

## LIMES CYRENAICUS: A PLURI-STRATIFIED SYSTEM



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**Abstract:** The fortifications along the Cyrenaican *limes* are among the most monumental remains of Roman Cyrenaica, but at the same time they have not been widely investigated and published. The territory is rich in archaeological sites, but most of the publications on this area have concentrated mainly on Greek and Roman towns.

Although generically referred to as fortifications (locally named *qsur*), these sites present quite different origins, functions, and typologies, simultaneously maintaining a common purpose along the *limes*. Moreover, their locations along the main roads, *widian* (canyons), valleys, and natural terraces seem to attest to a stratified hierarchical organisation, as well as their differentiated use within an elaborated system not only for the direct control of the *limes*, but also of the rural areas and local resources.

Preliminary surveys in the region show that variegated geo-morphological contexts and topographic features have strongly influenced both the ancient exploitation of the land as well as resources and distribution of settlements and sites.

Geological and topographic features, economic assets, pluri-stratified cultural backgrounds, as well as different social and ethnic attitudes have determined a quite elaborated organisation of the *limes*. This organisation was characterised not by a single road marking a boundary, but by a complicated network intersecting and including incorporating ancient caravan routes and previous Greek roads. The long and rich sequence of fortifications, arranged in a regular way regularly along the main road axes and on the ridges of the *widian* (canyons) or overlooking the lower terraces of the *jabal*, do not represent a single typology or a specific moment of fortification of the *limes*, but rather a “kaleidoscopic” view of different monumental fortified buildings or settlements, generally showing a long continuity of use.

The present paper is intended as a “present” for Piotr, highlighting his long experience along the Roman *limes*, but also an invitation to visit these splendid sites during one of our missions or for one of the EuroTeCH tours!

**Keywords:** *limes*, fortifications, landscape archaeology, survey, GIS

The fortifications along the Cyrenaican *limes* are among the most monumental remains of Roman Cyrenaica, but at the same time they have not been widely investigated and published.

The territory is vast and rich in archaeological sites, but most of the publications on this area have concentrated mainly on Greek and Roman towns.

The Archaeological Mission of the Chieti University, in collaboration with local colleagues of the Departments of Antiquities of Tripoli and Cyrene, has surveyed the *chora* of Cyrene since 1999, mapping the existing remains of an interesting fortification system [Fig. 1]. The vastness of the area, as well as the wide spatial distribution of numerous fortifications, quite different in size, function, and monumentality but locally sharing the generic name of *qsur*, have determined two different surveying approaches: a judgmental survey in combination with intensive exploration in specific transects and excavations in one of the crucial sites along the *limes*: the ancient Limnias.<sup>1</sup> This second step, including intensive surveying and excavations, is important for a better understanding of how these sites functioned along the *limes*, along with information on their typologies and chronologies, as well as tracing their role in exploitation of the surrounding fertile lands, management of local resources, and local economy.

