

Summer Farms

Seasonal exploitation of the uplands from
prehistory to the present

Edited by

John Collis, Mark Pearce and Franco Nicolis

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6. Seasonal settlements and husbandry resources in the Ligurian Apennines (17th–20th centuries)

Anna Maria Stagno

This paper compares the results of different investigations devoted to the historical reconstruction of seasonal settlements (locally called casoni) that were widespread in the western Ligurian Apennines during the post-medieval period, and in doing so evaluate their potential as archaeological sources for the study of the management systems of husbandry resources. Between the 17th and 20th centuries, casoni became important components of pasture organization in the eastern Ligurian Apennines. As buildings where cattle and shepherds found shelter, it is possible to locate various casoni through place names, the analysis of historical and current cartography or by field-survey. The research summarized in this paper was carried out in four areas (Casoni Lagorara, Casoni di Bargone, Perlezzi sites and Casone del Giazzo) using archaeological (particularly architectural archaeology and survey) and documentary sources (historical cartography, archival documentation about jurisdictional conflicts). In each area, the archaeological analysis of the buildings revealed important transformations between the 18th and early-19th centuries. The comparison between the case studies suggests that these changes were the result of more general transformations in husbandry during this period, particularly those associated with transformations in agricultural systems.

Il contributo mette a confronto i risultati di differenti indagini dedicate alla storia di particolari insediamenti stagionali (localmente definiti “casoni”), diffusi in tutto l’Appennino ligure durante il periodo postmedievale e, nel farlo, tenta di valutare il loro potenziale come fonti archeologiche per lo studio dei sistemi di gestione delle risorse dell’allevamento. Nell’Appennino ligure orientale, tra XVII e XX secolo, i casoni diventano importanti elementi dell’organizzazione dei pascoli. Edifici dove il bestiame e i pastori trovavano ricovero, data la loro diffusione, è possibile localizzarli sia su base toponomastica, con l’analisi della cartografia storica e attuale, sia con indagini di terreno. La ricerca presentata è stata condotta in quattro aree (Casoni Lagorara, casoni di Bargone, casoni di Perlezzi e Casone del Giazzo) attraverso l’uso di fonti archeologiche (archeologia dell’architettura e di superficie) e documentarie (cartografia storica, fondi archivistici su conflitti giurisdizionali). In tutte le aree, l’analisi archeologica degli edifici rivela importanti trasformazioni tra l’inizio del XVIII e il XIX secolo. Il confronto tra i casi di studio suggerisce che questi cambiamenti siano stati il risultato di più generali trasformazioni nei sistemi dell’allevamento associabili a modifiche nei sistemi agricoli.

“Ogni innovazione è sempre una trasformazione di qualcosa che già esisteva”

“Every innovation is always a transformation of something that already existed”

(Tiziano Mannoni, 1997)

1. Introduction

This paper examines the contributions of the archaeological study of seasonal settlement in the reconstruction of the management systems of the environmental resources in particular the relationship between animal husbandry and agriculture. It will focus on the chronology of seasonal settlements, known locally as *casoni* and which are widespread in the eastern Ligurian Apennines. Archival (and iconographical/cartographical) sources testify to their presence since at least the

16th century, whilst the oldest archaeological evidence discussed here dates to the early-18th century.

The *casoni* still conserved today are buildings comprising of two (or three) floors, located along terraced slopes, often at the upper edge of the terraces, a short distance (2–4 km) from permanently inhabited settlements. They are often gathered in small groups and are only rarely isolated buildings. Interviews with present owners of the *casoni* studied stated that during the most recent phase of their usage, often between the 1950s and 1960s, their use was not only connected with animal husbandry, but also with the storage of agricultural products. They were used as stables on the ground floor, and as a hay-barn and storage on the first floor. This utilization corresponds both with that described in the 1960s geographical monograph on the subject, and in the historical written documentation, both with

Keywords: rural archaeology, husbandry systems, historical cartography, terraces, Post-Medieval period

Parole chiave: *archeologia rurale, sistemi di allevamento, cartografia storica, terrazzamenti, postmedioevo*

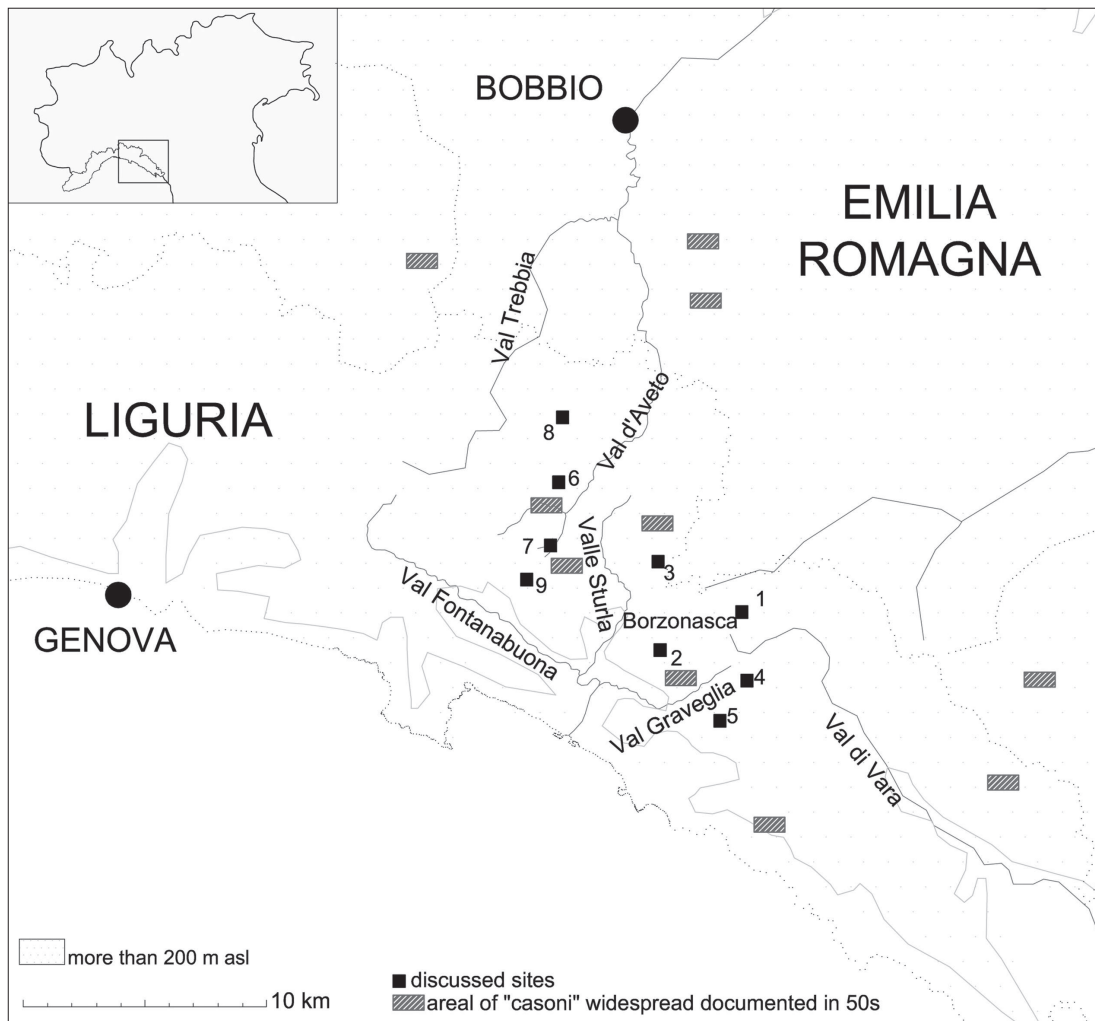


Figure 6.1 Location map of the sites cited. The area of the *casoni* distribution documented in the 1950s is indicated with grey colour (source Cevasco 2014).

that documented by the archaeological investigations conducted in the Ligurian Apennines by ISCUM, and at *Casoni* Lagorara (see below).

The multipurpose use of these structures highlights the close relationship between farming and pastoral activities. In Italian historical studies the connection between husbandry and agricultural systems has been extensively discussed, particularly in relation to customary regulations regarding the access of animals to cultivated areas and their role in fertilising crops (Ambrosoli 2011; Lorenzini 2011; for Liguria, references are Raggio 1995 and Moreno 1990). Recently, for the mountain areas, the historical study of the relationship between agricultural and pastoral practices in the transfer of fertility and its role in the processes of bio-diversification has been developed through the methods of historical ecology (Cevasco 2007).

Through the study of rock shelters (Angelucci *et al.* 2009 for an overview), archaeological research has examined seasonal settlement for the pre- and proto-historic periods, whilst research focused on the medi-

eval and post-medieval periods have been less frequent (De Maestri and Moreno 1980; Andrews and Cima 1984; Milanese and Biagini 1999; Giovannetti 2004). Recently, research focusing on the study of seasonal settlements and pastoral spaces have become more frequent (De Guio and Migliavacca 2012; Gaio 2014), and have included the investigation of rock engravings, writings and inscriptions produced by shepherds during the medieval (Troletti 2014) and post-medieval periods (Rossi and Gattiglia 2007; Bazzanella *et al.* 2014).

This intensification of study can be interpreted in various ways, on one hand to the increase in the number and scale of rural heritage projects (Brogiolo *et al.* 2012; Carrer *et al.* 2013; Redi and Di Blasio 2010) and on the other to the growth of 'environmental themes' in Italian archaeology, as has occurred at a European level in the social sciences in recent years (Ingold 2011; Torre 2008). From a methodological point of view, this growth has led to a new discussion of the problems encountered in the study of mountain areas,



Figure 6.2 *Casoni* of Lavaggi di Chiappozzo (820 m.a.s.l.), upper Graveglia valley (from Ferrando Cabona and Mannoni 1989:157, fig. 167).

both in terms of spatial and temporal high resolution, and of the dialogue between archaeology, palaeo-ecology, historical ecology and, more recently, history.¹

The research presented in this paper seeks to engage with these themes and is focused on the study and role of rural buildings as suitable historical sources in the reconstruction of the agro-silvo-pastoral systems and their transformations over time (Stagno 2012). Investigations took place within a wider framework of historical ecology and rural archaeology projects which were devoted to the reconstruction of the history of environmental practices and processes connected to the husbandry systems in the Ligurian Mountains and in northwest Italy more generally, conducted by the Laboratory of Environmental Archaeology and History (LASA) at the University of Genoa (Moreno *et al.* 2010; Cevasco 2013).

