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CORSICAN BRONZE AGE FORTIFICATIONS: SETTLEMENTS, ECONOMIC CENTERS, AND/OR POWER PLACES?

Kewin Peche-Quilichini[1]

MOTS CLES
Corse, âge du Bronze, sites fortifiés, architecture, territoire.

KEYWORDS
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PAROLE CHIAVE
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RESUME
Les habitats fortifiés (casteddi) de l'âge du Bronze de la Corse figurent parmi les éléments les plus structurants du paysage protohistorique insulaire. Leur monumentalité, caractérisée par des architectures massives et des élévations remarquables, justifie à elle-seule leur omniprésence dans les traditions populaires et l'historiographie. Roger Grosjean, dès son arrivée dans l'île au milieu des années 1950, s'intéresse de près à ces sites, sur lesquels il entreprendra des fouilles jusqu'à sa mort en 1975. Après lui, les casteddi seront perçus non plus comme un tout homogène, mais en fonction de leurs caractères propres, même si les essais de synthèse et les considérations d'ensemble laissent parfois entrevoir, en fonction des chercheurs, des tendances focalisant sur les traits poliorcétiques ou au contraire sur les aspects économico-productifs. Aujourd'hui, l'interprétation de l'habitat fortifié se base avant tout sur une meilleure perception chronologique, autorisant une lecture évolutive des processus sociaux qu'ils matérialisent.

ABSTRACT
The fortified settlements (*casteddi*) of the Corsican Bronze Age are among the most defining elements of the island's protohistoric landscape. Their monumentality alone, characterized by massive architecture and remarkable elevations, justifies their omnipresence in popular traditions and historiography. Roger Grosjean, took a keen interest in these settlements from the moment he arrived on the island in the mid-1950s, conducting excavations on them until his death in 1975. After him, the *casteddi* were no longer seen as a homogeneous whole but instead according to their specific characteristics, even if attempts at synthesis and broader considerations sometimes reveal, depending on the researcher, tendencies that focus either on their defensive features or, conversely, on their economic and productive aspects. Today, the interpretation of fortified sites is primarily based on a better chronological understanding, allowing for an evolutionary reading of the social processes they embody.

RIASSUNTO
Gli insediamenti fortificati (*casteddi*) dell'età del Bronzo della Corsica sono tra gli elementi più caratterizzanti del paesaggio protostorico dell'isola. La loro monumentalità, caratterizzata da architetture massicce ed elevazioni notevoli, giustifica da sola la loro onnipresenza nelle tradizioni popolari e nella storiografia. Roger Grosjean, fin dal suo arrivo nell'isola a metà degli anni '50, si interessò molto a questi siti, conducendo scavi fino alla sua morte nel 1975. Dopo di lui, i *casteddi* non furono più considerati come un insieme omogeneo, ma analizzati in base alle loro caratteristiche specifiche. Tuttavia, i tentativi di sintesi e le considerazioni generali hanno talvolta messo in evidenza, a seconda dei ricercatori, tendenze che si concentrano sugli aspetti difensivi oppure, al contrario, su quelli economico-produttivi. Oggi, l'interpretazione degli insediamenti fortificati si basa principalmente su una migliore comprensione cronologica, permettendo una lettura evolutiva dei processi sociali che essi materializzano.

[1] ASM UMR 5140 Université Paul-Valéry Montpellier ; Museu di l'Alta Rocca, Collectivité de Corse ; baiucheddu@gmx.fr.

« There upon its spur stood high walls of ancient stone, and within them was a lofty tower ».
J.R.R. Tolkien, *The Lord of the Rings*, II. *The Two Towers*, Hornburg description.

Due to their dominant position and monumentality, the fortified settlements of Bronze Age Corsica are among the most significant elements of the island's protohistoric landscape. Relying extensively on findings from these sites to characterize Corsican societies of the II millennium BCE, historiography has repeatedly emphasized this aspect as a priority. While the *casteddi* were long considered a homogeneous and monofunctional entity, research conducted over the past decades has highlighted a significant diversity in both their architectural forms and the use of enclosed spaces. Their overall interpretation now incorporates material and economic data, allowing for a more dynamic understanding of the social processes they embody. The available information reveals a certain overlap in the timelines of the emergence and development of fortified settlements in the southern part of the island, spanning from the mid-Early Bronze Age to the beginning of Final Bronze Age. This study aims to describe this evolution in terms of form, organization, chronology and function.

1. FROM COLLECTIVE VIOLENCE TO PRESUMPTION OF INNOCENCE

1.1. 1950-1975: ENCLOSED SETTLEMENT = OPEN WARFARE?

The earliest references to the Corsican Bronze Age date back to the first half of the XIXth century and focus primarily on megalithic manifestations, mainly statue-menhirs. It was not until the 1950s, with the arrival of R. Grosjean on the island, that the question of defining settlements, particularly fortified ones, was clearly raised.

Through his relentless activity, this researcher quickly gathered available information and established a vast network of informants. Numerous excavation sites were soon opened on domestic settlements, even though many were initially thought to be funerary monuments, which Grosjean himself sometimes referred to as "tumuli" (Musolu/Sollacaro, Foce-Castiddaraccia/Argiusta-Moriccio). Over two decades of continuous research, R. Grosjean investigated several major fortified sites in southern Corsica (Filitosa/Sollacaro, Cuccuruzzu/Levie, Tappa/Porto-Vecchio, Araghju/San-Gavino-di-Carbini, Alo-Bisughjè/Bilia, etc.). While it may be unnecessary to revisit the diffusionist aspects of his theories (GROSJEAN 1966), certain key elements of his numerous publications are worth recalling.

He described the *casteddi* as:

- Fortifications with a strict military role;
- Found exclusively in southern Corsica;
- The only form of settlement on the island during the Bronze Age, at least in the south.

The vision developed and popularized by R. Grosjean presents an image of a society marked by internal conflicts as well as incursions from exogenous groups (notably the famous *Shardan*). According to this perspective, the forms and functions of settlements were both the causes and consequences of this unstable social climate.

1.2. 1975-2000: STILL *CASTEDDI*

R. Grosjean's points of view were widely criticized during his lifetime and ultimately abandoned by the scientific community after his death in 1975. It is worth noting that his later writings suggest that he himself increasingly doubted the paradigm he had nevertheless widely defended. Subsequently, while fortified settlements remained central to archaeological discussions, research approaches diversified.