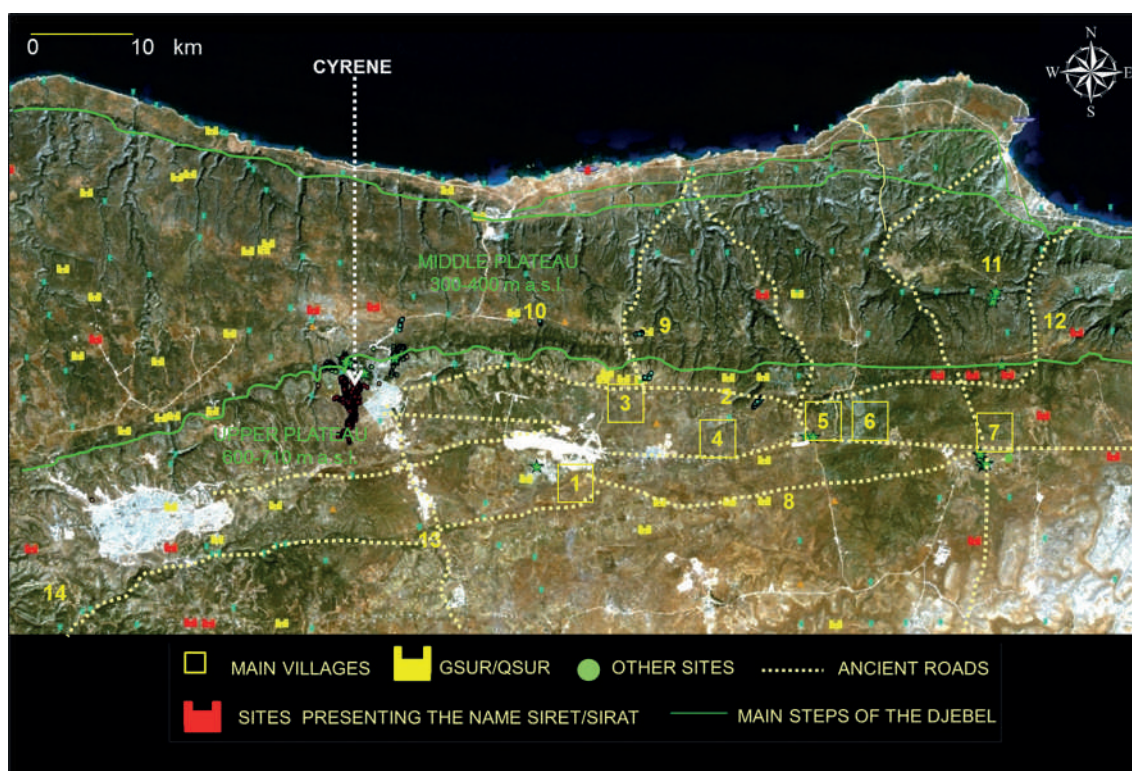


Fig. 1. GIS view of the main sites mentioned in the paper: 1 – Labraq / al-Abraq; 2 – Jubbra / Jebbra; 3 – Mgernes / Mqayrnis; 4 – Sirat Umm Sellem; 5 – Tert / Zawayat al-Tart; 6 – Qabu Yunis; 7 – Lamluda; 8 – al-Mtaugat; 9 – Berteleis / Bertelles; 10 – Qasr Khurayba; 11 – Sirat al-Bab; 12 – Zawia / Zawayat Maraqq; 13 – Umm Hunnaya al-Qarbia / Kenafes; 14 – two sites of Sirat al-Mliatc and Sirat al-Rheim are located in the territory of the village of Umar al-Mukhtar (compilation courtesy of the Archive of the Archaeological Mission of the Chieti University)

1 Modern Lamluda. ANTONELLI, MENOZZI 2014; MENOZZI, ANTONELLI 2014; ANTONELLI, SOMMA 2020.

Although generically referred to as fortifications or *qsur*,<sup>2</sup> the origins of these sites differ, just as their functions and typologies. Simultaneously, they maintain a common purpose along the Romano-Byzantine *limes*.<sup>3</sup> Moreover, their locations along the main roads, *widian* (canyons), valleys, and natural terraces seem to attest to a stratified hierarchical organisation, as well as their differentiated use within an elaborated system, not only for direct control of the *limes* but also of the rural areas and local resources [Fig. 1].

