision making power, their community cohesion. Great importance is therefore given to those studies aimed at pointing out internal dynamics in communities affected by disasters. In fact, they show elements of break and elements of continuity, points of crisis and resources, outlining a scenario of massive mobilization of energy to restore the continuity and meaning, both in the individual and in the collective sphere.» (Fenoglio, 2006, p.13). Fenoglio adds the concept of “eternal present”: «At this stage it is evident how traumatic events, when they remain and when the grievances are difficult to elaborate and are expressed in the silence and isolation, determine in individuals and in the community a lived from “eternal present” . Trauma in fact broke the link between past, present and future: while the past is “ruminated” with often obsessive mode, the future disappears from perspective.» (ibid. p.17).

An earthquake specific case is the one studied by Castellani S., Palma F., Calandra L.M. (2016) of the Department of Historical, Geographical and Antiquity Sciences (University of Padua) and Department of Human Sciences (Cartolab-University of Aquila). Their study was investigating the social geography in the post-earthquake period through the analysis



↑
 Jintai Villag,
 Bazhong, China.
 Reconstruction
 project (4000 m²)
 by Rural Urban
 Framework (ONG
 research and
 design studio led
 by John Lin and
 Joshua Bolchover
 at The University
 of Hong Kong),
 2014.

next page
 «We're trying
 to create a
 contemporary
 Chinese village.
 The mud house
 no longer
 satisfies the
 villagers' needs
 and neither does
 this new style of
 generic house.»
 John Lin,
 Rural Urban
 Framework,
 2014.

of the territorial changes and new socio-spatial configurations occurred in the everyday life of the L'Aquila inhabitants. They used an “action-research/participating participatory (RAPP) methodology” thought which they carried out a social analysis. After 2009, near L'Aquila big housing developments were built to give a safe home to the residents (Progetto C.A.S.E). As these are high density buildings spread across the main road connections, the cityscape was completely changed and so the people's lives: «The configuration that the territory of L'Aquila took after the seismic activity has led to an acceleration and an accentuation of characteristics of fragmentation and dispersion of the inhabited area and population, which, although already present before the earthquake, did not assume characteristics so widespread and spread throughout the territory and its inhabitants. The results of the research of the working team of Cartolab Laboratory showed how such re-configuration conditions more or less strongly the practices of everyday life weakening networks of proximity, trust and solidarity and, consequently, sociality.» (Calandra et al., 2016, p.91). Their research had a bottom-up approach directly interviewing people and sharing questionnaires, mostly asking about leisure activities and places. The results also showed that «the forced detachment from one's daily “where” weakens and breaks deeply the socio-relational system; with fragmentation of urban space also restrict public spaces and, consequently, the moments of meeting and sociality.».

Another interesting point of view is the one by L. Giacchè, Professor of Anthropology at the University of Perugia and Director of CEDRAV (Center for Documentation and Anthropological Research in Valnerina and the Umbrian Apennine Ridge). He stresses the importance of helping people to carry on activities after a disaster: «Who suffers a devastating trauma like that caused by the earthquake needs to be immediately put back in any activity and be committed to do something useful for yourself and others» (Giacchè, 2018, p.12). He talks about the help given to the population through a turnkey solution



that doesn't enhance autonomy and empowerment: «An easy paved road of good intentions turned out to be dead-end and now has generated some sort of confusion that we can overcome only through resuscitation, not easy, of the endogenous resources of the territory, starting development local processes with the active involvement of the population. In all these steps there is a common element that concerns the role of actors, with are in increasing and worrying prevalence institutional ones over social ones.» (ibid.).

Even if the reconstruction topic is not central part of this research, it is still a pivot point on the conversation on the earthquake matter. As there is not much said in this text about opinions on how and if rebuild the destroyed villages, the words by Arch. A. Guerrieri, and Arch. I. De Simone, PhDs in Architecture - Theory and Project - Università Sapienza di Roma are a useful summary. In this research it doesn't really matter if this is a final reconstruction or a temporary village but the aim to create socially vital spaces between the buildings is what matters. Arch. PhD Guerrieri gives Chinese examples of socially focussed reconstruction in rural areas: «The recovery of the sense of the community, the definition of resistant housing to the earthquake that, with contemporary languages, are able to reflect values and traditions of citizenship, economic recovery of regions based on fragile economies, are all the main topics of the debate on post-seismic reconstruction that has ignited around the regions of Sichuan and Yunnan for the last ten years. The key points of this experience were, on the one hand, the use of techniques innovative but extremely simple, from the other the idea of rebuilding of the prototype villages around the identity of the populations, stimulating them the sense of community through the creation of quality common spaces, exploiting the resonance effect of pilot projects as they fly for the reconstruction of more and more rural villages in South-Western China. [...] The second key point is the recognition of the sense of community as an engine of reconstruction, and translates into the design of places of living and exchange, as well as small equipment suitable for encourage the development of the social fabric.» (Guerrieri, 2018, p.47-8).



«Public space is important. As contractors blindly build on demarcated square metres, little thought is being given to villages as entities. The result is often a jumble of low-grade units.»
 «Given the available materials we try to develop something that caters for what locals need, without evoking a fake aesthetic of the old or a generic modern aesthetic.»
 John Lin,
 Rural Urban Framework,
 2014.



Arch. PhD I. De Simone gives a synthetic but accurate picture of the significance embedded in the types of approach to post-disaster reconstruction: «The first mode is that of philologically reconstruction of everything “as it was and where it was”, according to the famous motto spread after the reconstruction of the bell tower of San Marco in 1902 and became a guide to follow for the reconstruction of the earthquake areas of Friuli. The second mode is, on the other hand, the heterodox tendency of building the new elsewhere: this is the case of the “new town” as the famous city of Gibellina in the Valley of Belice (earthquake of 1968) or the realization of the notorious project C.A.S.E. in Abruzzo (earthquake of 2009). While this last approach arouses many doubts and controversy, the re-creation of identity is certainly the one that allows to achieve easier consensus as it represents the most reassuring for the inhabitants, instinctively inclined to prefer a scenario space similar to what they were accustomed to living in, rather than having to

measure with a new dimension foreign to their lived territorial.» (De Simone, 2018, p.20). On this topic, Arch. R. Piano sees the need to see an opportunity in the earthquake tragedy to make the lost cities a better place to live. Arch. C. Zucchi also adds that rebuilding something as it used to be is mostly an emotional choice: “as it was, where it was” is more a psychological motto than an anthropological and architectural one. It would also create a falso stilistico in terms of restoration theories. Arch. F. Venezia brings up the topic of aesthetics in the design of the new built: this has to be integrated within the diffused beauty that makes Italy the Bel Paese. Arch. S. Boeri (Extraordinary Commissioner for reconstruction Special Advisor) sees beauty of the new built as a design challenge between past and future, i.e. a chance to rethink places. Arch. V. Latina, 2015 Italy “Architect of the year” (National Council of Architects, Planners, Landscapers and Conservationists), underlines that a city can’t be just the celebration of the legacy of the past but also the backdrop of contemporary life; city history itself is made of layering of events. (De Simone, 2018, p.21-2) The risk otherwise would be to only work for conservation, being scared to interpret the city and its past. Arch. PhD De Simone explains Arch. M. Cucinella’s view which focuses on social aspects: «The matrix of a city is also identified by the human bond it establishes with its citizens: places in fact need collective rituals that allow the space to change, keeping it adhered to the original generating principle. It is necessary to rebuild the sense of community through the symbolic and ritual places of being together and rediscover space as a primary element of the urban structure able to generate new social identifications. For this reason, M. Cucinella, architect particularly active in post-earthquake reconstruction, says that this development strategy must necessarily be born from a participatory approach: reconstruction must not only be a functional fact, but it must be the bearer of a cultural message.» (ibid, p.22)). To finish off, Arch. PhD De Simone raises questions on the need for removal of the past, trauma recovery and the look to the future: «One should perhaps speak of reconstruction in a “authentic” way rather than “identical”. The identical reconstruction creates a fake image and thus destroys the memory. The question that must then be asked touches the spheres of psychology: it is right to delete and then forget the memory of an event that, although tragic, represents an incredibly significant fact of the history of a city? Is this need for collective removal, which manifests itself as a first instance on the part of the population, really to be met? Many examples come to mind in this regard, but perhaps the strongest, although not connected to the tragedy of an earthquake, is that of Ground Zero in New York, after the terrorist attack of September 11: the new project has chosen to cultivate the memory of tragedy by reconstructing a new identity of the place, a new memory, the result of the historical succession of events.» (ibid., p.22-3).



Accumoli,
main street -
Via Salvator
Tommasi,
before 2016.
The village
is in a high
mountainous
area in Central
Appennines
in Italy with
difficult
access,
especially in
the winter.



Research method





“C.O.C.” area
 (“Centro Operativo
 Comunale” -
 Municipality
 Operative Center).
 In 2020, the
 municipal offices
 and other services
 are in the same
 area along the Via
 Salaria road but
 inside containers.

Tools for social and design research

The first interest in the earthquake matter had arisen as a consequence of the direct experience of the one of 24th August 2016 and the participation in the volunteering work that followed.

In November 2016 a chance happened to visit the small villages between Lazio and Marche regions travelling on the older streets non affected by the earthquake as the viaduct of this mountainous territory. At that time all the services such as the Municipality offices of Accumoli were still held in tent camps and the most destructive effects already happened (October 2016). A strong interest on how the population’s reaction to the loss of the build environment arose in parallel to the question of how to keep alive the memory of the destroyed places. The question of “if and how” reconstruct is not here the topic of the analysis even if it was interesting to hear the people’s opinion on this as well. As this research’s aim is to propose community-focusses urban answers for the post-seismic trauma, it was necessary to study the social effects and the population’s point of view on the earthquake matter more than anything else.

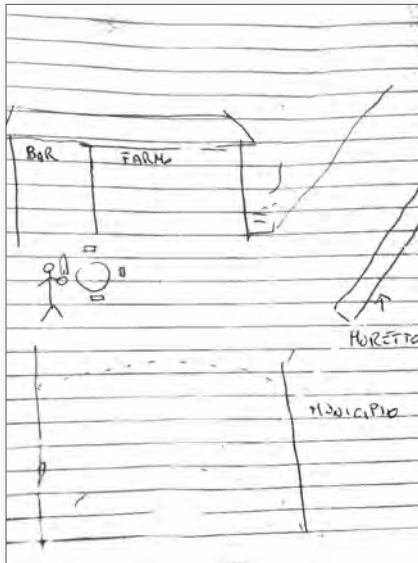
The interest for social effects was clear but how to approach the population was not. The very first study of this thesis was on the types of interviews. To achieve deep information about the daily social life of the past and present of the inhabitants of Accumoli the partially-structured interview was the chosen method. In addition, a walking interview with the residents in the “Zona Rossa” (Red Zone) was another aim which happened to be possible thanks to Municipality of Accumoli and the cultural association of “Radici Accumolesi” (Accumoli Roots).

This choice was made in parallel to establishing which type of information to collect. The choice to gather qualitative data (Silvermann, 2007) was due to diverse factors, for example the lack of means to carry out a wide survey with questionnaires to the whole population. Also, the in dept-interview would contain a lot of detailed information that in a small community like Accumoli could be enough for general assumptions. In line with this approach, the



“The little wall” of Accumoli in Diaz Largo, one of the most lively spaces of the village in the memory of the inhabitants. Sketch of G. Funari, resident of Accumoli before and after the 2016 earthquake.

Journey in the some of the devastated villages: Arquata del Tronto, Accumoli, Colle, Faete, Grisciano, Illica, Pescara del Tronto and Poggio D’Api



analysis would focus on the study of processes to mainly understand the reason behind certain statements and behaviours more than the distribution of these.

After these considerations, a draft of the interview is created. There were clusters of topics or macro-models (Corrao, 2005) arranged according to a hierarchy of priority for the study (meaning the relevance of the information expected in the answers). The choice of the subjects to be included in the interview is generally very important and not so simple (Tusini, 2006). In this case, it was complicated because the final focus of the research project was not fully defined but it was going to be based on the findings of the analysis. So there is a wide range of topics, some of which have not been developed afterwards or not discussed with all the people; this happened as their irrelevance started to be obvious after the first interviews (for example safety, reconstruction methods, types of emergency houses etc.). The selection of topics was based on the literature on the psychological perspective on the consequences of natural calamities (Fenoglio, 2003), the phases of post-disaster trauma (Gordon, 2004) and the social analysis of the recent case of L’Aquila earthquake of 2009 (Castellani et al., 2016). All the interviews followed the same draft but the one with the psychologists of the no-profit association PSY+ due to their specific knowledge and outsiders’ point of view.

The interview had to have a colloquial tone, especially with the residents to establish a sense of comfort, openness and trust towards the author: «This list of questions,

next page
Accumoli, “Piovan” community room, Meeting of the residents’ committees, July 6, 2019. Attending this event was the first step to approach the population.



frequently, can be placed in an order different from the established ones, because the interview will follow the indicated course by the interviewer: if he anticipates an aspect of the track, the interviewer will generally adapt to the trend suggested by the interviewee. This shift will be simpler and more spontaneous when only the interviewer has hand track, not interviewed.» (Corrao, 2005, p.14). For this reason, the topics of the interview were rearranged following a more logic and conversational order so the conversation would feel more natural. It was then time to actually contact the residents and the Municipality of Accumoli. Websites and social media were the first tools before going to the site. To start the analysis there was the need for a “prompter”, «*suggeritore (testimone qualificato o informatore)*» (Tusini, 2006, p.97) who would be able to report the persons to be interviewed, possibly giving indications of a typological nature. This was the case of Adriano of the cultural association of “Radici Accumolesi” who named and shared the contacts of a resident of Accumoli, a volunteer from the no-profit ActionAid and the president of the association author of history books on Accumoli. From here on the selection of the interviewees followed the “landslide” method, «*a valanga*» (Tusini, 2006, p.97): the subjects were asked about other people with specific characteristics who might be willing to be contacted; so a list of people to interview was outlined. The next respondents were asked the same question until the sample was considered saturated and mixed (shop owner, resident, Municipality member, church representative etc.). At the same time, direct enquiry to people while surveying the area resulted in informal

Draft interview by theme (residents only)

MACROMODEL: In this analysis phase: **max relevant topic** > **min relevant topic**

SOCIAL ACTIVITIES	Free time before /after 2016
	Social and religious events before/after 2016
	Cooperative and associative tradition at the social and /or economic level
COMMUNITY	Vulnerable groups
	Integration between ages
	Old and new groups
	Employment/unproductivity
	"The community I wish for"
	New problems
	Danger, violence, theft, exploitation
THE OLD VILLAGE	Choosing the S.A.E.: based on what criteria and if today they are still satisfied with the choice
	"Up and down" village in the mountains
	Architectural and territorial landmarks/ panoramic (relation to the landscape)
	Socialization places
RECONSTRUCTION	Symbols, rituals, ancient values
	Community reaction: Commitment to rebuilding the environment, networks and social groups
	Public reconstruction as a possibility of equity
	Perception of time needed to rebuild dwellings
	Reconstruction "how" and "where" was
	Future use of housing solutions
TERRITORY	Reconstruction: how much responsibility, how much participation, how much freedom of design
	Scientific information on the danger of the soil: choice of where to rebuild
	Assessment of existing services
	Infrastructure network, daily mobility, public transport
	Self-sustaining (how?)
EXTERNAL HELP	Service needs and social infrastructure
	Demoralising external actions compromising the sense of dignity
	Social prejudices by rescuers, decision-makers (external aid)
	Social prejudice by journalists and scholars (false news)

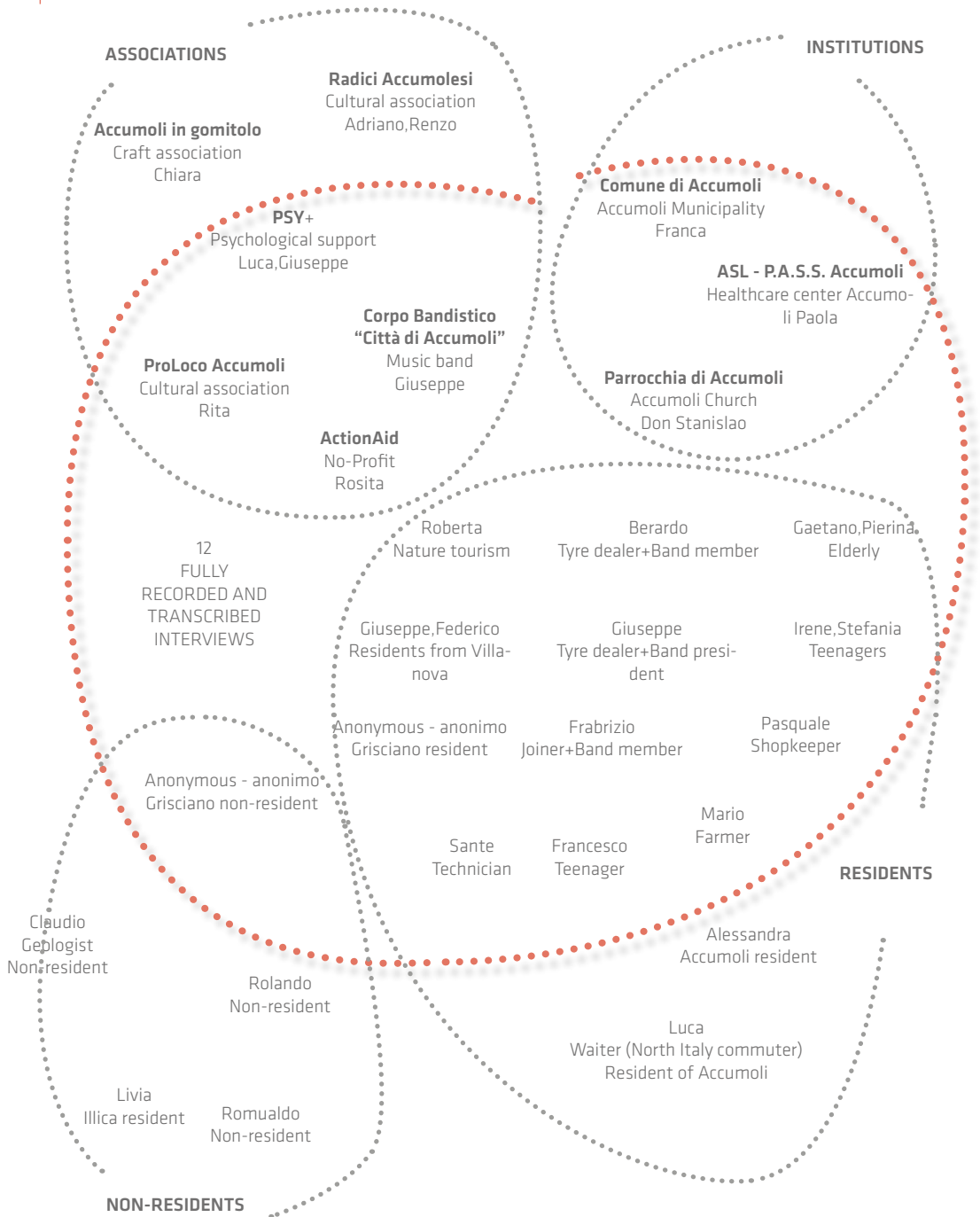
conversation and sometimes ended in arranging an appointment for an actual interview. The first approach to the residents was the invite from the "prompter" to attend the Committees of residents' meeting on the 6th of July 2019 in the temporary village of Accumoli. Around 50 people attended, whose only 10 were actual residents. At the event, the main topics of the research were explained publicly and contact forms were handed out at the end of the meeting. Few residents filled the form (3 out of 10), other people stated not to be residents but still willing to help, others felt unhelpful for the research, others didn't get in contact. Some of these people actually shared information and material later on in the year. Before the survey of the project area and the interviews, just basic information about the territory and population were collected: territorial, historic maps and seismic risk maps, folk story, traditions, population data and other general features of Accumoli. This choice was made to better appreciate what the people would talk about and consider

Draft interview in discursive order (logical/operational)*	
Q. #	
0	Specify today and 2016 residence
1	Choosing the S.A.E.: based on what criteria and if today they are still satisfied with the choice
2	Old and new groups
	Vulnerable groups
3	Integration between ages
	New problems
	Employment/unproductivity
4	Danger, violence, theft, exploitation
	Social and religious events before/after 2016
	Cooperative and associative tradition at the social and/or economic level
	Free time before/after 2016
5	Symbols, rituals, ancient values
	Architectural and territorial landmarks/ panoramic (relation to the landscape)
	Socialization places
	"Up and down" village in the mountains
6	Infrastructure network, daily mobility, public transport
	Assessment of existing services
	Service needs and social infrastructure
7	Perception of time needed to rebuild dwellings
	Future use of housing solutions
8	Reconstruction "how" and "where" was
	Scientific information on the danger of the soil: choice of where to rebuild
9	Public reconstruction as a possibility of equity
10	Community reaction: Commitment to rebuilding the environment, networks and social groups
	Reconstruction: how much responsibility, how much participation, how much freedom of design
11	Self-sustaining (how?)
12	Demoralising external actions compromising the sense of dignity
13	Social prejudices by rescuers, decision-makers (external aid)
	Social prejudice by journalists and scholars (false news)
14	"The community I wish for"
15	Free comments

*Informal tone; avoid reading questions; take only the list of themes as a reference. More outlined questions will be elaborated based on the feedback by first respondents about clarity and relevance of themes and the questions.

important; this was to avoid thinking "from above" (as planners often do) and take notes only of the places mentioned by the people, not what it could be relevant for history books or artistic evaluation.

In July 2019 the temporary village of Accumoli and its surrounding villages were surveyed. Most of the interviews were carried out in a week. Unfortunately, there wasn't the chance to actually "pre-test" (Corrao, 2005, p.9) the body of the interview; an informal conversation with similar topics was accomplished with Federico (resident of Accumoli) who was then formally interviewed later on with his family. Roberta was the first person to be formally interviewed.



DRAFT INTERVIEW ACCUMOLI PSYCHOLOGY TEAM

- What are the characteristics of the population (culture / attitude) that in the case of Accumoli have improved the situation for individual people and/or the community? Which characteristics worsened the situation?
- Which groups were most affected by the trauma of the earthquake in Accumoli, and which are more focused on the future?
- Does the earthquake truly unite the population affected by it, or is this just a “honeymoon” phase?
- Do the old conflicts between citizens that resurface after (and despite) the earthquake indicate a subconscious search for the previous normality?
- When do people shift from having a single/individual identity to a collective one? Is this process in some way reversible/ambivalent?
- How strong is the identity value of the lost architecture and landscape for the inhabitants of Accumoli?
- Would reconstructing “as” and “where” it was before risk creating a fiction of reality, given that the community has changed while the old town is being rebuilt “just as it was”?
- Rebuilding “where it was” might mean having the same old views of the landscape: could this alleviate the trauma?
- Rebuilding “as it was” might mean proposing the same buildings again, whereas the inhabitants have changed, tracing the same layout of the buildings when the public spaces between them will no longer be experienced by the same people in the same way. Reproposing the same “urban layout” when some residents are no longer there and ties have changed, can this be depressing and disorienting?
- Participatory design by public construction could make citizens participants and protagonists in the reconstruction. At the end of the process, the new post-earthquake architectures could have a more deeply felt identity as their own and recognized by the population. Is there a widespread feeling in Accumoli of not being consulted for reconstruction and/or being abandoned?
- The “top-down projects” coming from external aid or government choices (C.A.S.E. - L’Aquila) where the population had no say: is it hard to accept help? What kind of aid demoralizes people (e.g., used clothes)?
- Does the proximity to the destroyed town help overcome the trauma by “exorcising” it? On the other hand, does the “forced” distance in some reconstruction examples (C.A.S.E. - L’Aquila) generate anxiety and disorientation?
- Further free comments.

The walking interview was carried out with a member of the Municipality and one from “Radici Accumolesi” in the Red Zone which is the original centre of the village. During the visit of what was left of the village, it was asked to the residents to describe what used to be there and specifically which activities they would do there before 2016. This information would then be completed by other residents, such as Francesco (19) of Accumoli, to map the residents’ homes before and after the earthquake just recalling memory of the place. All the interviews were done after the subject’s signature of a privacy agreement form as they were going to be recorded.

Subsequently, the qualitative data collected were re-elaborated and compared with more official sources. A deeper analysis of the old and new village of Accumoli followed up. A second visit to the temporary village and additional interviews happened in September 2019 which were helpful to confirm and better understand the information of the previous ones.



Accumoli
Red Zone, Via
Tommasi with
city tower, July
2019.

Accumoli Red
Zone with two
residents, Via
Piave, July
2019.



Interviews transcription was done fully in order to keep a record of the actual feelings, opinions and needs of the people. The full text can, hopefully, be useful for future researches and interpretation. It should be noted that the interviews were conducted in a more or less formal manner according to the role of the interviewee and the level of confidence obtained by them towards the interviewer. Some interviews had personal content unrelated to the research that has been removed. The rest of the content has been reported in full according to a choice based on the method of qualitative research. Dialect expressions have been reported in Italian.

The analysis of the design outcome of the temporary village “Accumoli S.A.E. Capoluogo” was fundamental. The survey provided most of the photographic material to analyse the town appearance and layout at “man’s eye view”. Residents have been supportive in providing photos of activities carried out in the new village and other images of the settlement. The layout of the new town was derived from Google Earth Pro (2018). In support of these images, photos of the plans of the village, published by the Municipality for the results of the assignments of S.A.E were used. It was not possible to find technical drawings of the village but only of the various types of S.A.E. from the manufacturers. Several companies worked in the urbanization and installation of S.A.E. in the village.

The data on territory, seismic and hydrogeological risk have been derived from the Regional Technical Map (2009), the Seismic Micro-zonation Maps of Level 3 (2018) and

the Maps of the instability and flood risk areas (2007). The town plan before 2016 is represented in the Land Registry of Buildings and in the General Development Plan (2002) provided by the Municipality of Accumoli in paper format. The Land Registry in digital format was provided by Seipa s.r.l. and Geores s.r.l. with the drone photogrammetric survey (2018) donated to the Municipality. Historical maps (1935-1959) of the town and hamlets were scanned at the State Archive of Rieti, where that of Accumoli was transferred after the earthquake; these were then donated to Radici Accumolesi. From this research, there are no variations in the plan of Accumoli in the last 150 years apart from the construction of a parking lot (2010) by the Civic Tower. There was also a recovery proposal for S. Francesco square, never started because of the earthquake. The drawings of these projects (by Studio Bianchi Architettura) gave data on the heights of some buildings. This data was problematic because not many drawings of the facades of the buildings were found: the section of the personal archive of the Arch. Anibaldi is an exception. On the contrary, many photos of social activities in the village were provided by residents. Google Earth Street view (2011) was a useful tool to approximately measure the elevation of buildings and the altimetry of public spaces even if only in car accessible part of the town.

The lack of accurate measurements and the low relevance of buildings dimensions for the analysis of gathering spaces support the choice of a simplified graphic style. In addition, information in this text are also based on the memory of people, often shared, but sometimes contradictory and labile. The attempt to take the point of view of the residents is expressed not using a properly technical style but a simpler and synthetic one. Finally, the aim of this research is not to propose comprehensive directives for the temporary towns, but to suggest tools and reflections; it therefore seems more appropriate to have a graphic language more similar to a sketch.

In the end, the amount of information was large and the process of selection and summary was very long. This process is part of the proposal as this text is a first step towards the outline of tools to face a post-seismic emergency. It was important to experience the process of selection and to be aware in hindsight of what is relevant and what it is not in this scenario.

Social and demographic analysis

The social analysis was carried out with a direct approach towards the population through in-depth interviews. The aim was to gather information that cannot be found through literature, studies and newspapers: the direct experience of the residents of the case study. Before proceeding, social-based studies of similar situations, first of all the case de L'Aquila, were consulted to have examples of methods of approach and analysis.



Sketch of Accumoli through Via Tommasi and its architectural section. The sketch style represents only a synthetic view and a rough dimensioning of the buildings, enough for the type of analysis carried out in this research. Unfortunately not many drawings were found of buildings elevations.



Courtesy of Arch. Anibaldi

The topics of the interviews concerning the social aspect of the impact of the earthquake were a lot since this is the focus of the research. Therefore, the aim was to understand what were the leisure activities for individuals and those that brought people together, which were the places of gathering; the traditions and events to which the population was most fond. Which groups are present (official and spontaneous) and if they have remained, which are the most fragile and the most influential and how they changed after the earthquake. Also details on discomfort in the daily life emerged: this information level could be reached only with in depth interviews. The people's life of this town, like that of everyone, was made up of small moments and not only of celebrations: recreating the normality of everyday life is a big obstacle in a post-earthquake scenario.

Later on, statistical data on the social composition of the municipal territory were collected. These confirmed the depopulation due to the lack of opportunities mentioned by the residents. The definition of "elderly" population is justified, given the very small number of school-age young people and the very high number of elderly people.

Population

The population of the Municipality of Accumoli reflects the general trend of Central Italy as shown below. The earthquake of August 24, 2016 affected four regions, six provinces and 17 municipalities. The municipalities that have suffered serious structural damage extend on an area of 1,728 km² where they reside just under 25,000 inhabitants¹. Of these, 28.3% is at least 65 years of age, 6.3 percentage points higher than the average recorded over the entire national territory. The percentage of the population aged 14 and under is about 10.2 compared to 13.7% in Italy¹.

Next page - left
Accumoli, Via S.Giacomo, 2000s. Playing cards used to bring everyone together. It's not done spontaneously much anymore in the temporary village.

Next page - right
Accumoli S.A.E. square of the church, August 24, 2018. The traditional events are a sign of recovery and an invite to social cohesion.



Here there are general considerations on the population of the whole Municipality of Accumoli as it is not possible to extract data for Accumoli on its own. The values compared are mainly those between 2015 and 2018, as these are considered the useful sample years because the seismic swarms started about halfway in 2016 until the beginning of 2017.

The population of the entire municipality of Accumoli numbered 667 people² in 2015 and 612 in 2018 on a municipal area of 87.37 km². It must be said that in the last municipality elections in May 2019, only 413 people voted, which is the 75% of the residents¹.

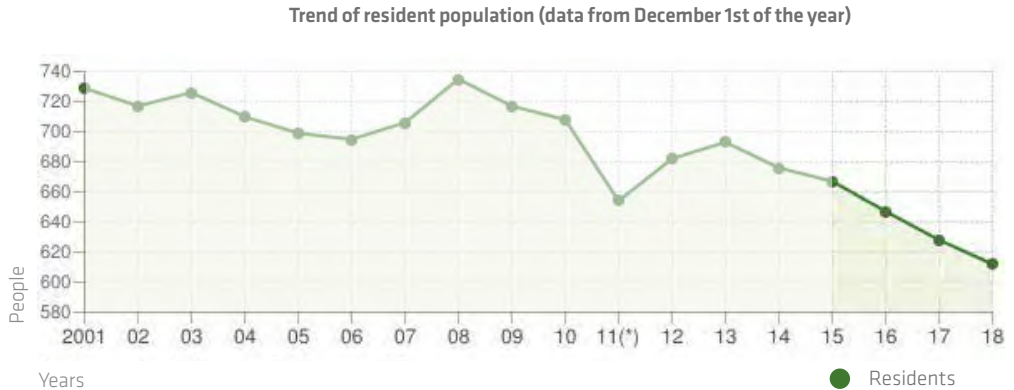
In 2015 there were more married men and women and more widowers, with a clear majority of women². This value varies in 2018 for a decrease in the population between 70 and 84 years old. There are also less people in the wide age range between 74 and 40 years old, where there are fewer married people, in particular fewer men between 45 and 55 years old and fewer women between 40 and 59 years old. In the younger age groups, there is a decrease in women in the age between 20 and 34 years old, while that of men is less evident. Teenagers (10 to 19 years old) the population drops slightly for both males and females. Between 0 and 10 years there is a drastic drop.

The data shows that there was already an old population in the area before the earthquake where about 30% of the people is over 65 years old. The number of school-age young people³ (0 to 18 years old) was 85 in 2015 and 74 in 2018. Also the generation turnover seems to be weakened by seismic events.

The average of family members remains unchanged but about 30 families have abandoned the territory³. The total migratory balance from 2002 to 2018 fluctuates between

¹ Council elections in May 26, 2019 - SkyTG24: https://tg24.sky.it/speciali/elezioni/italia/comunali/2019/lazio/risultati_accumoli.html

² ISTAT dossier "Characteristics of territories affected by the earthquake of August 24, 2016".



-19 (2009) and +38 (2008). During these years only five balances were positive and 12 negative, which demonstrates the process of depopulation.

Foreign people makes up about 10% of the population, ranging from 11.4% in 2015 to 10.6% in 2018³. About 10% of these people comes from Africa and the rest from Europe. The main emigrated nation is Romania (around 70% over the years). In 2015, Albania was second with 10% falling drastically to 1.5% in 2018. Other countries are (in descending order of attendance): Poland, Republic of Macedonia, Guinea, Morocco, Tunisia, Ukraine. The share of foreign residents in the area (7.5% of the population, compared to 8.3% in Italy) is lower than the average national figure, reaching 1,873 units at the end of 2015.