In the south, J. Cesari (Castellucciu-Calzola/Pila-Canale, Contorba/Olmeto, I Calanchi/Sollacaro, Castidetta-Pozzone/Sartène), F. de Lanfranchi (Cuccuruzzu, Tusiu/Altagène), and P. Nebbia (Castiddacciu/Sartène, Tiresa/Sartène) demonstrated a certain multifunctionality of fortified sites: serving both as villages and citadels, the *casteddi* also included domestic areas, as well as work and storage spaces (LANFRANCHI, WEISS 1997). This growing recognition of economic functions led to the development of new research methodologies and a renewed interest in material culture and ecofacts. Gradually, these reflections fostered a broader perspective on Bronze Age societies in southern Corsica, one that was less centered on warfare.

In the central and northern parts of the island, M.C. Weiss (Monte Ortu/Lumio), J. Magdeleine and J.-C. Ottaviani (Rusumini/Castineta) sought to rebalance the body of knowledge which, despite their efforts, remained far more developed in the southern valleys. It must be acknowledged that, despite some claims in literature, the processes leading to the development of fortified settlements in the south still do not appear to have exact equivalents in the mountainous central regions or along the northern coasts, at least not in the same forms observed in the southern valleys.

In the northern regions, only a few hilltop settlements have been identified, occasionally featuring cyclopean retaining walls. Overall, their chronology remains poorly established. Defining the characteristics of clustered and elevated settlements in these areas remains a major challenge for future research.

1.3. 2000-2015: THE IDENTIFICATION OF OPEN NUCLEATED SETTLEMENTS

By the dawn of the XXI century, the only surviving theory from R. Grosjean's framework was the idea that the *casteddu* represented the sole form of settlement in Corsica during the II millennium BCE. Indeed, until 2005, no concrete evidence of open settlements had been presented. It was only through excavations at Campu Stefanu/Sollacaro, followed by Cuciurpula/Sorbollano and Puzzonu/Quenza, that this concept was revisited, revealing the existence of open and nucleated settlements, as well as farms and lagoon-based installations dedicated to agricultural and pastoral activities.

1.4. CURRENT TRENDS: SYSTEMIC STUDIES

Following this shift toward a broader range of domestic structures, research on fortified sites has recently experienced renewed momentum. Investigations have focused on sites such as Cuccuruzzu, I Casteddi/Tavera, Coscia/Sartène, Monti Barbatu/Olmeto, I Stantari di u Frati è a Sora/Sartène, Tappa, Filitosa, and Castiglione-Mozzocu/Vallica. The primary focus now lies in understanding their territorial integration, chronological development, and economic functions. Additionally, significant efforts have been made to compile a comprehensive corpus of fortified sites. As of today, 179 Bronze Age fortifications have been recorded (Fig. 1), with nearly 80% concentrated in the southern part of the island.

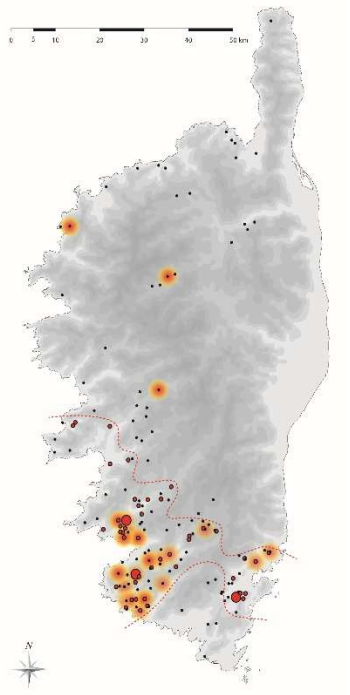

Fig.1. Distribution of Corsican Bronze Age fortified sites (all phases combined); black: fortified site, red: fortified site with one *torra*, red (wide): fortified site with two *torre*, orange: fortified site associated with statue(s)-stele(s) and/or statue-menhir(s), red dotted line: area of distribution of classical plan *torre* (DAO: K. Peche-Quilichini).
Distribution des sites fortifiés de l'âge du Bronze de la Corse (toutes phases confondues) ; noir : site fortifié, rouge : site fortifié avec une torra, rouge (large) : site fortifié avec deux torre, orange : site fortifié en lien avec statue(s)-stèle(s) et/ou statue(s)-menhir(s), ligne pointillé rouge : aire de distribution des torre de plan classique (DAO : K. Peche-Quilichini).

2. THE SPACE

2.1. HORIZONTAL AND GEOGRAPHICAL DISPERSION

The phenomenon of fortified settlements primarily concerns the southwestern third of the island and this holds for the entire Bronze Age. However, it is noteworthy that no evidence has been found for the limestone areas of the extreme south. The "first-generation" *casteddi*, that is, those built between Early Bronze Age 1 and Middle Bronze Age 2, make up half of the settlements and are distributed south of a line connecting the gulfs of Liscia to the west and San Ciprianu to the east. Their distribution is exactly the same as that of the *torre*, of which there are at least fifty examples. One-third of the fortifications yield no chronological information (PECHE-QUILICHINI, CESARI 2023). Some clues suggest that many date from the beginning of FBA, particularly those with very small dimensions, perched on peaks and other steep terrain (Castiddari/Arbellara, Sarradu/Altagène, Saracinu/Quenza, Bambiolu/Quenza, Calaggia/Viggianello, Viddafranca/Belvédère, etc.). It is assumed that the inventory will be largely completed in the future. Several areas exhibit remarkable concentrations. This is the case for the lower valley of the Taravu, the Stabiacciu basin, and the Sartenais, three regions with relatively different geographical characteristics, making it difficult to characterize a preferred type of context for the proliferation of this phenomenon.

2.2. TOPOGRAPHICAL DISTRIBUTION AND SETTLEMENT STRATEGIES

Regarding the settlement altitude, the median value for the EBA and MBA *casteddi* is 165 m, with an average of 280 m. Nearly 65% of them are built below this latter value (Fig. 2). All the settlements above 700 m. are located in the Alta Rocca micro-region, made up of high plateaus. In the FBA, some settlements are located at higher altitudes (1462 m for Bambiolu).