Preliminary surveys in the region show that variegated geo-morphological contexts<sup>4</sup> and topographic features have strongly influenced both the ancient exploitation of land and resources and the distribution of settlements and sites. Al-Jabal al-Akhdar, the Green Mountain as it is generally referred to, represents the heart of Cyrenaica and the highest geomorphic feature of the region. It consists mainly of sedimentary rocks arranged in three large terraces or plateaux, presenting karstic phenomena cut by deep and steep *widian* (canyons) rich in seasonal streams and permanent water sources. These terraces are the most fertile territories of the region. The upland terraces of the fertile Al-Jabal al-Akhdar are delimited by flat coastal strips to the west and north, less fertile but rich in salt deposits and harbours, and pre-desertic territories to the south and east. The geological sequences are characterised by a complete spectrum of carbonate ramp facies complexes that include bathyal planktonic foraminiferal limestone, outer ramp deep neritic mudstone clinofolds, and large foraminiferal and reef coralline build-ups, as well as oolitic and large foraminiferal shoals, up to the Messinian salina deposits. The wide and flat terraces of the Green Mountain are strongly characterised by residual red palaeo-soils or red Mediterranean ferrallitic soils. The upland plateaux rise up 700 metres above the sea level. These features, in combination with an intense rainfall regime, are responsible for very fertile lands as well as the presence of local natural resources, such as limestone and sandstone, which were widely quarried in Antiquity for building purposes.<sup>5</sup> The same factors lie behind the abundance of local salt deposits, both marine and rock salt.<sup>6</sup> The fertility of this region, its frequent rainfalls, and the rich local economy based on both agriculture and pastoralism, as well as the coexistence of Libyan tribes and Greek settlers, are features widely attested already by Herodotus,<sup>7</sup> who mentions the existence of a large number of local tribes, mostly sedentary on the terraces of the *jabal*, but also seminomadic in the pre-desertic countryside and nomadic in the inner desert contexts [Fig. 2]. In Roman times, this variegated local substratum showed quite different levels of “Hellenisation” — or what may more aptly be termed “hybridisation” with the Greek culture. These local variations determined the differentiated approach of the Romans since the 1st century BC to their rule of local towns and suburbs, also influencing the ratio of the numerous *viritan* land distributions, and resulting in emergence of many varying types of cultural hybridism observed by citizens of this region.<sup>8</sup>

2 *Qasr/gasr* is the singular form, while *qsur/gsur* is the plural. This Arabic word comes from a distortion of the original Latin word *castrum/castra* and is used in a generic way for any type of fortified building or centre. MUNZI 2010, p. 57, n. 61; FOSSATARO 2009; LORENZO JIMENEZ 2016, pp. 167–180; ABDALRAHIM SHERIFF SAAD *et alii* 2016.

3 ROMANELLI 1940; GOODCHILD 1951; 1952a; 1952b; 1952c; 1953; PRINGLE 1981; REYNOLDS 2000.

4 Concerning the geological and geo-morphological aspect of the region, see: BURU 1960; ELWERFALLI, MUF-TAH, EL HAWAT 2000; EL HAWAT, ABDULSAMAD 2004.

5 Large quarries, attesting a quite intense exploitation of local stone, are attested not only for Cyrene but also in Mgernes/Magarnis, Lamluda, Ptolemais/Tolmeita, Tocra/Teucheira, and so on.

6 GARZYA, ROQUES 2000, p. 293; MENOZZI 2010, pp. 57–58; STRUFFOLINO 2012; 2014, p. 370.

7 Hdt. 4.158 for the specific mention of the frequent rainfall; 4.199 concerning the fertility of the territory of Cyrene; 4.162–198 for the long description of the Libyan tribes and their customs.

8 MENOZZI 2014.



Fig. 2. Engraving from the 18th century illustrating the description of the ancient tribes of Libya by Herodotus

Geological and topographic features, economic assets, pluri-stratified cultural backgrounds, as well as different social and ethnic attitudes have determined a quite elaborated organisation of the *limes*. This organisation was characterised not by a single road marking a boundary, but by a complicated network intersecting and incorporating ancient caravan routes and previous Greek roads, including main roads, monumentally cut into the limestone bedrock or marked by frequent rows of orthostates [Fig. 3], and secondary roads delimiting ancient plots. The long and rich sequence of fortifications, which are arranged regularly along the main road axes and on the ridges of the *widian* or overlooking the lower terraces of the *jabal*, do not represent a single typology or a specific moment of fortification of the *limes*, but rather a “kaleidoscopic” view of different monumental fortified buildings or settlements, generally showing a long continuity of use.