³ ISTAT Data Warehouse, 2019 Population census

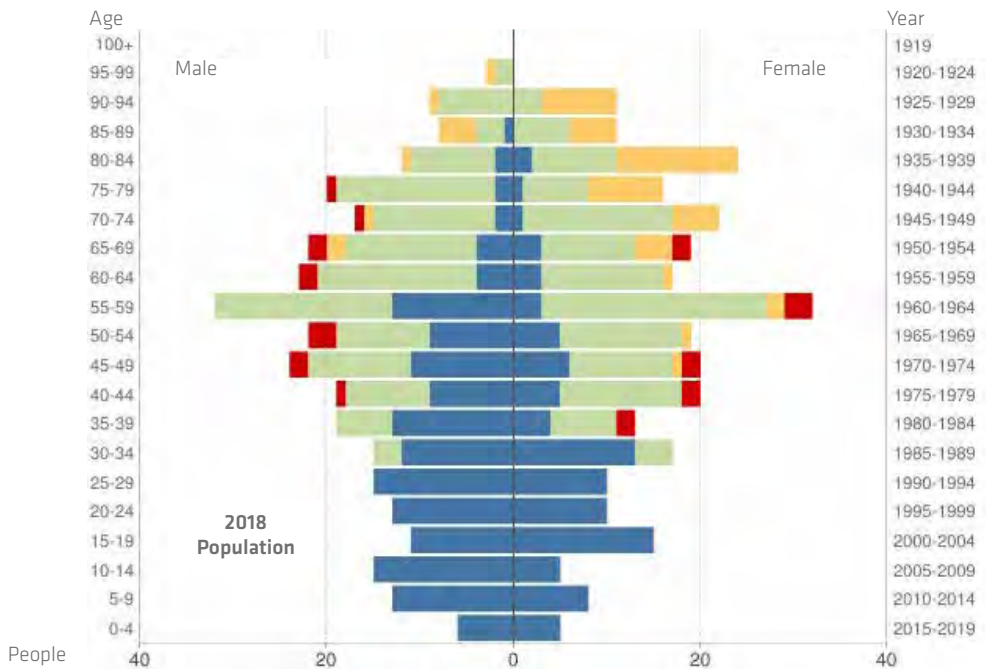
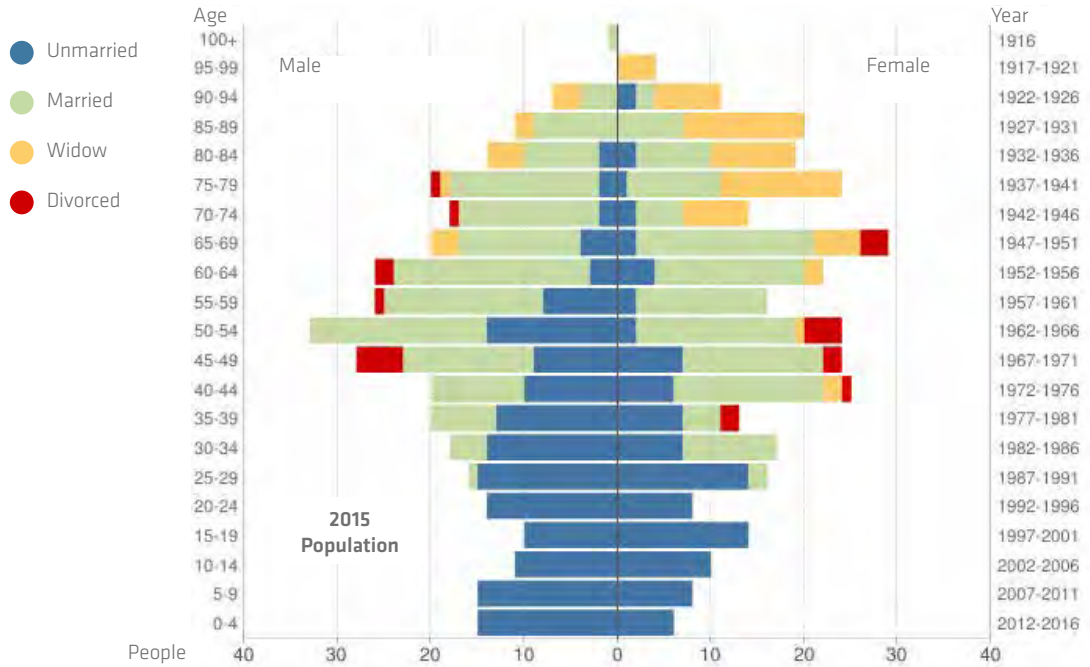
Population trend	2015	2018
Inhabitants	667	612
Density (pp/km ²)	7,63	7,00
Number of households	356	327
Average household members	1,87	1,87

Age trend	2015	2018
Ageing index	291.9	341.8
Aged dependency ratio	75.1	63.1
Birth rate (x 1000 pp.)	6	6.5
Mortality rate (x 1000 pp.)	17.9	16.1

Life trend	2015	2016	2018
Births	4	0	4
Deaths	12	4 (earthquake)	10
Natural balance	-8	-18 (lowest since 2002)	-6

Year	Age 0 - 14	Age 15 - 64	Age 65 +	Tot. Residents	Average age	N° of Families	Average members
2015	65	390	212	667	50,6	356	1,87
2016	57	384	206	647	51,0	346	1,87
2018	52	366	194	612	51,0	327	1,87

Year	Residents	Density (pp./km ²)	Abroad migration balance	Total migration balance
2015	667	7,6	+7	-1
2016	647	7,4	+4	-2
2018	612	7,0	+4	-10



Accumoli S.A.E. - Chief town

This research takes in analysis only the town of Accumoli and consequently only the temporary village “Accumoli S.A.E. - *Capoluogo*” (chief town). Also people from the hamlets currently live in it: so the tendency of the population of the entire Council could not be completely ignored. A direct comparison of the population of the village of Accumoli alone before and after the earthquake is not feasible since it was not possible to get specific data of the isolated urban center. Given this condition, the analysis of the population of the temporary village develops from the current state and, where possible, it is compared with that on the territory before the earthquake.

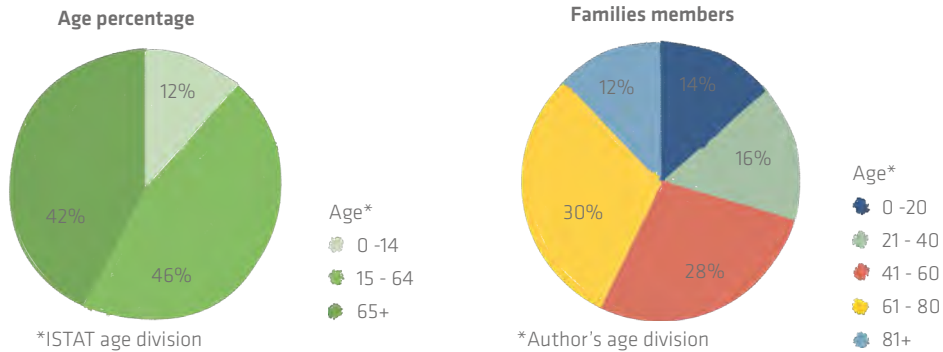
At the time of the survey, 146 people in 64 families inhabited this S.A.E. village: the average number of members per household is therefore 2,2, higher than the generic value of the Municipality (1,8). There are a carer for an elderly person and a volunteer from Caritas in the town.

Two types of age division are proposed. The first follows the one adopted by ISTAT (0-14, 15-64, 65+ years old) to facilitate comparison with the data relating to the municipality as a whole. A second division is then carried out to present a clearer picture of the ages; these ranges better reflect the reality of the village, adding a category even in the most older age group because of the strong presence of elderly: 0-20, 21-40, 41-60, 61-80, 81+ years old. This additional division helps to better understand the spread of certain needs. For example, it is assumed that the 61-80 age group can represent pensioners, the 81+ one people that need care while the younger group those who attend school or are looking for a job. Also the types of activities for socialization vary so much according to age that a further subdivision seemed appropriate.

It is important to be able to identify the incidence of the most vulnerable age groups in the post-earthquake. In the interviews reference is made to the teenagers and the elderly as the most in difficulty. For example, Rita (49 years old) describes how, in her opinion, these are the most fragile people since the emergency to current days: «The elderly were mostly put aside. And there are many in this area. And now the teenagers. Those 16/25 years old. [...] The children were a bit more pampered. [...] The Civil Protection, the psychologists, Caritas itself, did not pay attention to the elderly. Not even teenagers. [...] in some homes there are lost teenagers, who do not know what to do. Maybe sometimes they gather but the idea always starts from them. Caritas could, as they did last year, organize events calling these age groups.» (2019). Irene states (19 years old) that teenagers needed and need support, activities and projects: «People aged 15 to 21 were completely shelved, thinking that we didn't need anything. I would have so needed psychological support [...]. They were [psychologists] in

Social members					
Year	Age 0 - 20	Age 21 - 40	Age 41 - 60	Age 61 - 80	Age 81 +
2018	20	24	41	44	18

Families members							
Year	Age 0 - 14	Age 15 - 64	Age 65 +	Tot. Residents	Average age	Families	Average members
2018	17	67	62	146	50,4	64	2,28



San Benedetto, they arrived here just a short time ago. I think that they arrived here with the project we mentioned before: the cultural activities, photography etc.» (2019).

About working age young people and adults, after the earthquake there are few jobs that offer them new opportunities to stay in the territory as explained Paola (50+ years) of the Health Center of Accumoli: «[...] The majority of young people who have remained instead work in construction with companies that have been involved in demolition, very little in reconstruction. The few young people left are mainly engaged in these two activities [restaurant and construction].» (2019). Federico (37 years old) explains his point of view as he is in search of work: «Here there could be something positive after the earthquake, as these are areas that were dying before as well, from where the young people had left, with an elderly population, the situation could be developed in another way. Valuing, making factories come, bringing investors who under the earthquake know you, bring jobs.» (2019).

In general, depopulation has been a scourge for years and it is reflected in the school age groups as explained by Franca (65 years), mayor and former teacher: «When I came here in 1980, [...] there was also a middle school. Then, because of depopulation, we lost the middle school and only primary school and nursery remained. But they were “one-class”

then, over the years, with the decrease of children, we arrived now, before the earthquake, with a clas of kindergarten school and two multi-classes that were in the new building. [...] I have seen in 40 years (which in the end is not such a large time span) a massive decrease of inhabitants but especially in the young ones. So Accumoli was formed by a community of very old people.» (2019).

Interviews

Using a list as explained in the chapter on the method of analysis, during the interviews several topics were touched upon in order of relevance. Among the first listed themes the ones that directly concern the social aspects of the post-earthquake compared to former situation. The interviews were done rather informally to make the interlocutor feel at ease; a more formal tone was maintained with representative people. This context allowed the addition by the resident of themes and comments not listed, highlighting some factors not foreseen at the beginning of the analysis.

The text of the interviews is graphically summarized with “word clouds”: central and bigger words are the most repeated by the interviewee. Words with little significance, without context, conjunctions and the like have been deleted. In the case of a short interview, the text in the image is less dense and the main words appears larger but this does not imply a greater relevance compared to other word clouds. It is clear that the words repeated many times are not always the most meaningful ones, but this images can be a direct way to understand which themes are most important to the various residents. In the next pages there is an explanation of the opinions and most frequent topics in the formal conversations (which the full texts are in the Appendix) and in the informal ones during the inspections. Below there is a list of the most commonly used words, in random order:

Bar	center	evening	population
San Benedetto	road	L'Aquila	resident
SAE	kids	houses	territory
Music band	difficult	reconstruction	mountain
square	Council	project	de-population
church	near	hotel	re-location
earthquake	outside	problem	nothing
Rome	fractions	money	shops
village	place	euro	housing solutions
before - after	Via Salaria	Accumoli	

next page
Examples of
workclouds
generated by
interviews.

These words are part of conversations on topics proposed by the interviewer and the interviewees themselves. Among the long list of topics proposed in the interview track, these are those on which respondents, and in general the people met, have placed more emphasis and spent more time to respond comprehensively:

- Leisure activities before and after 2016, both individual and as a community;
- Gathering places before 2016;
- Traditions and events before and after 2016;
- Formal and spontaneous social groups before and after 2016;
- Integration between age groups before and after 2016;
- Patronage
- Post-earthquake reconstruction.

In addition to the topics chosen for the interview, people spontaneously proposed other themes during the flow of their speech. These are fundamental elements of the research because they were not anticipated, considered relevant or discovered before direct analysis. Here are the most often topics added by respondents:

- Welfarism;
- Problematic hotel stay;
- Division of the community already before 2016;
- Psychological support;
- Absence of non-residents;
- Problematic accessibility in the old village;
- Addiction to alcohol, drugs and gambling;
- Relocation due to the earthquake;
- Depopulation already underway before 2016;
- Unease supplying from local shops after 2018 (opening of the shopping center “Monti della Laga”).

It is recalled that the sample of respondents represents a small number compared to all inhabitants, with a ratio of about 1 to 10 but with a high level of variety of the type of interviewees (shopkeeper, resident, non-resident, member of the Council, technician, young, elderly, unemployed, representative of the church, etc.).

There may be many opinions on the various aspects of life before and after the earthquake in the personal sphere but there are some that are widely shared. Here an attempt to summarize the points on which most people seem to agree.

- Bringing together the inhabitants:

In hindsight, the population probably should be grouped in a single town or more larger

next page
 Accumoli
 music band
 (that recover
 instruments
 from the rubble)
 plays with the
 choir in front of
 the inhabitants
 in the first
 emergency
 tent. Behind
 the musicians
 bundles of
 donated food.
 Tent camp of
 Accumoli, 18
 Sept, 2016.

centres, in points closer to the main street, with integrated services and shops. Due to the small number of residents, this option seems to make sense as Pasquale (60), and many others, says: «They sent us to the hotel, two more months, another four months more. Instead they should have made structures all merged in one place for all, because if in 10 years we are 4 people in Accumoli and 5 in Terracino, when they rebuild, there is no way that there will be villages, because they cannot exist with one or two people. You must make a town for everyone.» (2019). Mario (63) proposes two areas: «[...] “re-doing” Accumoli uphill, has created a strange situation, now there is no bar, no grocery store and there are 7 or 8 social facilities, a school of 1.200.000€: what for? I mean, if from Accumoli, you went to Fonte del Campo and you built a centre with a bar and a grocery store, you created something useful to gather people. Instead, people were spread even more.» (2019). It is important to note that the commercial area and the Municipal Operational Centre are located in an area at medium risk of flooding (Autorità di bacino interregionale del Fiume Tronto - 2007) as well as other areas along the Tronto River. The side areas of the Via Salaria road, which runs along the Tronto valley, are therefore exposed to flood risk. As a result, many flat areas in the valley that could be suitable for the construction of a larger town are often at flooding risk.

- Music band and ProLoco association:

The music Band of Accumoli is the strongest and most numerous formal group both before, during and after 2016, although only limited to Accumoli-born people and unable to involve hamlets. Fabrizio (53) talks about the group in the most difficult moments: «Our luck was the band. [...] While we continued on our way without problems, we went around a lot and we were invited to many other beautiful areas.» (2019). Berardo (70+) concludes: «It's the only reality that exists. It's a cohesive and strong group also because they have created so many associations one in competition with the other, with various rebounds. And in the end nobody does anything.» (2019). The band had great sponsorship and visibility and maintained its function of social cohesion as explained by Giuseppe (32), its young president: «Music has nothing to do with it. The idea is to leave, go, spend a day together. You go to village parties, who knows if you played a wrong note? It's to be together.» (2019). Another formal group existing since before the earthquake is the cultural association ProLoco which unfortunately experienced periods of difficulty due to contrasts, lack of headquarters and support. Rita (49) adviser of the ProLoco, explains with sorrow: «We as ProLoco tried to reunite [people] the last year. [...] We tried to gather these people but...then the earthquake came...we tried. [The ProLoco] turned off because they didn't give us a way to turn on, it's different. We didn't have any



headquarters in three years. [...] Then it got worse. Before at least we did something, we made our parties, we made our festivals. Now no, nothing more. Now if we do something practically we must ask permission here, permission there: we must do anything and everything» (2019). The result is a lack of activities that would bring people together and make them play an active role.

OFFICIAL GROUPS		
BEFORE	MEANWHILE	AFTER
Choir	Choir	Choir
Music band	Music band	Music band
ProLoco cultural association		ProLoco cultural association
	Knitwear group	
Amateur theatre actors		

INFORMAL GROUPS		
BEFORE	MEANWHILE	AFTER
Card players	Card players	Card players
“little wall” goers		
“public gardens” goers		
Kids hanging out at the sport fields in Grisciano		Kids hanging out at the sport fields in Grisciano
Bar goers		Bar goers

-Contrasts and parochialism:

Even before the earthquake the population was divided by grudges and discussions over the years between various groups, organizations, families and individuals. The loss of estate due

to the earthquake, the management of aid and the choices of the administrations have further cracked these fractures and created new ones. Very few cases in which the earthquake seems to have brought people closer together, as Rita's (49) of the SAE village of Fonte del Campo 1: «I knew them [people in the village] from sight, others were acquaintances of my childhood, of the school. Here we have created a harmonious climate, we all get along. Because we have understood what the earthquake was for each of us.» (2019). Young people seem to overcome these old contrasts and so there is hope in them as Irene and Stefania (17 and 19) say: «Now we go out with some kids from Accumoli but before there was no type of relationship. It's a bit like Roma and Lazio [rival football teams], there are the typical rivalries of the village. That we like a bit. But then you have to adapt.» (2019). Don Stanislao admits the lack of strength in people before the earthquake: «It is a bit like the house, which is slightly damaged, but until the earthquake does nothing happens, but from the moment the earthquake arrives, it collapses. I think that the lack of attention to the importance of other dimensions [social, psychological and spiritual beyond that material] has increased the problem of today, because if they had been treated by everyone properly, today people would have that strength to go ahead and “fly” over the rubble without getting hurt.» (2019).

- Desolation:

Feeling of neglect in the current state and the loss of hope for reconstruction are now very widespread after three years from the earthquake. Many inhabitants have little desire to speak, a classic attitude for the protagonists of a natural disaster that is actually an “eternal present”: waiver, desolation, annoyance. The desire to protest has also passed, because the impression is that nothing changes. Some look, with bitterness, to a different future like Pasquale (60): «They should make a modern town. The history of the villages has disappeared.» (2019).

- Loss of place identity:

With the earthquake and the construction of temporary villages there was a loss of place identity; there are those who emphasize with nostalgia this loss and those who see a chance to improve what there used to be. Rita (49) looks at the future: «I no longer want to see Fonte del Campo. There is no longer such thing. [...] There is no more identity of that town. Why should I have to give that identity back to it today? To remember that past? I want to live in the present but I want to live in the future too, which is different from [the past].»(2019).

- Shopping is complicated:

The shops should be integrated with the residences instead of creating a service centre

detached from the population. In the commercial area Monti della Laga there are some shops, services and three grocery shops, all overlooking the access open space and parking along the Via Salaria. This makes the inhabitants uncomfortable in choosing to which shop go to because the shopkeepers are all their friends and acquaintances: they do not want to generate arguments and grudges. This difficulty, although superficial in appearance, is shared by various age groups such as young people (Irene and Stefania, 19 and 17) and elderly (resident of Grisciano, 60+); the latter explains: «Home delivery is fine. Once a week we go here to the COC [Shopping Center Monti della Laga] but it is a bit...there are three shops. Who do you go to? I am a friend of all three. I go a bit to one and a bit to the other. [...] but for those who do not have comfort? I drive. Beforehand, Grisciano had two grocery stores and the restaurant. Now to go there you have to take the car and where does the old person go shopping?» (2019). Some owners of grocery shops, bakers and greengrocers spontaneously started the door-to-door sale almost every day in all SAE villages to serve especially those who have mobility difficulties. The distance of about 2 km between Accumoli and the shopping area no longer allows you to create an excuse to go out and meet someone for everyone but only for those who are able to drive as explained by Roberta (57): «The shops are down [Via Salaria]. We [Accumolesi] don't like it very much. Apart from the fact that Accumoli had the shops, then 80% of it is inhabited by elderly people, who don't have a car, they don't have a vehicle to go with. Even the fact that now the Region brings spending home, is not a solution, because spending is communication.» (2019).

- *“Forced cohabitation” in hotels:*

Life in San Benedetto hotels seems to have been difficult for many people, not used to be in almost constant contact with their fellows, especially those with whom they never got along. The limitation of privacy and intimacy put a strain on people who had to learn, for example, the turns for the washing machine when before the average size of a house was 100m². Giuseppe (32) gives an example: «In a normal situation if someone makes a joke you turn around and go home and you don't think about it anymore, instead staying there [hotel] all night talking to each other and then there is a discussion and then someone reports wrong facts...» (2019). Moving from mountains to sea is not to be underestimated: after at least 7 months for most of the earthquake victims, staying on the seaside no longer seems a holiday, but it becomes disorienting.

- *Welfarism:*

During the stay in the hotels a disruption in people's routine and life management happened. Without a job, housework or garden, with meals ready every day and activities organized by non-profit organizations, especially the elderly, lost autonomy and become disoriented. That

next page
 Bar Momy,
 "Monti della
 Laga" Shopping
 Center, Via
 Salaria, Km.
 141.600, July
 2019. The
 historic bar of
 Accumoli has
 reopened in
 the commercial
 and services
 area in one of
 the containers.
 It no longer
 seems to be a
 strong gathering
 point since it's
 necessary to
 drive to reach
 it. Many people
 stop to drink
 after work and
 then drive home.
 A slot machine
 room is in the
 back of the bar
 and an equipped
 space outside
 in front of the
 entrance.

the psychological support associations carried out community empowerment activities, during and after this stay, confirms this trend. Rita (49) describes the elderly people in the hotel in San Benedetto: «I went to the hotel to visit some old people, they stood up at the ringing of the dinner bell. They become robots.». Berardo (70+) is blunt: «Too much assistance has been given. I spoke to a professor in Camerino, and he said that a hundred years ago, when the earthquake struck, every farmer would take back his hens, start digging his field and get back on his feet. But with all this assistance, the demand is to have even more assistance. So it happens that one has a little more and another a little less and envy starts...» (2019).

- Patronage and speculation:

As is often sadly the case in emergency situations, aid does not reach everyone in the same way. Attachment to donated goods is a symptom of fragility: an extreme sense of survival appears once everything is lost. Quoting Federico (37) there were "A and B level earthquake victims". Sante (58) makes the example of the removal of rubble as an occasion of speculation: «In Grisciano there were the military, then a contractor, then another contractor, then another contractor. Then when the cousin of the one who enters last arrives... [he must take away some rocks as well!].». Roberta (57) summarizes this situation: «The earthquake was just a business and yet it must only be business.» (2019).

- Lack of services:

Public transport has always been minimal therefore the car was and is the means to any travel. Services such as bank, post office and medical center were added or improved after the earthquake. The Council offices and the police are in the commercial area along the Via Salaria. Since the emergency, they have not been relocated to any of the SAE villages, being closer to the main road but creating a physical separation of the administration from the citizens. Federico (37) explains the difficulties to take care of the family in the absence of convenient services: «[...] I thought for them [relatives], being old, being in a town like Ascoli, you have all the essential services. So it's not that you say: I don't have a job and I have to move to find it, but I also think of them, because if there is no young man, for the old man there is no service, there is no one who looks after him. It's a chain of events. [We have sacrificed services] only for the affection, if not if you look closer...it's more for them [elderly relatives].» (2019).

- Lack of entertainment and activities:

Mario (63) explains referring to young people in the area: «How many [young people] will be willing to come back to us and make that sacrifice of being locked up in the evening where you can't go anywhere without any kind of entertainment? You want to



go to the pool you have to take the car and do 40km, to go to visit a friend you have to do the same thing, you want to go to eat a pizza it takes a day to go to eat a pizza.» (2019). Giuseppe (32), young resident of Accumoli: «Shortly before the earthquake there were more children. Then it was a time when the young people did not return anymore in summer because they said that Accumoli didn't offered anything.» (2019).

There is also an increase in alcohol consumption, a record of drug use and gambling addiction. Paola from the Health Center explains this trend: «There is literature on the greater fragility towards gambling and all games in populations that experienced traumatic events. [...] But what do we do? We open the arcade. [...] If there was a facility for kids, they would go there because they are naturally inclined to hand out. This thing for example is visible in Grisciano: the guys are on the benches, they are outside...if there was a situation where they can go, they would go.» (2019).

- Isolation:

People do not find a reason to leave their homes and live the public space designed for them. There is little participation in events and recreational activities, especially by the elderly. Among them, someone hardly ever comes out of their SAE as in the case of Pierina (90 years) who doesn't know which buildings that are in the village because she does not even go out for a walk as her daughter Roberta explains: «They put them here at a very high point, while in what is the square or under my house [SAE 15] people stop, here people go straight. They are very isolated. Here they put old people without reasoning. [...] They locked themselves in here and never went out again, especially her. Dad [90] goes out in the morning and goes shopping. She stays here and should go out more.» (2019).

- No guests at all:

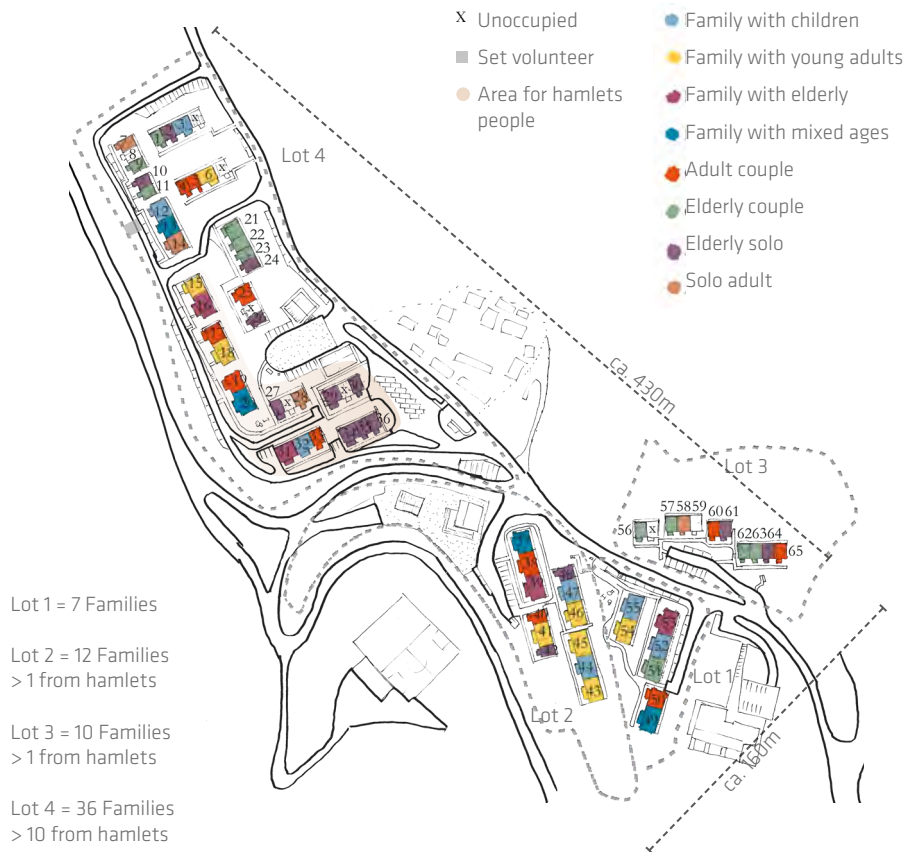
The Mayor of Accumoli Franca (65): «In countries where depopulation has been going on since before [2016], let's face it: the earthquake destroyed us, it destroyed our homes, but at society level, community, we were in crisis even before. Depopulation does this. If you

next page
Accumoli
S.A.E., family
composition.

believe in this territory, you have to give people a chance to come back. [...] It's a long-term investment that will be important for the future. [...] You get 40m² [SAE sized for a person living alone]? I give you 60m² [corresponding to the addition of a bedroom] for someone who will visit you.» (2019). This territory was lively in the summer and weekends, when many relatives and friends came back to visit the loved ones who lived here. There was always a bed to welcome a guest in the family home and this would bring dignity to the home and life itself, as explained by Roberta (57), who doesn't have a guest room in her SAE, like all Accumoli and surroundings. This is a problem for lonely elderly people who don't have a bed for their carer or relative who comes to take care of them. To be reminded: the nearest cities are Ascoli Piceno and Rieti, respectively 45 mins and an 1hr drive, and that many people have moved for work or study in Rome which is more than 2 hrs away. There are 16 families in Grisciano who have chosen houses on wheels installed in the fraction at their own expense. In July 2018 was inaugurated the rest area for non-residents of Amatrice's hamlet Configno: the owners of the destroyed houses, almost all residents elsewhere, but in many cases born and raised in the hamlet, obtained concessions and funds from privates for the construction of a temporary village consisting of 21 mobile homes, church, snack bar, common room and public toilets. In Grisciano there are 16 private mobile homes wanted by the non-residents (not ready yet and without facilities). Mario (63) explains how this factor is crucial for the well-being of people: «We are talking about simple people who had nothing before, then after creating something out of the blue, they found themselves with nothing and without physical strength. You don't even have a chance to host your family anymore, and I think that's psychologically very devastating. [...] I think it is regardless of age.» (2019).

- Accessibility could be better:

The village of Accumoli was on a spur of rock on a very steep slope: stairs, steep ramps, uphill streets and squares were part of it. This caused movement difficulties for many people, despite the small size of the inhabited area. The new village of Accumoli partially loses the "ups and downs" typical of the mountain village but it has a greater accessibility of routes, although not always fully comfortable for everyone. Roberta (57) makes a comparison: «We lived in an uphill village, but it was never so uphill and isolated. You find yourself completely out. He [father, 92 years old] manages to move because he has a car, he goes shopping and so on. I involve him a bit in my stories. Mom [90] instead goes out less, in fact, does not go out at all.» (2019). Don Stanislao tries to be objective: «If I have to give my personal opinion on how the town of Accumoli is built, I must say that I like it a lot. I mean visually, because the houses are not on the same level. Looking at this



village in the context of the mountains that surround it, with all the lights that still light it up in the evening, it really touches the heart. [...] If we talk about the stairs and so on, certainly one appreciated what there was before, or rather, appreciates it now. It used to be despised, because stairs, especially for older people, were a problem. Now that they are gone, they [residents] remember them so nostalgically. [...] We can say that among the beautiful things that we have after the earthquake and that we did not have before, is the fact that we do not have stairs. Accessibility and the ability to move is a great advantage in my opinion. By saying this, I find myself a bit uncomfortable because it is as if it is forbidden to speak about the positives.» (2019). Other villages have inaccessible paths, such as the case of Fonte del Campo SAE 1: from the car park, it is not possible to approach directly the houses with a rescue vehicle, for example.

- *Depopulation and weak attachment to the territory:*

The 17 municipalities affected by the earthquake are quite small (1,500 inhabitants on

average) and with a population density around 14.5 ab./km² (Italian average 200,8 ab./km²) by virtue of the mountainous connotation of the territory. These towns are characterised by depopulation and ageing. The share of residents with at least 65 years of age is 28.3% of the total (Italian average 22%); the population aged 14 and under reaches 10.2% (national average 13.7%). The incidence on the territory of older people and the contextual reduced presence of young people translates into a greater “weakness” of the demographic structure. Sante (58) gives an example of the CASE project in L’Aquila where he lived instead of going to the hotel: «Progetto CASE is a dormitory with a high level of comfort. I would not stay there for life but I would go back to Accumoli, but if you give me a solution that gives me identity, then I do not come back here [Accumoli].» (2019).

- Lack of job and study opportunities:

The share of employees working in their municipality of residence in 2011 was 65.2% compared to a lower national average (54.0%). This indicates the presence of a local labour market, linked to a predominantly agricultural and family-run economy (over 7 farms per 100 inhabitants against 2.7 of the national value) without offering many alternatives. This is the opposite of the national average of those studying in their commune of residence (66.7% against 74.0%). In line with these data, Mario (63), who works in a farm, explains: «[...] the youngest who have remained to work today are 40 years old, so the boys who are 20 years old are not there, because not having a farm have gone away, especially those who went to school. Those who have studied at any level of study have left.» (2019). The earthquake has sponsored many restaurateurs and created jobs in the construction field as Paola (50+) from Amatrice explains: «I am a bit worried about the evolution of this place because our boys can not all deal with catering or masonry because in my opinion, beyond the absolute respect I have for these jobs, we can not all be restaurateurs... Most of the boys anyway go away, even before they went away now they go away even more.» (2019). Incomes in this area are lower than the national average and unemployment is high so some companies, those that have passed the arduous bureaucratic path, have opened factories hiring local people. For the peculiarities of the territory, there was nature and small towns tourism. A great debate is open in defence by the inhabitants of the Pantani Plan for which there is a not so transparent project by the Lazio Region: a road and a shelter (or a hotel?) that would put at risk the delicate habitat of this place.

- Psychological stress:

All the episodes since the earthquake have created a deep scar that many people struggle

DIFFICULTIES		
BEFORE	MEANWHILE	AFTER
		Distance of services and shops
Bad public transport		Bad public transport
Low accessibility		Low accessibility
Depopulation		Depopulation
Lack of job and study offer		Lack of job and study offer
Social contrasts	Social contrasts	Social contrasts
Groups contrasts	Groups contrasts	Groups contrasts
Lack of fixed health facilities		
Lack of fixed post and bank service		
Age integration	Age integration	Age integration
		Far gas station
	Psychological stress	Psychological stress
	Low level of privacy	
	Loss of autonomy	
		Hospitality
		Lost place identity
Isolation	Isolation	Isolation

to heal, especially due to the current conditions and the post-earthquake strategy. Mario (63) describes the influence of SAE solutions on people he knows: «So I see these elderly people who are suffering terrible traumas because they also lack the space where they used to live and then they close up, they get stuck [...] These people feel lost. It's a big social drama not perceived from the outside. General thinking is that the house has been given so there are no more problems [...] Who has lost the house with everything inside and looks around and has nothing anymore, in my opinion, psychologically the person tries to take anything at the first opportunity that presents itself. You see people you knew from a lifetime completely transformed, but this is because they found themselves with nothing all of the sudden.» (2019). Irene (19) recounts her difficulties and those of Stefania (17) because they remained on the territory instead of living in a hotel: «We did not have psychological support for example, they only looked after children and the elderly, but not noticing that there was another age group. I would have so needed psychological support for example, but it was not given, I did not

even have the opportunity to confront or talk to a person to overcome the thing.» (2019). It seems that a “social earthquake” has arrived according to Don Stanislao: «The population has disintegrated, people have psychologically lost stability and they see everything dark black, the reality is scary. Let’s not even talk about spiritual things. And so we have a second earthquake. The first destroyed the population materially, the second destroyed everything: socially, religiously, psychologically and so on.» (2019).

Community of Accumoli

The tables in these pages summarize the difficulties, groups and activities of the town, divided into formal and spontaneous, group or individual. There are 3 time categories with respect to 2016: “Before”, “meanwhile” referring to the hotel stay, “after” that is since the arrival into the temporary village. The darkest text in the tables represents the more intense or influential element.

Among the groups, the strongest is the music band. Fabrizio (53) describes the members’ age, an important factor as integration between age groups seems generally poor: «The senior member C. P. is 70 years old, until 5 years ago there was G. who was 84. The youngest was 8 years old, really passionate, and died during the earthquake. Now there is N., the grandson of C., who is 7 years old.» (2019). It is interesting to note the short life

BEFORE	MEANWHILE	AFTER
INDIVIDUAL ACTIVITIES		
Practice acting		
Practice musical instrument	Practice musical instrument	Practice musical instrument
Practice singing		Practice singing
Shopping	Shopping	Shopping
Go for a walk		
Go on a hike		
Knitting	(group activity)	
Reading/Writing/Music/Photo	Reading/Writing/Music/Photo	Reading/Writing/Music/Photo
Gardening		Gardening
Go to the market		Go to the market
Wild fruits collection		Wild fruits collection
Watch TV / PC	Watch TV / PC	Watch TV / PC
Play at home		Play at home

BEFORE	MEANWHILE	AFTER
	OFFICIAL ACTIVITIES	
Poetry contest		
Photo exhibition		
Movie projection		
Dance school		
Amateur acting		
Play in the music band	Play in the music band	Play in the music band
Sing in the choir	Sing in the choir	Sing in the choir
Religious celebrations	Religious celebrations	Religious celebrations
Concerts / Shows	Concerts / Shows	Concerts / Shows
Hold a market		Market
Historical parade		
Festivals and parties	Festivals and parties	Festivals and parties
Horse exhibition		Horse exhibition
	Chrocet	
	Activities by PSY+	
Attend mass at the church	Attend mass	Attend mass at the church
Card tournaments	Card tournaments	
INFORMAL ACTIVITIES		
Practice acting		
Practice musical instrument	Practice musical instrument	Practice musical instrument
Practice singing	Practice singing	Practice singing
Shopping	Shopping	Shopping
Go for a walk	Go for a walk	
Go on a hike		Go on a hike
Play cards / games	Play cards / games	
Hang out at the bar		Hang out at the bar
Hang out at the "little wall"		
Chat/sit at the "public gardens"		
Chat/sit at the front doors		
Sport fields in Grisciano		
Go out for dinner	Go out for dinner	Go out for dinner
Playground in Accumoli		Playground in Accumoli
Play in the streets		Play in the streets
Hang out at the bar		Hang out at the bar

FOCUS : CROCHET GROUP



San Benedetto del Tronto, December 2, 2016. During the stay in hotel, the Council of San Benedetto gives a space to the Accumoli crochet group to allow them to gather and work.