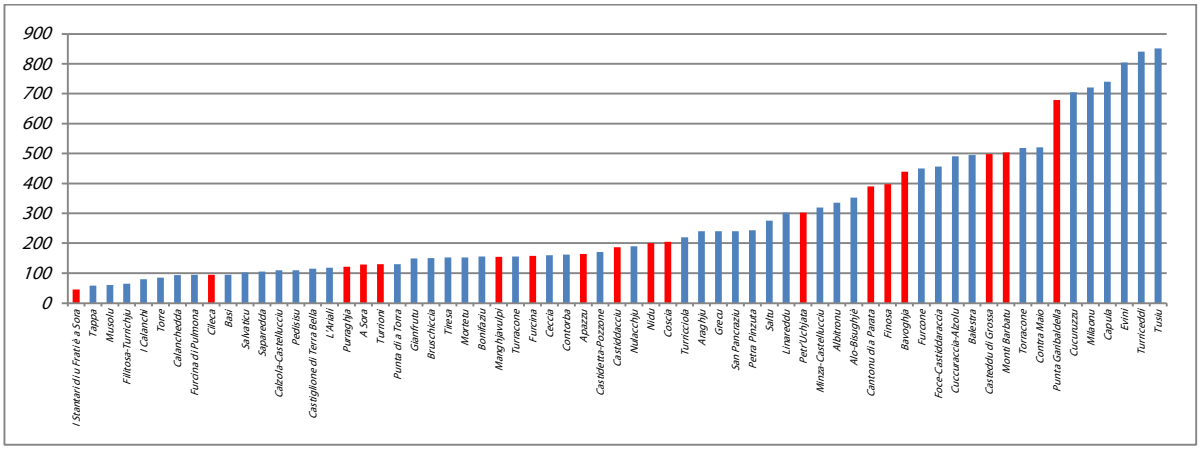

Fig. 2. Average elevation distribution of EBA and MBA fortified settlements; in blue: sites with *torra* (graph: K. Peche-Quilichini). *Distribution altimétrique moyenne des habitats fortifiés du Bronze ancien et moyen; en bleu: sites avec torra (graphe: K. Peche-Quilichini).*

EBA and MBA groups therefore favored rocky reliefs overlooking the low alluvial valleys for their fortified habitats. This choice was likely driven by the need for visual control over the exploited land, movement, access to resources necessary for food and craftsmanship, availability of building materials, and possibly considerations of a military or even symbolic nature (dominant position both literally and figuratively).

Four types of terrain are preferred for settlement locations:

- Interfluvial ridges dominating confluences: Furcina/Olmiccia, Filitosa-Turrichju/Sollacaro, Calzola-Castellucciu, Alo-Bisughjè, Castiglione-Terra Bella/Grosseto-Prugna, etc.;
- Detached ridges, hills, or isolated rocky outcrops: Torre/Porto-Vecchio, Ceccia/Porto-Vecchio, Monti Barbatu, Contorba, Balestra/Moca-Croce, Coscia, Tappa, Bavoghja/Sartène, etc.;
- Breaks in slope gradient: Araghju (Fig. 3), Tusiu, Bruschiccia/Porto-Vecchio, Furcone/Sartène, Linareddu/Olmeto, etc.;
- Plateau edge spurs: Cuccuruzzu (Fig. 4), Foce-Castiddaraccia, Contra Maiò/Casalabriva, Tiresa/Sartène, Petra Pinzuta/Sartène, etc.

Fig. 3. Aerial view of Casteddu d'Araghju (photo: J. Alessandri).
Vue aérienne du casteddu d'Araghju (photo: J. Alessandri).

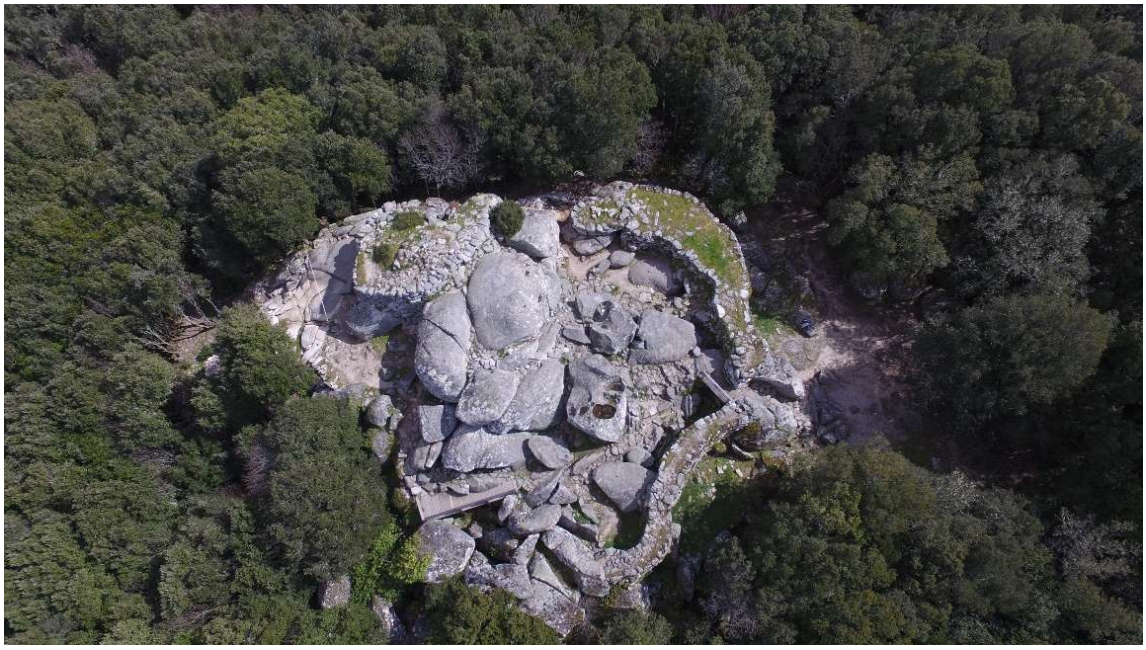

Fig. 4. Aerial view of Casteddu di Cuccuruzzu (photo: J. Alessandri).
Vue aérienne du casteddu de Cuccuruzzu (photo: J. Alessandri).

Most of these sites are located on a rocky promontory with a notable elevation. This type of prominence facilitates the construction of a fortification as it often includes natural cliffs and scattered rocks that provide the raw material for walls. It inherently offers a certain degree of topographical isolation, which makes sense in a military context.

However, an exception has recently come to light. The site of I Stantari di u Frati è a Sora is located on a rounded hill in the lower valley of the Rizzanesi (PECHE-QUILICHINI *et alii* 2023a). This terrain has a sandy substrate, where the bedrock is absent on the surface. However, the summit area bears a remnant of an ancient alluvial terrace marked by thousands of large stones.

Although these stones were used for the foundations of terraces and dwellings, it is important to note that the site was initially fortified by a system of parallel palisades, which were later dismantled and replaced by a ditch (possibly doubled with a palisaded embankment?). This case, which shows an adaptation to a specific context, remains unique for now, but since it was discovered in a preventive context, it likely signals other similar occurrences, particularly in the northern part of the island.