Fig. 3. Example of a row of orthostates delimiting a main road in the area of Jubra (photo courtesy of the Archive of the Archaeological Mission of the Chieti University)

In effect, the fortifications, despite they are known under the single local generic toponym of *qasr*, come in numerous variants. However, this diversity is only apparently complicated, as the variants could be organised, in a preliminary “macro-typologisation”, into five main categories: a) limited fortified “control- or viewpoints”; b) fortified farms or production centres; c) fortified buildings within villages; d) fortified basilicae; and e) fortified villages or settlements.

The first category — limited fortified “control- or viewpoints” — is probably the earliest type of fortification in the region, dating certainly to the Roman times, although fortifications may have existed in the territory even earlier. Diodorus, in the 1st century BC, attested strongholds in this region which were strategically located to control water sources, probably springs and *widian*, and also reported that some of these structures were used to deposit crops.<sup>9</sup> However, the complete lack of excavations at the sites of this type has precluded any certainty regarding their precise dating and origin. They are often located in areas already frequented in earlier times and strategically important for controlling the surrounding territory or the road network. They are typically quite small, usually presenting a square plan and two or more storeys, in some cases even a rock-cut basement creating a “hypogeum floor” with or without rock-cut ditches. The building technique always makes use of irregular large blocks or very roughly isodomic structures, built with large blocks in the lower floor and smaller and less regular blocks in the upper storeys. This type of buildings is often associated with deep ditches, which can be roughly-worked or regularly-cut with vertical rocky sides, giving the fortified structures a strong sense of verticality and emphasising their appearance as towers; the ditches would then contribute to the defensive system, both virtually and physically, but could have also been a part of the water supply system of the fort.

From the topographic point of view, the position of these buildings is always strategic, because they are placed on the high ridges of the *widian* or along the limits of the upper terraces of the *jabal*, which enables controlling the surroundings, particularly the local road network as well as fertile plots or limestone quarries. This category of early fortified buildings seems to be quite frequent in the area, especially in nodal points, such as at Wadi al-Kuf, studied by Richard G. Goodchild,<sup>10</sup> or along the upper terrace of the Green Mountain overlooking the lower terrace. Later, generally during the middle and late Imperial Period, some of them were enclosed within villages (becoming a different type of fortification, such as in the case of Jubbra discussed below<sup>11</sup>), or were enlarged and transformed in their plan, as in the famous example of Qasr Bani Qadim,<sup>12</sup> which has been published most exhaustively, being very well-preserved up to the second floor; it has been documented also by ancient travellers when it was in an even better state [Fig. 4]. It shows a rectangular plan, with a two-storeyed building and two projecting square towers located centrally along the long sides. The monumental appearance of this *qasr*, with its high and very thick walls, imposing towers, arches, and vaulting, seems to suggest strategic importance of this control point at the nodal crossing of the natural roads along Wadi al-Kuf (representing a natural S-N axis) and the local E-W Roman road network along the *limes*. The site of Qasr Bani Qadim<sup>13</sup> is very well known for its youngest fortifications, but what is known of its previous phases, including its original plan, with blocks of different sizes and more “Hellenistic” appearance, seems to suggest a more limited earlier building. However, clearer examples can be found at Ayn Marra,