«Besides becoming the space of the family, it has also become a community social space, where the women of the neighbouring houses sit or are in a circle, interacting with each other. In the absence of any working space intended for women, the floorboard became their operating platform. When they do not cook, women use it for their handicrafts. Starting from the original elements of the stove project they decorated and adapted them to their needs decorate the kitchens with folkloric motifs that they had learned from their mothers.» (Domus, 2017). Chulah, Darya Khan, Pakistan, 2011.

“Accumoli in gomitolò” (Accumoli in wool ball) is a group of knitwear established to support earthquake reconstruction. The initiative is supported by Psy+ Onlus. On their Facebook page:

«Accumoli in gomitolò is a group of artisan knitwear born to support the populations affected by the earthquake. The production’s sale will support reconstruction.».

«“Accumoli in Gomitolò” is a group of women who, due to the earthquake, have lost their homes and jobs and now, in the coastal hotels hosting them, are trying to invent a different future».

Patrizia Senatore, Tg3, 9 June 2017

«This activity was not present before the earthquake. After the earthquake we were moved to San Benedetto: as we were all day doing nothing and far from our homes, we wanted to invent something to occupy time. The best thing was knitting so we started making scarves, hats and more under Christmas: with the help of the Council of San Benedetto we made a stand, we were very happy and we decided to make a company, so when we would return [to Accumoli] we could have a job because we lost everything. But our hopes immediately vanished, I don’t explain everything, and so we never started the business and never worked, so we are closing the business. We had so many dreams and they immediately vanished. We are in Accumoli, we live in the SAE but in the SAE we can not carry out any activity and therefore we have not worked anymore: everything is over. Before the earthquake I had a B,B, but as a hobby I worked in embroidered crochet: it was my hobby. For a while now I’ve started doing something again also because here we have nothing and all day doing nothing I become crazy and the worst thing is that we no longer have any hope. We have not given anything and therefore no work.».

“Accumoli in gomitolò” anonymous co-founder, March 2020



It was an amazing opportunity to attend the talk by Yasmeen Lari in February 2020 at the Scottish Design Museum V&A in Dundee. At the end of her talk, Lari was keen to privately answer some questions from the author which are quoted in this text. Lari is Pakistan's first female architect and one of the most successful providers of disaster relief shelters in the world. She has built over 36,000 houses for victims of floods and earthquakes in Pakistan since 2010.

«The space can give the opportunity to recreate the existing community»

«Crafting helps, especially women, to get out of depression in which they fall when they have no routine, nothing to do after a catastrophe.»

«To get people's involvement, there is first of all the need of a place to get together.»

«Women have to learn they can help each other and how to do so; first of all they need a place to meet.»

Yasmeen Lari, Dundee, February, 2020

Even if Lari works in conditions of extreme poverty and a different culture and climate of the case study of this research, there are some points in common in the way she approaches and considers disaster relief: starting from providing shelter, she then focuses on larger social benefits and for initiating women's empowerment.

«Charity, although in good faith, fosters dependency and it robs the receiver of self esteem.»

Yasmeen Lari, Dundee, February, 2020

In Lari's opinion, international aid culture needs reinventing or people that have been affected by a natural disaster will always feel as helpless victims: the approach should focus on enhancing dignity and self-esteem. Aid and victims should feel as equal partners and work as a team. Then people could take responsibilities as they would feel again able to handle their life and walk on their feet. She focuses on affirming dignity of people and places, working on the



FOCUS: CROCHET GROUP



San Benedetto del Tronto, December 10, 2016. The Council of San Benedetto supports the crochet group allowing them to take part to the Christmas market to sell their products for charity.

Woman carried out the ancient craft practice of making glazed tiles and ceramic works, Darya Khan, Pakistan, 2011. After the teaching of craft techniques, the inhabitants began to do by themselves. Women have been able to express their talents of creativity and innovation. They responded to the relentless pursuit of a social architecture of Lari, in which the architectural project is only a canvas that favors the liberation of the artistic impulse of the user.



empowerment of the population through the re-discovery of their traditional activities, crafts and even on-site materials.

«If we can encourage that elusive element of pride among traumatised families half the battle would be won, for they would soon be on the road to self-reliance...A lot of funding were poured into Pakistan. Ever since, people have expected someone to come and give them everything.».

Yasmeen Lari, Dundee, February, 2020

Giving separate goods singularly to each person or family fosters isolation and makes it hard for the victims to see the result in the big picture. There is no feel of community and therefore of community achievement and bonding. In the study case of this research, the give-away of goods wasn't equal according to a lot of people, which created big arguments and disconnected the population.

«A space enclosed by buildings around it can give a sense of place to the people»

Yasmeen Lari, Dundee, February, 2020

of the knitwear group, born in hotel and dissolved in S.A.E. for lack of support and space. Among the spontaneous groups, there are card players and people who would chat in some specific corners of the town, unfortunately lost in the earthquake. Despite being outside the town of Accumoli, the sports field and playground of Grisciano should be mentioned being a pole of attraction for the youngest even of neighbouring countries still today. The most popular formal activities were certainly the traditional ceremonies and festivals, mostly in the summer. These are still done in the S.A.E. village as opposed to the exciting old card tournaments.

Among the spontaneous group activities, there are playing cards and attending bars, day and evening. Walk around the village was very common, also for the elderly. Shopping in local shops in the town was among the most popular activities just as an excuse to go out and meet someone. These activities are basically no longer done by residents given the new shape of the village. During hotel stay, all the leisure activities organized by Onlus PSY+ replaced those that were done before the earthquake.

Distance from services and shops is among the main issues of the post-emergency. Some services (post, bank, doctor) improved in contrast to public transport, which is always minimal. Contrasts between people worsen and psychological stress had a strong impact on everyone.

Neighbourhood relations

One of the aspects taken into consideration in the analysis is neighbourhood relations. It has been possible to map (thanks to Francesco, a young resident of Accumoli) the families of the S.A.E. village both in the current residences and in those of the old town. This process took place informally and it should be remembered that mistakes may have been made for several reasons; for example, faded memory, an incorrect transcription, an unofficial change of residence as the case of Roberta (57): «The community has changed, for example now my neighbours are from Villanova: it makes no sense. Legally, I lived in the northern part of the town but I was born and lived in the house of my parents in the southern part. Of my neighbours now, only the mayor and F. lived in the South.» (2019). Therefore, there is a margin of error in this mapping to be admitted.

These maps remain an important tool to highlight whether and how the neighbourhood relations before the earthquake were maintained. Another information shown in this type of maps is the proximity and mix of people by typology, more specifically by the composition of each family. The majority of houses are occupied by solo elderly people (14) that are quite spread out in the village but they are also gathered in one area dedicated to

people from the hamlets as explained in the following pages. Another sort of cluster is visible in Lot 1 and 2 where most of the families with children (0 to 12 years old) are allocated (5 out of 8) leaving some kids isolated in Lot 4. 4 families have both kids and elderly people to look after (labelled “Families with mixed ages” in the map); a total of 8 families has an elderly person living with them. There are quite a few families with young adults but the age range of this type is wide (from 13 to 30 years old). Adult couples and elderly couples are both 11 in the village showing that the population is old.

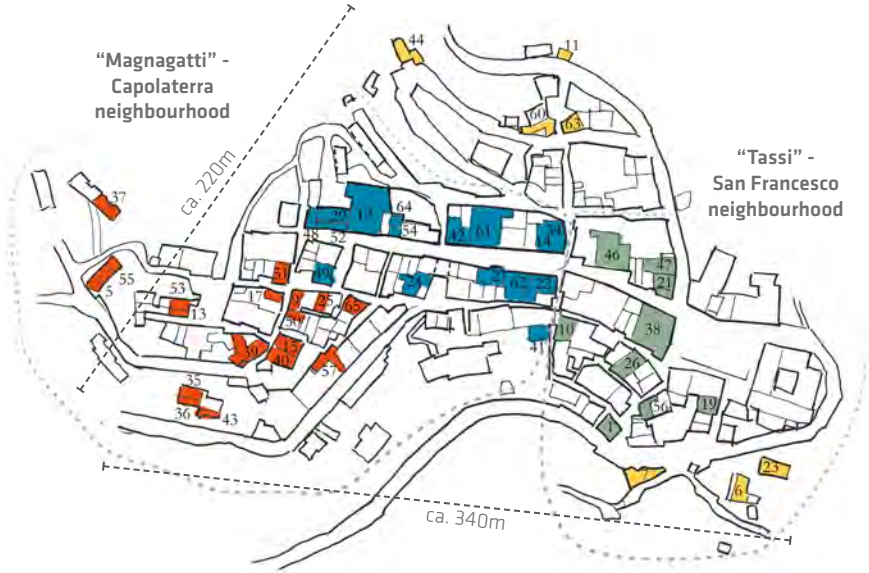
The allocation of the housing solutions took place randomly according to a procedure of public draw that took place on June 7, 2017 at the Council Hall of the Municipality of Accumoli. This was deemed necessary by the Municipality also to avoid exacerbating the contrasts between the 146 residents of this village, partially getting off their shoulders the responsibility of choice. Also people of hamlets such as Tino and Villanova were placed within the S.A.E. area of Accumoli town. This choice was made because some of these hamlets cannot be rebuilt, it was not possible to build a temporary village nearby (for example, some houses in Villanova did not even have gas connections) or by choice of the residents. As a result, some housing solutions and there is a specific area dedicated to the residents of the hamlets as mentioned in the list of extractions of the Council¹: «[...] the citizens of Tino and Villanova that will be placed in a special area within the area S.A.E. of Accumoli». Because the S.A.E. are sized according to the members of each family, they are not all the same they so, first of all, they were divided according to the dimensional requirements. Once this operation has been carried out, each family unit was numbered and the S.A.E. number was extracted from those suitable for the family by dimensioning. The results are listed on the Council website¹. The numbering here adopted is not the same used by the Municipality, but it is based on the author’s free choice. It is considered irrelevant and inappropriate to mention the names of families in this text; the numbering doesn’t match the official S.A.E. one either for privacy reasons.

The temporary village was divided into 4 areas: Lot 1, 2, 3 and 4 in increasing order according to the beginning of the works. Residents re-entered gradually as the housing solutions were completed, starting from Lots 1 and 2 and so on. Where possible, priority has been given to older people in order to give them greater stability than hotels or similar solutions. On the other hand, this made these people find themselves without their neighbours for the first period. Time wise, the Civil Protection website² states: «Based on previous experiences and

¹ Accumoli Municipality - S.A.E. Assignments Outcome: www.comune.accumoli.ri.it/esito-assegnazioni-s-a-e/

² Protezione Civile - Dossier detail - Terremoto Centro Italia: le Sae-Soluzioni abitative in emergenza: www.protezionecivile.gov.it/mediacomunicazione/dossier/dettaglio/-/asset_publisher/default/content/terremoto-centro-italia-le-sae-soluzioni-abitative-in-emergenza

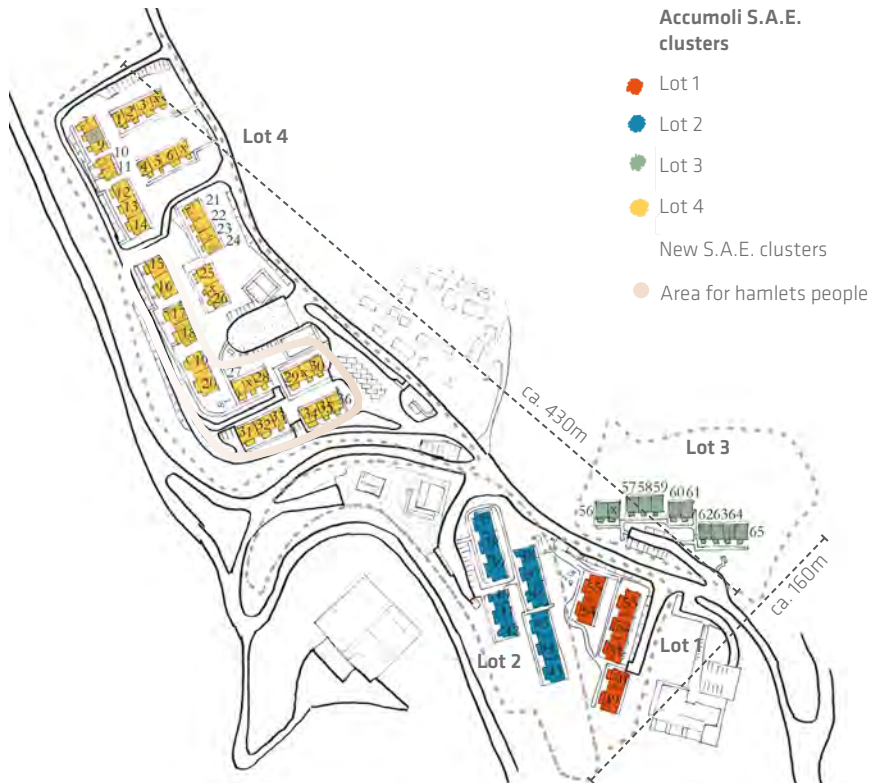
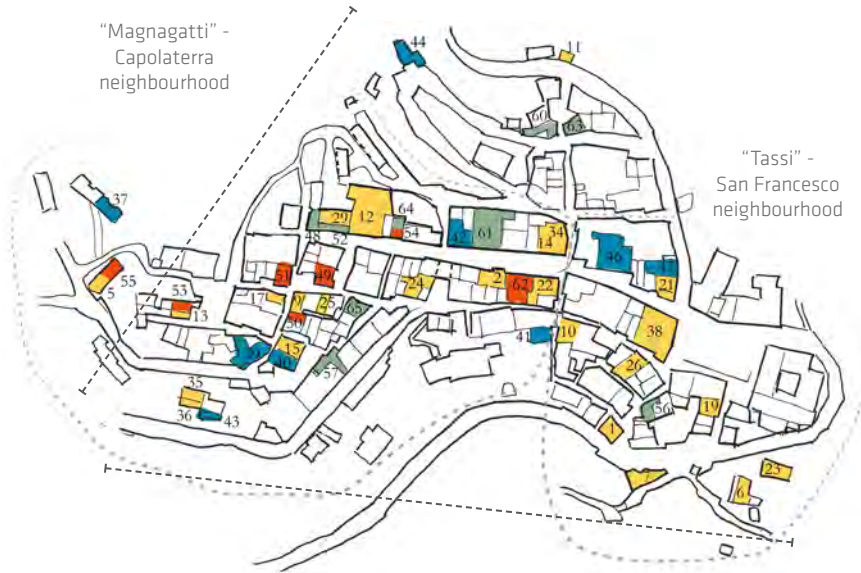
➔
 Accumoli old
 neighbourhoods
 clustering related to the Accumoli
 S.A.E. new
 arrangement.



Old Accumoli neighbourhoods

- Capolatera Largo area
- Via Tommasi area
- San Francesco square area
- Other
- New S.A.E. clusters
- Area for hamlets people
- Hamlets

next page
 Accumoli
 S.A.E. new
 neighbourhoods
 clustering
 related to the
 old Accumoli
 one.



thanks to the contractual instruments previously put in place, it was estimated from the beginning that the realization of the S.A.E. would take about seven months. This estimate takes into account both the planning and implementation schedules in the contract, and all the preparatory activities at the beginning of the work: identification and assessment of suitability of areas, procedures for splitting and expropriation, urbanization, but also quantification of the modules needed to accommodate families based on the different types and sizes available.». Actually, for the village of Accumoli only it took about 7 months to get from the approval of the projects (January 2017) to the handing out of the first houses (July 2017). Paola of the Accumoli Health Center explains: «[...] So it is true that they were back in the SAE as they were ready because there was obviously a time also of construction and testing. So they were brought back perhaps giving priority to disabled people, elderly people who wanted to return. But yes, it is Accumoli, that is in the sense that the population has probably decreased but it is the same, but it is no longer the social fabric that there was before.» (2019). The last assigned houses are those of the hamlet of Terracino in January 2018. In July 2020, someone is still waiting for it as, for example, the grocery store cashier (resident in Grisciano) at the shopping center “Monti della Laga”: she had four children so an S.A.E. of sufficient size was not found yet.

Residents have accepted these choices and seem almost indifferent to their neighbours. The bigger issue seems to be the placement of certain people, especially elderly ones, in the houses at the ends of the new town; this is the case of Pierina and Gaetano (around 90 years old), who are in the last row of houses to the north of Lot 4, interviewed together with their daughter Roberta (2019) that explains: «They [Gaetano and Pierina] have locked themselves here and have never left, especially her. Dad goes out in the morning and goes shopping. She stays here and should go out more. [...] We lived in an uphill village, but it was never so uphill and isolated. You find yourself completely out.» (2019).

Several residents have mentioned the neighbours they had before the earthquake and that they will not find when returning to the village once rebuilt. At the time of the research, the geological analyses carried out by the Lazio Region indicate the lower area of the old village (Piazza San Francesco) as too dangerous for reconstruction; as a result, some houses of that area will be “de-localized” i.e. rebuilt elsewhere in the town, most likely in the higher part where the soil seems stable and the space sufficient. The case of the Mayor of Accumoli (2019), previously resident in Piazza San Francesco: «For example, I speak for myself, I had in front of my house a lady from Rome with the garden with which I used to talk constantly. She is relocated. I am right on the edge of relocation so I will face, someone told me, a fantastic view... I will have no one. Everything has changed.» (2019).

Overall, there are 71 S.A.E.. One seems to be assigned to Caritas and 70 to local families, of which 64 are actually living in the village in 2019. As mentioned, the new town is divided into 4 Lots while the old one was historically divided into 2 districts as Urbano (2019) recalls in his story for Radici Accumolesi: «Between low Accumoli [S. Francesco square area], the “Magnagatti” district, and high Accumoli (Capolatera), the “Tassi” district, there are in fact over 100m of altitude difference; sometimes the snow stopped on the upper part while the lower part was only rain.». The dividing line was by the “small railing” in the lower part of the vehicle accessible section of Via Tommasi. This division was lost after the 60s and there wasn't contrast between the 2 districts recently, so these are only outlined for reference. The houses are instead grouped by areas based on the main reference points: S. Francesco square, Capolatera Largo, Via Tommasi, the farthest areas from the centre and the hamlets.

The maps of neighbourhood relations follow 2 approaches. The first represents the 64 families of the village with reference to the area where they use to reside before the earthquake. The second one of the families starts from the division in the Lots and then identifies where the people lived in the old village according to the new clusters. It is evident that, with the exception of those from the hamlets, the residents are randomly distributed: the previous neighbourly relations are not respected at all; moreover, the people of the hamlets do not all come from the same one although now they are placed right next door to each other. This distribution supposedly weakens the cohesion of the population and causes disorientation, especially in older people. On the other hand, because of the discrepancies between residents in the past and after the earthquake, it is not entirely clear whether most of them would have preferred to keep the same neighbours or not; they seem almost indifferent to the choice and they avoid contacts with fellow citizens regardless.

It is important to remember what is described by the Report of the Extraordinary Commissioner (2017): generally in the territory that includes Accumoli, 30% of residential buildings are empty or occupied by non-residents. In line with these data, Accumoli citizens confirm that about a third of the village was not inhabited throughout the whole year but only the summer time or not at all.

Interpretation of the past

Getting to know the past in a post-seismic scenario implies facing the loss of build environment. To see how life was before the earthquake and the places in which it used to take place is not a obvious task. Generally, one can rely on historical reports and cartography, but most of the Central Italy villages' archives were lacking drawings and were not up to date. In addition, some archives were damaged or lost during the earthquakes. Most of the backdrops of



Accumoli, Diaz Largo, before 2016. Even a couple of benches could be interpreted in different ways, it depends on the way we look at them. These ones represented a comfortable corner to rest or meet on the way back from school or to the bar.

“Belvedere” outdoor bar and dancefloor, Accumoli, 1950s. There was an outdoor space to enjoy a great view, have fun and dance to some music which was an amazing attraction for people of the surroundings. It got lost due to a landfall and neglect afterwards. Even though entertainment culture has changed, it is important to note a type of space that used to make people’s life better and exciting for all ages at day and night.



social activities didn’t have an artistic or historical value and so they were considered simple elements of daily life. On the contrary, in this research, it is not possible to be dismissive of these community gathering places and focus on what it is generally important for city or territory maps.

One of the resource is residents’ memory consulted by storytelling and interviews; for Accumoli, there are also some books on village traditions by amateur historians of the area. A useful tool to access community memory can be a visit to what is left of the old village. The visit should not be a mere collection of pictures of the rubble: it is extremely hard to understand what one is looking at as the destruction deleted almost all recognizable elements. Instead, understanding the important parts of the village can be obtained with the participation of the residents to the visit and explain what was where, completing the incomprehensible visual image of the rubble with invisible descriptive memories. «studies remind us that we should not confuse the map with the territory (Bateson, 1972). They also show how walking interviews contribute to the understanding of differences that are important to residents but are often not noticeable in city maps, health statistics, GPS tracks, work procedures, etc.» (Bertelsen et al, 2014, p.54).

From these thoughts and after developing some awareness of walking methods, walking interview was the one chosen for this phase to collect information about life in the village before 2016. Itinerary interviews are generally unstructured methods that combine both visible and worded information to be collected. Therefore, the walk was carried out in what was left of the town in July 2019, the so called Zona Rossa (Red Zone).

Literature and empirical studies on transect walks and walking interviews were found mostly in the field of Participatory Design and Ethnography. Even though this research’s

direct aim is not participatory design, there is a big participation required to the residents to describe the current and previous scenarios, providing the framework of needs, difficulties, positives and so on. There are different walking interviews types, from “open-ended” to “semi-structured” (Carpiano, 2009, p. 274), “natural go-alongs” and “contrived or experimental go-alongs” (Kusenbach, 2003, p.457). It seems like walking with residents is a natural activity for the participatory designer, who acknowledges the importance of immersion and relationships in design (Bertelsen et al, 2014) as well as the author of this research. Sociology Professor at University of South Florida Kusenbach (2003, p.456) describes walking interviews as a «hybrid between participant observation and interviewing».

Evans and Jones (2011) presented a typology of walking interviews where the route determination is a central factor in how open-ended or structured the walk will be. The interview was not structured and the route was not determined beforehand in the current case. This choice was based on two factors. The researcher was not familiar with the area and never been there before 2016, having only maps and pictures as reference. The other was the intention of allowing a natural flow of comments and free route choices according to what was more relevant to the residents. The aim was to avoid any influence by the author on the residents' focus and enhance their authentic interest in talking about certain buildings or places. Before the survey, only a very brief mention was made on the author's interest in social gathering spaces and buildings even if some of these were already been mentioned by other residents to the author who took record of them. The questions were then just few, mostly to deepen certain descriptions by the residents: “Where are we?”, “What was important here?”, “What did you usually do here?” etc.. The conversation basically followed what was along the route: the footprint left of certain buildings, the rubble of others and the public spaces in sight were the triggers to stimulate the information flow. It has been argued that walking interviews generate rich data «because interviewees are prompted by meanings and connections to the surrounding environment» (Evans , Jones, 2011, p.489), in this case, the Red Zone. In conclusion, determined walking interviews have the advantage of focusing the interviewee on specific places that are relevant to the research (Evans , Jones, 2011) but natural “go-alongs” are more likely to enhance the understanding of residents' authentic point of view (Kusenbach, 2003) which is the focus of this research.

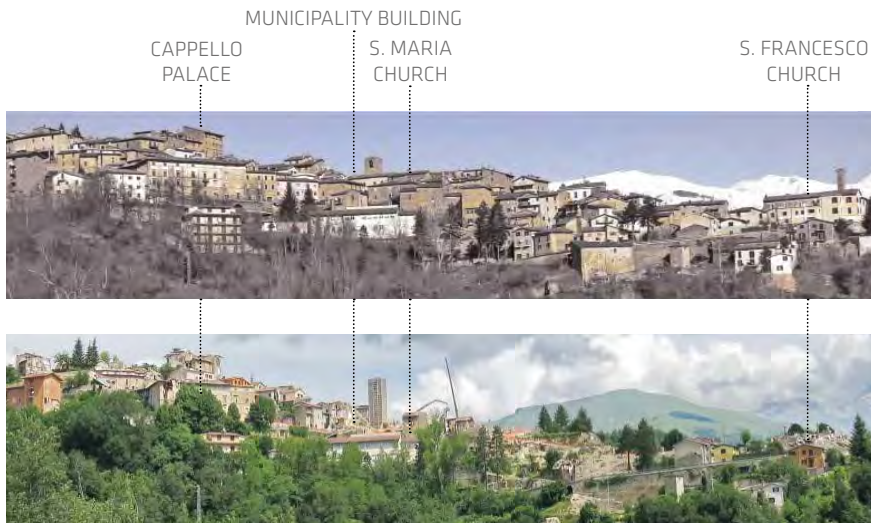
There were some methodological challenges that can be found also in other studies such as safety limitations to walking routes (Carpiano, 2009). The choice by the residents of where to walk was limited, even unexpectedly blocked in some points (such as Capolattera Largo - point n°4 in the map) where the route had to change. Among the specific problems, there is the short time frame allowed to walk around the village due to official permission regulations

Next page
Accumoli
skyline before
the earthquake
(top) and after
(bottom). Most
of the reference
points are lost.

and the air pollution danger caused by the dust from the demolition work. The main difficulty before the walk was the recruitment of participants for the following reasons. Firstly, the permission to access the Red Zone is given by the Municipality only for specific and founded reasons. This is due to the mentioned danger of the site air pollution, possible rubble collapse and bulldozers work. Therefore, the hazard itself is a deterrent for the residents to participate. Another issue was that a lot of the people met at first, even if they were willing to help, were non-residents and wouldn't be available for this task. Last but not least, the emotional stress that the view of the village in rubble would cause to the person. At the end, two people participated to the walking interview: a resident that works in the Municipality, and Renzo, non-resident (born in Accumoli) from Radici Accumolesi cultural association.

Obviously, at the time of the investigation most of the village had been wiped out by the earthquake and then by the bulldozers to make the area safe, accessible and ready for a possible future reconstruction. A map and images of the previous appearance of the streets and buildings were the only useful tools to be oriented around other than the narration and description of the participants. This visit was very useful to have also a real perception of the size, steepness and walking distances of the village compared to what can be interpreted on a map.

The walking interview was also a walk through the memory of the participants, allowing the author to take the first "foot in the door" into the community (Carpiano, 2009) and its current and past reality. The place triggers and facilitates the process of searching for memory. The descriptions by the residents included the look of buildings and squares, their use and the events connected to them. Walking interviews are generally explicit about the intention and «more systematic and outcome-oriented» (Kusenbach, 2003, p.457): in this case the aim was to outline a mental map of the old village. At the end, this was based on memories of what was not more visible of the built environment and what is always invisible such as traditions, relationships and events. The intention of these types of studies is to understand peoples' mental models as in the case of the one by Lynch in 1960 who carried out a research on the mental images of a city which is held by its citizens. His walking interviews documented how residents' mental city maps differ from experts' and physical city maps. In the current case, there was an attempt to record how people related to what used to be their living environments and the logic that people use to make order in their memory of the lost village, prioritizing sites of importance along the route. «There seems to be a public image of any given city which is the overlap of many individual images. Or perhaps there is a series of public images, each held by some



significant number of citizens. Such group images are necessary if an individual is to operate successfully within his environment and to cooperate with his fellows. Each individual picture is unique with some content that is rarely or never communicated, yet it approximates the public image, which, in different environments, is more or less compelling, more or less embracing.» (Lynch, 1960, p.46).

This phase of the research is inspired by the concept of imageability by Lynch and the one of cultural mapping (Parker, 2006). The first one is that quality in a physical object which gives it a higher probability of evoking a strong image in any given observer (Lynch, 1960). Differently from Lynch, in this case the quality of the objects are no longer visible but they are in the memory of the participants. About cultural mapping, it is a methodology that takes social science and research closer to society (White, 1986): «a process of collecting, recording, analyzing and synthesizing information in order to describe the cultural resources, networks, links and patterns of usage of a given community or group» (Stewart, 2007, p.8). The community under analysis «is mapping and concurrently being mapped [...] This protects the community or group from the risk of being treated as an inert object, a mere source of information to provide knowledge which may turn out to be too abstract to be useful to those from whom it originated.» (Chiesi, Costa, 2015, p.70). Here there is a simple attempt to condense the mental images of people's memory collected along the route and to translate them into one drawing. It is to be understood that the proposed outcome doesn't reach the exhaustive level of community mapping ones due to lack of means to carry out an actual cultural mapping in this research.

Therefore, the graphic language of the outcome resembles the one of transect walks. Walking with people allows to familiarise with area and residents, inspired by experiences where

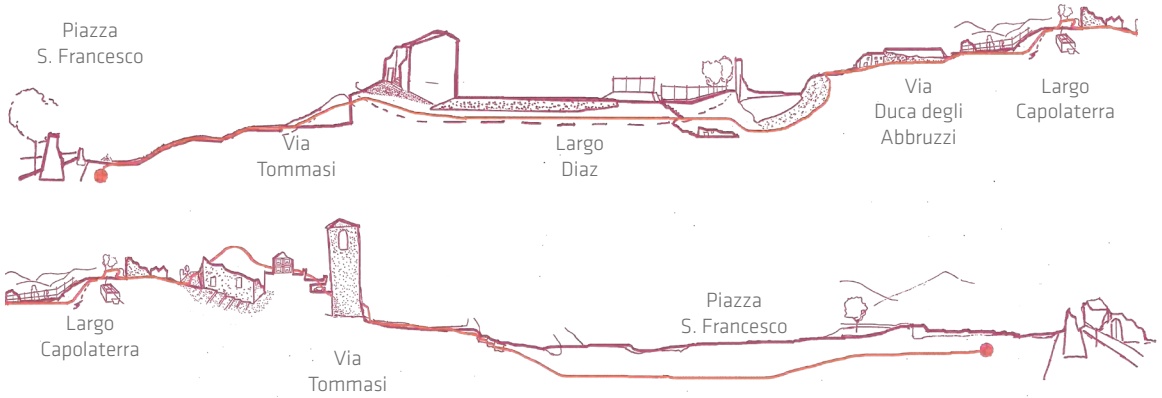
→
Walking
interview route
on a map of
Accumoli before
2016 and
Accumoli in
2018.



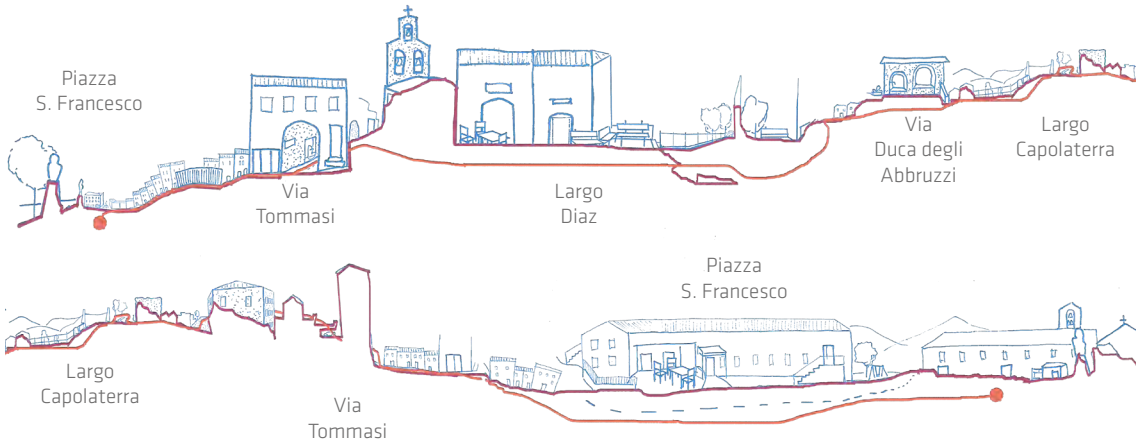
next page
Graphic
interpretations
of the walking
interview
route.