3. THE STRUCTURE: THE CONSTITUENT ELEMENTS OF A *CASTEDDU*

3.1. THE ENCLOSURES

While the dominant position is the main feature of perched settlements, the presence of defensive masonry structures naturally characterizes fortified sites (CESARI 1989, 1992). These structures are typically "positive" (raised) in most cases except, as we have seen, at I Stantari di u Frati è a Sora, where a "negative" feature (sunken) was identified, specifically a V-shaped ditch (PECHE-QUILICHINI *et alii* 2023a). There is also evidence of a clearance of the base of rocky chaos to form a hollow beneath which a wall is built (Castidetta-Pozzone), particularly to protect the main entrance.

Creating a typology of stone enclosures alone would require a massive archival effort, given the solutions are so diversified (MAZET 2008). The differences are expressed in:

- The placement of the walls: fully enclosed space (Araghju, Contorba), supported by major rock masses (Tappa, Filitosa-Turrichju, Cuccuruzzu, Monti Barbatu, Torracone/Foce-Bilzese), blocked accesses (Coscia);
- The construction style of the ramparts: single-faced terrace walls (Monti Barbatu), double terrace or "triple-faced wall" (Tappa), or more commonly double-faced (Cuccuruzzu, Tappa, Contorba, Araghju, etc.);
- The typology of the masonry: small, medium, cyclopean, or mixed, with the use of buttresses or large stones, etc. The evolution of material availability is often reflected in the vertical height of the walls (CESARI, PECHE-QUILICHINI 2017);
- The type of masonry: dry stone or with a mud base, mixed with an upper level of raw brick topped with a wooden machicolation (PECHE-QUILICHINI 2024), supplemented by a palisade, etc.

The thickness of the double-faced walls with blocking tends to remain constant at around 200 cm. In some cases (Araghju, Cuccuruzzu), the design of the layout of blind cells with stone slabs leads to wider walls. At Castidetta-Pozzone, Araghju, and Cileca/Porto-Vecchio, a silo is incorporated into the wall's blocking. Likely closed with planks, these structures reflect an intention to maximize the functional use of volume, a typical feature of *casteddi*.

Fortified sites always have an entrance, sometimes two (Filitosa, Araghju); these could be topped with stone lintels, as seen at Araghju, Furcone, and Castiddacciu, resembling the entrance of the *torra*, although this was not systematic. Generally, the entrance (when recognized) is on the upstream side, where the spur connects to the main massif. At I Calanchi, the enclosure features several structures interpreted as turrets, designed during the construction phase. At Calanchedda/Propriano, a semi-circular bastion was added to the main section of the wall later on. The entrance at Filitosa-Turrichju is topped to the north by a tower (the "east monument") designed to monitor access. A similar setup, consisting of two bastions, is found at Tappa (PECHE-QUILICHINI 2023a).

Elevations are rarely preserved to their original height. However, the preserved height of fortifications varies between 2 m and 6 m. The tallest walls observed are those at Cuccuruzzu, Bavoghja, and Monti Barbatu, which reach between 5 m and 6 m in preserved height.

A broader analysis of the data illustrates the obviously defensive role of the walls, which were designed to repel an attack by hindering attackers and facilitating the movement of defenders along the presumably paved upper surface (using perishable materials; PECHE-QUILICHINI 2024).

The question of access closure remains unanswered. In most cases, it is also worth noting the clear intention to optimize the internal walls, which served as partitions for dwellings (Filitosa-Turrichju, Contorba, Castidetta-Pozzone) or spaces dedicated to stores (Tappa, Cuccuruzzu) or workshops (Cuccuruzzu, Araghju).

3.2. THE *TORRE*

From a certain point, centered on MBA 1 (PECHE-QUILICHINI tpb), the *casteddu* is equipped with a specific feature, the *torra*. This is a tower-like structure, structurally similar to Sardinian *protonuraghi*, typically installed at the summit[2] of the site (CESARI, PECHE-QUILICHINI 2019). The oldest monuments have a somewhat irregular ground plan (I Calanchi, Alo-Bisughjè west *torra*, Calzola-Castellucciu), which later tends toward a sub-circular shape (Fig. 5), averaging about 12 m in diameter.

Fig. 3. Aerial view of Casteddu d'Araghju (photo: J. Alessandri).
Vue aérienne du casteddu d'Araghju (photo: J. Alessandri).

The *torre* are generally built on and against a rocky mass, with a few exceptions entirely built of stonework in the Taravu valley (Foce-Castiddaraccia, Balestra, even Musolu). Their shape is truncated-conical, and their average elevation is estimated to be between 5 m and 7 m. The facing stonework presents considerable variability (in dimensions and arrangement), even on the same *torra*. These are structures built with irregular courses, often finely planned (PECHE-QUILICHINI 2023b), designed to create free spaces within the masonry. These spaces include access corridors, niches, cellars, blind cells, and ramps leading to the upper floor, often placed at the entrance (PECHE-QUILICHINI 2018).

The ground-floor chamber is typically sub-circular in plan, except at Torre, where it takes the form of a corridor. Its roof is supported by wooden beams (Contorba, Calzola-Castellucciu) or granite slabs arranged in corbelled fashion. These elements also serve to cover the corridor and lateral cells and to form the base of the spiral ramp. A true corbeling can only be noted for Ceccia. Some features indicate attention to smoke ventilation (Torre, Tappa). This room is often equipped with a central hearth (Tusiu, Castidetta-Pozzone, Filitosa central monument, Alo-Bisughjè east *torra*), while the spaces within the walls house structures and storage vessels. Everything suggests that this area is functional and serves as a centre for the preservation and transformation of food resources, or even their redistribution (in a "palatial" economic sense). The terraced floor, probably laterally expanded by stone or wooden machicolations, likely had a role related to siege defense.
Considering the *torre* as a whole shows that they concentrate activities that were previously dispersed across various areas of the *casteddu*, with the space gradually acquiring a more defined domestic dimension (PECHE-QUILICHINI, PEINETTI 2023). Also, noteworthy is the presence of completely atypical towers, square in shape and small in size, at some sites in the Fretu area (Punta Bunifaziu). A typology for these constructions is expected in the coming years.

[2] I Calanchi is an exception.

3.3. THE DWELLINGS

The domestic areas of the *casteddi* are manifested in a rather diverse manner. This remark particularly applies to the fortified sites from the EBA and MBA, as during the FBA houses are either absent or built outside and at a distance from the fortification. However, it should be noted that some MBA houses were still occupied in the FBA on certain sites (Castidetta-Pozzone). Some *casteddi* are characterized by a compact domestic zone, with shared walls, as seen at Filitosa-Turrichju. However, in most cases, the lack of space leads to the construction of a limited number of houses, generally fewer than four (Castidetta-Pozzone, Contorba, Castiddacciu, Castiglione-Terra Bella).
Sometimes, it seems that structures initially designed for other functions were later transformed into domestic spaces (Tappa, Araghju). Finally, in a few rare cases, houses are distributed freely within a larger area (I Stantari di u Frati è a Sora, Monti Barbatu).