2. Literature review and research hypothesis: *casoni* from pastures to terraces

1. See the First International Workshop on Landscape Archaeology of European Mountain Areas, ICAC – Institut Català d'Arqueologia Clàssica, Tarragona 4th–6th June 2008; *2ème Workshop International d'Archéologie du Paysage des Montagnes Européennes*, GEODE – Université de Toulouse II – Le Mirail (8–11 October 2009). *Table ronde internationale de Gap Archéologie de la montagne européenne*, 29.09–1.10 2008 (Tzortis and Delestre 2010); *International Workshop on Archaeology of European Mountain Landscape, 'Carved mountains; engraved stones; contribution to the environmental resources archaeology of the Mediterranean Mountains*, Borzonasca (20–22 October 2011), organized by LASA, University of Genoa (Stagno 2014).

The distribution and broad spread of *casoni* between the Trebbia and Vara valleys (Fig. 6.1) is well known, and was identified by typology and place-names during the 1950s, during human geography enquiries in the Ligurian Apennines (Cevasco 2014).

Pasture organization in the Vara valley was studied by Diego Moreno through archival documentation concerning *pastorie*, *soccide* and *fidarezze*, leading to the hypothesis that *casoni* spread during the 16th-century as a sort of summer farm in common lands, as well as documenting the development of local cattle breeding, next to (and in competition with) the large number of transhumant sheep, goats and cattle. A map depicting the Vara Valley, produced by Cristoforo De Grassi (*Abbozzo dimostrativo di Varese*, ca. 1597–1603), supported this hypothesis due to the fact that it features and specifically names a number of *casoni* in the pastures between the Zatta and Verruga Mountains (Moreno 1990:242–243). In this work, Moreno showed that during the Ancien régime, *casoni* were one of the two points of the 'monticazione' system, in which cattle were brought to the mountain pastures during the summer, whilst being stabled in permanent settlements during the winter months.

The organization of this system fits with the interpretation of the vertical nature of the exploitation of mountain areas (Moreno and Raggio 1991), connected to the extensive spread of common lands and to the scattered settlement patterns ('ville' in Ancien Régime archival documentation) that characterized this part of the Apennines since at least the Middle Ages. Here, 'ville' did not correspond to formal administrative centres and indicate permanent settlements with lim-

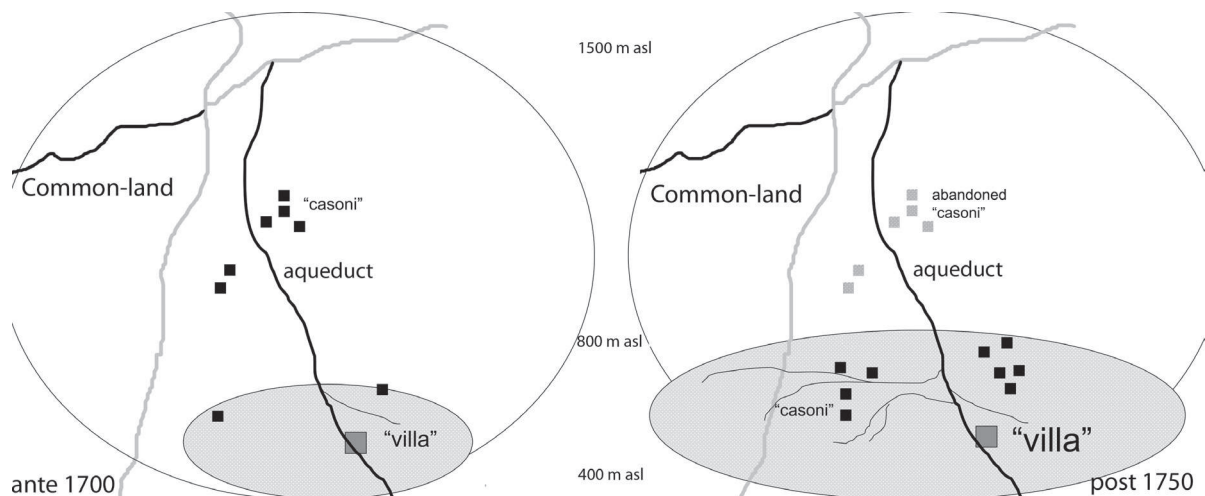


Figure 6.3 Sketch of the location models of 'casoni' before and after 1700–1750, derived from the Perlezzi case study (upper Sturla Valley).

ited demographical consistencies, tied to parishes and oratories, and that, during the Ancien Régime, were more often connected to single kinships (Raggio 1990; 1995).

Twenty years of archaeological research by the Istituto di Storia della Cultura Materiale (Institute of the History of Material Culture) of Genoa conducted in the Vara and neighbouring valleys (Graveglia, Aveto, Sturla, Fontanabuona, etc.) have shown that seasonal settlements – *casoni* – were widespread during the 18th century (Ferrando Cabona and Mannoni 1989; Mannoni *et al.* 1988:42–48), two centuries after the first references located in archival documentation. The oldest study site was at Lavaggi di Chiappozzo in the upper Graveglia valley (820 m.a.s.l.) and is dated to the early-18th century (Fig. 6.2).

The hypothesis of this paper is that the observed differences in the chronology between archival and archaeological sources is connected to a shift in the locations of the *casoni*, from common land pastures to terraced slopes on private properties (Fig. 6.3).

Through the examination of three examples, it is my intention to demonstrate how these changes occurred from the late 17th and throughout the 18th and the 19th centuries, and that they were caused by a contemporary process of slope terracing and the consequent changes in the organization of pasture and agricultural activities. In line with this process, *casoni* were built at lower altitudes (between 600 and 800 m.a.s.l., instead of at more than 1000), inside or on the upper ridge of terraces. This hypothesis was formulated during a study devoted to the reconstruction of a series of 18th century controversies concerning the water access rights between four hamlets in the Sturla Valley, and confirmed by the archaeological data of previous investigations in the neighbouring Petronio (*Casoni* di Bargone) and Lagorara (*Casoni* della Pietra) valleys.

A fourth case study, Casone del Giazzo, is also discussed in order to illustrate the difficulty in making

generalizations. The history and characteristics of the Casone del Giazzo (Aveto Valley) differ from the other investigated 'casoni', consisting of a building, dated to the late-17th century, located around 1100 m.a.s.l., within the common lands used by the inhabitants of the hamlet of Salto, an area that was to a limited extent terraced only during the 19th century.

Excluding the investigations at the *Casoni* della Pietra (a discussion based on the archaeological literature of a rescue archaeology project) the case studies were all examples of original research into landscape archaeology and architectural archaeology carried out within the framework of multidisciplinary projects of the Laboratory of Environmental Archaeology and History. The examples discussed have been investigated to different extents, with some work still in progress. The objective is to suggest how the study of the buildings as sources for the history of resources management, could be realized moving from a geographical and typological study to a strictly analytical and contextual perspective. In doing so, such an approach permits a closer reading of archaeological and archival documentation, aiding the reconstruction of the transformations and changes in post-medieval husbandry systems otherwise hidden by terminological and typological similarities associated with the same practice of 'monticazione'.

3. Methods of investigation

As previously mentioned, during all the investigations, particular interest was paid to transformations in the management systems of the environmental resources. For each case study Table 6.1 summarizes the investigation methods, the choice of which was dependant on the specific research context.

As noted above, in the original research the analyses of the buildings were linked with archaeological field surveys of the surrounding slopes (as well as historical ecology surveys in the *Casoni* di Bargone case

	Surveys			Site analysis		Lab analysis		Documentary sources analysis	
	Archaeology	Historical ecology	Oral sources interviews	Archaeology of architecture	Archaeological excavation	Palynological analysis	Geomorphology	Archival sources	Cartographical sources
Casoni di Perlezzi	x		x	x		x		x	x
Casoni della Pietra			x	x	x		x		x
Casoni di Bargone	x	x	x	x					x
Casoni del Giazzo	x			x					x

Table 6.1 Methods of investigation employed in the case studies. The grey colour highlights investigation based only on the literature.

study). Investigations were carried out with non-systematic methods, with an intensive survey.² Architectural archaeology methods were employed in all case studies. Overall, twenty *casoni* were analysed, through an expeditious cataloguing of each building, in order to identify the phase of construction and the sequence of the subsequent most important modifications (additions of new parts to building, elevations, reconstructions, insertion or substitution of openings). Configuration analyses (Mannoni 1984; 1998) were conducted in the Perlezzi and Bargone case studies, and associated with the stratigraphic analysis of the standing walls in the other two cases.

The analysis of the openings was particularly important for their potential use as dating elements. It is well known that door lintel typologies have been changed in the course of time, and this fact allowed the construction of specific chrono-typologies for each area (Ferrando Cabona *et al.* 1989; Gobbato 2004). The chrono-typology defined in the previous investigation of the Ventarola hamlet in Aveto valley (Stagno 2009a; 2009b) was used during the other research in order to date building phases.

2. Archaeological research in mountain areas has now reached its maturity at an European level, both from a theoretical point of view, and a methodological one, above all thanks to increasingly strict linkage between environmental archaeology and the 'classical' practice of archaeological survey (for an application see Rendu 2003; Le Couédic 2010). Concerning the necessity to define a precise methodology for surveys in mountain areas, see Van Leusen *et al.* 2011; Tzortzis and Delestre 2010. For landscape archaeology in so-called low visibility areas, and the necessity also to investigate the elements traditionally considered as obstacles to the investigation like vegetation and not to separate historical ecology surveys and archaeological ones, see Giovannetti 2004; Stagno 2015, in press. This approach, not so developed in Italy, is today much more common, see Moscatelli 2011 for an overview.

Chronological clues were also derived from the analyses of other documentary sources. This comparison made it possible to verify the chronology established from archaeological investigations and, particularly for the Perlezzi case study, to indirectly date buildings and other artefacts, thanks to the comparison with the analysis of historical cartography.

In the *Casoni della Pietra*, Perlezzi and Bargone case studies, the present owners of the buildings (*Casoni della Pietra*, Bargone) and of the lands investigated (Perlezzi) were interviewed. Interviews focused on the final stages of the use of buildings and terraces and on the environmental resource management practices still used during the 1950s and 1960s. The results of the interviews have been crucial in constructing the interpretation grid of the use of the *casoni* spaces. Based on the interpretation and the characteristics of the last recognizable function, this grid aided hypotheses concerning the function and changes of internal spaces (as identified through the analysis of the walls and the openings). There is a short discussion about the archaeological markers of the functions of *casoni* in the last paragraph.

4. Material characteristics of *casoni* buildings

The analysis of *casoni* buildings showed that they share some physical characteristics. The standing buildings are usually on two floors (maximum height 4.5 metres), but phases of super-elevation are also documented. The roof can be a single sloped (45°) sloping down to the valley, or two asymmetrical slopes. When *casoni* are located on a drop, the access to the ground floor and to the first floor is made up of two different entrances. The openings are all with architraves. The windows on the ground floor are of small size and often square



Figure 6.4 Domenico Carbonara map “Tipo geometrico delli Condotti, o Corse d’acqua fra Perleggi, Careggi e Caroso”, 1752 (from Stagno and Tigrino 2012).

shaped. The small size of the ground floor windows indicates that the housing of livestock was not continuous. The stables continuously used during winter have larger windows, as confirmed in the investigations of the hamlets of Ventarola and Casanova in the Ligurian Apennines (Stagno 2009a:161; Tigrino *et al.* 2013). The first (and second) floors have openings of considerable size, compatible with their use as hay-barns and storage houses. In all investigated *casoni*, no evidence suggesting changes in their functions were observed.