Image Courtesy of
Geores and Seipa

SURVEY: VISIBLE PARTS



MEMORY: INVISIBLE PARTS



WALKING INTERVIEW



Walking path

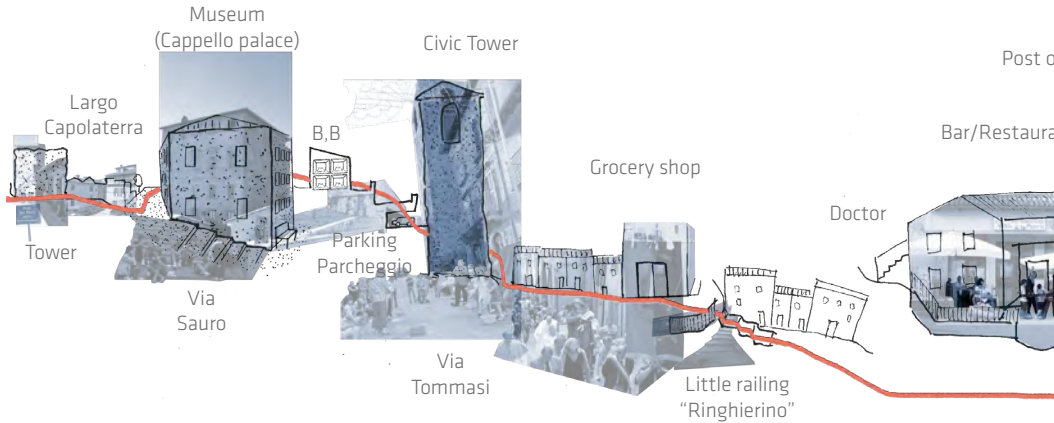
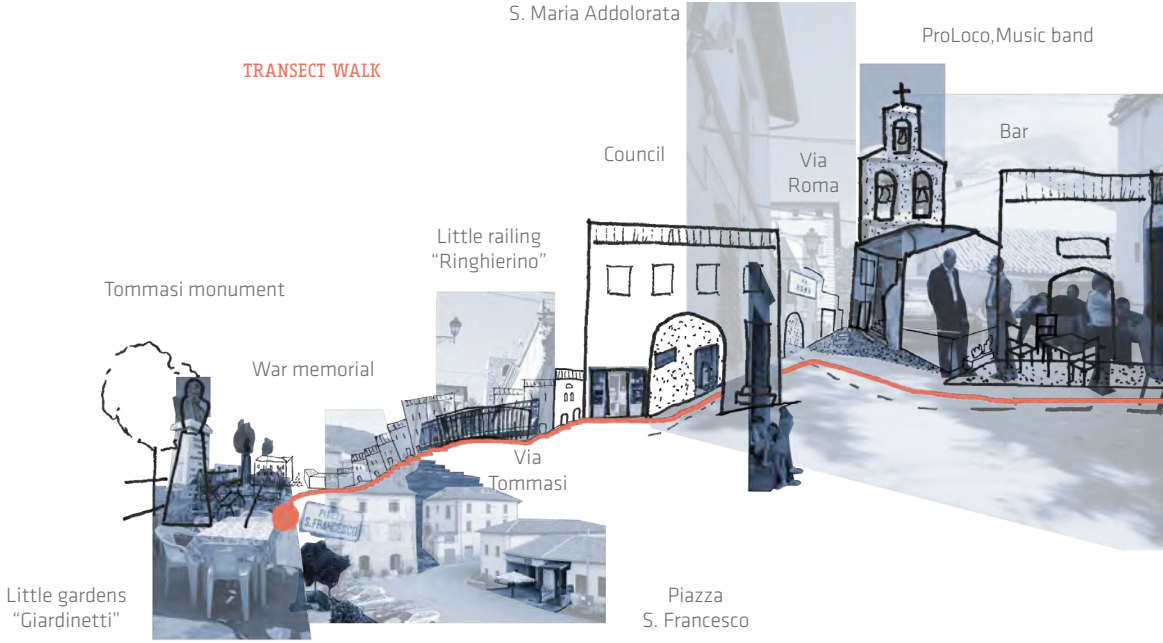


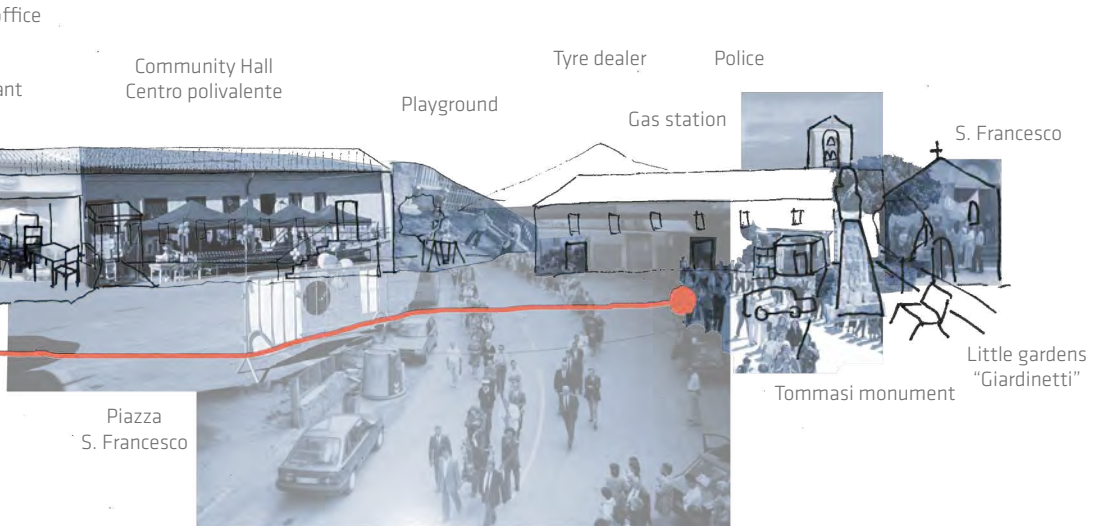
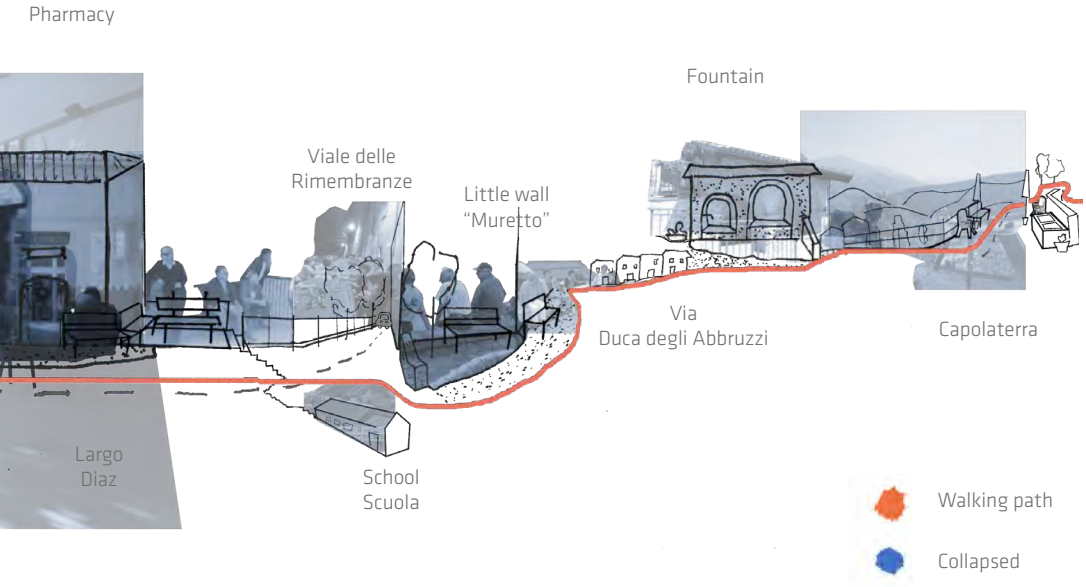
Collapsed



Survived

TRANSECT WALK







San Francesco square, before 2016 and July 2019. It was hard to realize this area was a square for markets and events.



*next page
top*

Diaz Largo, before 2016 and July 2019. During the survey it was basically impossible to recognize the original social gathering corner.



bottom

Via Adua, before 2016 and July 2019. Here most of the Southern houses will be rebuilt as it's geologically safer area.



 Survived

 Collapsed



Via Tommasi, before 2016 and July 2019. The Civic Tower still stands out now, becoming even stronger symbol for the population.





Survived

Collapsed





Accumoli, 26 February 2020. The plan of the village is recognizable thanks to the fences around the demolished lots, thus demarcating the roads. To facilitate the operations of the yard, some roads have been changed.



transect walks are used as a method for entering rural communities looking for territory resources. (Bertelsen et al, 2014 Anderson, 2004.) In this case, instead of searching for natural resources on the territory, the transect walk is used to take record of socially relevant places of the old village. They appear in the drawing on a line that follows the route; along the line of the path a section line though the village is defined, changing its orientation according to the changes in directions during the walk. In this drawing, it is not relevant to map exactly the location of these places along the route but mainly their existence and social relevance. This last feature is represented through the scale of the subject. For example, some buildings such as the bar and the pharmacy in Diaz Largo were quite small compared to the palazzi, but they are bigger in the drawing because of their greater relevance in the community life. The village is then not realistically represented, but it is a summary of the important places for social activities.

**Reconnect
the social fabric**





SENAT chairs
can be freely
arranged by
people.
Paris,
Jardin du
Luxembourg,
2017.

As there is a lack of regulations on temporary urban developments in Italy, reference design tools are proposed here based on a focused analysis of the old village's public spaces as the backdrop of former social activities. There are recommendations on layout, function mix and orientation of the buildings of any temporary village, leaving aside the type of structure used. Additional considerations on appropriate interaction and walking distances, visual connections, boundaries between public and private and vehicular access are proposed. In the end, the outlined strategies are applied for the case of Accumoli to show an example of how any temporary village in Italy could be to promote social interaction and trauma recovery in a post-seismic emergency scenario.

Approach to design

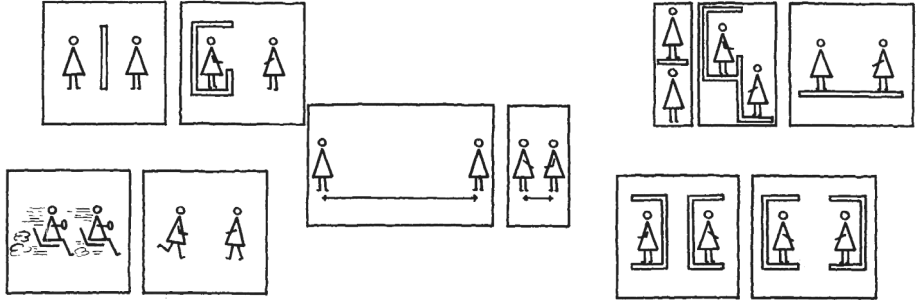
Designing with a community vision means doing so with a social perspective. This implies an interpretation of design as intentions inscribed in space (Adorno, 1967) where «In this view, any design act is the result of the intersections between two sets of intentions, those of the designer and those of the users» (Chiesi, Costa, 2016, p.146). Thinking about design in a social perspective includes the possibility of different levels of congruences between the theoretical world of the designer and the real world of users' lives (Rapoport, 2005; Chiesi, 2010).

Here the awareness of the impossibility for architectural design to predict and respond to all the present and future social needs of a community is expressed. For this reason, the approach to design has the intention of leaving the possibility to people to modify and complete the space according to their needs. Here we try to give directions to outline spaces without giving them the appearance of a definitive solution, “turn-key” solutions as the S.A.E. villages, where people do not feel the desire to put their hands on them, even for maintenance. It seems that they do not feel comfortable to occupy the public space and consequently to adapt it to their needs, contrary to what happened in the past where the stratification of events and needs formed corners of the town itself. A space, a square or an entire village like the one created to the nines for Accumoli dissuades the population from wanting to make it their



«The senses and communication: physical arrangement can promote or prevent visual and auditory contact in at least five different ways.».

Left column: “inhibiting contact” design solutions.
Right column: “promoting contact” design solutions.
“Life between buildings”, I. Ghel, 1971, p. 62.



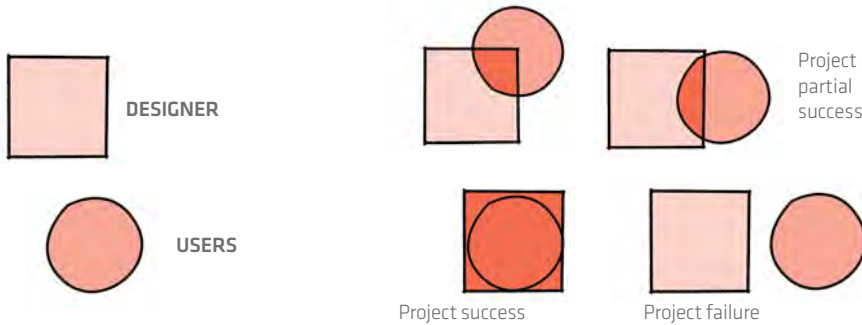
own, customize it, give it an identity.

On top of this, people know that they are in a temporary village because of an earthquake that swept away their homes: it is very hard to generate emotional investment in the new housing development, which is an element common to high density buildings since the 50s when Jacobs (1961) identified people’s awareness of being in these locations because of their poverty. The village was given to them and no one feels it as their own: it is not derived from the will, actions, history or opinion of any of the residents. None of them feels the duty to take care of it: it is not by chance that there are very few cases in which the common areas of the villages are neglected in contrast to the private gardens. These projects seem to express the designer’s intent to achieve something perfect, concluded. On the one hand this can be read as a form of welfare: the citizens have lost everything and now they have everything ready. On the other hand this leaves them no chance to complete it, to take care of it, to stay active, to face the situation and take charge of it.

This is the very complicated balance between the intention of the designer expressed in his project and that of the user expressed in daily life. F. La Cecla, professor of cultural anthropology at the Universities of Venice, Verona and Palermo, expresses its decision not to become an architect but to write about architecture: «the question is that architecture knows nothing of that precisely narrative essence from which spaces are made.» (La Cecla, 2008, p.3). This is also why this research proposes some suggestions that allow a certain freedom of use and adaptation of space by end users and also be reviewed for each situation. Here, then, we refer to the concept of affordance (Gibson, 1979) which summarizes the existence of endless ways to use an object, space or urban element by the people as they see the opportunities for it which weren’t foreseen by the designer.

The approach to collecting information during the survey of Accumoli S.A.E. village and some of the hamlets was based on the attempt to look for socio-environmental indicators (Chiesi, 2010) and then following the concept of “Evidence-Based Design”

next page
«Design in a social perspective. Different degrees of congruence between two sets of intentions: those of the designer (square) and those of the users (circle).» Chiesi, 2016, p. 147.



(EBD), which bases design decisions on the best available current research evidence (Hamilton, Watkins, 2008), for the development of further design strategies.

«EBD can be defined as the process of making decisions about the creation of an environmental design by critically and appropriately integrating the sum of available, credible evidence, practitioner design expertise, and client or population needs, preferences, and resources, in the context of the project, in order to achieve project objectives.» (Peavey, Vander Wyst, 2017, p.9).

Since the village has been completed relatively recently, it is difficult to identify clear signs of use of some areas or certain routes compared to others. Unfortunately, the search for socio-environmental indicators is reduced to very few elements of “space appropriation”.

«These indicators come in the form of observable phenomena that allows us to characterise the specific form of territoriality case by case. These indicators may be categorised into five groups (Chiesi, 2010): routines, traces, alterations, adaptations and signs.» (Chiesi, 2016, p.80).

Among these were identified for example: the addition of games for children in a certain area, no signs of wear in other games, change of position of some benches, use of gazebo, cigarette butts under some benches etc. Besides the little time spent in the village so far, it would also seem that people have no interest in improving or changing the village. Even from the interviews there does not seem to be a widespread sense of appropriation of these new spaces that therefore remain without identity. The lack of physical evidence and the difficulty in identifying it is the collection of most opinions on the village on the content of the interviews in depth. This type of analysis would then require much more time to monitor the signs of space appropriation and possibly to be carried out together with a deeper Post Occupancy Evaluation.

Regarding the old town of Accumoli, the difficulties related to the collection of information on the use of spaces and the appropriation of these by the inhabitants is obviously complex. This was based on the stories and photos of the residents and on those of the book “*Accumoli nelle storie, storielle, memorie, poesie, miracoli ed immagini*” (Accumoli in stories, tales,



The pedestrian part of the square, recently restored with the addition of seats and the arrangement of greenery, was used for events in summer time. Accumoli, Piazza S. Francesco, 2016.



next page
In summer there are festivals but also informal neighbourhood dinners. Here tables transform a car park into a convivial corner of the village. Accumoli, Lot 4, August 2018.

In the same parking area the grass between the formal path and the parking is used to shorten the route. Many of the routes follow right angles, long routes and stairs. Accumoli, Lot 4, August 2020.

memories, poems, miracles and images) published by Radici Accumolesi in December 2019. The photographs collected thanks to the availability of some residents, through direct sending or sharing on Social Networks, made it possible to give an image to the many stories told during the interviews. Again, then the memory of people is the main source of information about the destroyed village.

Among the stories, for example that of Urbano's childhood, elements such as the type of pavement of the village and the informal use of roads can be identified:

«This meant that to move up and down the town, you always went uphill or downhill and the roads were those that an enlightened fellow mayor of 800 (Salvator Tommasi), had paved with cobblestones of gray flint that still last, even if a little disconnected (but in tune with the houses), up to the present day. The streets were our playground and none knew better every secret more than us kids» (Colucci et al., 2019, p.22).

The lack of certain measurements, due to the scarcity of information and drawings, and the need to rely heavily on tales support the choice of a simplified graphic style. In addition, the size of the buildings has little relevance for the analysis of the aggregation spaces. The style of the sketch represents only a synthetic vision and an approximate sizing of the buildings, sufficient for the type of analysis carried out in this research. The process of synthesizing elements important for the design was central to the final phase of the research. The aim of this research is not to propose comprehensive directives for the



temporary villages, but to suggest instruments and reflections; it therefore seems more appropriate to have a graphic language more similar to the sketch.

During this attempt at synthesis, the goal was not only to summarize the research but also to leave traces for the development of a possible method. The current work is only a first approach to what could be a set of indications to be followed in similar contexts to that of the case study to support the selection of features of the past useful for the design of the eternal present (Fenoglio, 2006) of the temporary villages. The following tables summarize the elements to take into account both in the social context of the past and the present and in the environmental context in comparison with the built environment lost in the earthquake. Practically, the tables try to summarize and reduce to very few points the whole interpretation of the past and the elements of social analysis. The analysis of the environmental context in which the project will be set is also fundamental. The application of the widespread SWOT method of analysis both for the elements (strengths, weaknesses, opportunities and threats) of the community and those of the environment should be taken into account. So both for the social context and for natural, the tool suggested in this research is the SWOT Analysis. In conclusion, it is important to have clear and simple points on which to focus but also to always maintain a design vision of the whole, a community one. The project must treat the new village as an organic system that works as a whole. In fact, Don Stanislao speaks in this way about the old Accumoli: «I would see it like this, a little bit like in the organism. It's hard to say which organ would be the most important one, because each one is important. The village seen together attracts people's attention. Seen all together! It was not the church of Addolorata, although it was very important, it was not the tower itself, but inserted into the mosaic of the town that was lived, sought, especially in the summer.» (2019).

In the case taken under analysis, the location and the number of housing solutions was determined by multiple factors. This research cannot enter into the merits of these choices any more than it has already done in previous pages. The choice of the position of the new village



Decorated pathway: a sign of sense of appropriation and care. Half way screens: privacy is ensured as well as visual and auditory contact with the context. Grisciano, July 2019.



Additional fences: protection from wild animals and further delimitation of the property. The care of the garden is a widespread activity in the village. Accumoli, Lot 3, July 2019.

and the number of residents is not questioned but considered as a given acquired both in the approach to design and for the development of strategies and tools for the design of temporary village layouts. This also respects the procedures provided by the Italian bureaucracy according to which at the time of the emergency the municipalities indicate the best the area where to build the temporary village based on knowledge of the territory and the supply needed according to the inhabitants remaining on the territory. This information is sent to the Region and subsequently to companies that have agreements with the Civil Protection. It should be stressed that it is important to assist municipalities in difficulty in these choices for a more forward-looking and wider vision, not restricted to the individual municipal territory but to areas with similar geography: this is the case of the earthquake in Central Italy that hit 4 regions with similar territories.

Ian Gehl's approach to design has been inspirational to this research. Designing is the



Public consultation activities with the participation of Collective Architecture, City of Edinburgh Council members and the residents to discuss a new development for a district of the city. Panels, drawings, models, questionnaires and dialogue are the tools used. Edinburgh (UK), March 2019.

procedure of creating a better or improved condition of space that is inhabited taking into consideration the user's needs and combine them with the appropriate design techniques. Gehl's design projects are created after a quite thorough observation of users' behaviours. His goal is to provide the most human aspect of space by giving the advantage of a multiple use of the space and provide opportunities (i.e. meet, sit, talk). He focuses on the human scale of public space as he summarised in many interviews that Only architecture that considers human scale and interaction is successful architecture. The motto becomes "First life, then spaces, then buildings" as the other way around never works in his opinion.

To a more practical level, the approach to design has been influenced by the working experience at Collective Architecture, UK (Glasgow, Edinburgh). This employee-owned architecture company was awarded "Architect of the Year 2018" by UK Architectural Journal (AJ). From their website: «We consider each project special and develop an approach to suit that project's need and potential. From the outset we explore all the elements of architecture through collaborative workshops and the use of three dimensional media. This leads to well crafted buildings that contribute to happiness and wellbeing over a prolonged period of time.». They explore all the elements of architecture through collaborative workshops, participatory activities and public consultation. This research is then influenced by their design approach that focuses on encouraging interaction and collaboration between communities and mixed housing tenures, abilities and age to provide homes for all.

INTERPRETATION OF THE PAST	
PROJECT	
FUNCTIONS	Primary needs
USERS	Social composition , Groups
PUBLIC SPACE	Activities , Events
STREETS	Informal activities , Transport
COMMUNITY	
STRENGTHS	Internal social elements with useful qualities for the achievement of the objectives (recognised as constitutive of the community)
WEAKNESSES	Internal social elements with harmful quality to the achievement of the objectives (recognised as constitutive of the community)
OPPORTUNITIES	External social elements with useful qualities for the achievement of the objectives (recognised in the context of the community)
THREATS	External social elements with harmful quality to the achievement of the objectives (recognised in the context of the community)

INTERPRETATION OF THE PRESENT	
ENVIRONMENTAL CONTEXT	
STRENGTHS	Internal environmental elements with useful qualities for the achievement of the objectives (recognised as constitutive of the environment)
WEAKNESSES	Internal environmental elements with harmful quality to the achievement of the objectives (recognised as constitutive of the environment)
OPPORTUNITIES	External environmental elements with useful qualities for the achievement of the objectives (recognised in the context of the environment)
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COMMUNITY	
STRENGTHS	Internal social elements with useful qualities for the achievement of the objectives (recognised as constitutive of the community)
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OPPORTUNITIES	External social elements with useful qualities for the achievement of the objectives (recognised in the context of the community)
THREATS	External social elements with harmful quality to the achievement of the objectives (recognised in the context of the community)

FOCUS : PARTECIPATORY A



G. Funari. Accumoli S.A.E., Music Band hall, December 27, 2019.

Accumoli is part of a program that sees the contribution of Cisco Systems Inc., in collaboration with Actionaid Italy, for the creation of multifunctional structures for the community, video surveillance systems and social initiatives. The structure in Accumoli hosts the music band that was able to fully resume its activities at the end of 2018. The design of the band's rehearsal room interior was carried out through a participatory process between representatives of Actionaid, the Council and the band. Although sporadic and small-scale, this activity is a first step towards greater inclusion of the population in the choices that will affect their lives.

«The space is not very large so it should be best exploited, the furniture is essential in this case. Mainly shelves. Then they asked me about the lighting but anything was the same for us. Of the Municipality there was none of the technicians, only the Mayor. We needed an A3 printer. The models of the chairs...we just have to sit! They [Cisco-Actionaid] were more for the aesthetic, let's say, but I was more for the functional. They showed up with cards to see the furniture...at first I had no confidence and then I started to engage. But no one was a technician. If they come along without the electrical system map for example...it is useless that they make these fineness... Here in Italy I don't know if it works.»

Giuseppe Funari, 32, President of City of Accumoli Music Band, 2019

«They call it a music band house, but it doesn't have a specific name. With the members of the band, we made a co-planning of the interior and furniture apart from a basic equipment that was already there (refrigerator, tv donated by Samsung). The co-project was made to understand what further expenses to face and decide with them. [the choice of] location and size were indicated] by the municipal administration as the bureaucratic process was quite complex. In Accumoli it was a bit easier the iter with the population accompanying in the management of the house and social activities. In Accumoli, even if broken, the community exists, people know each other. [The process] It happened by giving them the budget available, making 4 meetings for the co-planning, 2 at the Council then also in the presence of the Mayor, representatives of Cisco

Design strategies

There is a lack of regulations on temporary urban developments after a natural disaster in Italy. So, indications as a tool guide for administrations and designers are proposed for temporary villages in a context similar to Central Italy.

The tools aim at providing with recommendations that have as fundamental principle the importance of social interaction in a post-traumatic context. After a disaster, the inhabitants become fragile and introvert. Often during and after the emergency, most of the community is gathered in one location such as temporary villages. Unfortunately, this situation doesn't always promote cohesion and it can even increase internal frictions and disconnection from the "external" world.

The strategies deal with the design of temporary inhabited areas pending the reconstruction or alternative solutions chosen by the inhabitants. This transitory phase is an opportunity to rebuild the lost sense of community and strengthen the territory attachment. Moments of socialization can reinforce the sense of identity of the individual, the feeling of belonging to the place and to the community. At the same time, this process can help overcome trauma along with other activities. It is therefore essential that Architecture and, in particular, public spaces promote social involvement in this transitory however fundamental moment.

These reflections and suggestions intend to be not exhaustive and they are also circumstantial for a context similar to the one in Central Italy, that is mountainous and dotted with small towns and villages. They can be a first draft on how to set up the design process of future temporary villages based on the analysis of the one that has been already built. Thus, this is also a study of a design outcome.

After the study of other temporary buildings' layouts, the proposed tools deliberately don't specify the type of structure to be used. The focus is, instead, on the layout of the post-emergency villages and the public spaces amid buildings. The entrance to the dwellings is the only feature taken into account as it is directly connected with the public realm: its features and position can strongly influence the occurrence and length of encounters and outdoor stays.

To be clear, this research wants to be only a starting point on this topic. First of all, it moved the attention from the earthquake issue to the people's experience of it, trying to go beyond the mere loss of the built environment. Then it tried to identify a possible turning point for the population which seems to be the stay in temporary villages. At this point, it raised the question on how to design a temporary village in a context such as Central Italy: what would be best to take into consideration from the past and the context

and what is fundamental for the future and the people to provide a socially engaging environment? In the following pages, the suggested answer is divided into four sections:

1. From the past	2. About the context	3. For the future	4. For, from the people
1.1. Functions	2.1. Area analysis	3.1.0. Accessibility	4.1. Community analysis
1.2. Pathways	2.2. Level changes	3.2.0. Layout	4.2. Outdoor Activities
1.3. Nodes	2.3. Weather	3.3.0. Public spaces	4.3. Groups
1.4. Density	2.4. Shelter	3.4.0. Visibility	4.4. Neighbours
1.5. Thresholds to the village		3.5.0. Mix of functions	4.5. Human perception
1.6. Public spaces		3.6.0. Urban furniture and boundaries	4.6. Human distances
1.7. Symbols		3.7.0. Public and private realms	4.7. Vertical vs. Horizontal
1.8. Users		3.8.0. Density	4.8. Identity
		3.9.0. Materials	
		3.10.0. Lighting	
		3.11.0. Streets and parking	

From the past

During the analysis of the old village, relevant features for the promotion of social activities were selected. This is not an attempt to copy the former layout and features, but rather an interpretation of old and new needs from a social perspective.

«We look back at history and tradition to go forward; we can also look downward to go upward. And withholding judgement may be used as a tool to make later judgment more sensitive. This is a way of learning from everything.» (Venturi, 1972, p.3).

The following are the elements that can be relevant to the design process. According to the approach of this research, these possible inputs concerns few main clusters of information: use functions, the users, public spaces and streets characteristics. The attention is on dimensions and space relations that made these places the backdrop of former community life.



Old Accumoli
Via Roma.
Mixed traffic
street-
primarily
pedestrian
access

Functions

1.1.0. Functions that used to be part of the life of the people, provided by the old village spaces and buildings, represent the primary needs that were satisfied within the community.

1.1.1. Try to provide most of the former services and commercial activities that used to be present in the area of the village. Most likely these will be entertainment, hospitality, education, commercial, worship, bar, restaurant, health, post office, administration office, sport etc..

1.1.2. Consider not only the list of functions but also their diffusion around the village. Most likely they were not concentrated in one location as it happens in modern shopping areas but they were in different corners of the village. Understanding the distances that used to separate them and approximate the average walking distance from different points of the old village to the services can be helpful. This reference dimensions can provide a starting point to not over-dimension the new development area. For example, Accumoli's average walking distance to service was 200m but most of the route was on a steep slope or steps.

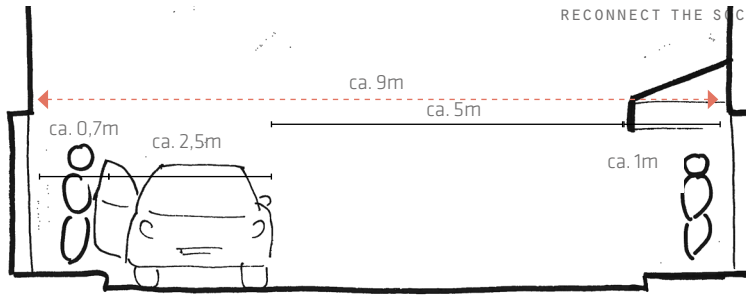


Old Accumoli
Viale delle
Rimembranze
Mixed traffic
street -
primarily
vehicle access

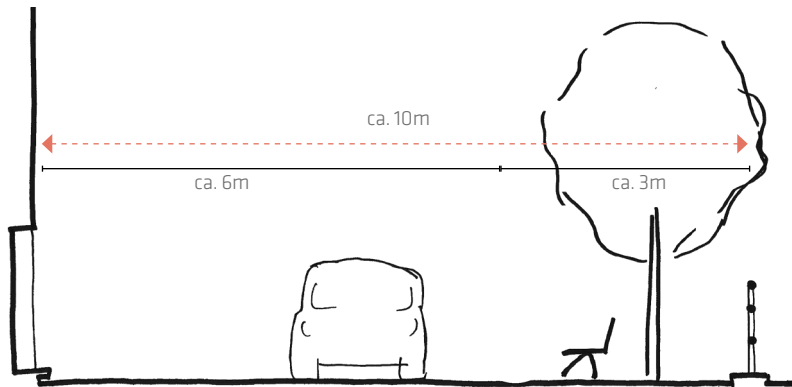
Pathways

«Paths are the channels along which the observer customarily, occasionally, or potentially moves. They may be streets, walkways, transit lines, canals, railroads. For many people, these are the predominant elements in their image. People observe the city while moving through it, and along these paths, the other environmental elements are arranged and related.» (Lynch, 1960, p.41)

1.2.1. Evaluate the width of the old streets and paths of the village and consider the ones that were most lively also thanks to their dimensions and features. Consider that the old buildings were most likely quite tall, nothing comparable to the temporary housing solutions, so the effect of narrowness, closeness, cosiness will be hard to achieve. Some of the old streets were probably too narrow for today's accessibility needs. «If the pedestrian stream is very limited, streets can be comparably narrow. Small streets in the old cities are, like the indoor hallways of the home, seldom wider than 1 meter, and village footpaths are seldom over 30 cm wide.» (Gehl, 1971, p.134). A division in typologies of paths can be helpful, divided according to the age of construction, function (residential, commercial, the main access to the village etc.) or traffic type (pedestrian, vehicular, mixed). In Accumoli the average values for the paths are 2-3m for pedestrian paths and some stairs, 3m for mix access streets and 6-8m for vehicle road.



Outdoor activities: Walk in the main street of the village, Stays and encounters related to commercial activities and offices, Traditional ceremonies (Market - not recently)



Outdoor activities: Walks with landscape view, Stays at the benches, Celebrations / dinners by setting up outdoor furniture

1.2.2. Streets are not just for passage. They are spaces that can be lived and inhabited by the people, even when they are not pedestrian.

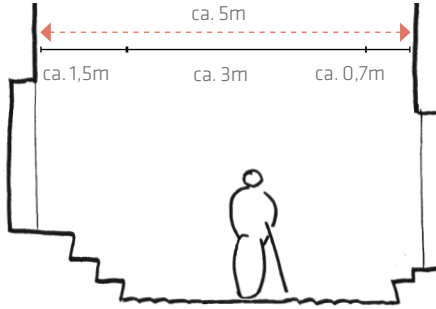
«The many cars, movements, variations, and the many little glimpses of people can nevertheless have a certain attraction, as evidenced by benches along the streets, spectators at road intersections, and the tendency to prefer walking in streets with automobile traffic to walking on deserted paths.» (Gehl, 1971, p.127)

Nodes

«The junction, or place of a break in transportation, has compelling importance for the city observer. Because decisions must be made at junctions, people heighten their attention at such places and perceive nearby elements with more than normal clarity.» (Lynch, 1960, p.12)

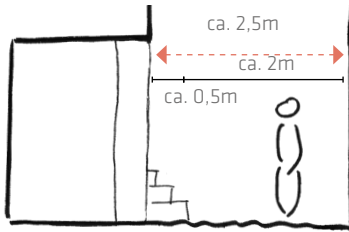
«Nodes are points, the strategic spots in a city into which an observer can enter, and which are the intensive foci to and from which he is travelling. They may be primarily junctions, places of a break in transportation, a crossing or convergence of paths, moments of shift from one structure to

→
Old Accumoli
Via Tommasi.
Pedestrian
street



Outdoor activities:
Walk in the main street of the village, Stays and encounters related to commercial activities and offices, Traditional ceremonies.

→
Old Accumoli
Via Roma.
Mixed traffic
street- primarily
pedestrian access



Outdoor activities:
Walk in the centre of the village, Stays and encounters related to commercial activities, bar, game room and church, Religious ceremonies.

another. Or the nodes may be simply concentrations, which gain their importance from being the condensation of some use or physical character, as a street-corner hangout or an enclosed square.» (Lynch, 1960, p.41)

1.3.1. When analysing the village, do not focus only what can look like a traditional square when looking for lively public spaces. Street junctions are some of the most interesting parts of a village and people will likely and naturally gather there.

«But the pleasure of watching cars is limited and is only observed in situations where there is no more worthwhile offer of experience around. This can be seen, for example, in Italian cities with and without piazzas. If there is a well-functioning piazza, people congregate there, but if there is no piazza and no city life, then street corners at traffic intersections become meeting places, where at least there is something to look at.» (Gehl, 1971, p.127)

Density

1.4.0. The density of a temporary village can be interpreted both in the sense of a number of houses per square meter but also as the richness of details contained in it.

1.4.1. The image that people carry of the old village is layered with history and it cannot be replicated. Having more details in the public space, in the access paths and streets can create a more interesting space that will be translated in a more appreciated and lively image of the town.