9 Diod. Sic. 3.49.

10 GOODCHILD 1953, pp. 65–76; REYNOLDS 1976, pp. 195–209.

11 Djebbra/Jibrah/Gebbra.

12 REYNOLDS 1976, pp. 200–203; 2000; 2003, pp. 396–397; ROQUES 1987, pp. 107, 379; STUCCHI 1975, pp. 422–423.

13 REYNOLDS 1976, pp. 200–202.

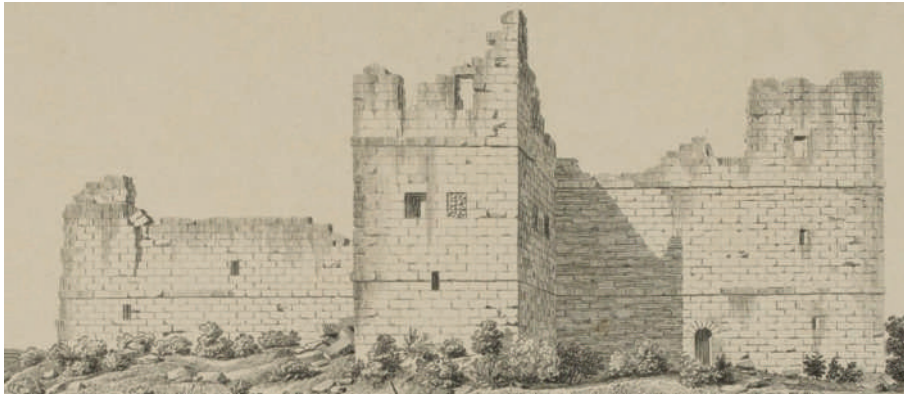


Fig. 4. View of Qasr Bani-Qadim by Pacho (after Pacho 1827, pl. LXVII)

Qasr al-Hunnaya, and so on, which have been surveyed and published by Goodchild,<sup>14</sup> attesting more convincingly to such earlier phases and plans. The example of Qasr al-Hunnaya [Fig. 5] is extremely interesting, due to both its location and complicated structure. The main section of the fort presents a square plan, which is characterised by an articulated basement, cut completely into the bed-rock as a labyrinthic hypogeum, and an upper section following the square plan of the basement. A large rock-cut ditch surrounds the fort, emphasising its defensive purpose. The basement consists of several rock-cut rooms, including mainly military quarters, with an officers' quarter [C in Fig. 5] and an articulated accommodation for the troops with vaulted inner rooms, used as barracks or messing [B in Fig. 5], and located not far from the outer and inner stables [K and F in Fig. 5]; moreover, both the outer and the inner stables are particularly large and monumental, suggesting prominence of cavalry in this fort. Particularly interesting is the inner T-shaped room [D in Fig. 5] which has been interpreted as a *latrina*, because of its well-preserved stone seats facing each other on both short sides, with pits covered with stone slabs and small semi-circular niches on the walls, possibly for lamps, and a vertical airshaft probably for a ventilation of this system. The location of Qasr al-Hunnaya is particularly interesting, as it lies not in a fertile land or within a *wady* system, but in a strictly desertic context — the importance of such situation stems from this fortification's functioning along one of the main caravan routes coming from the oases of Augila. It also enabled controlling the approaches to Ajdabiya (which could be identified with the *Corniclanum* mentioned in the Peutinger Map), a key point on the caravan route from the coastal plains of the region to the oases of Awjila and Jalu. Several inscriptions have been found at Ajdabiya which suggest that a large Roman garrison, probably of Syrian origin, existed in this territory between 15 and 51 AD.<sup>15</sup> The numerous forts along the main routes in this area could be related to this garrison and may have served as frontier outposts directly depending on the larger fort of Ajdabiya.

Moreover, in the territory of Ghemines,<sup>16</sup> along the coastal route to southern Benghazi (ancient Euhesperides/Berenice) are a series of squared forts, all of different sizes and well-preserved, which show that not only the *limes* required specific defensive structures, but also the coastal roads, harbours, and local resources related to the seascape (including marine salt deposits and shore fisheries<sup>17</sup>).