The walls are double row with a rubble core, with irregular work and parameters, consisting of broken, irregularly shaped and medium sized stones always bonded with lime mortar mixed with earth, and arranged in sub-horizontal courses with abundant sub-wedges. The cantons are indicated by larger sculpted stones. As is frequently the case in late and post-medieval rural buildings, the wall surfaces have no significant transformations divulging chronological information. More information, as noted above, was derived from the analysis of the openings when preserved (in

many cases the original lintel is removed).

The analysis of the architectural complexes consisting of multiple bodies has shown that often these are built at the same point in time which may provide clues to construction agreements between different owners so as to reduce costs linked to the presence of one or two shared walls and, certainly in the Perlezzi case study, can be linked to the strategies of terracing slopes.

5. The case studies

Below, I will discuss the four case studies of the *casoni* at Perlezzi, Lagorara, Bargone and Giazzo. During the discussion, investigations are briefly outlined and some archaeological information is summarized in a specific table.

Casoni di Perlezzi (Sturla Valley)

The study of *Casoni di Perlezzi* originated from research developed from the study of archival documentation and later through fieldwork (Stagno and

Tigrino 2012).³ The study started with the reconstruction of an 18th-century controversy concerning the common lands shared by different hamlets (*ville*) located in the upper Sturla Valley, under the jurisdiction of the Capitanato di Chiavari. During the Ancien Régime this area belonged to the Repubblica di Genova, and constituted a boundary area with seigniorial estates of the Doria family. Conflicts over common lands were caused by problems of access rights to the same stream used for feeding the different irrigation aqueducts of the hamlets Perlezzi, Prato, Caroso and Careggi. In 1752, during the controversy, a map (“Tipo geometrico concernente le prese d’acqua...” drawn by ‘Domenico Carbonara, Ingegnere’, Fig. 6.4) was produced in order to collect elements necessary for defining access rights on common lands (and so to water). For this reason the map indicated *casoni* and pieces of lands of private people (‘particolari’) in a very accurate manner. Obviously, this precision does not correspond with our criteria: it is impossible geo-referencing the map, but the precision is connected with the extensive index of 93 details concerning place-names, hydrography, meadows, ‘*casoni*’, etc. as described by the inhabitants of Perlezzi, Caroso and Careggi.

However, this precision has permitted the identification of the features represented on current cartography (Fig. 6.5) and to date phases in the construction of the aqueduct identified during archaeological surveys. It is important to highlight that only the reconstruction of the controversy permitted the understanding of the jurisdictional and certifying value of this non-geo-referenced map, and that only for this reason was it possible to use archival data as a tool in establishing chronological information through a direct comparison with the field survey results.

The analysis of the map clearly showed the abandonment of all the eight *casoni* located inside common lands, and the presence of 18 *casoni* at lower altitude, inside the ‘particolari’ lands of Perlezzi inhabitants, eight of which were near to the water-work branches (Fig. 6.6; Table 6.3). The co-existence of abandoned and used *casoni* suggests a shift in their location, which was explained through field surveys.

Archaeological surveys carried out with intensive and systematic methods did not identify any traces of buildings in the Perlezzi common lands (Beltrametti *et al.* 2014),⁴ while on terraced slopes they made it possible to:

3. The *casoni* of the inhabitants of Perlezzi were studied during a research devoted to ‘water perimeters’, the technical and juridical devices which allow access to water by social groups who need to exploit it (University of Genova- PRA2008, director O. Raggio, supervisor A.M. Stagno, see Stagno 2009a).
4. It should be noted, that, it was possible to suggest a continuity of use of the common-lands from the 18th century. In fact, surveys allowed the identification of all the areas represented in the map of 1752 as private pieces of land inside common-lands, thanks to the presence of particular features: hawthorn trees, alignments of stones or of bushes (Beltrametti *et al.* 2014). For this reason, the impossibility of finding evidence of the abandoned ‘*casoni*’

1. establish that the standing *casoni* were all located on terraced slopes, where the aqueduct branches brought water;
2. identify three different phases of terrace construction;
3. observe the physical relationship between the aqueduct channels and the terraces, which showed that construction of the water-works was realized at the same time as the terraces.⁵

Thanks to this contemporaneity, it was possible to use the chronology of the Perlezzi aqueduct (which was dated through archival documentation and historical cartography to the first half of the 18th century) for dating the corresponding phase of the terracing process, that was the second of the three identified phases (Table 6.2).

Perlezzi terrace phases (Fig. 6.7) were built with the following chronology:

Phase 1, end of 16th century and 17th century. Terraces adjacent to the permanent settlement built during the hamlet development.

Phase 2, end of 17th century to the first half of 18th century. North and west Perlezzi slopes terraces developed contemporary to the aqueduct network.

Phase 3, second half of the 18th century and the 19th century. Terracing of the south and west slopes.

This reconstruction confirms that the 18th-century conflicts over water resources depended on and happened at the same time as the second phase of terracing, which is the more significant. Water, obviously, was used not in common lands, but where aqueducts bring water, on private lands that we know were just terraced. So the conflict over water resources depended on the new demand for water in consequence to the construction of new agricultural terraced spaces. The surveyed *casoni* were constructed precisely on the terraces belonging to this second phase, an observation that provides an important clue in establishing the chronology of the *casoni* themselves.

that the same map shows in the same areas suggests that they could be made of wood or of some other non-durable material. Obviously, in the sloping areas, it is also necessary take in account the question of erosion and of formation processes for the interpretation (this problem was addressed at an early stage for the study of Ligurian mountain areas – see the ever fundamental Mannoni 1970).

5. Both for the identification of the relationships between water-works and terraces, and the use of documentary and cartographical sources for dating archaeological remains, the study of the irrigation system of Perlezzi was inspired by the procedures of Spanish hydraulic archaeology, employed in the study of *Al-Andalus* society and the spatial and social organization of *campesinos* (Kirchner and Navarro 1993:135–146; Asins-Velis 2006:29–31). The archaeology of terraces is rapidly maturing, above all thanks to the development of Spanish and French agrarian archaeology; see Guilane 1991; Harfouche 2005; 2007; Kirchner 2010 and, in connection to water archaeology, Barceló *et al.* 1996.

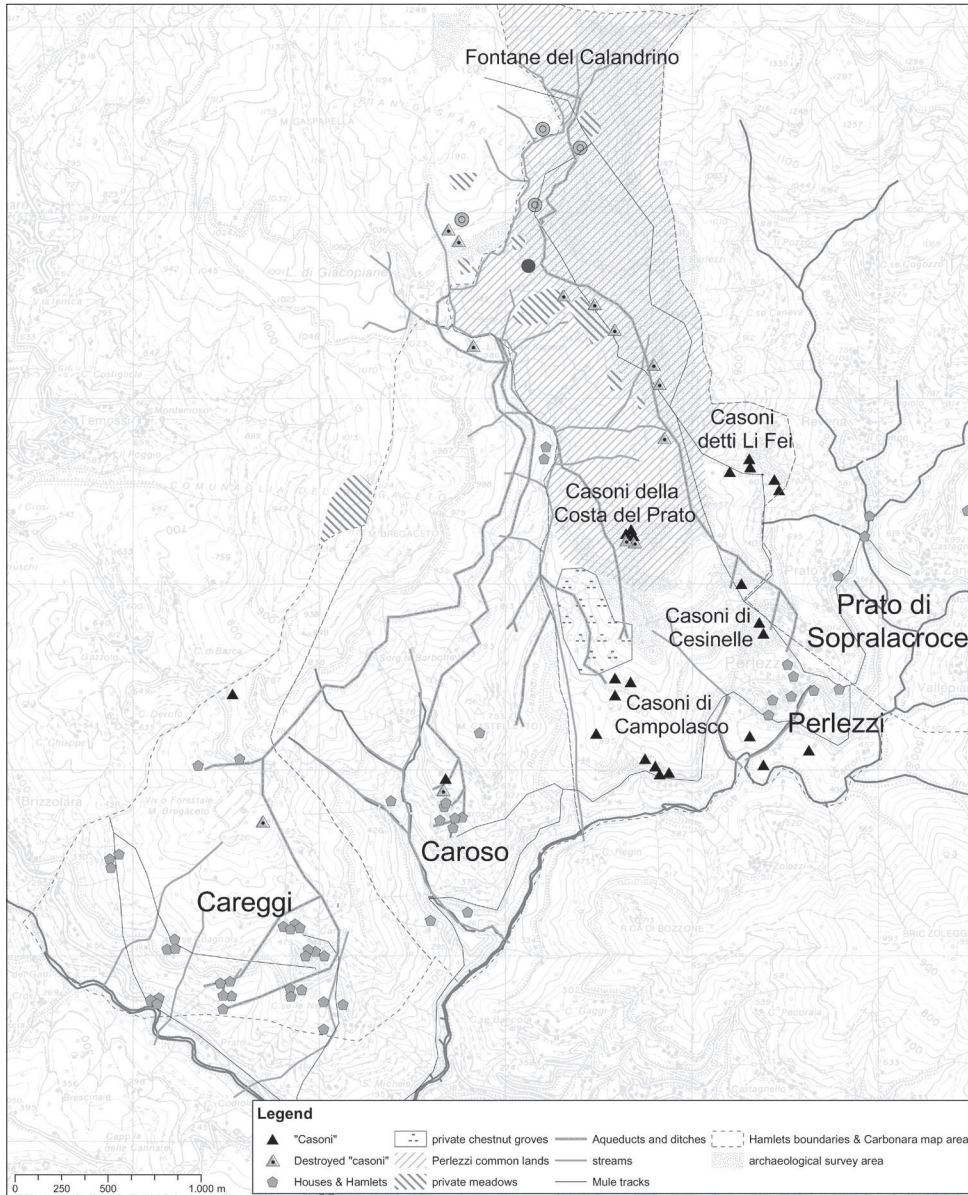


Figure 6.5 Localization on the present cartography of the features represented in the map of D. Carbonara (after Stagno and Tigrino 2010).



Figure 6.6 Detail of the 'casoni' represented in the 'Tipo geometrico' of Domenico Carbonara (1752). See Table 6.3 for the list.