The placement of houses within the *casteddi* is strongly linked to the topography of the rocky chaos (CESARI 1989, 1992). Their typology was previously based on their shape (elliptical, rectangular with rounded corners, sub-circular, or irregular elongated) and the type of foundation (orthostatic, masonry, or terraced on one level). Recent excavations at I Stantari di u Frati è a Sora revealed houses on posts, lacking a permanent foundation and/or sill (PECHE-QUILICHINI *et alii* 2023a). These characteristics prevent their detection in unexcavated areas and significantly complicate our understanding of the use of internal spaces within the *casteddi*. For example, the intra-mural areas of sites such as Tappa and Monti Barbatu may have contained more houses than initially imagined, at a ratio of 3/1 or even 10/1.
This discovery significantly changes the theoretical estimate of the population that occupied these habitats. This consideration must also include the possibility of the presence of extra-mural houses, as described for I Stantari di u Frati è a Sora and Cuccuruzzu.

3.4. ECONOMIC SPACES

As seen earlier, some spaces supported against (or integrated into) the walls, as well as the *torre*, were dedicated to production and/or storage activities. In the case of Cuccuruzzu, the blind niches contained stores (cereals, meats, and honey products), while the open areas near the northwest wall were used as pottery and butchery workshops (GROSJEAN 1963).

At Araghju, the lack of documentation from earlier excavations (GROSJEAN 1957) complicates the functional understanding of the numerous internal spaces, whose layouts differ from those of typical houses. At Tappa, recent excavations showed that structures A and B, initially considered houses (GROSJEAN 1962), were, in their earlier phase, a storage/processing area and a space dedicated to pottery firing (PECHE-QUILICHINI, PEINETTI 2023). In the absence of clear structures, certain specific items also suggest that different craft activities were practiced behind the walls: metallurgy, basketry, tanning, weaving, pottery maintenance, etc.

3.5. SPACES RELATED TO PRESTIGE?

How can we ignore the presence of statue-menhirs at Filitosa-Turrichju, Monti Barbatu, Castidetta-Pozzone, Torre, Capula, Litala/Sartène, Vaddi-Bacca/Zonza? In most cases, these monoliths have been found out of context. At Filitosa, however, many of them were carefully sectioned before being incorporated into a renovation (access blockage?) of the central *torra*. Serving as construction material, these heavy blocks, weighing nearly 150 kg, were likely placed near the inhabited area during the LBA.

While the reasons behind their destruction remain unclear, the question of their original juxtaposition with the internal domestic space arises, as it does for other sites.This suggests the existence of megalithic monuments (commemorative?; PECHE-QUILICHINI 2022) inside or just below the *casteddi*, particularly at sites that experienced significant development around the XIII century BCE.

3.6. THE USE OF INNER SPACE

Most of the fortified habitats in the south of the island (Fig. 6) are characterized by a lack of space due to the cramped summit zones surrounded by rocky chaos, and the technical difficulty of building walls that define large, closed spaces. That being said, the dimensions of these fortifications are probably partly indexed to the collective strength that could be mobilized, which was likely proportional to the size of the population to be housed behind the walls. In other words, upon its construction the fortification was specifically adapted to the needs of the community seeking shelter.

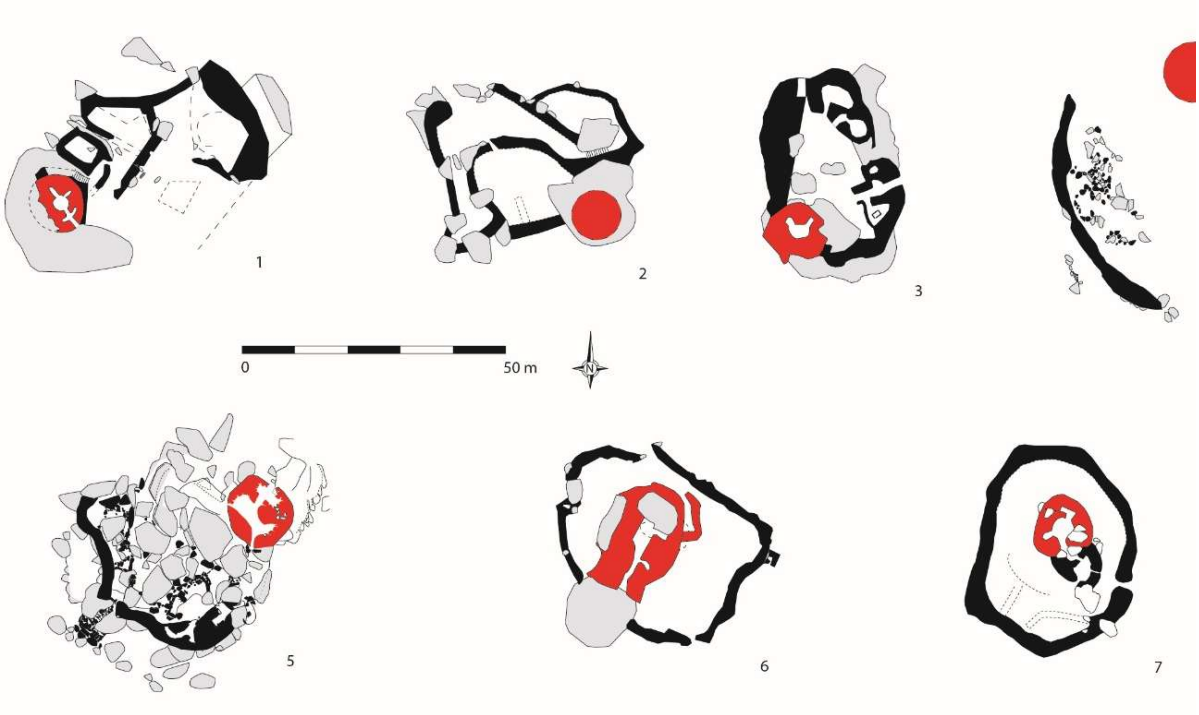

Fig. 6. General planimetry of several *casteddi* (black: enclosure; red: torra): 1. Castidetta-Pozzone, 2. Torracone, 3. Araghju, 4. Castiglione-Terra Bella, 5. Cuccuruzzu, 6. Calzola-Castellucciu, 7. Contorba (DAO: J. Cesari and F. Leandri).
Planimétrie générale de quelques casteddi (noir: enceinte ; rouge: torra): 1. Castidetta-Pozzone, 2. Torracone, 3. Araghju, 4. Castiglione-Terra Bella, 5. Cuccuruzzu, 6. Calzola-Castellucciu, 7. Contorba (DAO: J. Cesari et F. Leandri).