14 GOODCHILD 1976a; 1976b, pp. 196–207.

15 SEG IX, nos. 773–795.

16 GOODCHILD 1951.

17 HESEIN 2020.

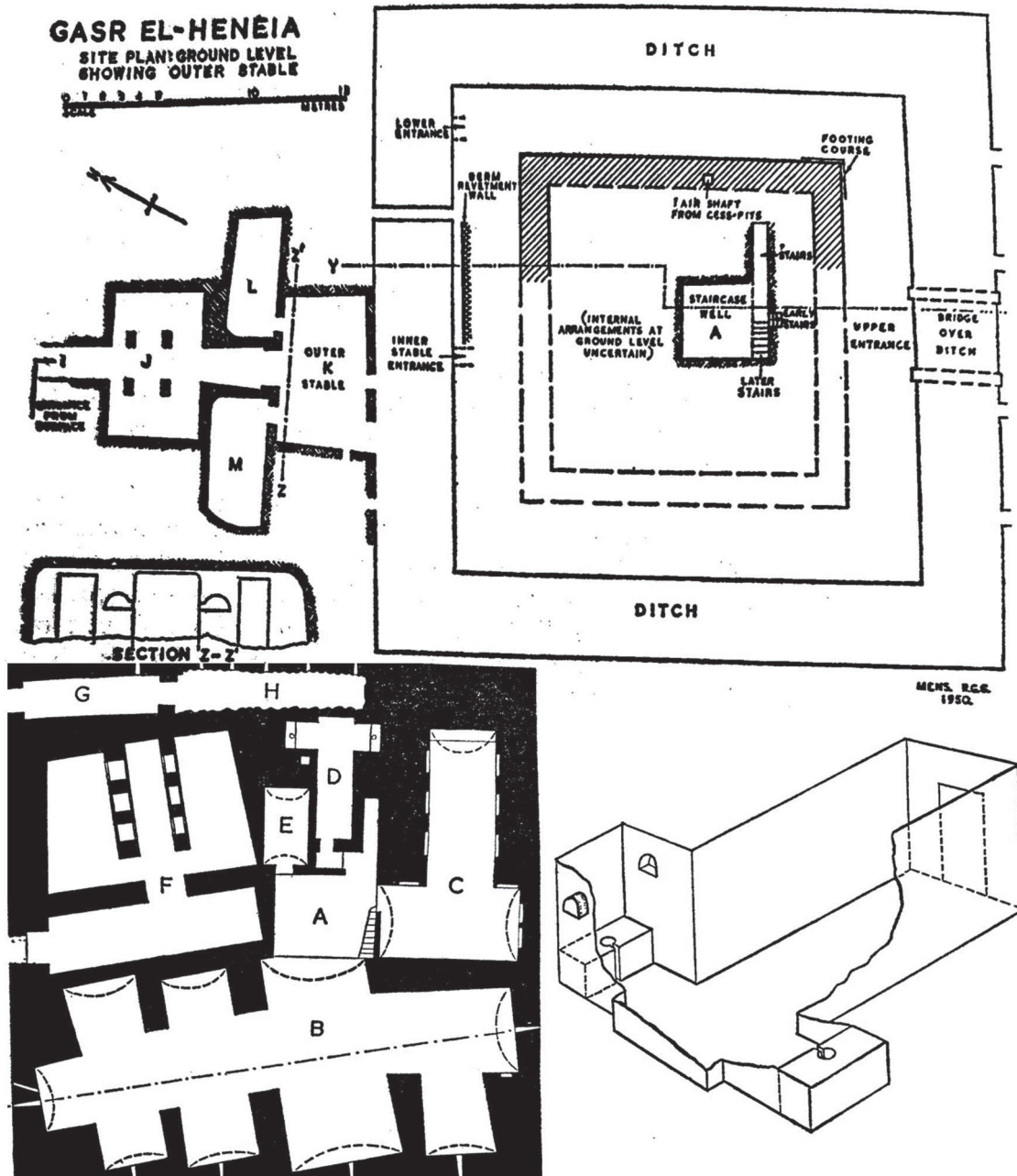


Fig. 5. Qasr al-Hunnaya. The plan of the hillfort, particularly of the basement (below) and the axonometric view of the Roman latrine (after Goodchild 1951, figs. 51, 53, 54)

The second category — fortified farms and production centres — consists of small productive contexts which have been fortified on low hilltops along the secondary local road network and always surrounded by fertile plots or located generally close to specific resources. Therefore, their main features — plan and building technique — are similar to the previous category, however, they always include large functional areas, with presses, mills, together with hypogea used for storerooms, cisterns, and settling tanks for oil or wine production.