Aqueduct phases	chronology sources	Terrace phases	chronology sources	<i>casoni</i>	chronology sources
16 th – beginning of the 17 th	(Chronology of terraces; aqueducts bring water to hamlet terraces)	Phase 1: 16 th – beginning of the 17 th century	Dated door lintels in Perlezzi hamlet		
1700 –	Archival documentation of controversy	Phase 2: end of 17 th – first half of 18 th	Physical relationship of contemporaneity with the aqueduct	First half of 18 th century	Relationship with the terraces; door lintels; historical cartography
1752	Historical maps				
1820	Historical maps	Phase 3: second half of 18 th – beginning of the 19 th century	Relationship with the aqueduct, stratigraphic relationship between terraces	Late 18 th century	Relationship with the terraces; historical cartography
				second half of 19 th	Relationship with other <i>casoni</i> ; door lintels
1939	Historical maps				

Table 6.2 Comparison between the chronology of the aqueduct, terraces and *casoni* (with the indication of the sources for the chronology).

1641	1752	1789
<ul style="list-style-type: none"> – Terra seminativa detta il Chiapone con casone di Antonio Grillo e di Filippo Grillo (mezzo casone a testa) confina con la valle – Terra seminativa detta Nonalaga con casone di Benedetto Massa qu Michele – Terra hortiva e arborata di noci detta il Cozale e l'orto con un casone rotto di Pietro Costa qu Alessandro – Terra seminativa detta Li Fei con casone di Batta.ce Massa qu Lucca (confina con il Commune) 	<ul style="list-style-type: none"> – Abandoned and partially destroyed <i>casoni</i> in Perlezzi common lands near 'Moglia del Fango' (6) – <i>Casoni</i> della Costa del Prato at the boundary between common and private lands (5, of which 3 destroyed) – <i>Casoni</i> della Costa del Coscione (2) – <i>Casoni</i> delle Cesinelle: 4 <i>casoni</i> – <i>Casoni</i> de Particolari di Perlezzi detti Le Fei (10) 	<ul style="list-style-type: none"> – <i>Casoni</i> di quei di Perelezzi, nel loro territorio detti di Campolasco ove sono de' vigneti (11) – <i>Casoni</i> del Fei e <i>Casoni</i> del Lerino nel Territorio di Perlezzi (17)

Table 6.3 List of the '*casoni*' of Perlezzi and of their owners located in private and permanent cultivated lands as described in the '*Caratata*' of 1641, in the *Tipo geometrico* of Domenico Carbonara (1752), and in the *Tipo geometrico* of Giuseppe Ferretto (1789).

Eighteenth-century *casoni*

Archival sources provide some clues about the process with *casoni* widespread since the 17th century. The analysis of a fiscal cadastre (*Caratata*) of 1641,⁶ shows that in that period there were only four *casoni* privately owned by individuals at Perlezzi, located inside the private and permanently cultivated lands, one of which was shared by two owners (Table 6.3). There is no mention of *casoni* in areas of common land, because common lands were not included in this cadastre.

6. ASG, *Magistrato Comunità*, 718, *Caratata della Cappella di Valle Sturla, Ordinaria di Perlezzi*.

As described above, in 1752 there were 18 *casoni* in use, located on private and cultivated areas, and eight abandoned *casoni* in common lands. As shown by another map of 1789, a few decades later there were no more *casoni* documented in common lands, and the 29 *casoni* at Perlezzi were all located in cultivated and (thanks to archaeological surveys we can also add) terraced land.⁷ This second map, connected to a new

7. *Tipo geometrico dei rispettivi territori delle due Comunità di Gazzolo e di Perlezzi elevato l'anno 1789 in settembre per ordine degli Ecc.mi Camerali Com.ti per le differenze vertenti fra dette Comunità a motivo delle acque denominate Calandrine* drawn by Giuseppe Ferretto (ASG, *Mappe e Tipi Cartografici*, b. 9bis, n. 302, I Gazzolo).

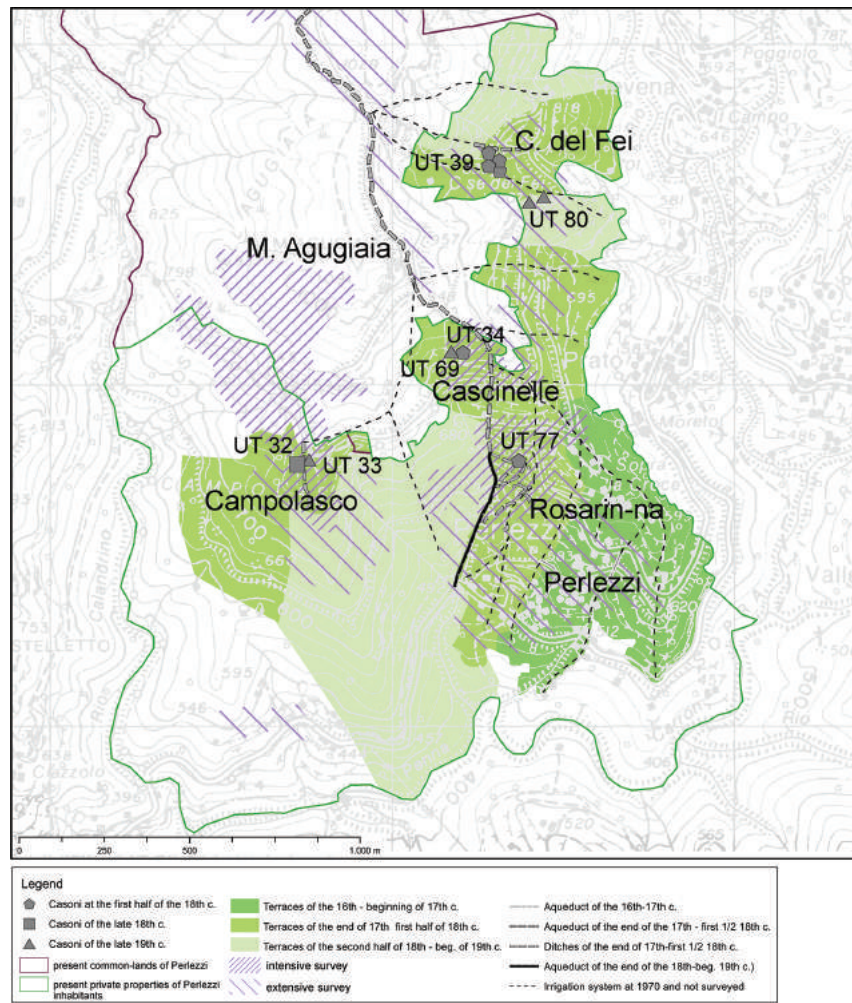


Figure 6.7 Hypothesis of terrace and water-works phases, and the chronology of *casoni*, derived from the comparison between historical cartography analysis and fieldwork results. The extension of terraces belonging to the different phases is hypothesized thanks to this comparison and to the distribution of the branches, as documented in a 1970s map (Stagno and Tigrino 2012, modified).

controversy on water access rights involving Perlezzi (against another hamlet ‘Gazzolo’) was drawn with the same perspective as the first one and shows that the water network had been expanded.

From the first half of the 18th century, the increase in the number of *casoni* located in cultivated areas and their contemporary disappearance in common lands was evident during the cartographical comparisons. These maps represent *casoni* distributed in small groups of two, three or more buildings (Table 6.3). In particular, for the group of *Casoni detti li Fei*, the map of 1752 indicates the owner of each casone.⁸ It is an interesting element that could also indicate how terraces were built. In fact, the localization of *casoni* belonging to different owners in the same area at the

top of terrace systems could be a clue of a co-participation of different owners in the construction of the same sets of terraces. This type of agreement is certainly documented for the building of the aqueduct at the Caroso hamlet (the only one for which we have found this type of information). This water work was built by a ‘master mason’ (*maestro muratore*), whose remuneration was paid in accordance with quotas established by a specific written agreement (*‘instrumento di Convegno’*) between different parties and the future users of the water. The documented contemporaneity between terraces and water-works suggests that agreements could have also been signed for the construction of terraces.

During archaeological fieldwork along the Perlezzi slopes, a total of eleven *casoni* were surveyed (Table 6.4). Seven of them were built on terraces that belong to the second phase of terracing (late 17th to 18th century, see Table 6.2, Fig. 6.7) and so it is possible to confirm

8. ‘Particolari’ dei *Casoni detti li Fei*: *Casoni del Reverendo Cesare Mazza*; *Casone di Agostino Mazza*; *Casone di Gio Grillo*; *Casone di Girolamo Mereto*; *Casone di Santino Grillo*; *Casoni degli eredi di Gio Grillo*.

		<i>Site 9 Casinelle</i>	<i>Site 15 'Cas del Fei'</i>	<i>Site 8 Campolasco</i>
<i>Characteristics</i>	<i>Altitude</i>	825	820	820
	<i>Number of buildings (architectural complex or building element)</i>	UT 34 (one building of 2 elements); UT 69 (one building)	UT 39 (4 buildings, of which one completely destroyed) (UT 80 (2 buildings))	UT 32 (one building of 4 elements); UT 33 (one building)
	<i>Building dimensions</i>	UT 34: 15, 46×15, 46 46×6, 54m; UT 69: 4, 68×4 64m		UT 32: 23×6.60m UT 33: 7×6.6m
	<i>Evidence of feeders</i>	Yes, of the basement	Yes, preserved	Not surveyed
	<i>State of preservation</i>	Standing	Restored and standing	Standing except a collapsed structure
<i>Methods</i>	<i>Investigation methods</i>	Survey and configurational analysis		
	<i>Chronology methods</i>	Indirect: archaeological survey crossed with documentary sources analysis		
<i>Chronology</i>	<i>Chronology elements</i>	UT 69 external wooden door lintel (half 19 th century)	UT 39 restoration with new door with wooden door lintel UT 80 external wooden door lintel	UT 33 external wooden door lintel
	<i>Chronology of construction</i>	End of 17 th century – beginning of 18 th century	Late 17 th century	Second half of 18 th century (Ferretto map)
	<i>Transformation</i>	New <i>casoni</i>	Enlargements and new <i>casoni</i>	Enlargements and new <i>casoni</i>
	<i>Continuity of use</i>	Used	Used	Used
	<i>Evidence of previous buildings</i>	Not demonstrated	Not demonstrated	Not demonstrated
<i>Functional relationships</i>	<i>Distance from the hamlet</i>	2 km from Perlezzi	3 km from Perlezzi	3.5 km from Perlezzi
	<i>Enclosure for manure collection</i>	Yes	No	No
	<i>Presence of terraces</i>	UT 62, 1800 sq m (terraces width 4–7m)	North UT 78 (terraces), south UT 66 / (embankments)	UT 68, 2800 sq m (terraces width 7m)
	<i>Presence of water-works</i>	Yes (UT)	Yes (UT 66)	Yes (UT ...)