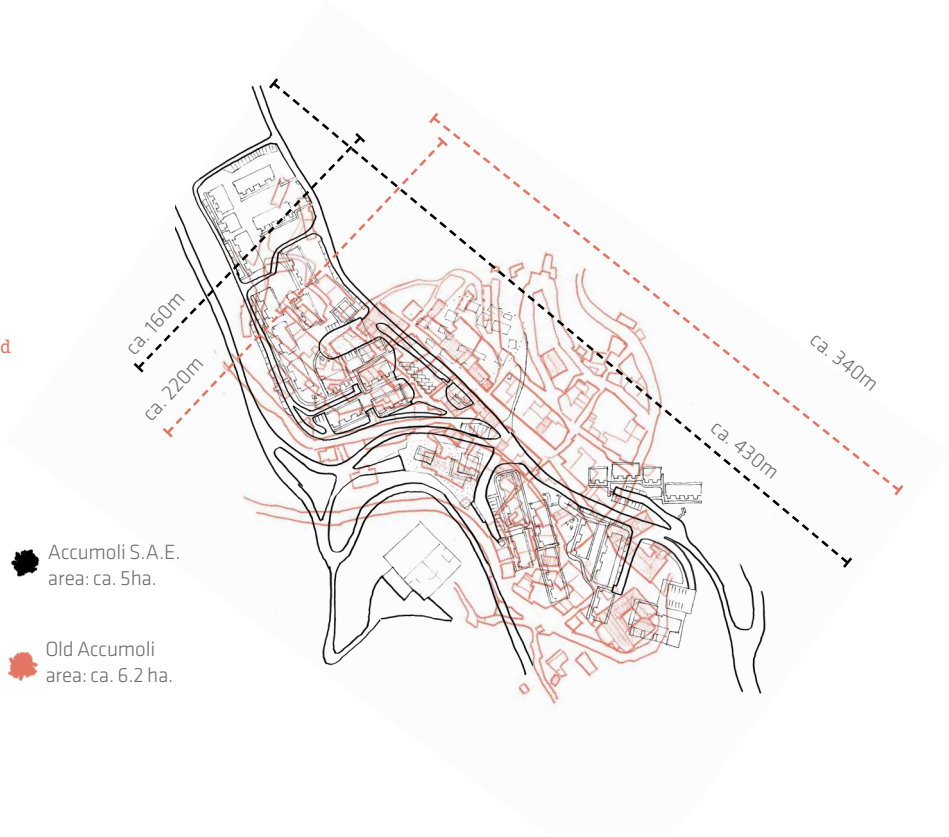
next page
Old Accumoli 's
nodes diagram



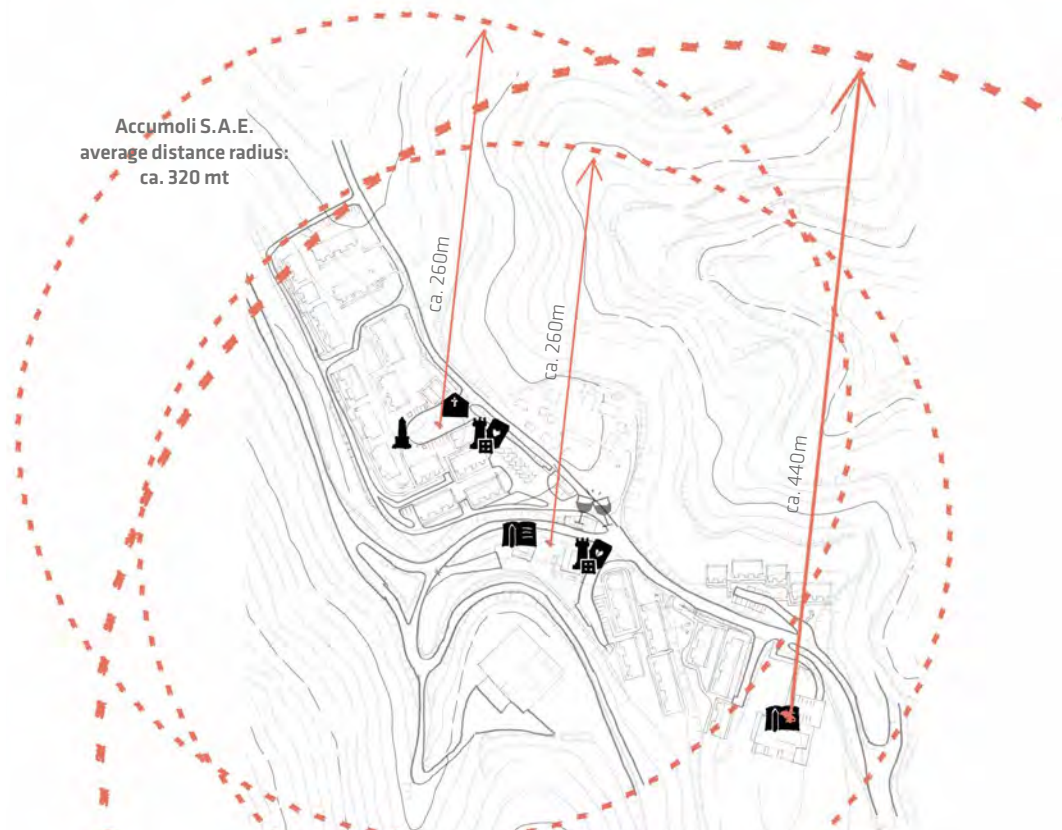
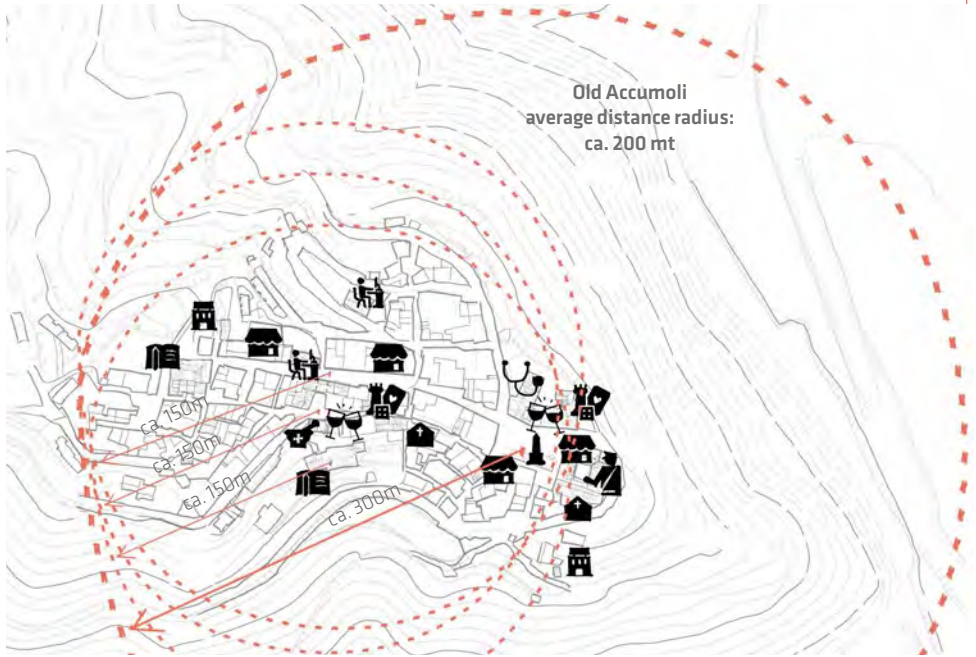
Density
comparison
between old and
new Accumoli

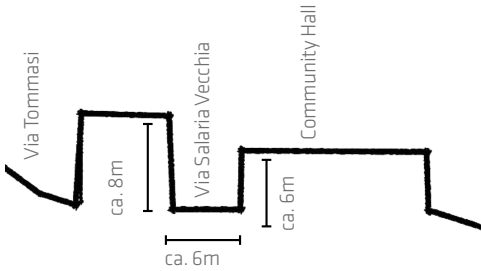


Dimension
comparison
between old and
new Accumoli

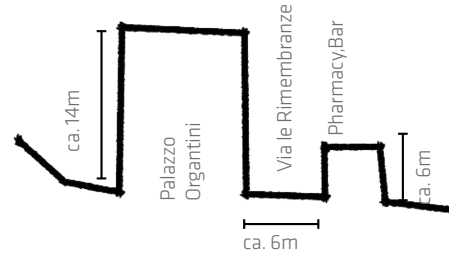


→
Walking
distance
comparison
between old
and new
Accumoli

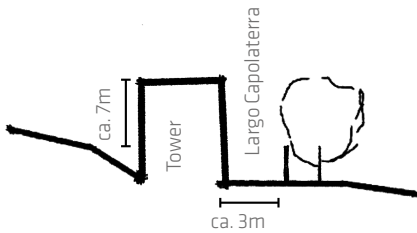




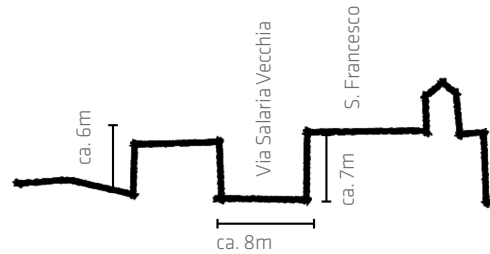
North access into San Francesco square



South access into Diaz Largo



West access into Capolatera Largo



East access into San Francesco square



Old Accumoli's
main city
thresholds -
sketches.

Thresholds to the village

«A strong physical form is not absolutely essential to the recognition of a node [...] But where space has some form, the impact is much stronger. The node becomes memorable.» (Lynch, 1960, p.76)

1.5.1. It is important to underline the significance of the access to an inhabited area, regardless of whether they are marked by historical doors or monuments: for the design of new towns, other tools must be found. For recent times we can talk about vehicle access: communicating the entrance to a populated area, especially in places with mixed traffic as Accumoli, increases safety for pedestrians, helps the drivers to feel they arrived and the inhabitants to feel at home on arrival. At the same time, the entrances to the village often represent places where people meet attracted by the passage of cars and people.

Public spaces

1.6.0. Life in public spaces used to be natural in old villages as this it part of the cultural background and habits. Be aware of the new needs and habits that changed with

technologies which introduced new ways of interacting: direct meetings in public spaces can now be replaced by indirect electronic communication. Active presence, participation, and experience can now be substituted with passive picture watching, seeing what others have experienced elsewhere that can be reached by car. The automobile has made it possible to replace active participation in spontaneous local social activities with a drive to see selected friends and attractions. Abundant possibilities do exist for compensating for what has been lost if there is a will for it and the awareness of the positive role that physical social interaction in shared places can play in mental well-being.

1.6.1. Keep a record of the types of the most relevant public spaces and their portions actually used for social public activities. They can be, for example, neighbourhood squares, events and markets squares or simply meeting places at junctions. Try then to provide as much of these spaces as possible.

1.6.2. It is very important to consider which type of traffic was allowed in public spaces. It might be found that the whole village has mixed traffic or that it would have some pedestrian areas. In a square it is possible to find the only portion that would be pedestrian, creating interesting “social pockets”.

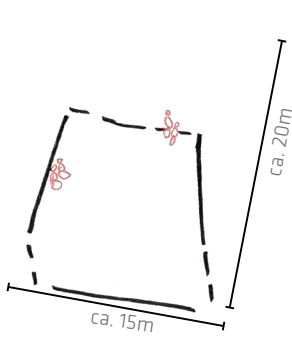
1.6.3. Size the spaces in order to be able to host the largest events (i.e. religious celebrations, concerts, festivals) but also the most popular daily activities that used to be part of the life of the village (i.e. hang out together, play cards, shopping, chat, sit etc.). The latter activities usually need a smaller space to make people feel comfortable, while events need larger areas. Most likely there will be a need for more than one main public space or square.

Symbols

1.7.1. Among the formal activities, traditional festivals and religious ceremonies can surely be found in most of the villages. According to the types of activity, there are space requirements to make them happen. Provide spaces that could surely host the traditional activities. Loosing the opportunity to carry out these activities would mean to lose a tradition and weaken the sense of identity.

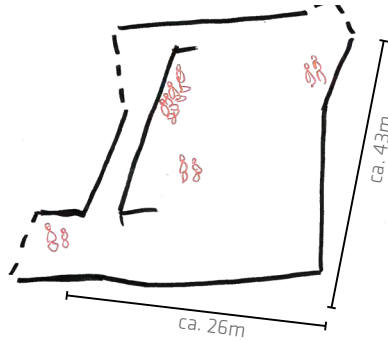
1.7.2. Monuments, war memorials, statues, bell-towers can be reintroduced with time in the temporary village thanks to restoration. These can provide a sense of identity and cohesion if they will be again part of the daily life environment.

1.7.3. It is rare to find a place in a old town where there is no name, or at least a nickname, for a square or a street. The lack of signs, symbols and names for the new squares and streets encourages the difficulty to give an identity to the place and to locate it in the mind, not only physically.



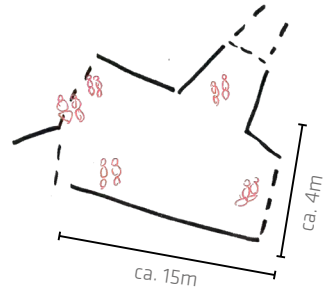
Largo Capolattera.
Mixed traffic

Outdoor activities:
Stays/encounters
with neighbours



Piazza San Francesco
Mostly mixed traffic
Pedestrian portion

Outdoor activities: Sit on benches, encounters
at bar, church, commercial activities and
offices, Large events (outdoor furniture)



Largo Diaz
Mostly mixed traffic
Pedestrian portion

Outdoor activities: Sit on benches,
encounters at bar and commercial acti-
vities, Small events (outdoor) furniture



Old Accumoli's
squares

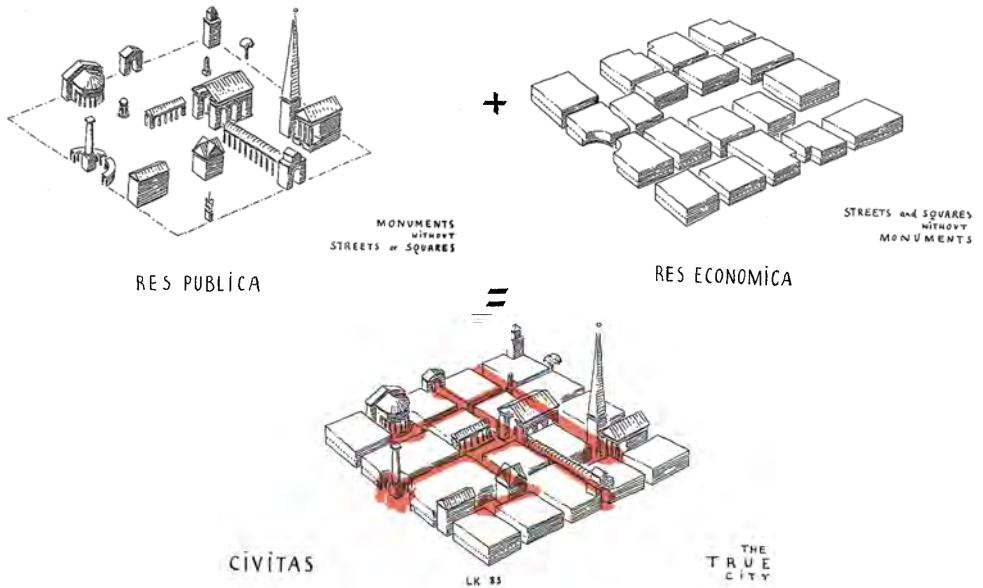
next page
"Res Publica,
Res Economica,
Civitas",
Foundational
diagram for
New Urbanism,
it indicates
public spaces
and buildings
scattered across
the townscape
to permit the
civic institutions
to lend identity
and characterize
different parts of
the city.
L. Krier, 1983.

Users

1.8.0. Places are for the people. Architecture is for the people. This is the approach to keep in mind. How can design even start if there wouldn't be final users? It is fundamental to know the social composition, age ranges and formal and informal groups that are found in the village after the earthquake.

1.8.1. Value different options where people could be gathered in one main village if the previous scenario of different spread out villages created social division, as in the case of Accumoli. The post-disaster scenario can be a moment to rethink and overcome also previous social issues. It is also the moment where cohesion is most needed to overcome difficulties, so higher density could be helpful. Also, a higher number of people generates diversity in the community and more chances for shared interests, activities and interactions.

1.8.2. Be aware of both official and informal social groups. The first ones can be easier to identify as they most likely refer to a cultural, sport, artistic, crafting association, for example. The spontaneous groups are hard to identify: they don't have an official name, their "members" change and they can change behaviours according to the seasons (i.e. outdoor bar-goers, hiking groups etc.). Listing informal activities can help to make sure that the project will cover these users as well.



1.8.3. Keep track of new social relations that are born in the post-seismic-scenario. In the case of Accumoli, a knitting group was formed during the post-emergency phase and had to cease activity due to lack of a space where to work in the temporary village. It wasn't a matter of producing crochets articles, which can be done as an individual activity at home, but an excuse to meet and feel stronger together.

1.8.4. Age ranges are very important as people change their needs, interests and behaviours with ageing. An old population will need a bigger design effort for accessibility and walking distance, for example; a younger community will most likely need well visible playgrounds and community halls where to meet up freely.

About the context

The process of analysis of the context is here suggested following again the concept of what can be relevant to the well-being of the people: slope, weather, orientation and shelter. The elements of the context that are merely functional to the design are overlooked not because they are not relevant, but based on the assumption that they will be analysed by default by the technicians of the administration (i.e. maps of natural constraints, risks etc.). The SWOT analysis of project area is the tool suggested.

INTERPRETATION OF THE PAST: ACCUMOLI		
PROJECT INPUTS		
FUNCTIONS	Entertainment Hospitality Education Commercial	Worship Bar/Restaurant Service , admin Monument Sport
USERS	<u>Population:</u> 146 People (2019) in 64 Families (2019) <u>Age range:</u> - 0-20: 14% (2019) - 21-40: 16% (2019) - 41-60: 28% (2019) - 61-80: 30% (2019) - 80+: 12% (2019)	<u>Groups:</u> Chior, Music Band, ProLoco, Knitting (2016), Bar goers, Card players
PUBLIC SPACE	<u>Activities:</u> Religious celebrations, play in the music band, festivals and parties, hang out at the bar, play cards, shopping, chat/sit at the front doors	<u>Types:</u> - Neighborhood square (mixed traffic) - Events/markets square (mixed traffic) - Meet at junction (mixed traffic)
STREETS	<u>Overall dimensioning:</u> Average walking distance to a service: 200m	<u>Types:</u> - Pedestrial path width: 2m - Mixed traffico street: 3m - Vehicle road: 6-8m

Project area analysis

2.1.0. It is important to analyse the physical features of the chosen project area and enhance them. SWOT analysis is one of the most popular methods of strategic analysis in territorial regional programs (Chang, Huang, 2006). It involves specifying the project aims to identify the key internal and external factors that are important to achieve the objective. It is very important to clarify the goals of the project: it is here suggested to don't take into account just money saving for example, but to set a brief in which social life quality as one of the main aims; this way, decisions regarding space should follow as a consequence.

Internal factors relate to the present situation and can be directly influenced:

- Strengths: characteristics of the project that give it an advantage over others
- Weaknesses: characteristics that place the project at a disadvantage relative to others

External factors are variables external to the project relating to changes in the environment that may affect the project and cannot be influenced, but only kept them under control:

- Opportunities: condition of the context that favours the project in accordance with the objectives

- Threats: unfavourable situation in the context that hinders the objectives achievement

The SWOT analysis is divided into three phases: preliminary stage where the factors are identified, construction of 4 sections matrix analysis using the factors and then the definition of strategies crossing the factors.

SWOT MATRIX	Helpful	Harmful
Internal	Strengths	Weakness
External	Opportunities	Threats

STRATEGIES	Opportunities	Threats
Strengths	S – O: Exploiting	S – T: Tackling
Weakness	W – O: Transforming	W – T: Avoiding

The last phase consists in crossing the two classes “strengths” and “weaknesses” with two classes “opportunities” and “threats”. As a result, there are 4 groups of possible strategies: S-O Strategies, W-O Strategies, S-T Strategies and W-T Strategies. S-O Strategy maximizes the strengths and opportunities. It develops actions that use the strengths to take advantage of opportunities. Things that are good now, it maintains them, it builds on them and it uses them as leverage. W-O Strategy maximizes the opportunities trying to eliminate the weaknesses of the project (look for new opportunities, etc.). It overcomes weaknesses by taking advantage of opportunities. Things that are bad now, it changes or stops them. S-T Strategies maximize the strengths, minimize the threats. It protects the project against threats, it uses strengths to avoid threats. Things that are good for the future, it prioritizes them and builds on them and optimizes them. W-T Strategy minimizes both threats and weaknesses. Depending on the weaknesses, there are different strategies of protection (defence plans, etc.). It minimizes weaknesses and avoids threats.

The main aim of this analysis of the environmental context is to help develop a project that takes into account the actual characteristics of the area to enhance the area and take advantages of its features for the project. The actions will follow the strategies using a matrix of actions.

next page, top
Micro-climate diagrams. Shade and wind can be influencing factors on the use of an outdoor space. Screen from the wind or protected location is very important.

next page, bottom
Shelter diagrams. Although the need for shelter is sometimes relative, a cover or shielding conveys a sense of "place" as it delimits an area: this will attract more people.

Changes in level

2.2.1. If building on different levels is necessary, it can be worth considering to place a square in the lower part. It is easier to start with movement downward than with movement upward. It is simpler to mentally overcome the idea to "walk down" to a public place than up. This is an additional effort on top of to the decision to go out and engage with others.

2.2.2. The main rule for pedestrian traffic and differences in level, then, is that variations in level should be avoided whenever possible. If it becomes necessary to direct pedestrians up or down, prioritize ramps. Many observational studies can prove that people will always prefer a ramp to steps unless this choice implies a long detour (Gehl, 1971, p. 144).

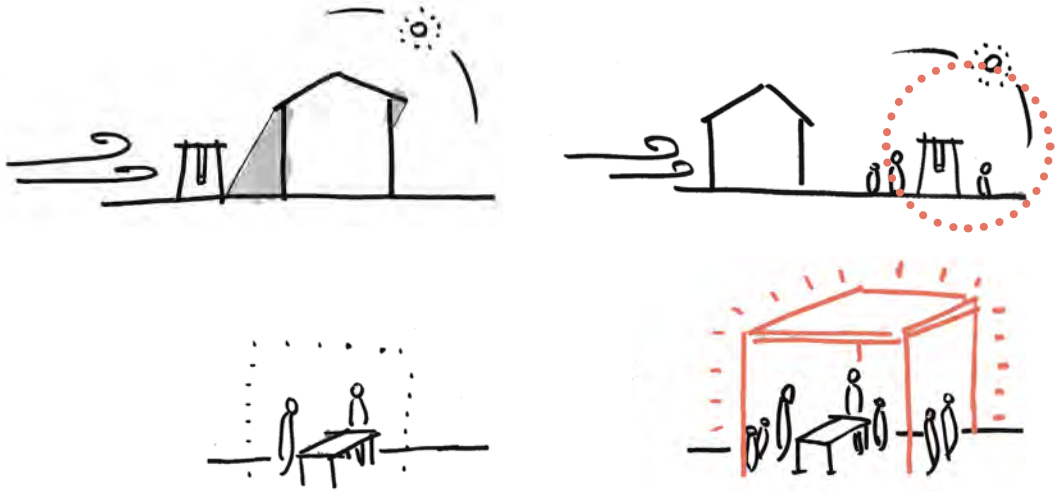
2.2.3. When change in level and slope are the main land characteristic, it could be the case to try exploit them instead of flattening, which is time and money costly. There are options for hill-like playgrounds for example, which could be even more interesting than a flat garden with the traditional games. On the topic of aesthetics, "affordances" (Gibson, 1979), and creativity in playgrounds, Dutch architect Aldo van Eyck's works after WWII can be an inspiring reference (Withagen, Caljouw, 2017). Public spaces could be obtained on a slope, creating an outdoor theatre or simply a peculiar square where people could sit or lay on the floor (Piazza del Campo in Siena for a traditional example or Superkilen in Copenhagen for a contemporary one).

Weather

2.3.1. Meticulous appraisal and detailing of public space must be implemented starting not only from the regional climate but also from cultural patterns related to the weather conditions.

«In the briefest possible sense, the message of this book is that no matter how hard man tries it is impossible for him to divest himself of his own culture, for it has penetrated to the roots of his nervous system and determines how he perceives the world. Most of culture lies hidden and is outside voluntary control, making up the warp and weft of human existence. Even when small fragments of culture are elevated to awareness, they are difficult to change, not only because they are so personally experienced but because people cannot act or interact at all in any meaningful way except through the medium of culture.» (Hall, 1966, p.188).

2.3.2. It is not always summer. Consider climate, geography and weather condition as much as possible both for private buildings but for public spaces as well. It is thus important for planners to place walking routes and outdoor resting areas optimally in relation to the microclimatic factors of each specific place.



2.3.3. By far the greatest problem in outdoor spaces is wind. When the wind is blowing, it is difficult to keep one's balance, to keep warm, and to protect oneself. Buildings around a square, for example, can create a nice microclimate in the public area. Cases such as a large square, the passage from a narrow street to a wide-open space and a long narrow street, are very sensitive to strong wind channelling. Low height development generally is less subject to these conditions.

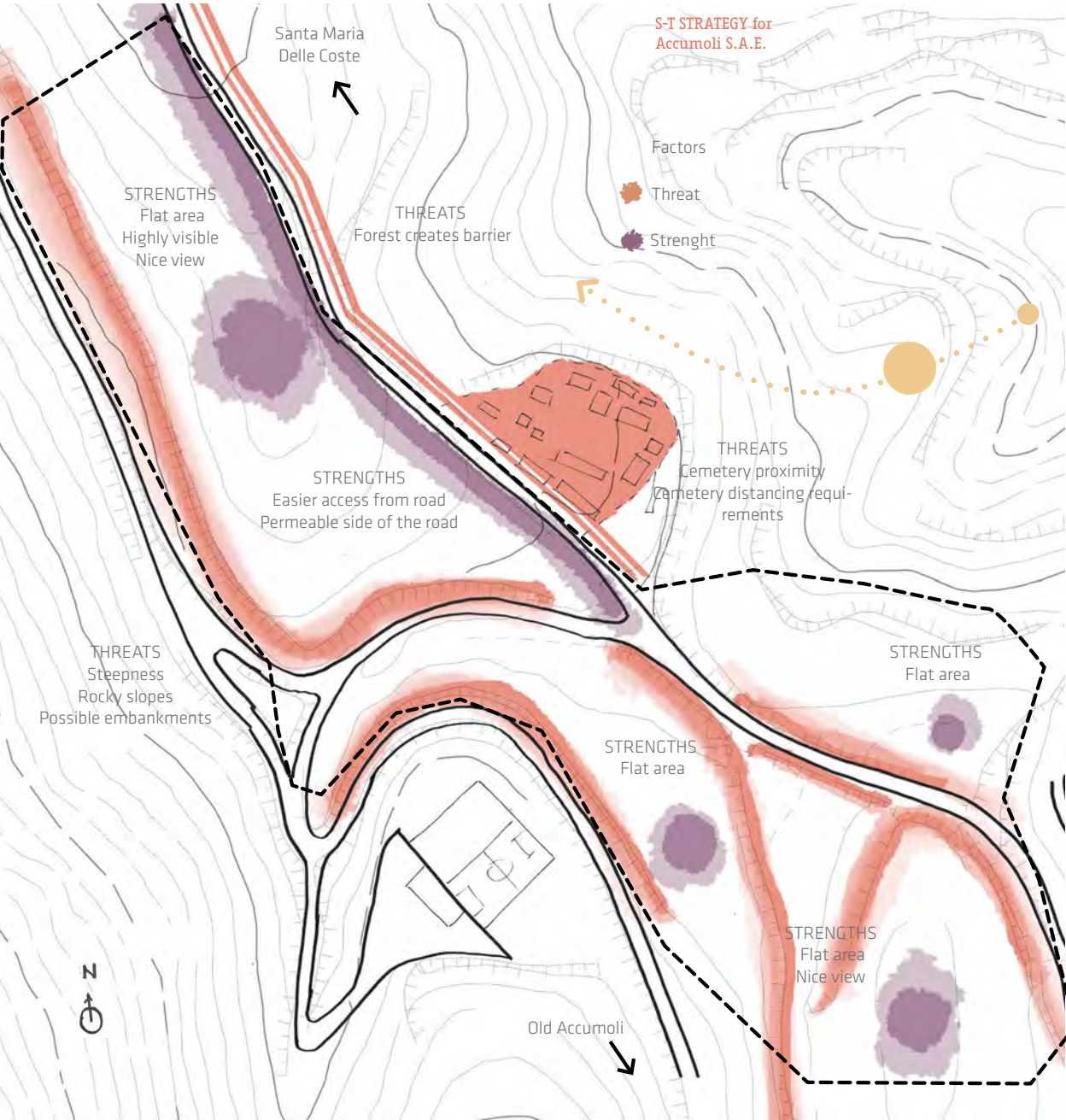
2.3.4. In order to make people stay a bit longer in the streets, it is worth considering how we can provide small comfort stations, which help individuals take a break from the cold, wind, rain or sunshine. Efforts should be made on a small scale to help the situation by providing wind-breaks, trees and hedges, and covered areas precisely where they are most needed.

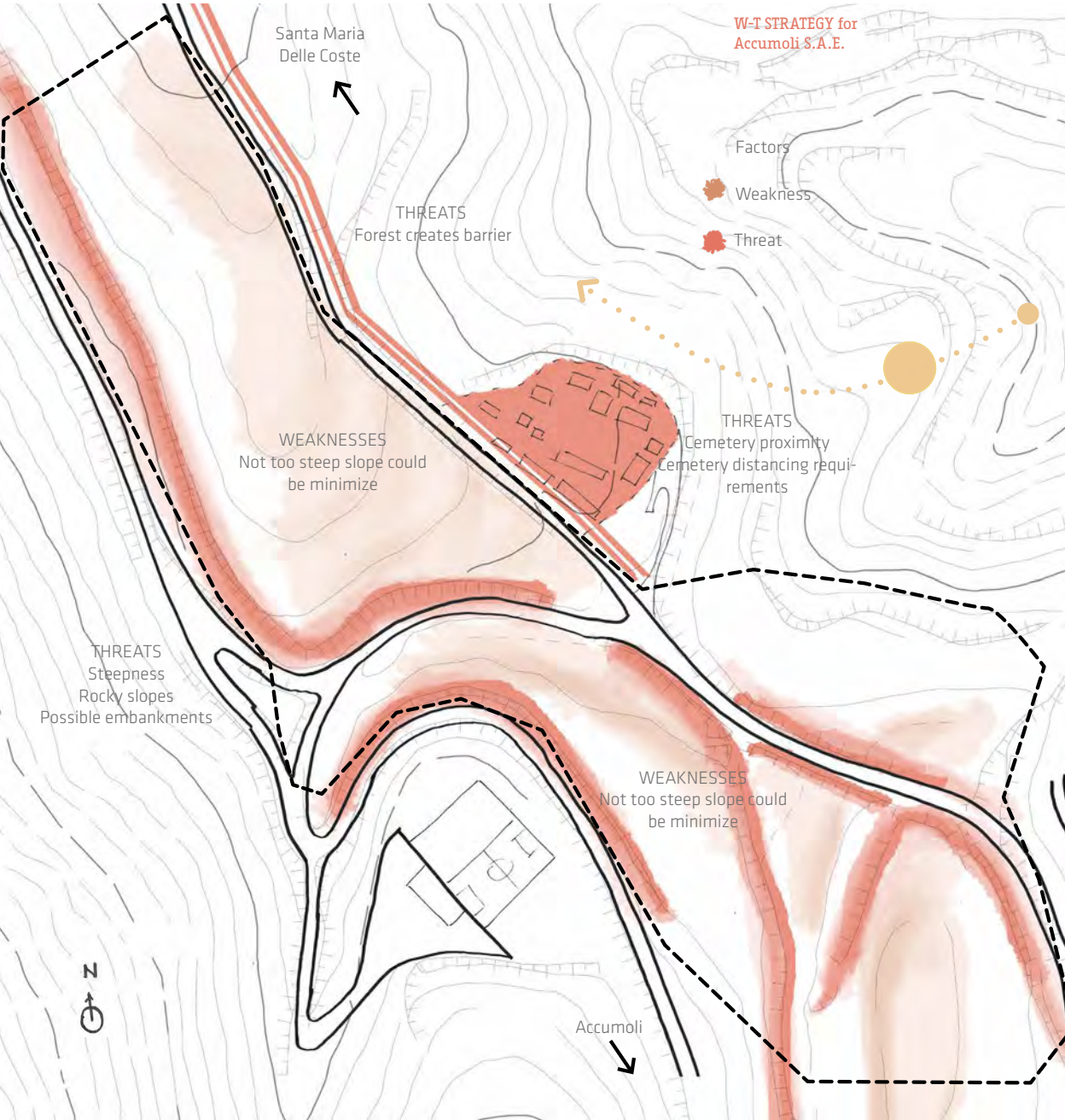
Shelter

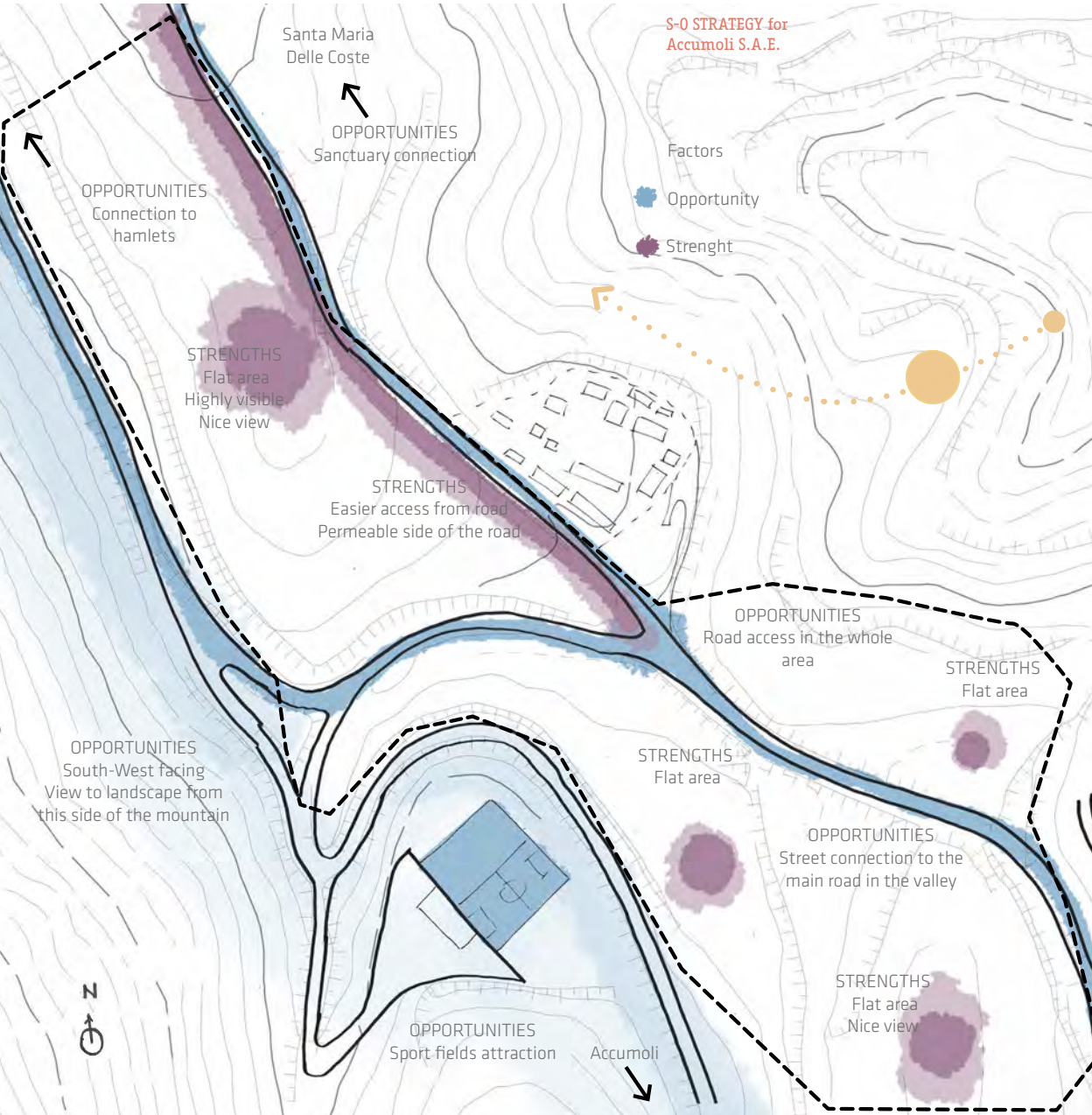
2.4.1. Experience daylight and seasonal changes can help dictate daily life when many reference points are lost. If public spaces are oriented North-South, the sun moving from East-West creates different scenarios thanks to shading. This will make the space less dull and more liveable at different times of the day and year for different types of people.