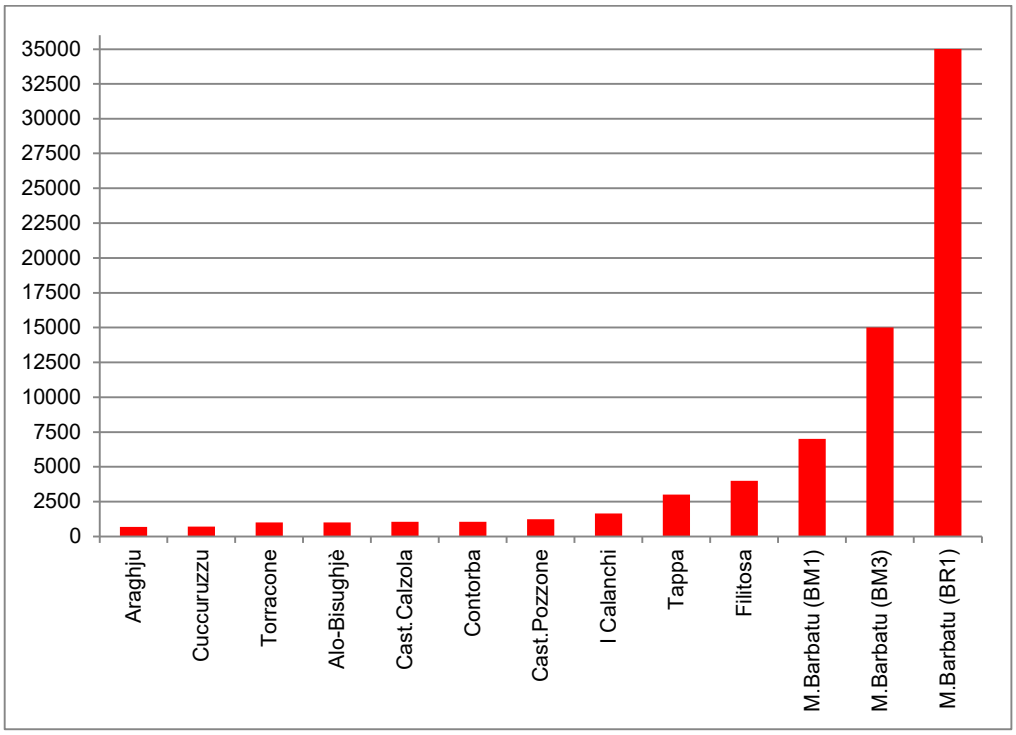

Fig. 7. Surface area of several EBA and MBA fortified settlements (graph: K. Peche-Quilichini).
Superficie de quelques habitats fortifiés du Bronze ancien et moyen (graphe: K. Peche-Quilichini).

Compared to other Mediterranean contexts, the dimensions of the fortified habitats in Corsica (Fig. 7) are small. Most of them define a closed area of less than 1000 m², often cluttered with rocks. It is therefore difficult to imagine that these fortifications housed more than a few families, although there remains a possibility of an external expansion of the domestic area.

The *casteddi* of Tappa, Filitosa-Turrichju, and Monti Barbatu are the largest sites at the beginning of the MBA, with areas of approximately 3000, 4000, and 7000 m², respectively. However, the latter site experienced significant expansion toward the east during MBA 3 and the LBA, growing from 7000 to 15000 and then to 35000 m². These figures correspond to the area enclosed by the longest walls during each phase, with the chronology determined by the occupation of the buildings enclosed within the walls.
It remains difficult to understand to which spatial organization these values correspond: was the entire area covered by houses or other structures on posts? Did it include pastures and/or cultivated or reserved spaces? In any case, part of the lower wall (dated to FBA 1) enclosed an area characterized by a group of armed statue-menhirs placed near the site entrance (PECHE-QUILICHINI 2022).

The internal space of the *casteddi* sometimes shows a compartmentalization in terraces (I Stantari di u Frati è a Sora, Tappa, Monti Barbatu), or even a system of nested walls (Furcone, Torracone, Filitosa, Castidetta-Pozzone, Castiglione-Mozzocu), possibly indicating an enlargement of the fortification. The overall organization sometimes reveals a functional optimization of space. For example, the *torra* is most often located opposite the entrance (Torracone, Cuccuruzzu, Filitosa); while this seems partly due to the strategic placement on rocky spurs, this tendency may also reflect an effort to protect the most crucial economic structure during an assault.

4. TIME: APPEARANCE, DEVELOPMENT, TRANSFORMATION, OBSOLESCENCE

Sites like I Calanchi and Monti Barbatu testify to a general trend of elevated settlement starting from the Late Neolithic, a model observed in the Taravu region but also in the Sartène area (SOULA 2012). This model seems to spread during the Final Neolithic, where some villages are demarcated by rows of large blocks. However, it is towards the middle of EBA that this trend manifests itself through a densification of habitation and the appearance of complex fortification systems.

4.1. EARLY BRONZE AGE 2: FORMATION

Based on current data, fortified sites with clear evidence of an elaborate defensive structure are rare during Early Bronze Age 2, or even slightly earlier (PECHE-QUILICHINI, CESARI 2023). Such structures are hypothesized for I Calanchi and Calzola-Castellucciu, which are seen as continuations of Copper Age habitation. Sites like Alo-Bisughjè or Filitosa-Turrichju were occupied during EBA 2, though it is unclear if fortifications were developed during this phase.

More precise information comes from the recent excavations at I Stantari di u Frati è a Sora and at Tappa, where relative and absolute chronologies show the emergence of defensive structures in EBA 2. At Tappa, structure B, which dates to the transition between EBA 1 and 2, is built over the blocking of the northwestern fortification with triple facing. At I Stantari di u Frati è a Sora, the fill of the ditch is dated to the EBA, as are most of the other structures on the site. It is very interesting to note that these two sites belong to different structural types, which may suggest a diversity of solutions in a society recently confronted with the need to fortify habitation.

4.2. MIDDLE BRONZE AGE 1-2: THE PEAK

The first half of the MBA marks the success of the *casteddu* model and its spread across southern Corsica. Territorial coverage was optimal during this period. Early in the phase, the model of the *torra* also seems to have become more widespread.