Table 6.4 Synthesis of the archaeological investigation on *casoni* of Perlezzi.

that these *casoni* are definitely contemporary or later than the terraces. It was possible to directly date only one building (UT 34), thanks to the presence of an 18th century door lintel. In the other cases, the comparison with the historical cartography offered an important chronological element because the maps indicate the presence of *casoni* in the same areas where they were identified during fieldwork. Therefore, even if we cannot be sure that the present buildings of *casoni* are those of the 18th century, we can be sure that *casoni* were in these areas, an adequate conclusion for our discussion

of the change in the location of *casoni*. The analysis of historical maps compared with the results of archaeological survey showed its connections with the progressive process of terracing, and also provides information about the organization of *casoni* located on the boundary between terraces and upper common lands.

Surveys showed that the branches of the aqueduct serve not only cultivated terraces but also terraces for chestnut groves. An archival document of the controversy confirms also that during the 18th century the irrigation of chestnut groves was practiced (Stagno and

Tigrino 2012:276). Palynological analysis conducted in a sample of the soil of these terraces demonstrated that the fertilisation of the parcel was assured by grazing and that the parcel was also cultivated with cereal sowing in a cycle that provided wood, charcoal, fruit, hay and grass (Molinari 2010:159–173).

Nineteenth century *casoni*

Archaeological surveys demonstrated that during the second half of the 19th century new scattered *casoni* were built along the private and cultivated terraces (UT 33, UT 69 and UT 80), not far from the most ancient *casoni* (UT 32 Campolasco, UT 34 Casinelle, UT 39 Case del Fei, see Fig. 6.7). Thanks to the presence of the external wooden door lintel of the stable, it was possible to date these buildings (Ferrando Cabona *et al.* 1978:108–118; Stagno 2009a:158–159). A 19th century phase of *casoni* construction was also documented in the other case studies and have been connected to a new phase of the expansion of cattle breeding, and of an intensification of the production of fodder resources (which caused the need for more space for hay-barns), already documented in the Ligurian Apennines (Moreno 1990), as well as in Italy and Europe generally (Vecchio *et al.* 2002) and which can be connected with more general transformations that will be discussed in the conclusion.

Seasonal settlements at the middle of the 20th century

Since the 1950s, new seasonal settlements have been built on the common lands in Perlezzi: ‘Malga Perlezzi’ owned by the Comitato di gestione dei Beni Frazionali (Management Committee of the Common Lands). This committee holds the access rights to the common land of Perlezzi. The malga is used as a summer farm, whilst its stables are used for nightly summer stabling of cattle owned by different families of Perlezzi and of the neighbouring hamlets. The ‘malga’ is managed through a rota system by the members of the Consorzio di Miglioramento Zootecnico, that brings together the Perlezzi owners of cattle and sheep, and to which the Comitato di gestione dei Beni Frazionali grants, through a free loan, common lands for grazing. It is interesting to note that this organization was funded in a period of the progressive reduction of the importance of agricultural activities, and in which the exploitation of terraces for permanent cultivation was abandoned, and so it was therefore no longer necessary to reconcile agricultural and pastoral activities. Therefore, since the 1950s, the terraces on the Perlezzi slopes were only used for vegetable gardens, and for hay mowing, and the studied *casoni* along terraces have been progressively abandoned and only used for the deposition of farm tools and as hay-barns, and no longer as stables.

This ‘new’ seasonal settlement and its connection with a collective organization of pastoral activities have a positive environmental impact. The common

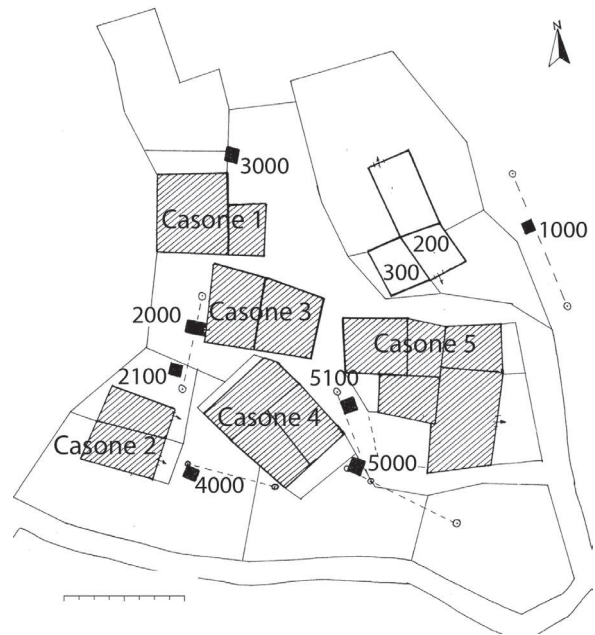


Figure 6.8 Casoni della Pietra. Sketch of the site (after Milanese and Biagini 1999, figs. 9 and 43, modified).

lands of Perlezzi are today occupied by beech forests and prairies of mountain pastures which have not been affected by the advance of secondary forest growth as has happened in the ancient common land belonging to the ‘ville’ of the valley and more generally in mountain areas of Liguria where the grazing was already abandoned (Stagno and Tigrino 2012).

Casoni della Pietra, Val Lagorara

The site of Casoni della Pietra (Maissana, SP) occupies an area of 1500 square metres (Fig. 6.8), at 790 m.a.s.l., on the western side of the Lagorara valley (a valley in the sub-basin of the Torza stream in the upper Vara Valley). It is comprised of six building complexes, five of which are abandoned and partially collapsed, and one of which is completely destroyed, located at the upper boundary of a large terraced area used at the time of the investigations for hay mowing.

In order to collect extensive and stratigraphical data for the reconstruction of the diachronic development of the settlement, investigations were predominately carried out through non-destructive methods: core drillings, shovel pits, stratigraphical analysis of standing walls, micro-morphological analysis.⁹ Archaeological excavations have been carried out only in two of the three structures constituting the ruined

9. Archaeological researches on Casoni della Pietra were carried out by the Chair of Methodology of Archaeological Research of the University of Genova, in the framework of the project *Laboratori di Archeologia Montana*, realized by *Polo etnobotanica e storia* (now *Laboratorio di archeologia e storia ambientale*) at the same University in collaboration with the *Soprintendenza per i Beni Archeologici della Liguria* (Milanese and Biagini 1999).

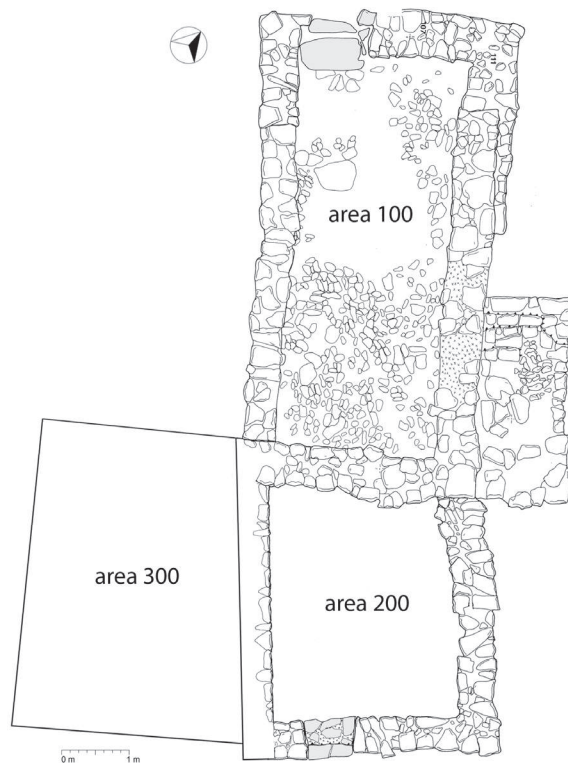


Figure 6.9 Casoni della Pietra. Sketch of areas 100 and 200 (after Biagini and Milanese 1999, figs. 24 and 29, modified).

casoni (area 100 and area 200, Fig. 6.9), with the aim of reconstructing its functions and to date the construction. Fieldwork investigations were associated with a preliminary analysis of the historical cartography and with several interviews with present owners of *casoni*. Micro-morphological analyses were carried out on two undisturbed samples of the straw bedding for the cows sampled from a collapsing *casone* (*casone* 4, area 4000) and from a stratigraphic layer sampled in area 100.

These investigations permitted the reconstruction of the phases when the site was in use. The more ancient phase is connected with structures preceding the *casoni*: a part of a wall (identified in area 100), built directly on the artificially flattened bedrock used as a foundation. The presence of this wall suggested the existence of a settlement before the present *casoni*. A collapsed wall, documented during shovel tests (area 5000, Fig. 6.8), confirmed the presence of the same bedrock and hints of previous buildings (Ottomano 1999:34–35).

After a period of abandonment documented by colluvium which had hidden the preceding remains, between the end of the 17th century and the beginning of the 18th century, the more ancient part of the excavated *casone* was built (area 100). This chronology was extended to the whole settlement, because the same palaeo-surface of colluvium was identified in all the shovel-pits, and the footings of the buildings have been laid on this palaeo-surface.

The excavated *casone* (Fig. 6.9) comprised of three structures (area 100, area 200, and area 300 not investigated), with independent accesses. The largest one had a rectangular shape, and is on two floors, with an external staircase for access up to the first floor. The ground floor was paved with pebbles and stones (US 110), partially obliterated by a layer (US 109) with predominantly clay matrix, interpreted as the result of the deposition of the straw bedding, thanks to the micro-morphological analysis, these analyses indicated that the stable housed cattle, and that they were not fed with dry fodder, but rather grazed/pastured and stabled in the ‘*casone*’ only seasonally and a few times, possibly during the night (Ottomano 1999:36).¹⁰ For this reason this room was interpreted as a stable. The adjacent area 200 was smaller, and belonged to another cadastral parcel, possible evidence of a different property, as already documented in the *casoni* of Perlezzi. It is possible to interpret this room as also a stable. The presence of almost exclusively transport pottery, and the absence of permanent fireplaces inside confirm a seasonal/temporary use and not permanent habitation in this building.

Unlike the other buildings of the settlement, the excavated *casone* was abandoned at the end of the 19th century. This fact documents a diversification in the use and in the way of abandonment of *casoni* connected to a specific family history. The current owners, in fact, stated that the majority of these structures were abandoned during the 1950s. The observation of the still standing *casoni* shows that at least one of them was built in the second half of the 19th century, as documented by the presence of an external door lintel with wooden architraves surmounted by segmental arches and jambs made with off-cuts, which are comparable to the ones at Ventarola, Perlezzi and Zignago.¹¹

The surveys carried out in area 4000 (outside *casone* 4, Fig. 6.8) documented the presence of litter developed within an open enclosure, evidence, for the 1950s, of the practice of collecting manure for the fertilization of the surrounding terraced and cultivated areas. The micro-morphological analysis conducted on this litter shows that it has the same composition as US 109, allowing the same interpretation.