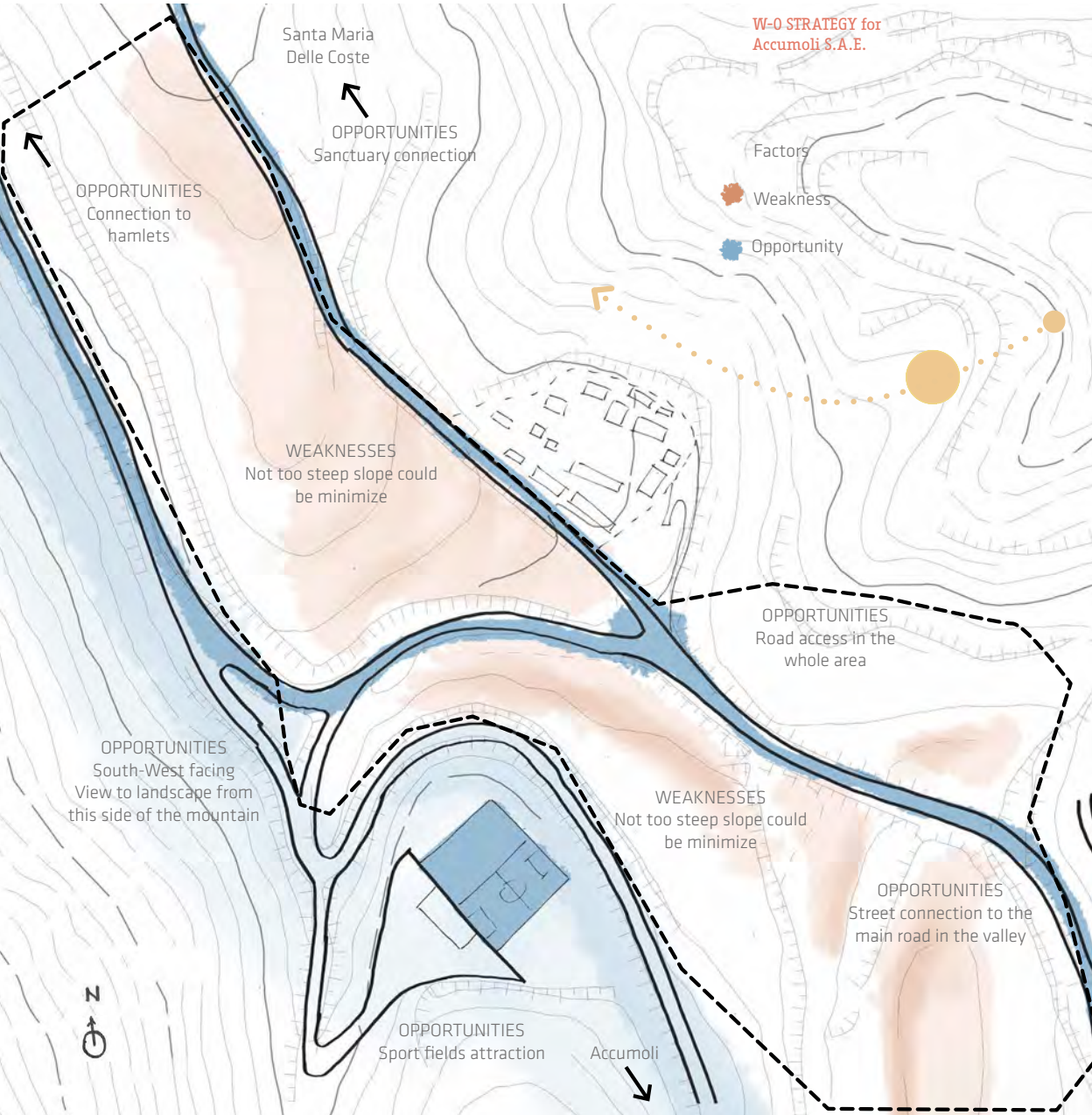
2.4.2. Often people in small communities feel comfortable to put up shelters, such as umbrellas and gazebos. Such elements could be integrated into the project as portals and roofed areas, both attached to a building or standing in the public area. Although the need for shelter is sometimes relative, a cover or shielding conveys a sense of "place" as it delimits an area.

2.4.3. Always provide roof at the housing solutions' entrances to allow longer outdoor stays at the door in different weather.









next page
Stair seat sketch,
Alexander, 1977,
p. 605.

For the future

One of the focus of the design should be making forward-looking choices for long lasting positive effects on people's well-being. Inspiration can come from different studies and literature as long as there is a social perspective approach to design. In the current case, the analysis of the design outcome of the temporary village of Accumoli raised questions on density, over dimensioning and isolation due to its "urban sprawl" looking layout, even if in a such small size. The features of a sprawls, for example, can be found in human scale elements such as the distances between the houses and their back-to-front orientation. In this sense, answers could also be found in studies on urban sprawls as long as the studied researches outcomes are always put into context and in the right dimension.

«Analysis of existing American urbanism is a socially desirable activity to the extent that it teaches us architects to be more understanding and less authoritarian in the plans we make for both inner-city renewal and new development.» (Venturi, 1972, p.6).

Here the awareness of the difficulty for architectural design to predict and respond to all the needs of a community is expressed. For this reason, he approaches the design with the intention of leaving the possibility to people to modify and complete the spaces according to their needs. At the end of this research there is an attempt to give circumstantial directions to outline spaces avoiding giving them the appearance of a definitive solution. This is the very complicated balance between the intention of the designer expressed in his project and that of the user expressed in everyday life. On top of this, people know that they are in a temporary village because of an earthquake that swept away their homes: it is very hard to generate emotional investment in the new housing development. This is an element that can relate to people's awareness identified by Jacobs (1961) in the 50s: being in high-density buildings because of their poverty, which made people feel worse about themselves.

«The question is that architecture knows nothing of that precisely narrative essence from which spaces are made. [...] Until such time as the city and the practices put into motion for understanding it and transforming it abandon the burden of the stroke-of-genius reformers of which architecture today seems to be the most fashionable representative; until such time as they take back being first and foremost the narration, the clarification of the profound and dense galaxy, of the existential horizontal and vertical configuration in which cities are made, there will be only useless exercises, caprices of so-called creative types kissed on a sterile backstage by the Fates of fashion.» (La Cecla, 2008, pp.3-4).

Accessibility

3.1.1. Over possible, take into account previous neighbours relations to be restored. Accessibility is not only getting rid of architectural barriers but it is also making sure that



people offer support to those who need it. Such behaviour increases the cohesion of the community. More importantly, make sure to provide:

- Vehicle access to disables and elderly,
- Proximity of carers or relatives to people who need;
- Mix of types of people and families

3.1.2. Foster horizontal connections. For examples it is better if a social activity takes place at 50mt - 100mt far than 3mt above: human perception is very limited over 3mt height and it tends to always relate to horizontality.

3.1.3. Always provide ramps or, even better, ramp and steps. Consider every stepped passage as a social opportunity for people to seat and gather, not just a barrier.

«In any public place where people loiter, add a few steps at the edge where stairs come down or where there is a change of level. Make these raised areas immediately accessible from below, so that people may congregate and sit to watch the goings-on.» (Alexander, 1977, p. 605).

Layout

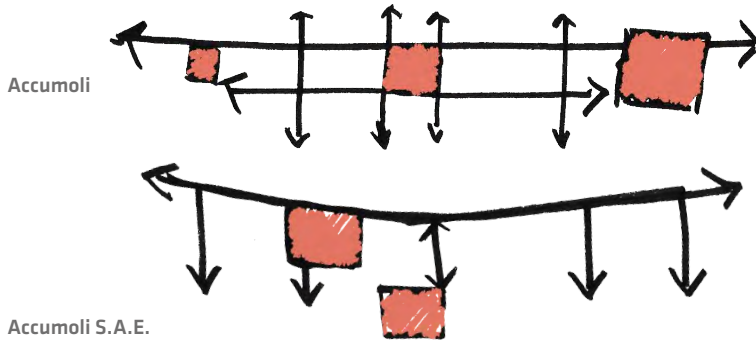
3.2.1. Arranging a new development around a square can appear as a good solution but it can result problematic in case of future expansion. A linear layout could be more feasible for example but keep in mind walking distances to avoid the car to be a necessity and not just an option. Also, consider the old layout of the village as it could be a dense cluster around a core or, instead, spread along a main road. Building along a “strip” doesn’t necessarily mean to fail to build a social liveable housing development, but we can learn from the past:

«Learning from the existing landscape is a way of being revolutionary for an architect.» (Alexander, 1977, p. 3).

An interesting solution may be to arrange the residences in a jagged manner, so as to create cosy corners where activities can take place and meetings can happen; this is the case of the Sandbakken residential project in the district of Skaade in Aarhus (Denmark) built in 1985 by C.F. Møller Architects.



Diagrams of space strategies for Accumoli and Accumoli S.A.E..



3.2.2. All residential fronts should face an access street. The street could have mixed-use functions and mixed traffic to be more lively.

«People and activities are dispersed when buildings are placed at great distances from one another with entrance areas and residences oriented away from each other. The pattern is common in traditional single-family housing areas and functionalistic detached apartment blocks.» (Gehl, 1972, p.3)

3.2.3. As much as possible, layout residential units with entrances facing each other. The arrangement can be front-to-front, especially if there are front gardens, and back-to-back as well if there are back gardens. Generally, entrances and threshold are the most interesting and lived spaces by the residents so this orientation will enhance the chances for contact and conversation.

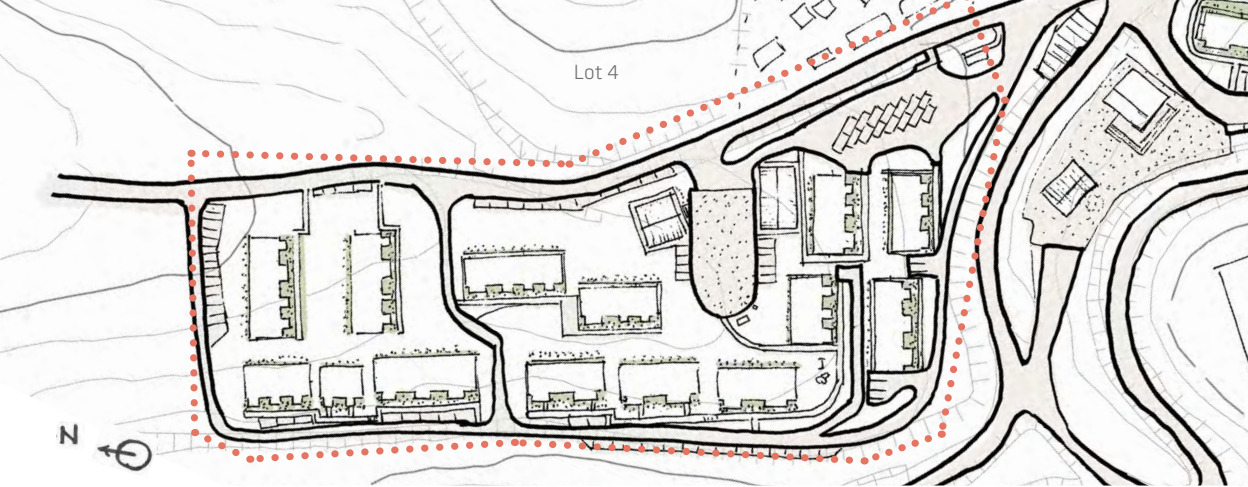
3.2.4. Try not to exceed 400m walking distance from any residential unit to the farthest mixed-function area.

«In a large number of surveys, the acceptable walking distances for most people in ordinary daily situations has been found to be around 400 to 500 meters. For children, old people, and disabled people, the acceptable walking distance is often considerably less.» (Gehl, 1971, p. 137)

Public spaces

«Architects have been bewitched by a single element of the Italian landscape: the piazza. Its traditional, pedestrian-scaled, and intricately enclosed space is easier to like than the spatial sprawl of Route 66 and Los Angeles.» (Venturi, 1972, p.7).

3.3.1. Do not over-dimension any public space as it will generate dispersion and dullness. The concentration of different buildings, with conscious quality and quantity considerations, can make the new villages more interesting. About squares, K. Lynch in his book *Site Planning* (1962) gives spatial dimensions of around 25m as immediately



S.A.E. LOT4
STRATEGY OPTIONS

Courtyards



Jagged



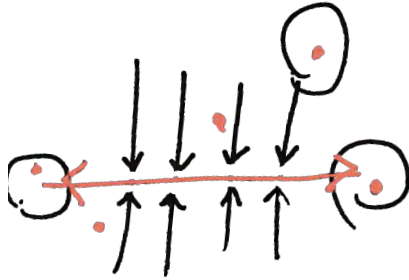
Pockets



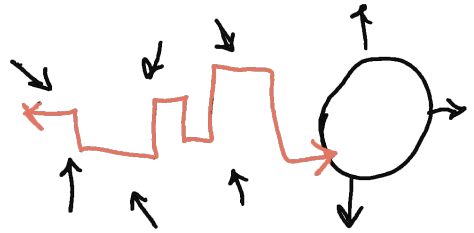
Linear



1. SPACE STRATEGIES



Grid layout

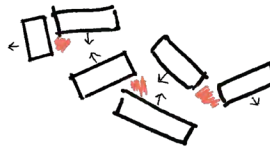


Woonerf concept

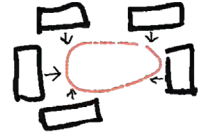
2. SPACE PATTERNS



Linear
 > Exploit density
 > Activity street



Jagged
 > View cones
 > Activity pockets



Courtyard
 > View connections
 > Activity square

3. HOUSING ORIENTATION

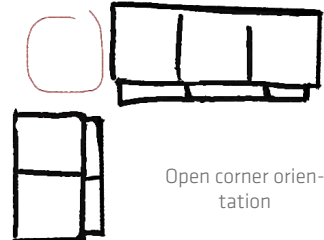
Avoid front-to-back orientation



Front-to-front orientation
 > Facing entrances



Back-to-back orientation
 > Facing back yards

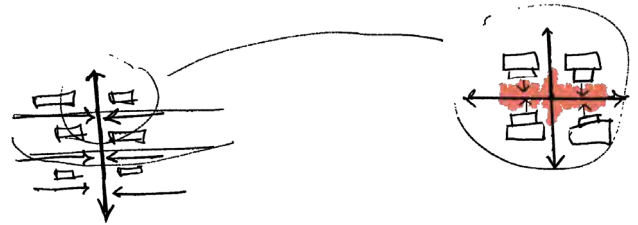


Open corner orientation

4. LAYOUT OPTIONS

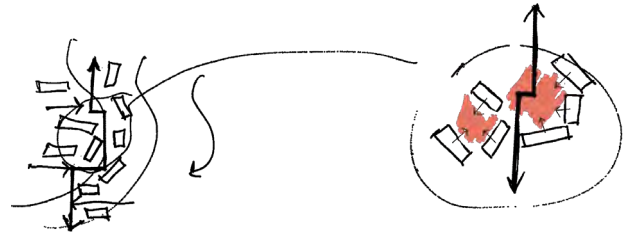
Linear / Stepped linear

- Grid strategy
- Linear pattern
- Front-to-front orientation
- > Project area on flat land
- > Project area on a slope



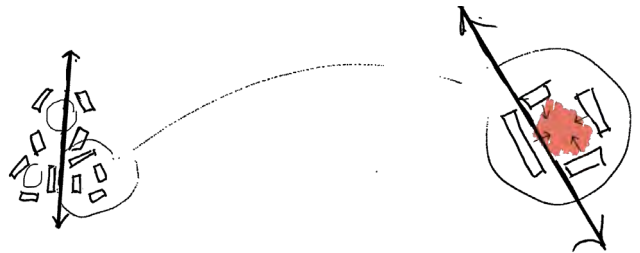
Jagged / Stepped jagged

- Woonerf strategy
- Jagged pattern
- Open corner orientation
- > Project area on flat land
- > Project area on a slope



Clusters / Stepped clusters

- Woonerf strategy
- Courtyard pattern
- Front-to-front orientation
- > Project area on flat land
- > Project area on a slope

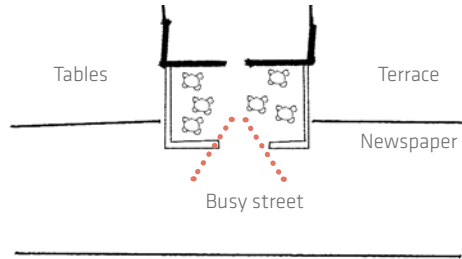
Linear dense /
Stepped linear dense

- Grid strategy
- Linear pattern
- Front-to-front, back-to-back orientation
- > Project area on flat land
- > Project area on a slope





Street café.
«Encourage local cafes to spring up in each neighbourhood. Make them intimate places, with several rooms, open to a busy path, where people can sit with a coffee or a drink and watch the world go by. Build the front of the café so that a set of tables stretch out of the café, right into the street.»
Alexander, 1977, p. 439.



comfortable and well dimensioned in a social context. He also points out that spatial dimensions greater than 110 m are seldom found in good city spaces. It is hardly a coincidence that the length and width of most Southern European medieval city squares are near to or below these two figures (Gehl, 1971). The biggest square of Accumoli was about 26m by 43m, almost flat and it alternated pedestrian to vehicular traffic. The new biggest one is about 19m by 53m with mixed traffic and half of it is on a slope.

3.3.2. Aggregate elements where possible so that people (and activities) are not dispersed. Avoid placing buildings at great distances from one another where only sidewalks or path occur as connections, with over-dimensioned open areas and a consequent thinning out of outdoor activities. To foster the establishment of more intimate and better-used public spaces, avoid having many dispersed roads and paths instead of a more concentrated street network. This is a more similar layout to the one that is found in old cities.

3.3.3. Try to enhance also street crossing and mixed traffic streets, especially if the design of one or more squares can be challenging due to, for example, budget or the project area's nature: these "nodes" (Lynch, 1960) can provide a social attractive point as well, avoiding to build other purpose fitted spaces.

3.3.4. Sometimes a square can't be realised in the traditional sense of flat large space. Try to exploit the slope of an area, for example, avoiding excessive earthworks and create something appealing adding urban elements.

«In the Campo in Siena, the principle is used in its most refined form. The entire square is built like a grandstand – a shell with places for standing and sitting at the top, along the facades at the shell's periphery. This arrangement provides optimal possibilities for standing and sitting in the edge zones, at bollards, and in sidewalk cafés. The places for standing are well defined, people's backs are protected, and there is an outstanding view of the entire urban arena.» (Gehl, 1971, p. 165).

next page
Activity pockets,
Alexander, 1977,
p. 602. «Surround
public gathering
places with
pockets of activity
- small, partly
enclosed areas
at the edges,
with jut forward
into the open
space between
the paths, and
contain activities
which make it
natural for people
to pause and get
involved.»



Visibility - to see and be seen

3.4.1. Reduce height variation that would obstruct sightliness (to see - to be seen). The first invitation to an activity is the ability to see it.

3.4.2. Playgrounds to be highly visible. This can mean put them in a high position, an position that other building look over to or in the range of 20 mt- 100 mt from buildings (within this distance the eye can read human figures). This is to encourage children to go out to play seeing someone else playing and to ensure safety by the parents.

3.4.3. A strategy to design large public spaces could be to dimension them so that the borders of the space correspond to the limits of the «social field of vision» which is within roughly 100 m (Gehl, 1971, p. 65). In this way, there is room for a wide range of activities, all within full view of everyone using the space.

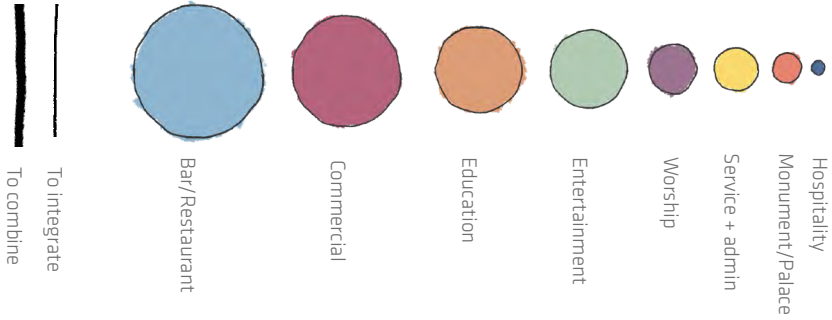
3.4.4. Locate mixed-functions building and gathering spaces in a highly visible location. People will tend to join if they see something happening. On the contrary, if none knows what is happening, they will feel left out. This is the case of the square of Accumoli where there is the music rehearsal room. People that are going to practice or perform can't be seen from most of the village: the other residents need to be informed formally of any events, losing the thrill of joining others spontaneously.

Mix of functions

3.5.1. Remember that the existence of different functions in a development can represent the opportunity for social interaction. Most of all, shopping is an excuse to go out of the house, possibly walk to the shop, interact with the seller and maybe meet up someone on the way or at the shop.

«Shopping is arguably the last remaining form of public activity.» (Koolhaas et al, 2001).

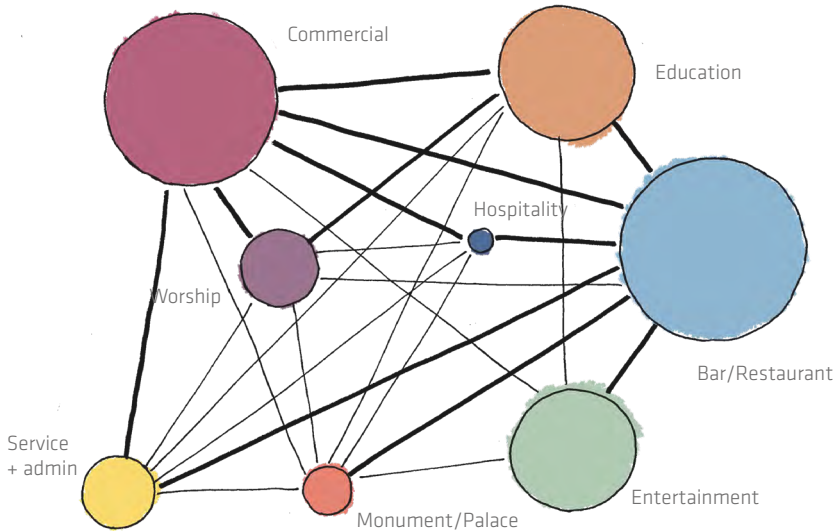
➔ Social engagement factor of buildings functions. The size of the indicators is a simple approximation of the power of attracting people of certain buildings.



➔ Adjacency matrix of buildings functions. To read: crossing diagonally the rows of functions.



It is suggested:
 - to avoid to combine only the two indicated functions;
 - to integrate the two indicated ones with more and different ones;
 - to combine the functions as they can promote a lively space between them.



3.5.2. Always mix commercial units with other functions. It is fundamental that different people use the same public space; this way space will very rarely be empty.

3.5.3. Avoid a layout where same commercial activities in the same building or in proximity to each other. In the case in which this won't be possible, a linear arrangement of the shops is recommended. Consider the necessity of being visible for commercial activity but also the client's need to keep their preferences private. For example, two bakeries are facing each other on a small square: in a villages, people all know each other and they won't want to upset any of the two bakers in case they have to be seen entering one of the two bakeries. Some residents won't go to either bakery at this point, they would instead go to a bigger shop in another village or city.

3.5.4. Make sure that there is a mix of opening times of the buildings in the mixed-use areas. For example, it won't be recommended to layout a church open mainly or only on Sundays and an event space rarely used; the space in between will be often empty as the buildings do not offer a reason to stop. To have a clear and simple summary it is suggested to use adjacency matrix, bubble diagrams or zoning diagrams which are the tools experimented by E. T. White in his book *Space adjacency analysis: diagramming information for architectural design* (1986).

3.5.5. Monuments, landmarks and museums are included in this category. It is important that they will be integrated within the public space and enhanced by it; at the same time, public space cannot be of good quality or relevance only thanks to the presence of a monument.

Urban furniture and boundaries

3.6.1. Informal "light" boundaries to be preferred over fences. These can be such as low walls, change in paving, canopies, benches, bushes or other low vegetation. Railings can be a good option as they can provide physical support which is appreciated by people standing at a space edge. Over possible, define boundaries with physical supports (i.e. railing) rather than fences. Columns or bollards can offer support and lengthen the duration of outdoor stay.

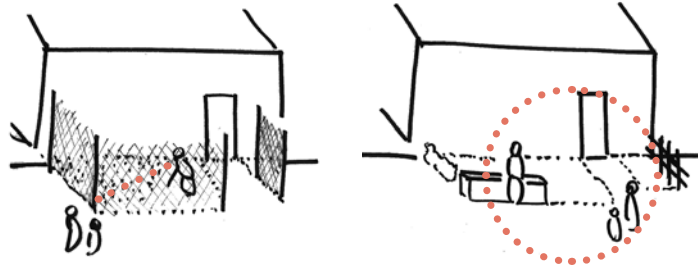
3.6.2. Consider that the activities grow from the edge to the middle of open space as per the "edge effect" (Alexander, 1977). Space will not be a lively one if the edge is not present or clearly marked.

3.6.3. Mark clearly the village entrance with signs, symbols, portals etc.. It is important to highlight a threshold: the traffic needs to slow down and the place will have a stronger identity this way.

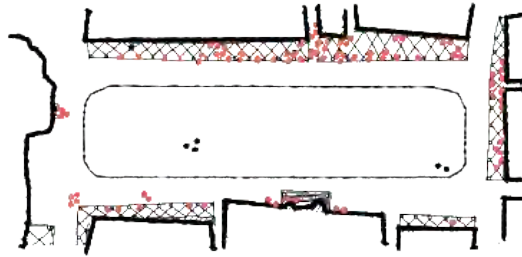
3.6.4. Furniture orientation is fundamental for its frequency of use.



Diagrams of boundaries. Fence vs. low elements



Zones for staying - the edge effect. «Survey of the city square, Ascoli Piceno, Italy: standing people tend to congregate around the edges of the square. People can be found standing alongside facades, under porticoes, in niches, and next to columns.» Gehl, 1971, p. 148.



«An investigation of Tivoli Garden in Copenhagen carried out by the architect J. Lyle, shows that the most used benches are along the garden's main path, where there is a good view of the active areas, while the least used benches are found in the quiet areas of the park. In various places, benches are arranged back to back, so that one of the benches faces a path while the other "turns its back." In these instances, it is always the benches facing the path that is used.» (Gehl, 1971, p. 27).

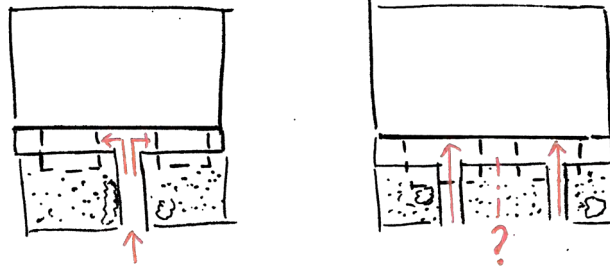
next page
Front yard diagrams. Sharing the access path can save money on material, increase the chances for meeting between neighbours and create a clear limit between the front yards.

3.6.5. Benches placed in the middle of open spaces look interesting on architectural drawings but are definitely less inviting than more sheltered spaces. The most popular places to sit can be found at the edges of open spaces, where the sitter's back is protected, the view unobstructed, and the local climate most favourable.

3.6.6. Provide free moving furniture. Give people the opportunities to move chairs or small benches around. They can also take the responsibility to put them away, replace them (with the municipality support) and store them: this will make the residents more emotionally involved. Furniture can be stored even in an outdoor shelter as long as the community feels it's safe.

Public and private realms

3.7.0. Often outdoor activities have a very improvised and fluid character and designers have to be aware of this.



«[...] to be assured not only good opportunities for experiences and contact but also a wide spectrum of outdoor recreational possibilities, it is important that events are allowed to flow in and out of houses. And it is important that places for resting as well as opportunities for being engaged in an activity are present, directly in front of the house. In this way small, improvised events have reasonable chances for development. From the multitude of small events bigger ones may grow.» (Ghel, 1971, pp.191-92).

3.7.1. Make the transition from the private realm to the public one as easy as possible. This will mean it would be easy to go back and forth from one another making it easy to feel comfortable anytime. Typically people in small villages even leave the entrance door open.

«Life between buildings can be supported further if opportunities for staying outdoors are offered in the form of a semiprivate front yard placed in the transitional zone between the dwelling and the access street.» (Ghel, 1971, p.189).

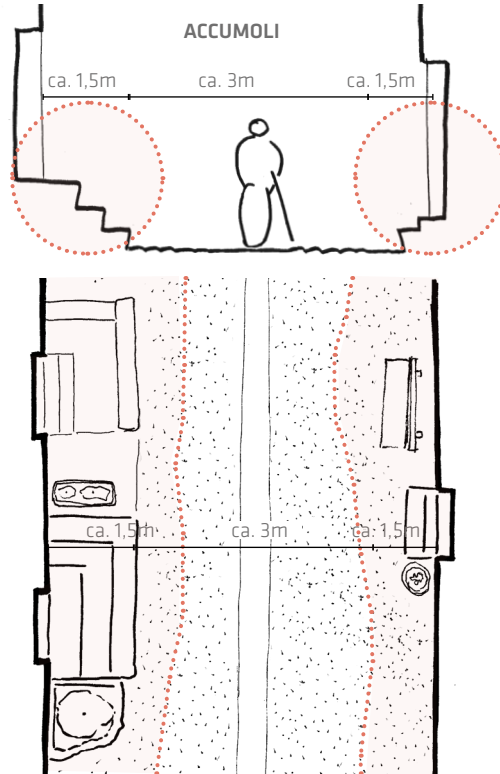
3.7.2. If there is the intention to provide semiprivate front yards, these should be of reasonable size immediately in front of residences; this way there will be evident opportunities for arranging effective, permanent resting areas with roofs, windbreaks, comfortable chairs, lamps, and so on exist. The houses can step back up to 3mt from sidewalks or access pathways, far enough to ensure a certain measure of privacy for those sitting in front of the house, yet at the same time just close enough to the street to permit contact with events occurring in it.

3.7.3. If the housing solutions include a small garden in the front of about 1m deep, it would be best to provide a low element where people can sit or lean against. These elements will provide the necessary feel of separation from the public but providing a comfortable space for interaction at the same time.

3.7.4. A good solution for entrance spaces could be to have it right against the access street or path. At the same time, more space can be provided in the back garden for example. This could avoid people to close up in their own patio, with their own table and chairs, in a very demarcated semi-private space. The suggested arrangement tends instead to create a



Semi-private areas in Via Roma in the old Accumoli. The compressed size of these areas leave more space to the public realm and it densify the activities and number of people undertaking them. Private areas on the street basically didn't exist.



semi-public space as a transitional zone, which is much more similar to the old village's thresholds.

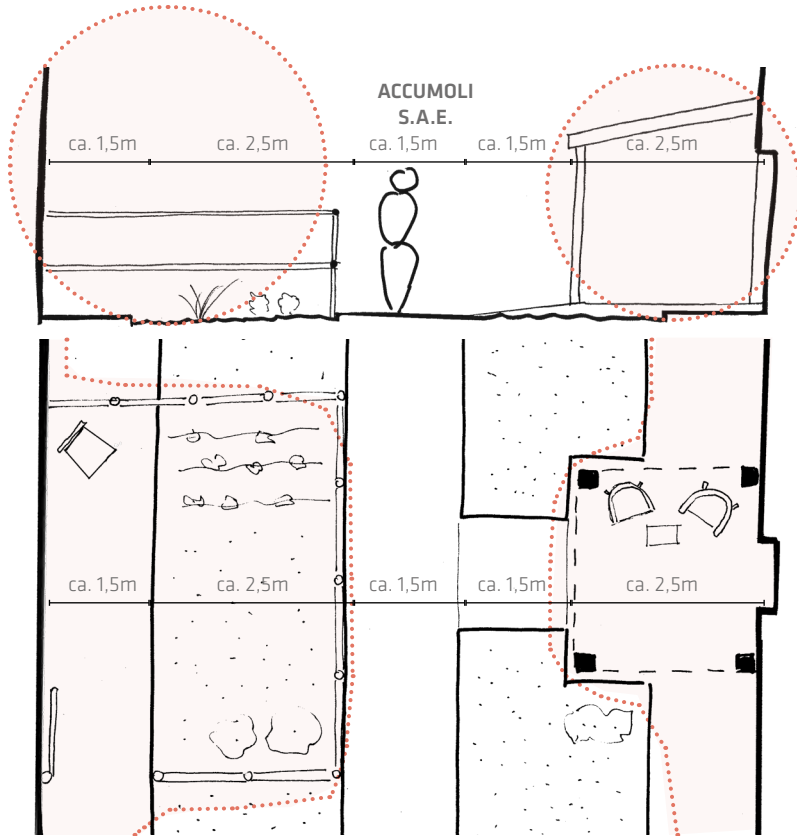
3.7.5. Sharing the access path to the houses can save money on material, increase the chances for meeting between neighbours and create a clear limit between the front yards.

Density

«Something happens because something happens because something happens. That life between buildings is a self-reinforcing process also helps to explain why many new housing developments seem so lifeless and empty. Many things go on, to be sure, but both people and events are so spread out in time and space that the individual activities almost never get a chance to grow together to larger, more meaningful and inspiring sequences of events. The process becomes negative: nothing happens because nothing happens.» (Gehl, 1971, p.75)

3.8.1. Dullness in the new development is a easy result to achieve. It can be avoided by increasing density both of the housing and of urban details. Smaller distances between

next page
Private and semi-private areas in Lot 2 IN Accumoli SAE. Private and semi-private areas overcome the public one.



houses reduces the feeling of dispersion and lack of identity. More elements next to each other create something interesting and attractive to watch and live.

3.8.2. Residents high diversity and density increase the chances of finding someone in the outdoor space and reduces the frequency in which public space is lifeless and empty.

Materials

3.9.0. The experiencing of a space is a question of the design of the space and of the quality of the experiences offered by the physical environment – whether or not it is a beautiful place. In earlier centuries work with the visual aspects of cities and urban spaces has been the subject of quite extensive writings. Camillo Sitte, among others, has in his outstanding work *City Planning According to Artistic Principles*, 1889, produced a convincing argument for the connection between the architectural quality, the experiencing of attractions, and the use of the city.