4.3. MIDDLE BRONZE AGE 3 AND LATE BRONZE AGE: ABANDONMENTS AND REGROUPINGS?

A characteristic feature of the stratigraphic sequences from the end of the MBA in the Taravu valley, the best-documented region for this phase, is the cessation of occupation at sites like Basì/Serra-di-Ferro, Campu Stefanu, Calzola-Castellucciu, and Contorba. At the same time, some habitats seem to experience a densification (Filitosa; Fig. 8), while others are significantly expanded (Monti Barbatu).

Fig. 8. Planimetry of Casteddu di Filitosa (CAD: K. Peche-Quilichini).
Planimétrie de l'habitat fortifié de Filitosa (DAO: K. Peche-Quilichini).

One might interpret this as a regrouping of populations, possibly linked to a social reorganization. The appearance of groups of statue-menhirs at these dynamic sites could be a consequence of these transformations: some *casteddi* may have become real centers of economic and political centralization, while the symbols of power there were renewed and began to focus more on individual representation.
The phenomenon is less clear for other valleys, though examples exist, such as the abandonment of Tappa, probably in favor of Ceccia. Overall, most of the large sites of MBA 2 (Cuccuruzzu, Castidetta-Pozzone, Araghju) remained occupied, with some exceptions (Alo-Bisughjè, Castiddacciu, Apazzu/Sartène).

4.4. Final Bronze Age: a transformation of the system before the abandonment of fortifications

During the FBA, many *casteddi* were still occupied and often slightly remodeled (Cuccuruzzu, Capula, Araghju, Castidetta-Pozzone, Ceccia) and some were reoccupied (Alo-Bisughjè, Apazzu). The example of Monti Barbatu is different: while the 3.5 ha settlement of FBA 1 is abandoned during FBA 2, a small fortress is built on the summit during FBA 1. These fortifications, which protect small and open areas, characterize this phase and are placed on steep reliefs. In several cases (Cuciurpula, Saracinu, Ors'Alamanu/Figari), these constitute defensive enclosures for open villages located at their foot.

The development of these open villages quickly leads to the obsolescence of the *casteddi*, whether from the old fortifications of the MBA still in use during FBA 1 or the smaller units built during that time.
The model of the open village gradually evolves towards structures that combine 4 to 10 dwellings, a true archetype of village life in the southern part of the island during the Early Iron Age. Contrary to a widely-held assertion in the literature, evidence of reoccupation of the *casteddi* during the Iron Age is rare (Castiddacciu, Calzola-Castellucciu, Araghju), anecdotal (Torracone), or related to non-domestic purposes (for example, the transformation of Cuccuruzzu and Tappa into funerary spaces).

5. Conclusion: what were the functions of *casteddi*?

The *casteddu* is primarily a fortified settlement established on a naturally defensible site. The walls, but also the *torra*, certain specific features, and the internal organization, all work together to make it difficult for attackers to access food storage and production tools (Fig. 9; Peche-Quilichini *et alii* 2023b).

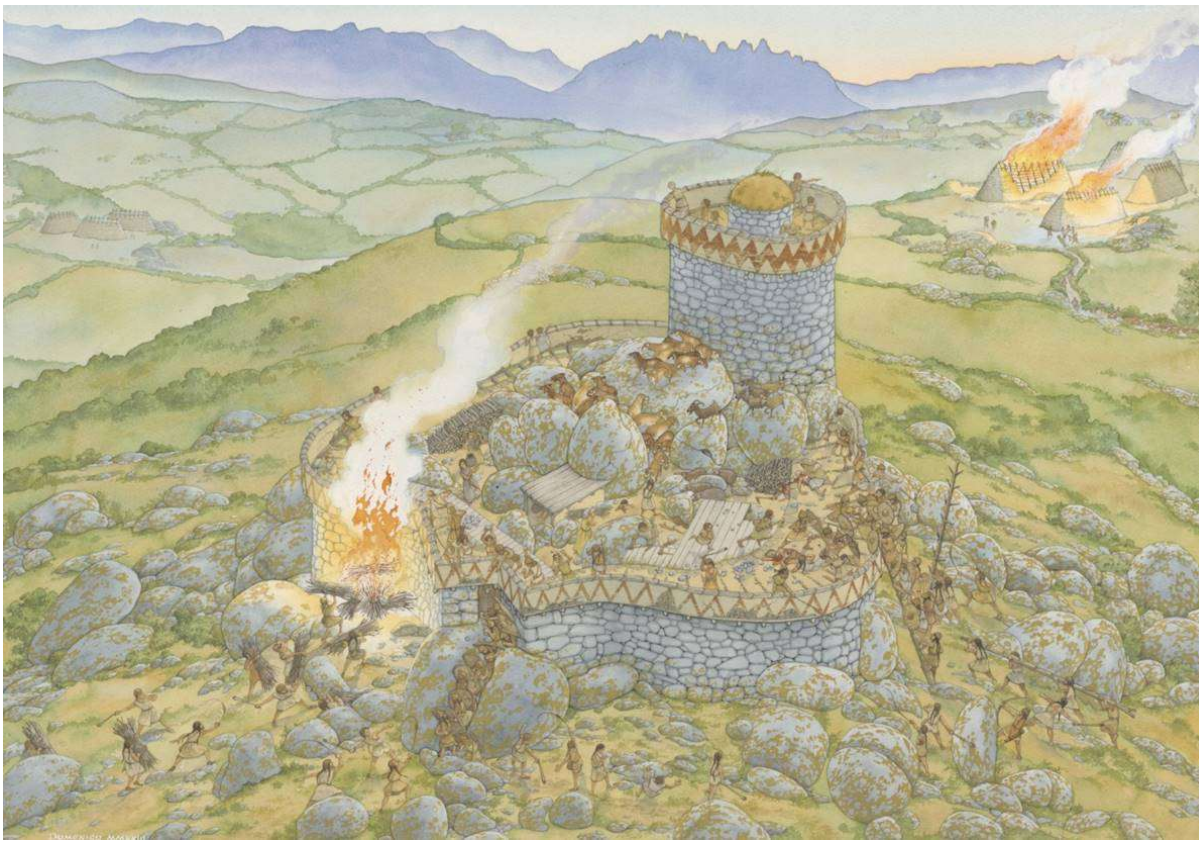

Fig. 9. Reconstruction of an attack on Casteddu di Cuccuruzzu (drawing: D. Groebner).
Reconstitution d'une attaque sur le casteddu de Cuccuruzzu (dessin : D. Groebner).