10. About the problem of archaeological study of the stables and possible indicators to characterize their uses see Charles *et al.* 1998.

11. This is a new observation that I made on the basis of the published images (Milanese and Biagini 1999:16, fig. 7), because the results of the stratigraphic analysis of the standing walls have not been yet published. Those investigations have been focused on the micro-stratigraphy of the mortars, which did not allow concrete results (Milanese and Biagini 1999:50–51). During the study conducted in the hamlet of Ventarola, I could compare the results of previous micro-morphological analysis on the samples of mortar, with the results of the stratigraphic analysis of the standing walls. The comparison showed the impossibility of obtaining chronological and stratigraphical information from the differences of the mortar, such as the different colours and compositions of the mortars which do not necessarily correspond to different wall phases (Stagno 2009:175–176).

		Survey on ‘Casone della Pietra’	Excavation (area 100 and 200)
Characteristics	<i>Altitude</i>	790	790
	<i>Number of buildings (architectural complex or building element)</i>	6 architectural complexes	1 architectural complex, consisting of two structures
	<i>State of preservation</i>	Collapsing	Collapsed
Methods	<i>Investigation methods</i>	Standing wall archaeological analysis, shovel pits	Archaeological excavations
	<i>Chronology methods</i>	Direct: pottery from the shovel pits, stratigraphical relationships with the layers of the excavation, architectural chronological elements (door-lintels), historical cartography	Direct: pottery in the archaeological excavation
Chronology	<i>Chronology of construction</i>	End of the 17 th – beginning of the 18 th century	
	<i>Transformation</i>	Enlargement of old <i>casoni</i> (with new structures), construction of new <i>casoni</i>	Construction of a new structure
	<i>Continuity of use</i>	Until 1950s	Until second half of the 19 th century
	<i>Evidence of previous buildings</i>	Yes, a collapsed wall in the shovel-test area 5000	Old wall in area 100
Functional relationships	<i>Distance from the hamlet</i>	3 km from Maissanæ hamlet	
	<i>Evidence for cheese production</i>	No	
	<i>Enclosure for manure collection</i>	Yes, in ‘Casone 4’	
	<i>Presence of terraces</i>	Yes	
	<i>Presence of water-works</i>	Not surveyed	

Table 6.5 Synthesis of the investigation at ‘Casone della Pietra’

The life-stories collected from present owners about the use of the *casoni* date from the beginning of the 20th century to the 1950s, when, as noted above, most of the buildings were gradually abandoned. In that period, Casone della Pietra were used by some families of Maissana as summer settlements involved in cultivation and grazing. The memoirs tell of intense summer activities, in which the *casoni* were their ‘pivot’. Men went up daily to *casoni*. Cattle were daily brought by young shepherds from *casoni* to the upper pastures of Mount Porcile (and sometimes also on to the terraces). In the meantime, the terraces below the *casoni* were in a cultivation cycle with crops, potatoes, corn, hay, etc. The milk was brought down daily from *casoni* to the Maissana hamlet, where cheese was made at the homestead. At lunchtime, ‘the lucky ones’ were joined by their wives with lunch, whilst the others ate what they had brought from home. The animals (cattle) were left up throughout the summer, while the men came down to the village every day. In winter, the animals were kept in the stables in the hamlet, but the hay was left in *casoni*, from where it was periodically removed. In conclusion, the data obtained from surveys, excavations, micro-morphological analysis, and oral interviews converge with the seasonal (spring and summer)

function of these structures, and confirm that for the 20th century, as for previous periods from their construction, they were used within a system in which the animals (in this case cattle) were left on a nightly basis (the *casoni*), while shepherds/farmers went back to sleep in the valley (hamlet). In this system, already called ‘monticazione’, herding also had a role in the terraced agriculture (fertilization evidenced by the collection of manure).

The new casone built in the second half of the 19th century could be evidence of the intensification of agro-pastoral activities towards monoculture, which can be compared with the transformations of Monte Santa Maria, located on the other side of the same valley. The historical ecology investigations documented that, after the first half of the 19th century, on these slopes, terraces with chestnut were inter-planted with crops. Previously chestnut trees were scattered in a system of wooded meadow pastures (Cevasco *et al.* 1997–1999; Cevasco 2007; Molinari 2010).

Casone di Bargone (Val Petronio)

The study of the *casoni* of the Bargone hamlet was carried out in the framework of research on the reconstruction of the management systems of the environ-

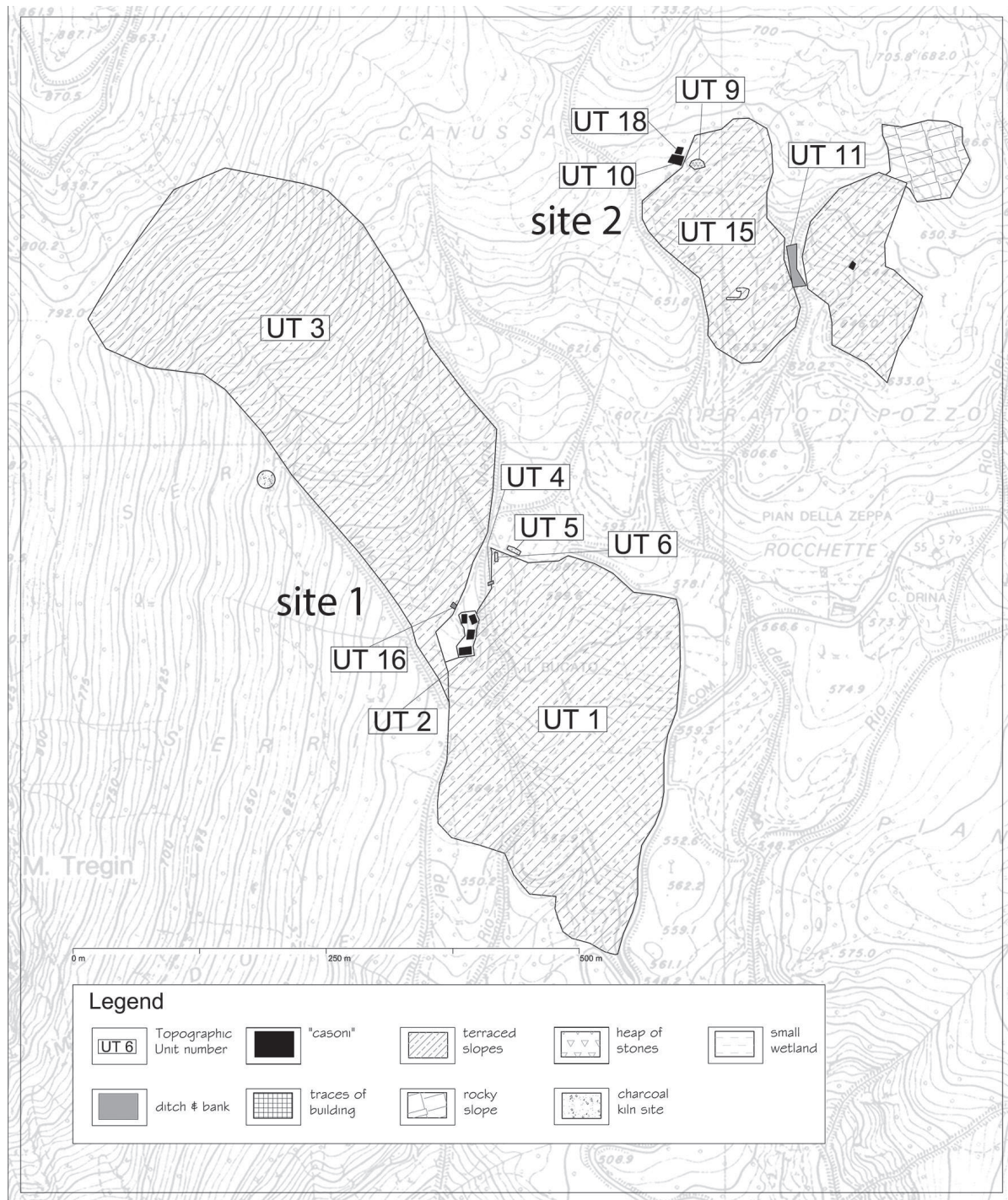


Figure 6.10 Historical cartography analysis. Transect Case delle Barche – Pian del Lago.

mental resources in the high Petronio valley.¹² Particular attention was devoted to the transformations of land

use and land cover. Preliminary analysis of historical maps suggested the possible presence of a wooded pasture that was replaced by a chestnut-grove between 1818 and 1853, at the head of the valley of the Rio Bucato (Cevasco *et al.* 2005).

12. These investigations were carried out in the framework of a research project applied to the management of the Site of Communitarian Interest 'Roccagrande – M. Pu'. See LASA 2005 for the complete archaeological (A.M Stagno) and historical ecology reports (R. Cevasco and D. Moreno).

Historical ecology and rural archaeology surveys verified this transformation and identified two groups

		<i>Site 1 Case delle Barche</i>	<i>Site 2 Prato di Pozzo</i>
<i>Characteristics</i>	<i>Altitude</i>	582	660
	<i>Number of buildings (architectural complex or building element)</i>	4 architectural complexes, consisting of different structures (UT 2)	Two buildings: one partially standing (UT10 divided into three rooms) and one totally collapsed (UT 18)
	<i>Building dimensions</i>		UT 10: 5.5×10m UT 16: 4×4m
	<i>State of preservation</i>	All collapsing, excluding one still standing	1 almost erased and 1 almost collapsing
<i>Methods</i>	<i>Investigation methods</i>	Archaeological survey and configurational analysis	
	<i>Chronology methods</i>	Indirect: relationships with dated terraces and historical cartography analysis	
<i>Chronology</i>	<i>Chronology elements</i>		
	<i>Chronology of construction</i>	End of the 18 th century	First half of the 19 th century
	<i>Transformation</i>	Enlargement and construction of new <i>casoni</i>	Not identified
	<i>Continuity of use</i>	Until 1950s	Until 1930s
	<i>Evidence of previous buildings</i>	Yes, remains of a dry-stone building (UT 16), in an area now occupied by a domesticated chestnut tree dating from the first half of the 19 th century	Not identified
<i>Functional relationships</i>	<i>Distance from the hamlet</i>	3 km from Bargone	3.2 km from Bargone
	<i>Enclosure for manure collection</i>	Not documented	Enclosure made of stones
	<i>Presence of terraces</i>	Yes (UT 1 and UT 3)	Yes (UT 15)
	<i>Presence of water-works</i>	Irrigation system constructed through branches from the stream (UT 4)	Irrigation system constructed through branches from the stream (UT 11)

Table 6.6. Synthesis of the investigation at Casoni di Bargone.

of buildings referred to as *casoni*, closely related to the surrounding terraced slopes: site 1 Case delle Barche; and site 2 Prato di Pozzo (Fig. 6.10; Table 6.6).