3.9.1. Avoid contrasting material but keep a variety. Having structures with random materials give the town an indefinite and jagged aspect as if there was a lack of previous design and overall vision for the place. To have material coherence would give the appearance to each building of being part of something greater: an actual village. Otherwise, the material choices will be only up to the donors of the structures or designers of the various buildings without seeing the bigger picture.

3.9.2. A suggestion could be to use a natural palette colour and less artificial-looking material. These could possibly resemble the palette of the lost village without replicating it. The use of warm-colored and wood resembling materials on the outdoor and indoor of the units is strongly argued to give a “homey” sense.

Lighting

3.10.0. Light can be a sign of life that continues after a natural disaster. It can be a reference point for those who pass between the villages and promote an “identity effect” (Chiesi, Costa, 2015) for the residents that are able to see the cillage while moving around in the territory.

3.10.1. To the extent that public spaces are to function in periods of darkness, lighting is crucial. The lighting of the socially relevant subjects is particularly important: lighting of people and faces. Out of consideration for both the general feeling of enjoyment and security and the possibilities for seeing people and events, it is desirable that lighting of pedestrian areas be ample and well-directed at all times.

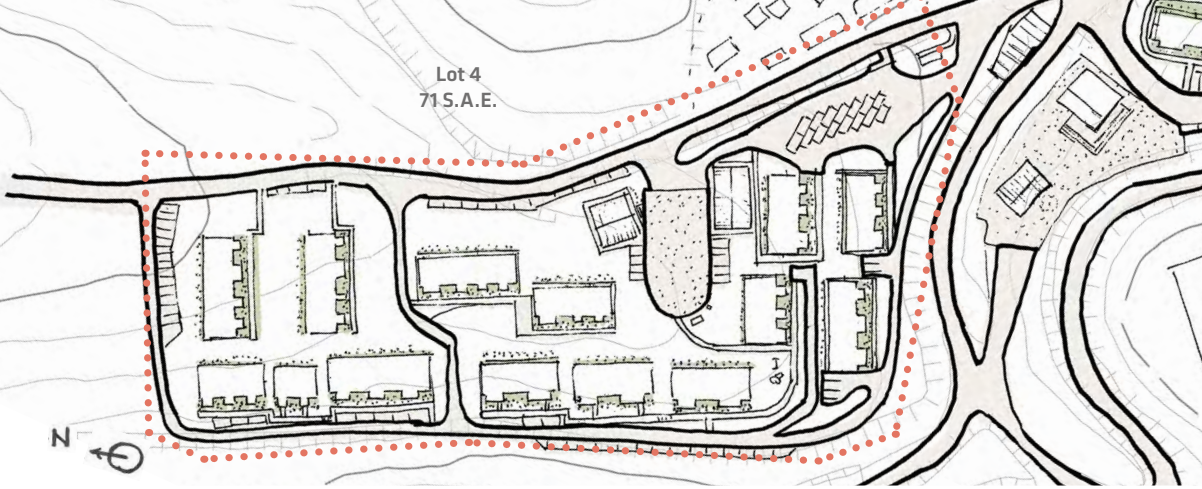
3.10.2. Better lighting does not necessarily mean a brighter light. Better lighting means an adequately bright level of lighting directed or reflected toward the horizontal surfaces – faces, walls, street signs, mailboxes, and so forth – in contrast to the lighting of traffic streets. Better light also means warm and friendly light.

Streets and parking

3.11.1. Choose features such as paving, street dimensions and height variation coherent as much as possible with the ones of the destroyed village.

3.11.2. Gather parking all in few areas at the edge of the development. Walking from/ to the car is a chance of meeting someone. At the same time, provide vehicle access as close as possible to all dwellings for accessibility, but do not provide parking for every house along the street if not necessary. Vehicle access can be provided on a shared surface as per the Woonerf concept. For example, parking could be at a maximum distance of 100/150m from the residences. Streets would then be more populated and more

Lot 4
71 S.A.E.



**S.A.E. LOT4
DENSITY STUDY**

OPTION 1

57 S.A.E. out of current 71



OPTION 2

67 S.A.E. out of current 71



*next page**top left*

Building front garden sketch.

bottom left

«Building setbacks from the street, originally invented to protect the public welfare by giving every building light and air, have actually helped greatly to destroy the street as a social space.» Building fronts sketch, Alexander, 1977, pp. 593-594.

right

«When cars are parked at the entrance, only cars will be found in the street. When cars are parked at the curb, people as well as cars will be found in the street. Greater opportunities for neighbor contacts will materialize. When cars are parked at the end of the road, pedestrian traffic replaces vehicular traffic. (From street studies in Melbourne).» Car parking and activity patterns. Gehl, 1971, p. 126.

entertaining to be in and look at, and chances for frequent, informal meetings of neighbours are increased.

3.11.3. Consider the streets as a place to live in the context of a small village and not just a passage.

«Throughout the entire history of human habitation, streets and squares had formed focal points and gathering places, but with the advent of functionalism, streets and squares were literally declared unwanted.» (Gehl, 1971, p. 45)

3.11.4. Avoid dead-end streets unless they are surrounded by houses: in this case, the street can actually be a safe space enclosed by homes where children can play. It is important to consider the former conditions in which kids, and people in general, used to hang out. It might be the case of core pedestrian areas, for example, it is worth considering in this case to create segregated traffic areas.

«Layout common land, paths, gardens, and bridges so that groups of 64 households are connected by a swath of land that does not cross traffic. Establish this land as the connected play space for children in these households.» (Alexander, 1977, p. 346-47).

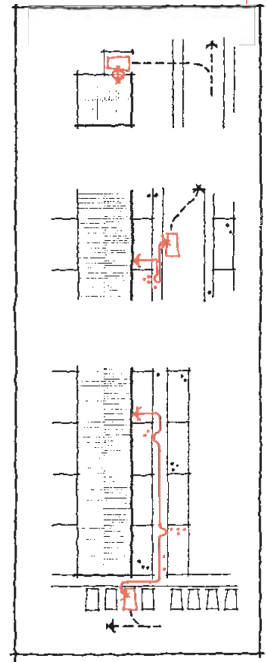
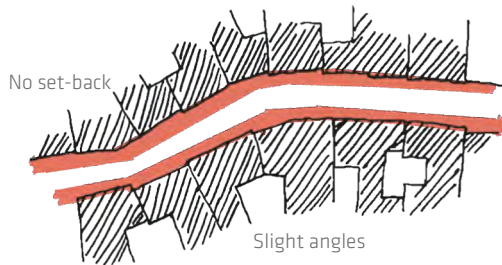
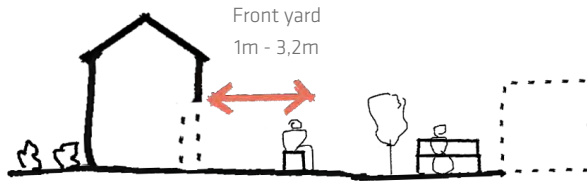
3.11.5. Mixed traffic should be considered over segregated zones. Consider also that any transport passing by is a source of social interaction if, and only if, it's at low speed. This is suitable especially for those villages that used to have mixed traffic as the case of Accumoli. Here almost all the streets and public spaces were car accessible: pedestrian and vehicle could easily cohabit in those small streets where slowing down travel speed was necessary.

«Planners must take into consideration that it is the feeling of risk and uncertainty rather than actual statistical risk that plays a decisive role in a given situation. This implies that it is necessary to work carefully with both the actual traffic safety and the feeling of security with regard to traffic.» (Gehl, 1971, p. 173)

Also, the lack of any sidewalk in most of the old town inspired the use of the Woonerf street type:

- Clear and distinct entrance: people going into the street will know that this area is not a traditional neighbourhood. This can be achieved by incorporating gateway features such as trees and planters, curbs extensions to make the carriageway narrow, a ramp up to the shared surface or a noticeable change in the paving. This element will also provide the residents with a sense of place.

- No curb: pedestrian and auto space should be on the same level. Shared surfacing



encourages drivers to travel more slowly and carefully since there is no physical definition of the travel lane. Using different colours or textures in pavement material is also important for guiding the users of the street within the carriageway (e.g., pedestrian vs. auto lanes). By eliminating the continuous curb, residents - especially children - can move freely across the entire space.

- Traffic calming measures: the design of the street should add slight curves to break up the sightlines of a driver and also introduce physical and visual features that will encourage people to drive slowly and with greater caution (chicanes, speed bumps, narrow travel lanes, small corner radii, different pavement treatments, trees, bollards and furniture). These traffic calming measures should not be an obstacle for emergency responders.

- Small percentage of on-street parking: this should be provided intermittently rather than continuously so the car is not the predominant element in the street. Parking arrangements should also be used as a mechanism to calm traffic.

- Outdoor furniture and landscaping: street trees and planters make the street look more attractive as well as calm traffic. Seating also should be included to encourage people to use and stay in the street for other activities. Seating areas should be protected from cars, using bollards or other physical barriers.

For, from the people

«There is no logic that can be superimposed on the city; people make it, and it is to them, not buildings, that we must fit our plans.» (Jacobs, 1958, p.142).

Firstly, this section gives directions on how to evaluate the community in a design perspective. The analysis of the users is fundamental as first step. A SWOT Analysis could be suggested here as well to understand the weak and strong members and the threats from the current context. Another option could be the Deliberative Democratic Evaluation and Multi-Criteria Decision Analysis (Berni, 2015) which would imply more participation from the residents. The rest of this section is an interpretation of elements of proxemics, human perception and comfort zones. Therefore, these are information that are not derived from the current research, but they are a selection from previous notorious studies that should be taken into account in the design of a temporary village. This scenario is very fragile and it is important to work not only at a site-planning level but also to a human scale one and a detail one. The following is the quoted literature in this section:

- Lynch, K. (1960). "The Image of the City"
- Gehl, J. (1971). "Life between buildings"
- Venturi, Brown, Izenour (1972). "Learning from Las Vegas"
- Alexander, C. (1977). "A pattern language"
- Sennet, R. (2018). "Building and Dwelling"
- Goffman, E. (1963). "Behavior in Public Places"
- Hall, E. T. (1966). "The Hidden Dimension"
- Jacobs, J. (1961). "The Death and Life of Great American Cities"
- Chiesi_L. (2016). "Territoriality as appropriation of space"
- White, E.T. (1986). "Space adjacency analysis"

Community analysis

4.1.1. SWOT Analysis

The application of the widespread SWOT method of analysis (strengths, weaknesses, opportunities and threats) can also be useful for a social context. It is important to have clear and simple points on which to focus but to also maintain a communitarian design perspective. The project must treat the new village as an organic system that works as a whole. It is very important to identify social cohesion, personal well-being and trauma recovery as the goals of the design process and the project itself which could involve not only architectural and spatial decisions (i.e. admin, social policies etc.).

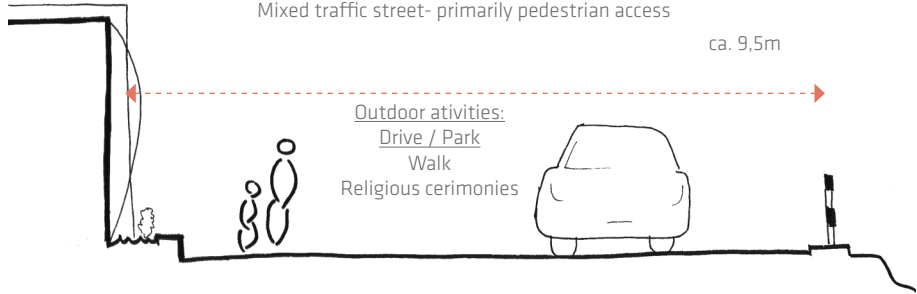
Internal factors relate to the current community and could possibly be influenced:

- Strengths: Internal social elements with useful qualities to strengthen social cohesion;

ACCUMOLI S.A.E.: Bar area

Mixed traffic street- primarily pedestrian access

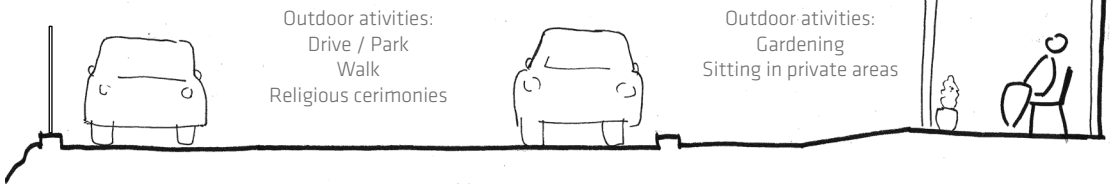
ca. 9,5m



ACCUMOLI S.A.E.: Lot 4

Vehicle traffic street + Pedestrian path

ca. 2,5m ca. 3m ca. 13,5m ca. 2,5m ca. 1,5m ca. 1,5m ca. 2,5m



ACCUMOLI S.A.E.: Lot 4

Mixed traffic street- primarily pedestrian access

ca. 5m

ca. 9m

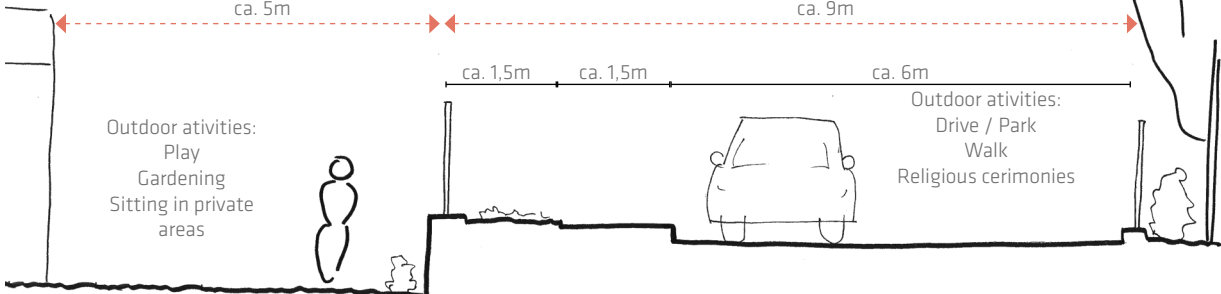
Outdoor activities:
Play
Gardening
Sitting in private areas

ca. 1,5m

ca. 1,5m

ca. 6m

Outdoor activities:
Drive / Park
Walk
Religious ceremonies



FOCUS: WOONERF CONCEPT



During the 1960's and 1970's, scholars such as Niek de Boer and Joost Váhl have developed the woonerf concept in the city of Delft, the Netherlands. Woonerven are residential streets in which pedestrians share the street with vehicles, whereas the latter should follow the pedestrians' pace. According to the Dutch traffic regulations, pedestrians are allowed to use the entire width of a woonerf, while cars are limited to 15 km/h within the street. Using physical barriers and obstacles, the impression that pedestrians can use the entire street is conveyed to its users, while traffic volumes are reduced considerably.

Scholar and urbanist Eran Ben-Joseph published in 1995 "Changing the residential street scene: adapting the shared street (Woonerf) concept to the suburban environment", a detailed academic paper about shared streets.

The four principals of the woonerf, adapted from Ben-Joseph:

- Visible Entrances: the entrances of the woonerf are distinctly marked by a sign (see below). The sign presents two different street users: people and a car, alongside a house. The car, however, is smaller than the people and located in the background. It seems as if the designers of the sign have wanted to demonstrate the supremacy of pedestrians among all the street users
- The woonerf is a shared and paved space, intended for all street users.
- Using physical barriers (like curves or street bumps), car traffic is slowed down.
- The woonerf accommodates landscaping and street furniture.

By incorporating traffic calming measures into the street, residents feel more confident using the streets for different activities. This street type creates more efficient use of space since the street does not make a distinction between travel lanes, turning the streets into a valued public space, and not just a channel for vehicular mobility. This design can increase socialization and activities: people would stay for longer periods of time in the streets and also engage in more verbal communication (Biddulph, 2012) as they will consider the streets more attractive.

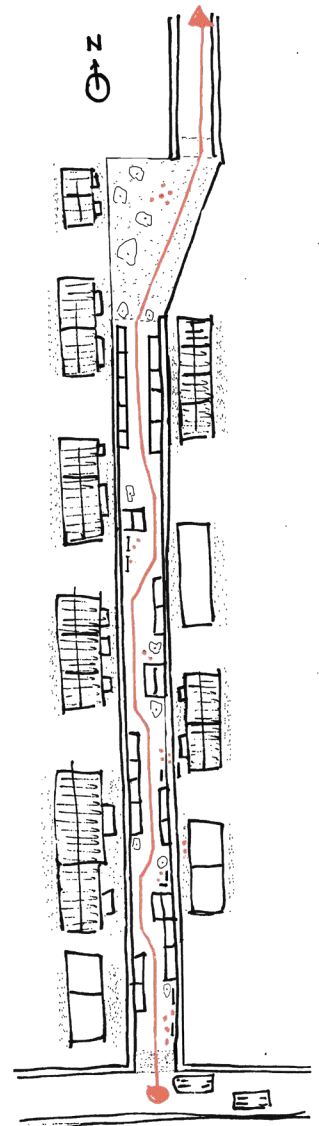
On a more general level, it could increase natural surveillance. One of the aims is to allow the elderly and others with limited mobility to have better access and mobility within the street environment. It is an innovative and conscious attempts to mix social activities and children's playgrounds with traffic.



Woonerf concept application example.

previous page

Dutch Woonerf, Utrecht, 2019. Woonerf can be translated as "living street" or "shared street". Many German cities have introduced "Spielstrassen". In the UK they are called "home zones". Some people even call it "Dutch play street".



- Weaknesses: Internal social elements with harmful qualities;
External factors are variables external to the project relating to changes in the wider social context and territory that may affect the project and cannot be changed, but kept them under control:
 - Opportunities: External social elements with useful qualities for the achievement of the objectives (recognised in the context of the community)
 - Threats: External social elements with harmful qualities to the achievement of the objectives (recognised in the context of the community)
- Stakeholders include:
- Disaster relief organizations.
 - National and local Governments and public entities in a wide range of sectors and roles;
 - Community members and citizens' groups;
 - Civil Protection Dept., NGOs, civic groups and voluntary associations.
 - Private sector (i.e., the business and industrial groups).
 - Professionals, researchers and training organizations, consultation firms, etc.
 - Media (newspaper, radio, social, television networks).

4.1.2. DDE Analysis

Deliberative Democratic Evaluation (DDE) is a method of mitigating power inequality among stakeholders due to differences in knowledge, information, and discursive capacity. DDE has two essential characteristics: citizens' participation in decision making and that decisions are the result of a deliberative process. This process is based on 3 main principles which are inclusion, dialogue, deliberation. This type of analysis consists of a 3 stage implementation encompassing:

- Empowerment process
- Deliberative process
- Multi-criteria analysis which provides a judgement

The empowerment process (Plottu B., Plottu E., 2009) is strongly committed to promoting participatory activities: it provides citizens' participation in decision-making with a minimum amount of organization. The empowerment process is aimed to bring a population to the point of being able to evaluate and take charge of itself and to speak with a single voice. As a consequence, participation becomes actual because all the relevant stakeholders are involved and their interests are considered.

The deliberative process involves all the stakeholders in a dynamic process of collective construction of the problem of choice and a shared solution by dialogue and de-

SWOT	Helpful	Harmful
Internal	<p>STRENGTHS: Existing formal groups Creation of new formal groups Ingrained traditions and events</p>	<p>WEAKNESSES: Informal groups connected with lost places Informal activities connected with lost non residential activities Contrasts between groups Contrast with the Municipality</p>
External	<p>OPPORTUNITIES: Government support and donations Non-residents presence Psychological support Empowerment activities</p>	<p>THREATS: Depopulation Lack of job opportunities Bureaucracy Elderly population</p>

liberation (not simply as a confrontation of interests or an aggregation of the preferences of the majority). The aim of the deliberative process is to provide innovative common shared solutions.

Multi-criteria Decision Analysis (UK Government, 2009) reflects the subjective nature of any judgment. It includes a multiplicity of stakeholders with their expectations and preferences. It considers quantitative and qualitative data which is very important in a design process with a social perspective to then produce creative solutions.

Types of Outdoor Activities

4.2.0. Ghel (1971) divided public spaces activities into three categories, each of which with different demands on the physical environment:

«Necessary activities include those that are more or less compulsory. In general, everyday tasks and pastimes belong to this group. Among other activities, this group includes the great majority of those related to walking.» (ibid, p.9)

«Optional activities – that is, those pursuits that are participated in if there is a wish to do so and if time and place make it possible.» (ibid, p.9)

«Social activities are all activities that depend on the presence of others in public spaces. Social activities include children at play, greetings and conversations, communal activities of various kinds, and finally – as the most widespread social activity – passive contacts, that is, simply seeing and hearing other people.» (ibid, p.9)

STRATEGIES	O: Government support and donations	O: Empowerment activities	O: Non-residents presence
S: Existing formal groups	Provide facilities for old groups	Use formal group members as driving figures; Confirm identity of new groups with a physical location/area/building	Create a space that allows non-residents to attend groups events (i.e. concerts)
S: Creation of new formal groups	Provide solutions to physically keep them in the territory	Confirm identity of new groups with a physical location/area/building	Provide a space to allow non-residents to join actively
S: Ingrained traditions and events	Provide spaces for events and ceremonies	Share culture as leverage to social cohesion	Share information and include non-residents actively
W: Informal groups connected with lost places	Build new places where people can gather	Keep recalling the existence of a group other than a place where it used to gather	Show emotional investment through non-residents attachment
W: Informal activities related to lost non residential activities	Provide facilities with different functions	Recall social connections to the different functions and roles in the old town	Show social connections through non-residents attachment
W: Contrasts between groups	Consult and inform on situation and options; Provide community support and avoid individual good provision	Make people realize they can help each other	Bring diversity by including non-residents in decision making
W: Contrast with the Municipality	Participatory approach to design processes	Make people feel they are fully represented by the bodies	Add a different and external point of view by including non-residents in decision making

O: Psychological support	T: Depopulation	T: Lack of job opportunities	T: Bureaucracy	T: Elderly population
Enhance group cohesion; Show groups importance through non-residents attachment	Foster generational turnover in formal group members	Use formal groups to advertise the territory	Provide a guide on permissions, laws, rights etc.	Create an accessible/easy to reach space that allows the elderly to attend groups events/join
Support new relationships	Support new group members to stay	Provide tools/facilities/building to work	Facilitate new enterprises	Create an accessible/easy to reach space that allows elderly to attend groups events/join
Enhance territory attachment	Advertise the territory through traditions and culture	Advertise the territory through natural and social resources	Support to ask organization permissions	Provide space and activities to share knowledge and history of the place
Use memory of places to strengthen sense of identity	Provide new and interesting places for people well-being	Invest in the territory	Speed up building procedures	Provide easy access places to meet up
Use memory of places to strengthen sense of place	Involve external interest	Involve external interest from commercial activities/markets/factories	Facilitate old enterprises to restart working	Provide services at accessible distance
Create spaces to share problems to overcome trauma; Make people realize they are in the same situation	Physically aggregate population creating higher density and diversity	Physically aggregate population to generate more opportunities for new enterprises	Ensure equality	Bring the elderly at everyone's attention allowing them to be in the core of the village
Bridge between community issues and representatives	Be active in creating in creating attraction, leisure and activities	Be active in looking for investors	Physically keep administration offices neare the residential areas	Minimize physical isolation of elderly in the new village

Gehl makes a strong argument about the importance of passive contacts - informal and light - that only a good quality public space can provide:

«In terms of this outline life between buildings represents primarily the low-intensity contacts located at the bottom of the scale. Compared with the other contact forms, these contacts appear insignificant, yet they are valuable both as independent contact forms and as prerequisites for other, more complex interactions. Opportunities related to merely being able to meet, see, and hear others include:

- contact at a modest level- a possible starting point for contact at other levels
- a possibility for maintaining already established contacts
- a source of information about the social world outside
- a source of inspiration, an offer of stimulating experience

[...] If activity between buildings is missing, the lower end of the contact scale also disappears. The varied transitional forms between being alone and being together have disappeared. The boundaries between isolation and contact become sharper - people are either alone or else with others on a relatively demanding and exacting level. Life between buildings offers an opportunity to be with others in a relaxed and undemanding way.» (ibid, p.15)

4.2.1. It is important to set up a project brief that includes social informal activities and design elements that create a pretext for spontaneous meetings and interaction among main points. To learn about these activities is fundamental the contribution of the residents, or at least their representatives. This will generate a simple and effective list of activities and relative spaces in which they took place as a reference for the design. There is probably no need for a very deep analysis of the old activities, as it would be very hard and time-consuming in a post-scenario, but just a few and simple points can be enough.

4.2.2. Avoid dullness:

«Something happens because something happens because something happens» (Gehl, 1971, p.75).

Children would rather stay in and watch television because it is so dull outside. Old people do not find it particularly entertaining to sit on the benches, because there is almost nothing to see. And when there are few children playing, few people sitting on benches, and few walking by, it is not very interesting to look out of the windows: there is not much to see.

Groups

4.3.0. Some of the following considerations are coming from observations of behaviours in large cities, which is something the reader should be aware of. On the other hand, the 1980 recordings of behaviours in New York and the following book by W. H. Whyte is a reminder that similarities between large and small cities are more significant than the differences (Whyte, 1980).

INFORMAL ACTIVITIES		
BEFORE	MEANWHILE	AFTER
Practice acting		
Practice musical instrument	Practice musical instrument	Practice musical instrument
Practice singing	Practice singing	Practice singing
Shopping	Shopping	Shopping
Go for a walk	Go for a walk	
Go on a hike		Go on a hike
Play cards / games	Play cards / games	
Hang out at the bar		Hang out at the bar
Hang at the “little wall”		
Sit at the “public gardens”		
Chat/sit at the front doors		
Hang at Grisciano sport fields		
Go out for dinner	Go out for dinner	Go out for dinner
Play in the playground		Play in the playground
Play in the streets		Play in the streets
Hang out at the bar		Hang out at the bar

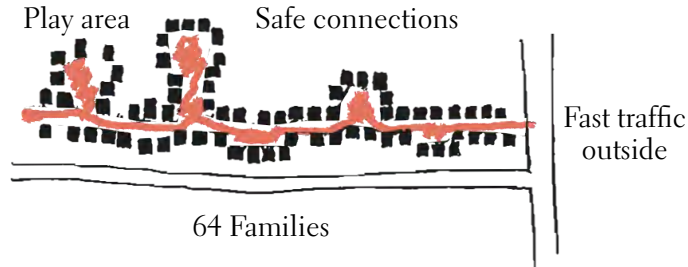
4.3.1. The case scenario studied cover a very small population of 64 families and it can be a starting point for dealing with larger communities. The idea is that any larger community can be grouped in clusters of a reduced number of households. Such a coincidence that Alexander (1977) identifies 64 as the best number of households in a town to layout around paths and streets to increase the possibilities for children to play in the public space.

«64 is a rather large number of households to share connected common land. In fact, in the face of these requirements, there is a strong temptation to try to solve the problem by grouping 10 or 12 homes in a cluster. But this will not work: while it is a useful configuration for other reasons - house cluster and common land - by itself it will not solve the problem of connected play space for children. There must also be safe paths to connect bits of common land.» (Alexander, 1977, p. 346-47).

Sadly, the temporary village of Accumoli has been divided into 4 clusters (lots) of 7, 9, 11 and 26 families, also separated by a change in levels. This opens up the possibility to group the whole village in one more dense area.

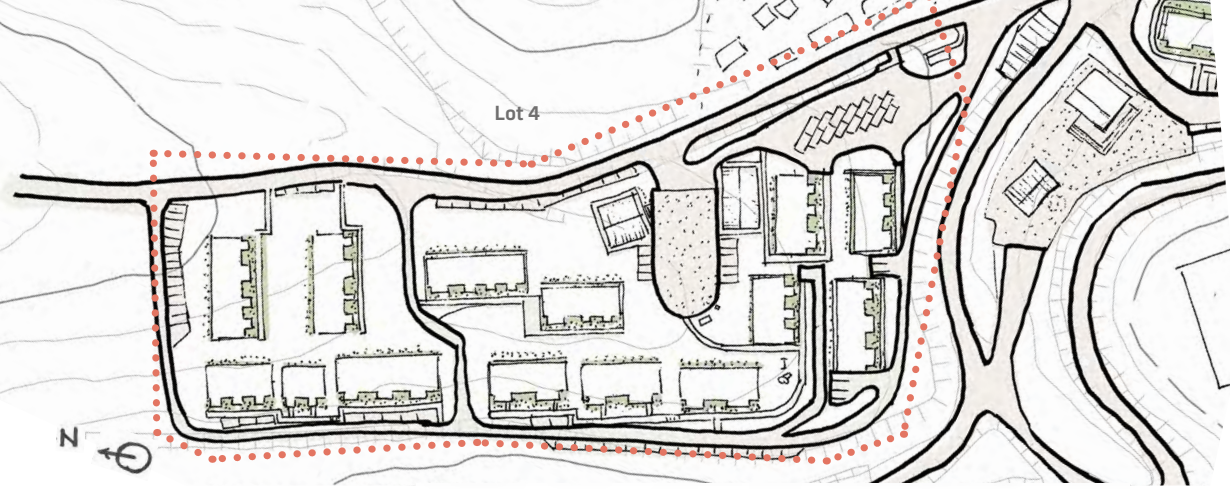


Safe play
space diagram.
Alexander, 1977,
p. 347.



4.3.2. Age and typology of community members have to be always one of the main inputs for design. For example, the aforementioned dimensioning by Alexander can work fine for a village where there are a lot of young people and children. It is sensible to consider different arrangements for communities with different age mix and size. For example, Ghel (1971) would recommend instead to keep small housing groups to 15 - 30 households to prevent dispersion. Avoiding dispersion means also keep certain behaviours natural of most people at a small scale happening. In a large city such as Rome as well as in a smaller city similar relationships may arise at the level of “chance contact” and “passive contact” identified by Ghel (1971, p. 15). For example, between the bartender and a regular client can happen to have a brief conversation that one day could become friendship: it is difficult to pinpoint precisely what life between buildings means in relation to the need for contact, but it is fundamental to provide spaces that keep allowing them to happen naturally, also based on the previous typical behaviours in the case of a post-seismic scenario.

4.3.3. Formal groups can be easy to identify and they are a starting point to understand certain relationships in the village. In the case of Accumoli, it is clear that the music band is the strong and large formal group, based on the idea of spending time together more than perform. Groups built around social, leisure, cultural, artistic activity are easy to identify and they must be provided with a place to meet with a connected outdoor space. The outdoor space would be best to be placed in front of the building or anyway by the access. This can create a transitional area between the group private space and the public one. As the transitional space will be often used by the formal group, this activity can attract other people to join using the nearby public space or even their semi-private space, depending on the level of relationship between the people. This is a way to use formal groups member to be a driving part of the community and encourage, actively and passively, other people to stay outside and engage with others.



S.A.E. LOT4
CLUSTER STUDY

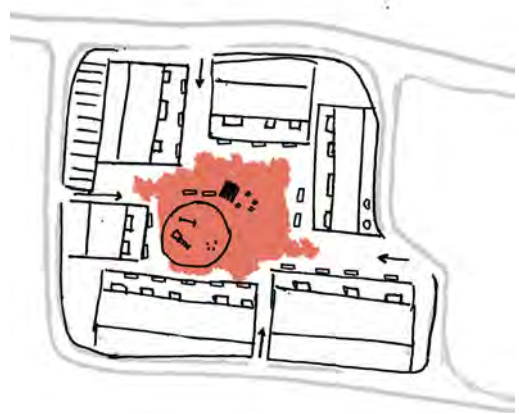
Jagged pattern



Linear pattern



Courtyard pattern



4.3.4. Spontaneous and informal groups are possibly harder to identify. It can be extremely helpful the participation of the residents in this process of analysis: they will be the best to point out which where the spontaneous and usual activities used to take place. Who takes part in the informal activities, such as “play cards at the bar”, can be identified as a member of the group “card players”. It is totally not relevant to know who exactly these people were but a rough idea of the age range and the number of people in order to understand the relevance of the activity is enough. Spontaneous but constant encounters happen because of the existence of a meeting place that is a reference point for people: showing up at the right place and time can be enough to meet someone and there is no need for a prior official arrangement. Unfortunately in the case of a natural disaster, places disappear and the risk of losing the related informal group (and the activity performed) is extremely high. Is it then very relevant to provide spaces that have a sense of “place” and that are comfortable at a human scale, where people, with time, can identify themselves again. Be aware of the risk of replicating identical features of the old village which would be disorienting and upsetting for people.

4.3.6. The post-seismic scenario is a very peculiar one and every event can follow different rescue and recovery strategies. It is important to follow the process people go through during the different phases, for example, with the support of psychologists as the case of Accumoli. During the phases, new groups may arise and old ones get lost. Providing a place for new groups means to make a statement of their existence and identity. The same happens for old ones: having a place will give a boost to their sense of identity which is threatened by the disaster trauma.

4.3.7. This suggestion is very circumstantial, but it could be worth evaluating the possibility of having an indoor and outdoor space to be shared between groups, following, for example, a weekly schedule. This can generate a sense of responsibility and autonomy in people which is part of the process of empowerment.

Neighbours

4.4.1. It is understandable that in a scenario where the built environment is completely chanced, keeping neighbours relationships can be very challenging. It is important to make an effort towards this as the members of a district can be reference points to each other (willingly or not).

4.4.2. The mix of age is an important element to keep in consideration as a driving design goal in the case in which neighbourhood relationship can hardly be respected. There is a fragile balance between keeping the former relationships and creating a

better-than-before social mix and it can be really up to the social composition of each case.

4.4.3. Especially for children, keeping short distances between their peers is important as their distance radius of activity is quite limited due to safety (parents control) and personal confidence (children age and autonomy).

4.4.4. The elderly surely need assistance more than adults do but they also need stimulation more than others. The older members of the population should be always located in central areas of the development to ease their moving. Also, mixing age is very beneficial for these people, especially in a context where depression and isolation are common responses to disaster trauma. Recent studies such as the one based on data collected by the Survey of Health, Ageing and Retirement in Europe - SHARE are testing the effect of intergenerational living in different contexts and level of income in 17 European countries. Generally, older people living with or near younger ones have lower levels of depressive symptoms than those living separately.

«Our findings suggest that in the context of high unemployment rates during the Great Recession in Europe, the increased intergenerational exchange between adult children and older parents in the form of co-residence had positive mental health effects on older parents.» (Courtin, Avendano, 2016, p.140).