One site stands out in this defensive context: Casteddu Muratu/Porto-Vecchio. This is a very fractured rocky spur that forms a steep drop at 640 m above sea level, overlooking the Portivechju basin.

Half of it is delimited by high vertical cliffs, and it is protected at its natural access point by an almost continuous wall. Its organization forces attackers to navigate a narrow and challenging route (Fig. 10), exposing them continuously to their right flank (the side where the weapon is held, as the shield is usually carried in the left hand) until they reach the entrance.

This access is via a natural tunnel carved by erosion in granite; it goes without saying that such a narrow entrance is very easy to defend. It is worth noting that the internal space is entirely rocky and features a highly irregular topography, which is completely unsuitable for establishing housing or even pastoral arrangements.

Therefore, it is likely to serve as a defensive fallback structure, possibly connected to Araghju, which lies 1800 m to the southeast.

This observation leads to a thought-provoking question: are all *casteddi* truly habitats? If the examples of Casteddu Muratu and of FBA 1 numerous microfortresses show that this is not the case, are there other examples? A site like Cuccuruzzu provides some insight. The internal space here is particularly cluttered with large rocks, and the few free areas are used to store supplies (such as the *torra*, blind cells, and storage pits) or serve as workshops (rooms with ceilings built against the rampart). There is no evidence of residential structures within the walls. However, the presence of houses outside the walls is confirmed to the east (Lanfranchi, Weiss 1997) and assumed to the south.

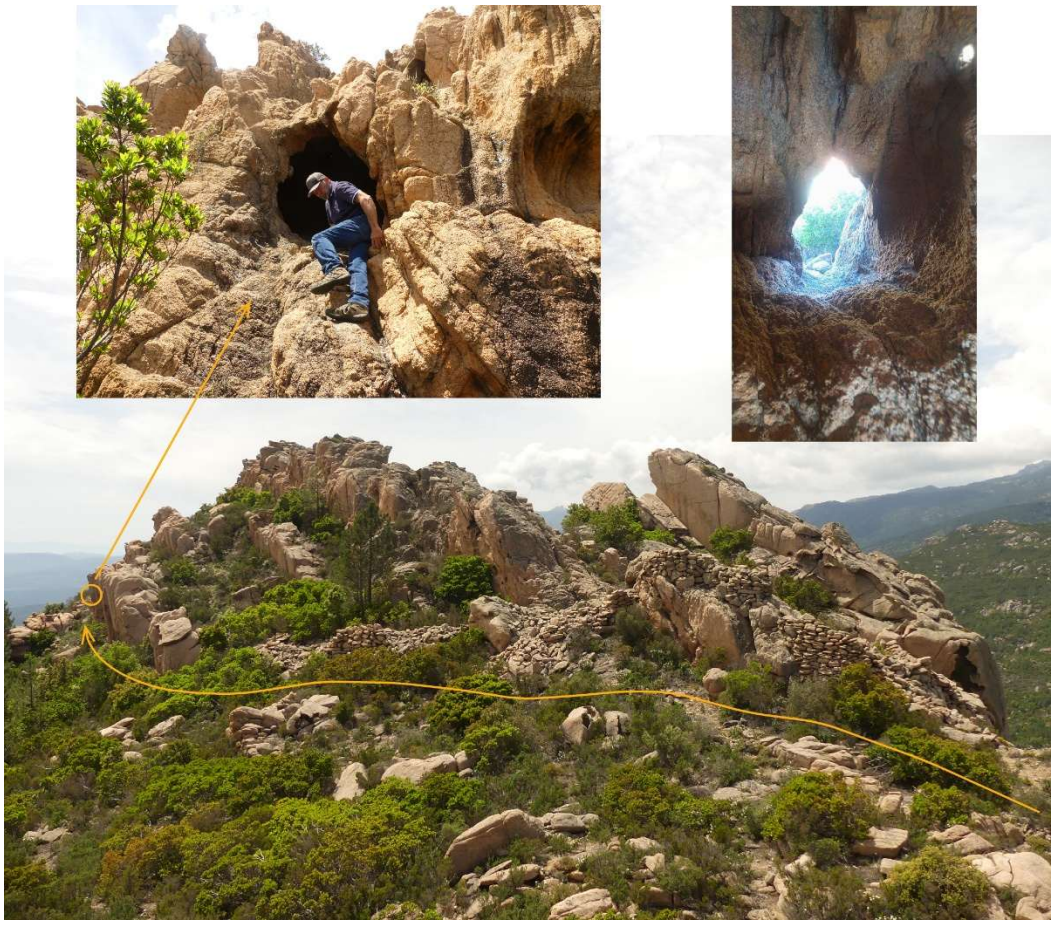

Fig. 10. Overall view of the Casteddu Muratu fortified site (refuge?), with the compulsory route to the only entrance, a natural gallery. Detailed views of the gallery from outside (left) and inside (right) (photo: K. Peche-Quilichini).
Vue d'ensemble du site fortifié (refuge?) de Casteddu Muratu avec schéma de circulation obligatoire jusqu'à la seule entrée, une galerie naturelle. Vues de détails de la galerie depuis l'extérieur (à gauche) et depuis l'intérieur (à droite) (photo: K. Peche-Quilichini).

In other words, some *casteddi* might not be strictly residential but could serve as the fortified core of a much larger and "lighter" settlement, which could later be equipped with its own wall (e.g., Monti Barbatu, Tusiu). The site of Tappa illustrates a similar pattern.

The *casteddu* therefore physically dominates the village, which it partly includes. Dedicated to managing surpluses, it likely functions as the economic and possibly political center of the territory. At least between MBA 3 and FBA 1, we can imagine a communal organization at the head of which leaders controlled supply and distribution networks, as well as collective force (both labor and directed violence). These leaders are represented in stone with their symbols of power, in the form of warrior figures holding swords, in parts of the settlement dedicated to their prestige. Such assertions are based on cross-disciplinary approaches, but they remain fragmented: it is still difficult to clearly identify hierarchical processes in the architecture of the fortified sites.

The identification of dwellings without permanent foundations outside the fortifications could, however, suggest a certain degree of social stratification compared to the stone-founded houses built inside. As for material culture, metal provides little insight into Corsica, although there are a few examples of hoarding (e.g., Monti Barbatu; PECHE-QUILICHINI, MARY 2018).

In fact, it seems that the social status of the island's elites during the EBA and MBA was based more on the ability to accumulate food surpluses than on the possession of metal resources, even if the overall situation seems to undergo significant change during FBA 1. Consequently, the form and function of the *casteddi* are a response perfectly adapted to this type of social, economic, and political structuring.

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