Site 1: Case delle Barche

The site 1, known locally as Cà delle Barche, Casoni delle Barche or Barche di Bargone, consisted of a group of four collapsing buildings (except for one structure that is still standing) and the surrounding terraced slopes (chestnut to the north, hay meadows still grazed to the south).¹³

The chestnut grove that extends north and west of Case delle Barche (and up to the top of Monte Tregin) is now abandoned. As noted above, the historical

cartography analysis (Fig. 6.11) dated this terraced chestnut grove to between 1818 and 1854. Along the terraced slope, historical ecology surveys have documented the traces of ‘*lunettature*’, earlier crescent-shaped revetment walls made between rocky outcrops, constructed around trees of oak and chestnut to reduce erosion and conserve moisture; these are probably related to an earlier stage when the slope was still occupied by wooded meadow pastures.

The *casoni* of Case delle Barche were built on a flat area continuing southeast in a system of terraces and embankments with traces of water-works. The location of the buildings suggests that they were made together with the terraces. The system of terracing has been dated between the second half of the 18th and the beginning of the 19th century thanks to the pottery found in the heaps of stones (UT 5, UT 6, Fig. 6.10) located on the upper terrace and interpreted as resulting from stone clearance activities made during the first phases of cultivation of the terraces, and so shortly after their construction.¹⁴

13. The place-name ‘*barca*’ indicates particular wooden-structures used as barns (associated with meadow-pasture systems) not existing today in the settlement of Case delle Barche, wholly constituted by *casoni*. It is possible to suppose that this place-name belongs to a previous phase of the settlement constituted by ‘*barche*’, traces of which were identified during surveys. On the study of place-names as a source for environmental management system reconstruction, in particular referring to the upper Petronio valley, see Marullo 2012.

14. Two fragments of glazed bowl in the same fabric date between

The structural analysis of the building (made during archaeological surveys) has shown that these different structures were made at the same time (probably in consequence of agreement between the different owners) as already documented in the Perlezzi and Lagorara case studies. The analysis of the historical maps fits with this hypothesis (Table 6.7). The Napoleonic cadastre (c. 1805–1813) shows that the core of the buildings has already been registered at the beginning of 19th century as ‘Barche Hameau’. The cadastre shows four buildings, one of which consisted of several structures, each one identified by a different cadastral parcel (and therefore presumably belonging to different owners).¹⁵

Two of the present owners of the Case delle Barche *casoni* stated that the terraces had been cultivated and that *casoni* have been used as seasonal and night stables for cattle until the 1950s–1960s. After this period, the abandonment of the buildings happens at the same time as the abandonment of agricultural activities in the surrounding areas (UT 1 and UT 3, Fig. 6.10). One of the owners also relates that one structure of one of the buildings, the only one still standing, was used during 1950s as a permanent house, and the other one was used as a drying shed for chestnuts (dialect ‘*a gré*’). It is possible to suppose that this drying shed was built after the planting of the chestnut grove, during the second half of the 19th century.

Site 2: Prato di Pozzo

In site 2 are located two buildings in an advanced state of decay (UT 10 and UT 16, Fig. 6.10) and the surrounding terraces (UT 15). Buildings appears at the contact point between an abandoned terraced chestnut grove, and a system of terraces with traces of agricultural irrigation, now used for grazing and hay mowing. One of the two buildings is in an advanced state of collapse, while the second is only recognizable by walls which seem to have been razed to the ground surface. Probably this structure was already destroyed in the 1930s, as documented by historical cartography (see Table 6.7). The best-preserved structure consisted of three small rooms and was originally of at least two storeys. Outside of the building, there is a fence, probably connected with the collection of manure for fertilization. This feature shows its use for cattle stabling.

Similar to site 1, the topographical relationship between terraces and buildings make it possible to extend the chronology of the terraces as well as of the buildings. Also, in this case, the dating of the terraces was suggested through the chronology of pottery fragments discovered in a big heap of stones (UT 9)

the end of the 18th century and the 19th century, and a body fragment of a glazed closed vessel dated between the end of the 18th century and the early 19th century (Milanese and Biagini 1999:37).

15. Archivio di Stato di Genova, *Raccolta Cartografica*, 667 Casarza “1/3: “Section A de Bargone. En une feuille”” (c. 1805 – c. 1813), dim. Supporto: carta Altezza (mm): 66 Larghezza (mm): 982.

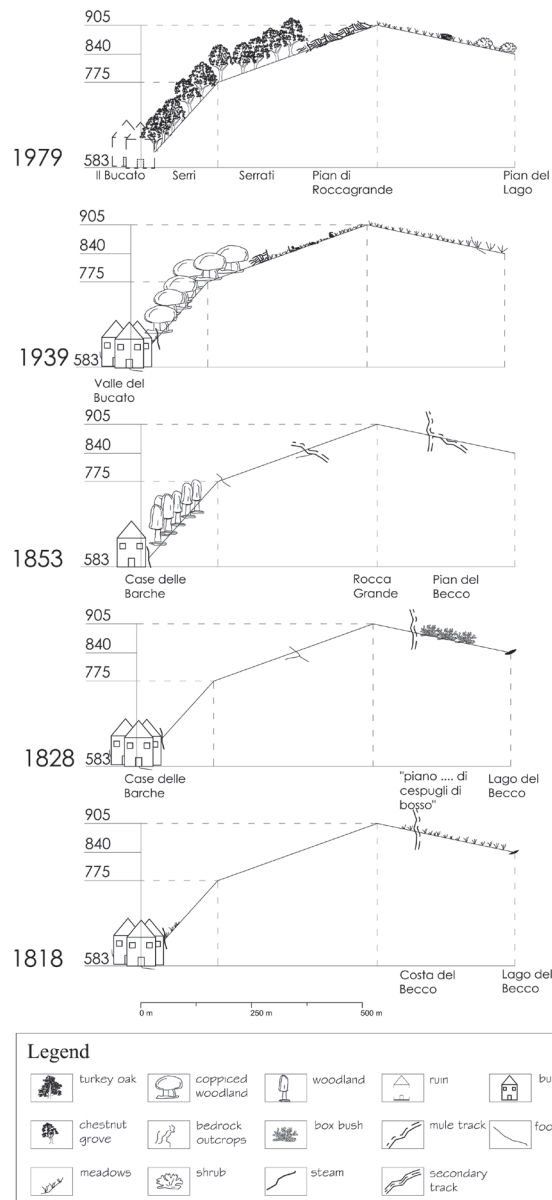


Figure 6.11 Maps of the surveys carried out in the upper Petronio Valley (after Stagno in LASA 2005, modified).

located on the upper terrace, interpreted as the results of the stone clearance just before the cultivation of the terraces, with sherds dated to the beginning of the first half of the 19th century, and therefore the terraces as well.¹⁶ The analysis of historical cartography confirms this chronology (Table 6.7).

Pottery analysis offered some evidence for a reorganisation of the exploitation of the area. The signs of fracture visible on some ceramic fragments are attributable to the use of fork hoes for tilling. The hypothesis of the use of terraces for permanent crop cultivation is

16. Two fragments of glazed and *ingobbiate* open table and transport wares (cf. Milanese and Biagini 1999).

Year	Cartography	Scale	Bargone Sito 1 'Case delle Barche'	Bargone Sito 2 'Prato di Pozzo'
1979	CTR 1979	1:1000	Il Bucato, two collapsed buildings and one standing	One building
1950s	Cadastral map (Bargone)	1:2000	Three buildings divided between several parcels	One standing, and one collapsing building, <i>Prato di Pozzo</i>
1938–1939	IGM sheet	1:25000	Five buildings	One building
1877	IGM sheet	1:25000	<i>C. delle Barche</i>	Two buildings <i>Pian della Zeppa</i>
1852–1854	Gran Carta degli Stati Sardiardi di Terraferma	1:50000	<i>Case delle Barche</i>	Not identified
1828	Tavoletta Manoscritta	1:20000	<i>Case delle Barche</i> , four buildings	No
1816–1827	Tavoletta Manoscritta	1:9450	Four buildings	No
1803–1812	Catasto Napoleonico	1 : ...	<i>Barche hameau</i> (four buildings, one of them divided between different parcels)	Not identified

Table 6.7 Historical cartography evidence for the *casoni* of 'Case delle Barche'.

confirmed by a land register of 1935 (LASA 2005:99–107) and by information from oral sources about the abandonment of this area in the 1950s–1960s. Pottery fragments show different chronologies until the beginning of 20th century, which could be related to various stone clearance activities, connected to the cultivation of permanent crops. These fragments belong to cooking and transport wares and probably originate from the use of the nearby buildings, and were possibly employed for carrying ready-made meals from the Bargone homestead, a daily use of these structures, similar to that of the *Casoni* Lagorara.

Also these buildings have been used since the second half of 19th century inside the 'monticazione' system, where the relationships between cultivation (here including chestnut grove cultivation) and grazing were very strong (e.g. collection of manure used for fertilizing).

Casone del Giazzo (Val d'Aveto)

The research was part of investigations that sought to reconstruct the history of the cattle breeding system on the Aveto-Trebbia watershed.¹⁷ *Casone del Giazzo* consists of a building located 300m southeast of the watershed, inside the common lands historically held by the hamlet ('villa') of Salto in the Parish of Priosa (Rezzoaglio) in the upper Aveto Valley. This valley borders the Sturla Valley, but till 1798 it was part of Feudi Imperiali of the Doria family, and not under the jurisdiction of the Repubblica di Genova.

The building existed in 1683, as we can see carved in the north door lintel (Fig. 6.12) that belongs to the

oldest wall. *Casone del Giazzo* was continuously used from its construction (around 1683) to c. 1980, when it was abandoned. In the last phase, the first floor was used as a hay-barn (as probably was also the second floor), and the ground floor as a shed/stable.

Different phases of the building were defined through the stratigraphic analysis of standing walls. Three main transformations were identified, thanks to modifications in the wall characteristics.

First Phase: end of 17th century, not defined. During the construction, the building had two floors and was smaller; in this phase a large use of sandstone chips and slabs can be observed.

Second phase: not defined (?), late 19th century. The building was afterwards enlarged in height and width, with the prevalent use of larger stones. At this stage of the investigation it was not possible to be precise concerning the chronology of this enlargement that can only be placed between the first and the third phase.

Third phase: late 19th – today. The building reached the current height and appearance only in the late 19th century. The subsequent enlargement of *Casone del Giazzo* could have been due to the lack of space for feeding the cattle or as a result of a change in the function of the building. It is possible to assume a connection between this enlargement and the construction of small terraces near the building. These terraces could therefore correlate with the creation of permanent upland cultivation areas and to a definite utilisation of these areas by private individuals. Apparently in this case the use of the *casone* changed from a grazing purpose (and to store hay products) to being connected also to agricultural exploitation of the surrounding slopes.