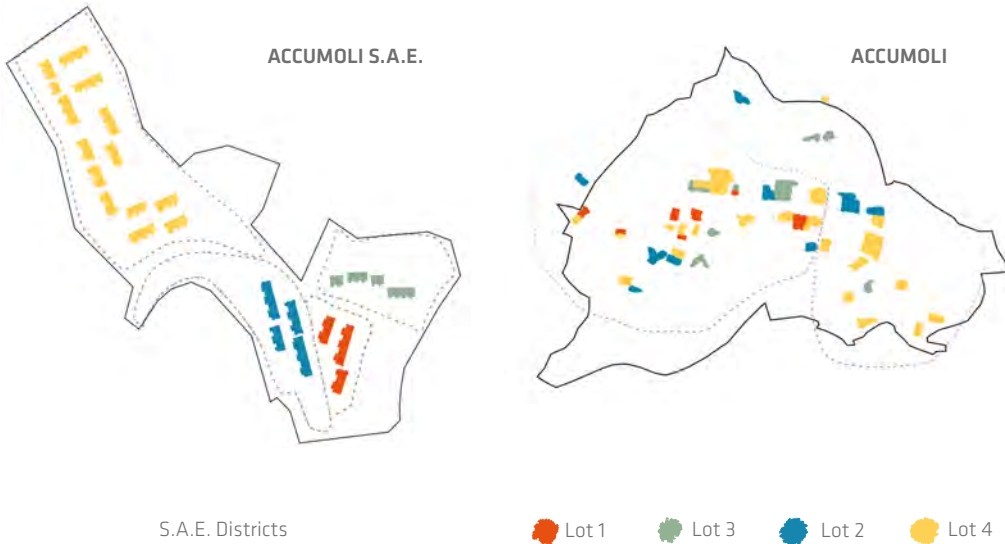
Human perception

Overall, this text would like to send the message across that public space provides chances not only for formal community actives and pre-arranged meetings but also for the informal and spontaneous encounter. These are at the core of not feeling alone when living in a village or city. It is here believed that this sense of being part of something “greater” (a community where, in this particular case, there is a shared a traumatic experience) can be a positive influence on trauma recovery. Among the requirements that are satisfied, in part, in public spaces are the need for contact, the need for knowledge, and the need for stimulation. These belong to the group of psychological needs: for example, very few people that go shopping to a local shop will accept the fact that the need for contact and stimulation plays any part in their shopping plans. .

«Being among others, seeing and hearing others, receiving impulses from others, imply positive experiences, alternatives to being alone. One is not necessarily with a specific person, but one is, nevertheless with others.» (Gehl, 1971, p. 173)

To increase the chances for these activities to happen, it is necessary to know the ways and the distances within people perceive the context and others.

4.5.1. The usual radius of action on foot for most people is limited to 400 to 500m per excursion (Gehl, 1971). This puts a restriction on the dimensions of development, especially in a



↑
Neighbourhood
mapping of
the relocated
residents.

temporary village where the attempt is to foster social cohesion. The distance between services and houses should be in this radius. If households clusters are the strategy for the design of a larger village, this radius can be used as a reference for sizing the clusters.

4.5.2. The perception of the length of a path will depend on its characteristics such as slope, linearity, dullness, details:

«Acceptable walking distances thus are an interplay between the length of the street and the quality of the route, both with regard to protection and to stimulation en route. [...] Crucial to determining the acceptable distance in a given situation is not only the actual physical distance but also to a great extent the experienced distance. A stretch of 500 meters viewed as a straight, unprotected, and dull path is experienced as very long and tiring, while the same length can be experienced as a very short distance if the route is perceived in stages.» (Gehl, 1971, p. 137)

4.5.3. A smell can be perceived between 1 to 3 mt (Gehl, 1971, p. 64), after which only very strong smells can be perceived. One can probably still perceive the presence of a bakery for example but not much further.

4.5.4. The perception through touch can be much more influential in the use of space of what it seems. The choice of materials for sitting elements, for example, can determine if people will use or not at all a bench. Also, people can “feel” a touch perception even just looking at an object as people store a tactile memory (bimodal supra-modality).

4.5.5. A person is generally able to hear clearly up to 7 mt, which defines the farthest distance at which people are able to hold a comfortable conversation. Between 7 and 35 m sound can be heard if there is a particular condition, such as at a lecture. Beyond 35 mt only shouting can barely be heard: at this point, one can possibly hear the bells of a church but cannot hear people chatting in a square (Gehl, 1971, p. 64).

4.5.6. Seeing is the most direct of the senses and people mostly rely on it. The fact that the possibilities for seeing other people and events are limited to a distance of between 20 and 100 mt (Gehl, 1971, p. 64), depending on what is to be seen, in practice it places very great demands on the degree of concentration and distancing of buildings and open spaces. This range can be called the “social field of vision” (Gehl, 1971, p. 65). Lynch (1962) points out that space dimensions of over 110 m may be uncomfortable and they are rarely found in urban spaces.

Human distances

The anthropologist E. T. Hall in his book *The Hidden Dimension* (1966) gives a description of the most important senses and their functioning in the context of human contacts in the outside world. They are here shown to give an idea of dimensioning according to human perceptions to avoid failing the design of certain spaces.

- Intimate distance (0 to 45 cm) is the distance at which intense feelings are expressed: tenderness, comfort, love, and also strong anger. This distance can be found in a couple on a bench, a group of teenagers on steps and close friends standing.

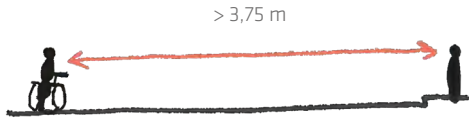
- Personal distance (0.45 to 1.30 meters) is the conversation distance between close friends and family. An example is a distance between people at the family dinner table. This distance is very influenced by culture: Southern European people tend to have a smaller personal distance compared to Northern Europeans.

«This is the limit of physical domination in the very real sense. Beyond it, a person cannot easily “get his hands on” someone else. Subjects of personal interest and involvement can be discussed at this distance.» (Hall, 1966, p. 120)

- Social distance (1.30 to 3.75 mt) is the distance for ordinary conversation among friends, acquaintances, neighbours, co-workers, and so on. The sofa group with armchairs and a coffee table is a physical expression of this social distance. It is also a very common distance for people who are attending a casual social gathering. At this distance, the voice level can be loud and raising the voice or shouting can have the effect of reducing the social distance to personal distance. People can engage each other briefly and disengage at will, which makes it very comfortable:

INTERACTION DISTANCES

Low contact intensity



Public distance

1,30 m - 3,75 m



Social distance

0,45 m - 3,75 m



Personal distance

0 m - 0,45 m



Intimate distance

High contact intensity

Formal situations:

Around public figures, in teaching situations, listening or seeing an event without being involved, keep strangers.

Normal conversation:

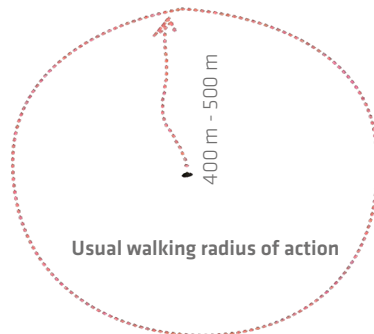
Talking among friends, acquaintances, neighbors, work colleagues, sofa with armchairs and coffee table, casual social encounter, interact briefly and disengage at will, isolate or shield people from each other.

Conversation with friends and family:

People at the table in the family, physical domination, personal interest and involvement.

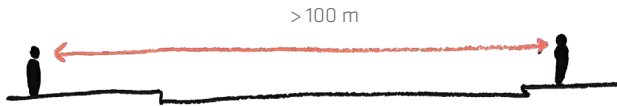
Intense feelings:

Couple on a bench, group of teenagers on steps, close friends standing.

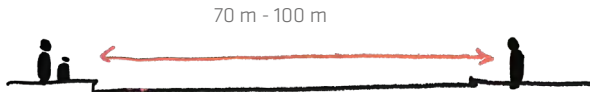


Usual walking radius of action

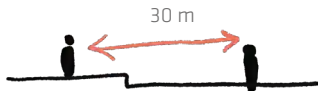
SOCIAL FIELD OF VISION



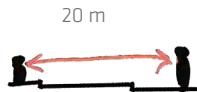
Human figures



Age, sex, actions, walk, clothing



Recognize acquiescences (facial features, clothing, hairstyle, age)



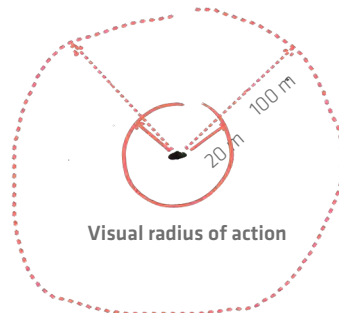
Mood, feelings, relevant meeting in social context



Conversations

Low contact intensity

High contact intensity



Visual radius of action

«A proxemic feature of social distance is that it can be used to insulate or screen people from each other.» (Hall, 1966, p. 120).

- Public distance (greater than 3.75 mt) is defined as the distance used in more formal situations - around public figures, in teaching situations or when someone wants to hear or see an event but does not wish to become involved. It is then for people who are to remain strangers. Details of facial expression and movements are lost: not only the voice but everything else must be exaggerated or amplified which requires an effort and a good level of comfort between the people that have an interaction at this distance.

Vertical vs. Horizontal

«Human movement is by nature limited to predominantly horizontal motion at a speed of approximately 5km/h, and the sensory apparatus is finely adapted to this condition. The senses are essentially frontally oriented, and one of the best developed and most useful senses, the sense of sight, is distinctly horizontal. The horizontal visual field is considerably wider than the vertical. The downward field of vision is much narrower than the horizontal, and the upward field of vision is narrower still. A person walking down a street sees practically nothing but the ground floor of buildings, the pavement, and what is going on in the street space itself.» (Gehl, 1971, p. 63)

4.7.1. Differences in level are unpleasant for someone walking: movements upward or downward require more effort, additional muscular activity, and an interruption in the walking rhythm. It would be best to avoid them or to exploit the change in level to create some attractive feature that would ease the effort.

4.7.2. A long, steep stairway is felt to be tiring, while a number of short flights of steps, interrupted by landing, comparable to a street with small squares, is psychologically more manageable. The Spanish Steps in Rome illustrate this principle elegantly.

Identity

«As opposed to being a passive observer of other people's experiences on television or video or film, in public spaces the individual himself is present, participating in a modest way, but most definitely participating.» (Gehl, 1971, p. 17)

4.8.1. A sense of natural interest and feeling of responsibility can arise in the residents if outdoor areas that they can use comfortably are created. In the case of Accumoli, basically all residents get involved in gardening to embellish their front yard or grow vegetables; in some cases, they started this activity for the first time in the new village. Gardening, as well as other crafting activity, can bring the person to be present, minimize anxiety and

reduce depression forgetting about the overall unpleasant situation of eternal present (Fenoglio, 2006).

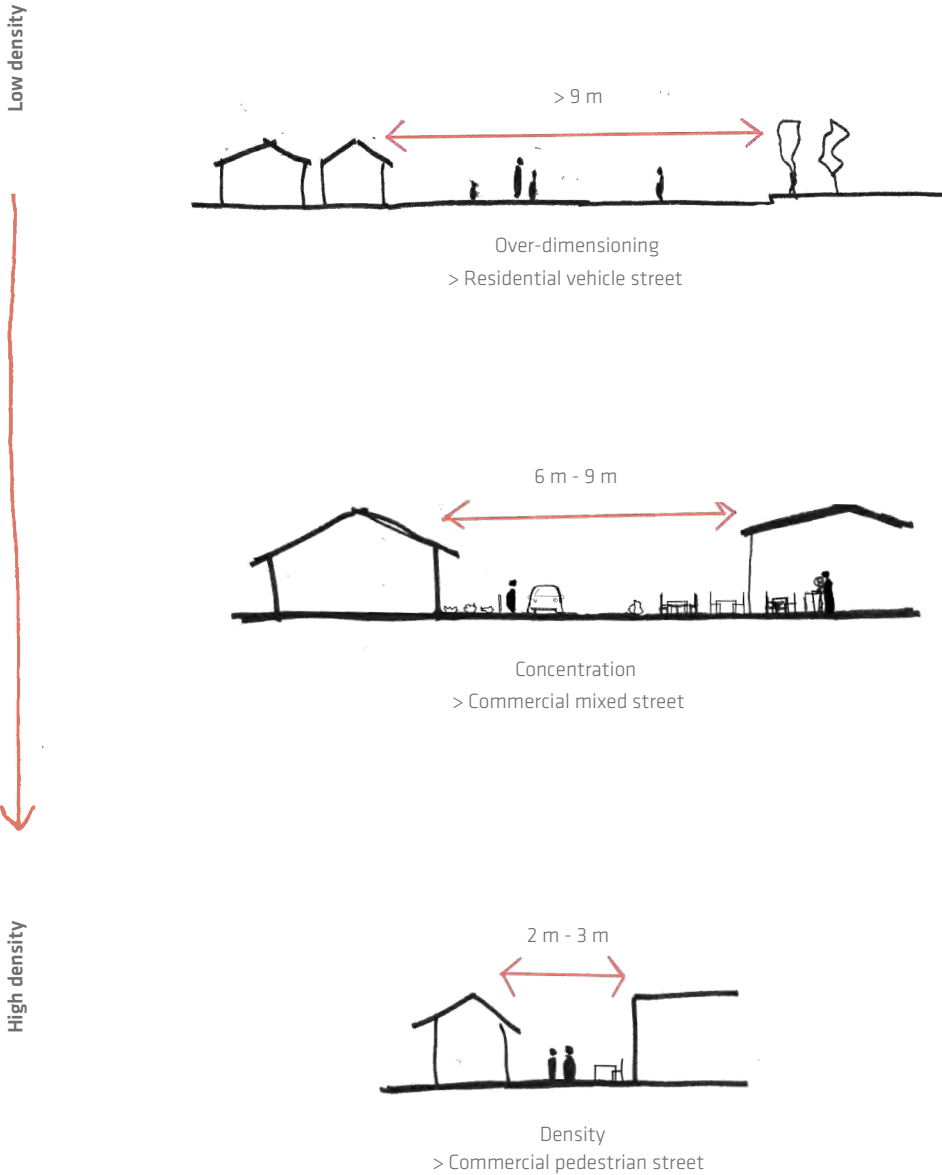
4.8.2. Access roads and open areas should be clearly connected to the individual residences or groups of residences. They should be designed as precisely defined common areas, rather than as undefined and underused tracts of noman's-land. This can help to generate a sense of place identity.

4.8.3. G. Cullen elaborates on the concept of "sense of place" in his book *Townscape* (1961). He points out how a characteristic visual expression contributes to giving a feeling of a sense of place and through this inspires people to be in this space. When all factors have the opportunity of working together towards this result, a feeling of physical and psychological well-being arises. People will more easily identify in a pleasant place to be in.

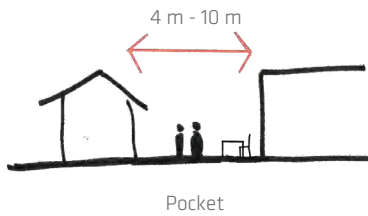
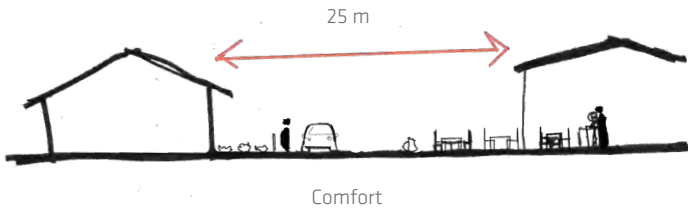
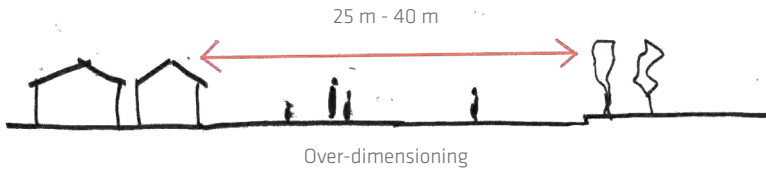
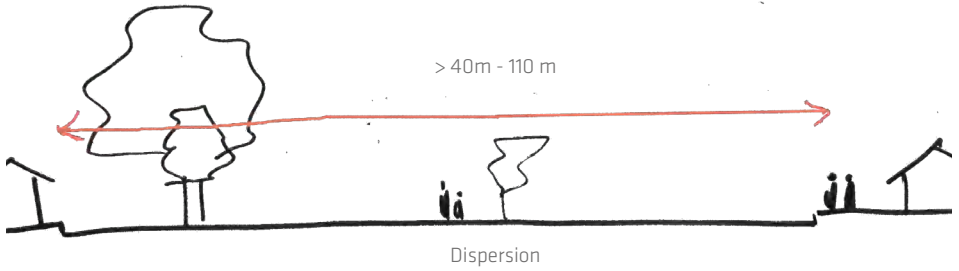
4.8.4. To avoid the feeling of a dull, boring and long route, paths should be broken down and don't follow only straight lines or 90° angles. Elements of urban furniture, resting places and shelter could be distributed along the route. These could also become a reference point in the "mental map" (Lynch, 1960) of the residents which will help to give the place an identity.

4.8.5. The residents are aware that they are in a temporary village because of an earthquake that wiped out their homes: it is very difficult to generate emotional investment towards the new village. This sense of identification with the built environment is a phenomenon that emerges in the studies of J. Jacobs (1961) on the inhabitants of the high density buildings of the 50s. She identified how people's awareness of being in these places because of their poverty, created detestation for the site itself, vandalism and other social problems. In Accumoli, the village was given to them "from above" and no one feels it as their own. No one feels the need to take care of it: it is no coincidence that there are very few common areas of the villages are well looked after as opposed to private gardens. People should have the opportunity to complete the village, to take care of it, to improve it, even to change it: this will keep them active and empowered.

PATHS WIDTHS



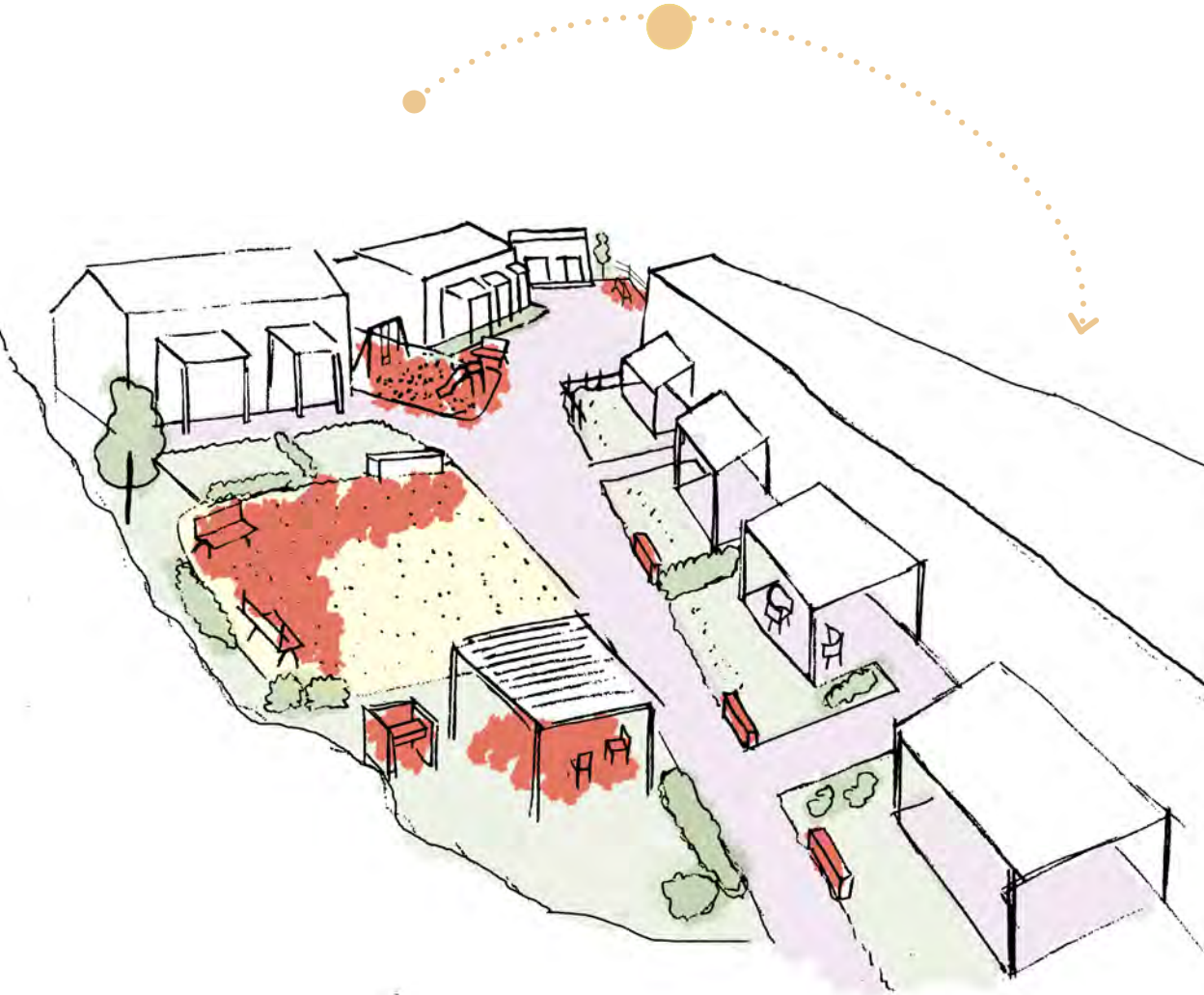
PUBLIC SPACES DIMENSIONS



Low density

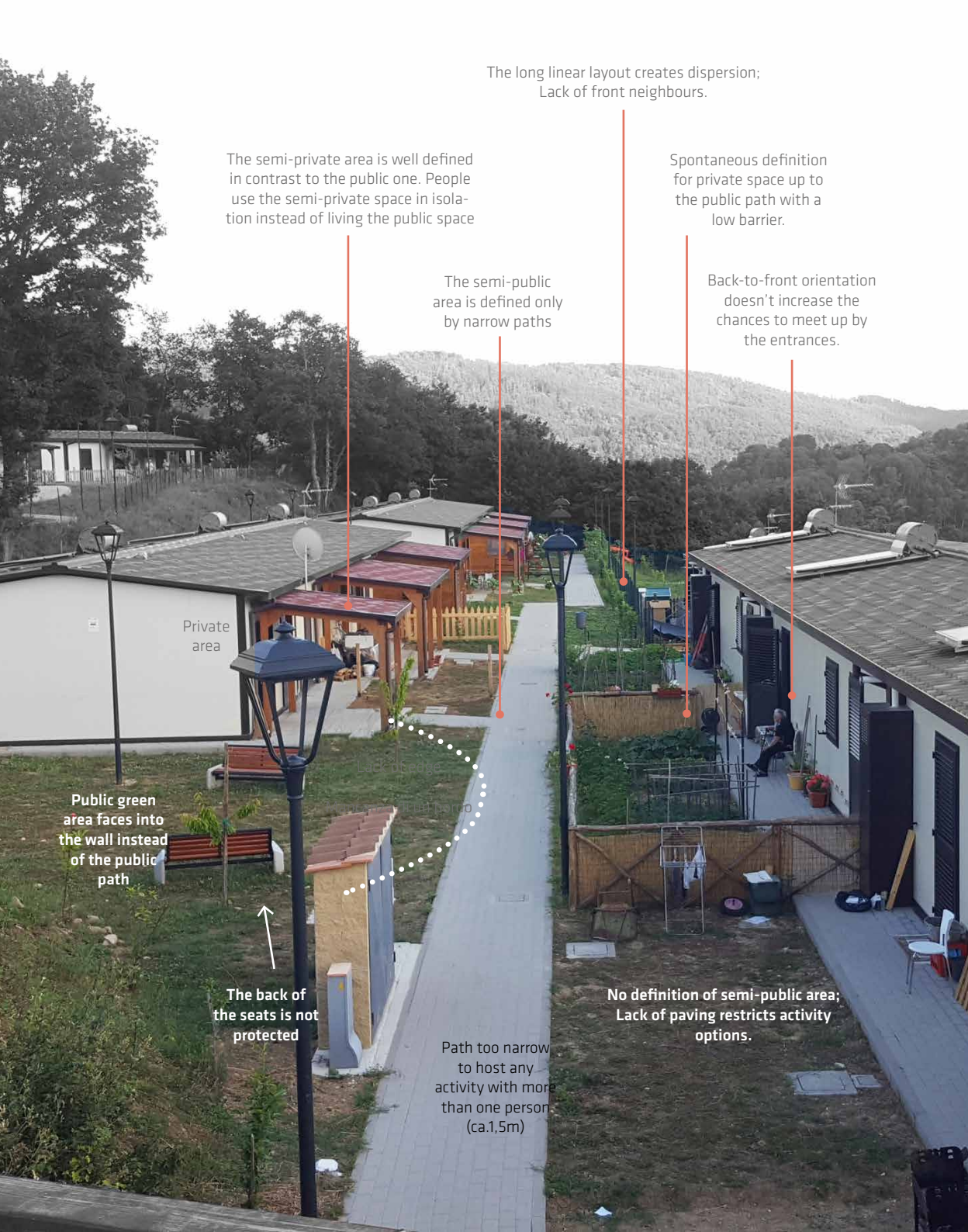
High density





Sketch of possible improvements of Accumoli S.A.E. Lot 2.

Conclusions



The long linear layout creates dispersion;
Lack of front neighbours.

The semi-private area is well defined
in contrast to the public one. People
use the semi-private space in isolation
instead of living the public space

Spontaneous definition
for private space up to the
public path with a
low barrier.

The semi-public
area is defined only
by narrow paths

Back-to-front orientation
doesn't increase the
chances to meet up by
the entrances.

Private
area

Public green
area faces into
the wall instead
of the public
path

The back of
the seats is not
protected

Lack of edge

Lack of edge

No definition of semi-public area;
Lack of paving restricts activity
options.

Path too narrow
to host any
activity with more
than one person
(ca.1,5m)



Notes for
possible
improvements
of Accumoli
S.A.E. Lot 2.

Among the most evident results of this research, there is the awareness of the lack of attention to social aspects in the design of temporary settlements following an earthquake in Italy. From this research, it emerged that new design approaches with a social perspective can instead be positively developed. This kind of design can facilitate overcoming the trauma caused by a natural disaster, documented here by theoretical and empirical research.

An earthquake clearly connects social and psychological difficulties to architecture: the loss of the built environment follows that of the identity of the places, which made up the social geography of the inhabitants. The vision of identity as a process assumed by this research derives from the interview with psychologists of the case study. Although relatively short-lived, the temporary town can be a turning point in this process. A comparison with other countries highlights that the characteristics of temporary settlements can in fact have long-term negative effects, first of all isolation, inertia and social disruption.

In general, it is found that the trauma is mainly individual in the early stage. At a later time it lets emerge needs related to the community, which is divided and in difficulty in the limbo of the post-emergency. This condition appears to be common to other post-earthquake scenarios in Italy and abroad. Despite this, the design of temporary urban centres has too often followed a functional approach “from above”. On the contrary, a route of community involvement is essential; this can limit the negative effects of welfarism highlighted by on site research. In this territorial, architectural and social, context at the same time, collaboration with sociologists, psychologists and landscape architects is also necessary.

Interviews and comparison with other projects have shown the need for common spaces to be among the most evident ones. The interaction that can occur in them can help to alleviate confusion and isolation. By providing social pretexts, human scale public spaces can also compensate for the difficulties experienced in the private sphere, worsened by living in temporary houses. Architecture is not only built space, but also void. Soon after an earthquake, the focus is on providing temporary residential and community buildings. These, however,



“Monti di Gibellina” square, Franco Purini, Laura Thermes, 1990, Gibellina, Italy.



are often made in dispersive urban contexts, lacking identity to the point of not attracting the inhabitants to the public realm of the space at their disposal.

The analysis of the village life before the earthquake and various theoretical researches, from Kevin Lynch to Leon Krier through Ian Gehl, confirmed the need for quality public spaces, treasurers of the spontaneity of social life. Here these is the hope not to see architecture focus on grandiose and inanimate elements, but to allow life to invade the spaces between the buildings, combining “the vulgar and the Vitruvian” cited by Venturi (1972) talking about the Italian square. Architecture seems to forget its social role in temporary housing. A paradox if we think of the model of sociality that the spaces of our smaller historic centres represent, to which the inhabitants of these small villages were used to and that the world envies us.

To promote the design of urban community solutions for post-earthquake trauma, a structured set of recommendations and design tools based on the results of theoretical and empirical research is proposed. These tools include the selection of elements from the past, the analysis of the environmental and social context and good practice to strengthen the cohesion of the present and future community. The interpretation of the past is summarized in the analysis of functions, users and types of public spaces present before

next page
“Potato Rows”
residential case in
Copenhagen.



the earthquake. This is essential because the perception of post-earthquake is strongly influenced by that of the previous condition. In conclusion, whatever the temporary structures, they must be contextualized and designed in their relationality, with the goal to promote social interaction in public spaces: this is a preparatory activity for the stitching of the community fabric and post-earthquake social reconstruction.





Parcobaeno
playground
by VIVIAMO-
LAq. Participatory and
auto-con-
struction
process.
M.A.P.S.
Rufina di
Roio (AQ),
2012.

Prof. Paolo Costa
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Earthquakes have always been intrinsic natural phenomena on this planet, long before humans began inhabiting it. They are fundamental components of the Earth's evolutionary processes, functioning as one of its generative and transformative mechanisms.

From a human perspective, it is understandable that earthquakes are perceived as exceptional and disruptive events. However, our framing of earthquakes as “natural disasters,” tied to the risks and costs they impose on human life, can also be interpreted as a reflection of the difficulty many cultures — though not all — experience in their relationship with nature and its forces, especially the more violent ones¹. This perception also highlights the fragility of a dominant view that regards natural phenomena — when not interpreted as divine acts — as obstacles to human endeavors, rather than natural elements with which we must coexist and confront, and whose effects we must consider as variables when planning for the future.

Such a statement may seem provocative in the afterword of a work that focuses on post-earthquake recovery — a phase in which intervention is necessary to mitigate the disastrous effects of the earthquake. However, while it may be an overstatement to regard earthquakes as opportunities, it remains true that the inevitability of such phenomena should drive us to improve the quality of our responses, for a variety of reasons, some of which beyond the scope of this book.

Earthquakes often exacerbate existing inequalities, as is the case with many “natural disasters.” The earthquake analyzed in this book, which struck the Italian Apennines in 2016-17, intensified ongoing social, economic, and demographic vulnerabilities, accelerating depopulation trends towards larger urban centers. Nevertheless, the effort to preserve and promote life in these inland and mountainous areas is crucial for protecting biodiversity, ecosystems, soil stability, and slopes — all of which have been, at least partially, safe-

¹ For a review on the variety of perceptions and views on natural disasters, see, e.g., Oliver-Smith, A., Hoffman, S., & Hoffman, S. M. (Eds.) (2019), *The angry earth: disaster in anthropological perspective*. Routledge. Specifically, on earthquakes, see, e.g., Solberg, C., Rossetto, T., and Joffe, H. (2010), *The social psychology of seismic hazard adjustment: re-evaluating the international literature*, *Nat. Hazards Earth Syst. Sci.*, 10, 1663–1677.

guarded by the rural civilizations that have inhabited these regions for millennia. Furthermore, in a world where the appeal of major urban centers has often coincided with alienation from nature, the continuation of life in smaller and more rural areas presents challenges but also offers opportunities for renewing our relationship with nature².

In this context, the research objective underlying the work presented in this book is of particular significance. As the author explicitly stated, her analysis aimed to define a comprehensive set of insights and analytical tools that could enable architecture and urban planning to support small communities in continuing to live and envision their future, even in the aftermath of a violent earthquake such as the one that occurred in 2016-17.

Achieving this goal clearly depends on various factors, many of which extend beyond the domain of design practice. The empirical analysis of daily life in Accumoli, both before and after the earthquake, demonstrates how the author recognizes the importance of social relationships in these settings. The study of social relations in cities has long been a major focus in the social sciences. To cite a classic example, Georg Simmel, in his illuminating analysis of European metropolises at the dawn of the 20th century, highlighted the significance and depth of social interactions in urban contexts³. Specifically, in describing urban communities of different sizes, he emphasized how, for better or worse, social relationships serve as a fundamental pillar upon which small communities are structured. It is for this reason that one of the main conclusions of Gregori's analysis is so disheartening: social relationships were inadequately considered in the design decisions that led to the construction of Accumoli's Emergency Housing Solutions (SAE).

Reflecting on the multiple stages that led the author to this and other conclusions, at least three aspects demonstrate the richness and sensitivity of the insights offered by this work, and the diversity of perspectives it engages. First and foremost, the research presents a body of theoretical knowledge concerning the influence of social and psychological dimensions in such communities, both immediately following the seismic emergency and, more importantly, in the months and years thereafter. This knowledge illustrates how social networks in such communities play a significant role

² On these topics, see, e.g., the work by the "Emidio di Treviri" research group that analyzed the effects of the 2016-17 earthquake from various perspectives: *Sulle tracce dell'Appennino che cambia. Voci dalla ricerca sul post-terremoto del 2016-17* (Beni Comuni, 2021).

³ Simmel Georg (1903), *The Metropolis and Mental Life*, translation of the original German essay *Die Großstädte und das Geistesleben*.

in fostering a perception of the beginning of a new phase in the community's life cycle, in which the disruption of the daily life normality caused by the seismic event is finally resolved.

Another valuable contribution comes from the systematic analysis of post-emergency architectural responses adopted in significant cases of earthquakes worldwide. This comparative analysis allowed for a broad contextualization of the conditions and the impacts of these seismic events. But it also served to facilitate the evaluation that confronted the intentions and frameworks that guided post-earthquake design interventions with their actual outcomes in people habitation of the SAE.

Lastly, it is noteworthy that the case study analysis of Accumoli was made of a detailed and original analytical and methodological research design. The portrayal of life in Accumoli before the earthquake, based on documents, interviews and walks in the devastated village, has dual significance. On the one hand, it enriches the existing body of knowledge on the social life of villages in inland Italy, illustrating the reciprocal relationship between the social practices that characterize life in these communities and the spaces that host them: spaces that serve as active frameworks for the construction of community identity. On the other hand, this analysis facilitated the identification of key dimensions structuring life in such communities, which was crucial for the subsequent step of the research — evaluating the outcomes of the design choices made in the SAE from the inhabitants' perspective. This evaluation, particularly focused on public spaces, revealed what the author refers to as the “non-village”: from the residents' perspective, the design choices made in the SAE present a range of problematic aspects and limitations that were meticulously examined.

The author's initial selection of this specific research topic was already indicative of her understanding of the impact that designers have on people's lives and the social responsibility of architecture. In light of the research outcomes, it is evident that the comprehensive and multidimensional research design adopted to address the research questions provided a valuable opportunity to further hone her sensitivity on how life itself gives meaning to designed spaces. This sensitivity will undoubtedly serve her well when, as we hope, Gregori expands this research into a broader programme with a larger scope and more systematic findings.





Museum of
Rural Life,
Illica
(Accumoli),
November
2016.

Often, during this research, there have been times when the collected informations were difficult to bear, so much as to shake the heart and make the desire to help communities in these situations grow more and more. In addition to this desire, the support of many people helped me to continue despite the difficulties.

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