17. LASA carried out investigations in the framework of the project "Parco dell'Aveto e Rete Natura 2000: boschi e biodiversità" (2006–2007). A first discussion of the results was presented in Cevasco *et al.* 2007.

'Casone del Giazzo'		
Characteristics	<i>Altitude</i>	1110
	<i>Number of buildings (architectural complex or building element)</i>	One building
	<i>Building dimensions</i>	
	<i>Evidence of feeders</i>	Yes, preserved
	<i>State of preservation</i>	Standing
Methods	<i>Investigation methods</i>	
	<i>Chronology methods</i>	Direct: archaeology of architecture
Chronology	<i>Chronology elements</i>	Door lintel dated 1683
	<i>Chronology of construction</i>	Last 25 years of the 17 th century
	<i>Transformation</i>	Building super elevation and enlargement (18 th and 19 th century)
	<i>Continuity of use</i>	Until 1950s
	<i>Evidence of previous buildings</i>	Not identified
Functional relationships	<i>Distance from the hamlet</i>	2.5 km from Salto
	<i>Enclosure for manure collection</i>	Not identified
	<i>Presence of terraces</i>	Nearby the building
	<i>Presence of water-works</i>	Not identified

Table 6.8 Synthesis of Casone del Giazzo archaeological investigations.

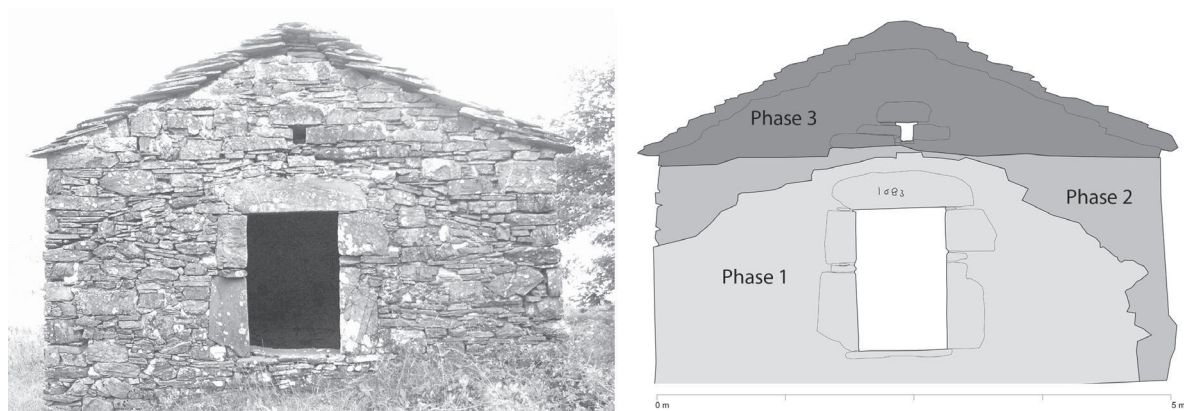


Figure 6.12 Sketch of the standing wall stratigraphic analysis at Casone del Giazzo.

6. Management systems of environmental resources

The history of Casone del Giazzo is in part different from the others; its location corresponds to *casoni* as documented by archival sources before the 18th century, when they were mainly built within common land pastures. This element is an indicator of the need to deepen the investigations in order to better understand these local management models and their transformations.

In fact, as discussed for the other settlements studied, location appears connected to wider changes in the local the management systems of environmental resources occurring between the 17th and 19th centuries. From the 18th century, *casoni* were no longer built

in uplands and common lands, but rather at lower altitudes (between 600 and 850 m.a.s.l.), close to terraced slopes, and often at the boundary between private terraces and common land pastures.

All the case studies show substantial continuities in the use of the structures. With different chronologies, all the case studies offered many markers to support conclusions suggesting the seasonal, daily use of the *casoni* (Table 6.9), a use where shepherds occasionally stayed overnight, as well as their prolonged use as housing for cattle (only at night and not constantly). The latter of these uses relates to patterns where manure was collected to be used as fertilizer for the neighbouring terraces. First (and second) floors with big windows are related to their use as hay-barns for storing fodder and

agricultural products (probably used also during winter, as testified by oral sources for Casoni Lagorara). During the summer, cattle were grazed in the upper common lands, while in winter they were stabled in stables in the hamlet. These clues confirm the presence of a system of ‘monticazione’, described by oral sources for the first half of the 20th century that had started to become organized in this way from the 18th century, with the shift of the construction of *casoni* to lower permanently cultivated and terraced slopes.

The modification in the location of *casoni*, due probably to conciliating agricultural and pastoral activities, highlights an intensification of agricultural activities (maybe related to the local demographic growth of the 18th century) and suggests a transformation in their use. *Casoni* from a use primarily connected with animal husbandry (temporary shelter for shepherds and animals and temporary storage for hay from meadows on the higher (common) lands, as it is clearly described by archival sources during the 16th to the first half of the 18th century), became more associated with permanent agricultural activities regularly realized in terraces: permanent crops and vegetable garden cultivation, fodder production, and chestnuts. This hypothesis could be applied also to other archaeologically investigated *casoni*, including some not discussed here, for instance Lavaggi di Chiappozzo (Ferrando Cabona and Mannoni 1989) and Casoni delle Piove (815 m.a.s.l.; Cevasco *et al.* 2006).

The shift in the location of *casoni* also had an effect on access to common land pastures (and probably in their management); cattle no longer stayed overnight in common land pasture, but rather in stables located on private lands, and from there moved daily to common land. Therefore, the shift in the location of *casoni* reveals the colonization of the slopes through the con-

struction of terraces and the spread of irrigation systems, an intensification that also had a direct effect on the use of common lands and in their management.¹⁸

All the case studies can be compared with a well-documented phenomenon in Mediterranean mountain areas since the Middle Ages: the occupation of common lands. The Casone del Giazzo case study finds a precise parallel with the phenomenon of cabane and cortal studied in the French Pyrenees, within the framework of the transformation of estivage practices (Rendu 2003), and from a juridical point of view (Conesa 2012; Bille *et al.* 2007). Precisely from this point of view, the comparison is very close, even if in different periods (the appropriation of common land with terracing at Casone del Giazzo seems to have become permanent during the 19th century). However, there is a large difference: the case of Casone del Giazzo is a single family action, while the other cases document wider actions involving several families or the whole community of a hamlet (‘villa’), as happened in Perlezzi.

During the 18th century, local husbandry systems underwent other modifications that have already been documented by the archaeological study of functional husbandry spaces carried out in two ‘ville’ located in Aveto and Trebbia Valleys: Ventarola (Stagno 2009a; 2009b); and Casanova di Rovegno (Tigrino *et al.* 2013). From the end of the 18th century, the primacy of local cattle breeding over sheep (and cattle) transhumant breeding is testified by the construction of new stables for bovines, with effluent discharge systems not documented in previous periods (when the differentiation between houses and spaces devoted to live-

18. Concerning the problem of the study of the organization of work in relation to seasonal settlement and access patterns studied from an ethno-archaeological point of view see Burri 2010.

Marker	Interpretation	Documented at	Chronology
Absence of permanent fireplace	Temporary use	Excavation at Casoni della Pietra	18 th – second half of 19 th century
Presence of feeder	Cattle stabling	All the case studies (not in the excavation)	18 th – 20 th century
Exclusive presence of transport and table wares	Temporary use	Excavation at Casoni della Pietra; <i>casoni</i> of Bargone surveys	18 th – second half of the 19 th century
Small dimension of the ground-floor windows	Not prolonged cattle stabling	All the case studies	18 th – 20 th century
Wider dimension of the first-floor windows	Barns for hay and cultivation products, maybe not only seasonally	All the case studies	18 th – 20 th century
Limited cow litter	Not prolonged cattle stabling, temporary use	Micro-morphological analysis at Casoni della Pietra	19 th – 20 th century
Enclosures for manure collection	Collection of manure for fertilization	All the case studies	(surely) 19 th – 20 th century

Table 6.9 Summary of the markers of *casoni* functions.

stock was not so clear, and sheep breeding prevailed). During the 19th century at the Ventarola hamlet, new stables were built in the southeastern part of the hamlet near to the stream and to the vegetable gardens, in order to facilitate, during the fertilization period, the direct employment of the liquid manure, probably collected in slurry pits (from the discharge system of the stables – Plomteux 2000:66–67). In both cases during the 19th century, the growth in the size and number of stables and hay-barns testifies to a process of intensification in cattle breeding and the production of fodder resources (Cevasco 2014) that can be associated with the growth of seasonal settlements as documented for the *casoni* studied here.

In general the construction of new stables and barns can be correlated to the definitive change from transhumance breeding, that connected the coastal grazing land (winter quarters) to the Apennine pastures (summer quarters), to resident bovine breeding and the consequent need for more space for hay to feed cattle during the winter, and therefore of more stables (Moreno and Raggio 1991). These changes also can be linked to a change from a multiple to a mono-cultural management system of agro-sylvo-pastoral resources (Stagno 2009a; Moreno 1990). In the eastern Ligurian Apennines the LASA group in previous historical ecology and environmental archaeology research has documented the progressive diminishing of the local multiple land-use systems from the first half of the 19th century, where the same parcel could be used for temporary cultivation, wooded meadows and grazing. Very specialised agro-sylvo-pastoral cycles existed, one of which was analytically reconstructed for the Aveto Valley (Moreno *et al.* 1998; Bertolotto and Cevasco 2000; Beltrametti *et al.* 2014), on sites where alder trees prevailed. Since the first half of 19th century, it is possible to verify the spread of a monoculture system, characterized by spaces permanently and exclusively devoted to cultivation or meadows or pasture or forest (Cevasco 2007; Cevasco and Molinari 2009; Stagno 2011; Cevasco *et al.* 2005), or chestnut groves as well, as shown in the Lagorara and Bargone case studies.

This transformation cannot be linked directly to an increase in rural population. In these areas, the mountain population grew from the 18th century until the mid-19th century. The second half of the 19th century saw a decline, with a swift decrease at the beginning of the 20th century. In preference to seeing a close relationship between demography and the intensification of the exploitation in monoculture environmental resource systems, the transformation could be better linked to the actions promoted by new regulations adopted in the kingdom of Sardinia after 1815 that sought to homogenise, in a modern monoculture, the customary management of the forest and pastoral resources (Moreno 1990:54–56, 222). From the point of view of mountain economies it could also be the effect of the decline of the transhumance systems, but

also of the commercial role of the Apennine passes that linked coastal ports to the inland (the pianura padana), in which all the areas studied were involved through different routes that local communities controlled at least until the mid-19th century.

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