The site of Qasr Khurayba<sup>18</sup> is an excellent example of these minor rural-fortified sites. It consists of a productive area, built mainly by exploiting natural caves on the south-eastern slope

18 GAMBINI, CATANI 1976.

of the hill. The caves were internally organised into regular forms [Fig. 6], to serve as storerooms, and fitted with settling vats. The upper and more regular levels of the terraced slope, preserve remains of numerous presses, mainly the vertical *arbores* of *torcularia* [Fig. 7]. The rock-cut passages and limited terracing structures regulated the slopes and facilitated the passage among different areas of this production centre. On the hilltop, a fortified two-storeyed building crowned and completed the manufacturing complex, merging the “built architecture” of the upper structures and supporting walls, with the “rupestrian” architecture of the storerooms and hypogea, often “re-using” previous tombs, as attested in Cyrenaica.<sup>19</sup> The small rectangular fortification was rebuilt employing very regular ashlar masonry and re-using earlier building materials, such as an

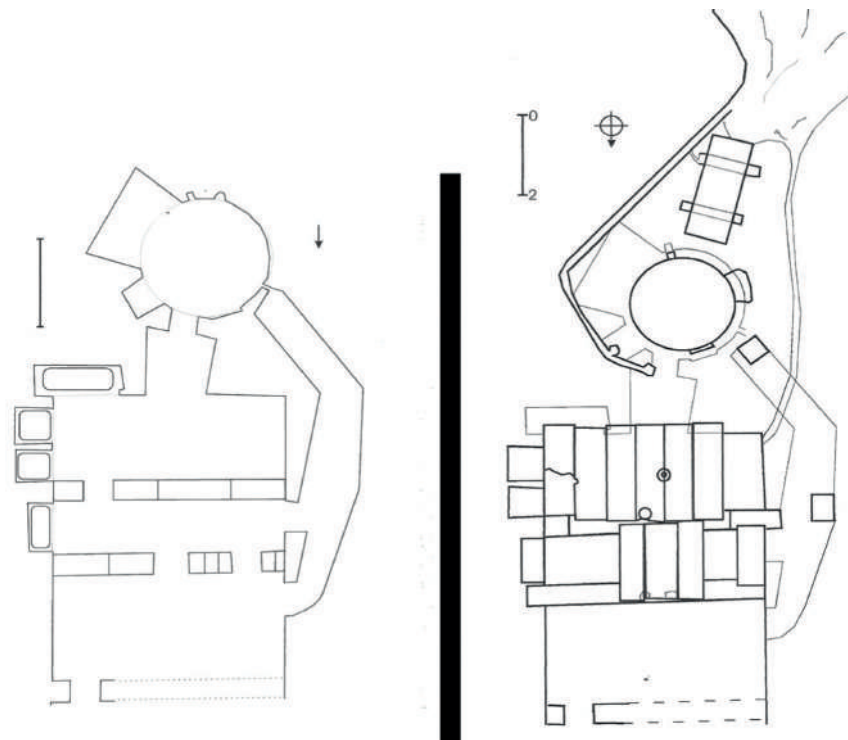


Fig. 6. Qasr Khurayba. The plan of the lower and upper floors of the site (compiled by D. Fossataro and O. Menozzi, courtesy of the Archive of the Archaeological Mission of the Chieti University)



Fig. 7. Qasr Khurayba. The views of the main fortified building and the numerous presses (photo courtesy of the Archive of the Archaeological Mission of the Chieti University)

19 CHERSTICH, MENOZZI *et alii* 2018.



inscription re-employed in the basement of the western wall. The inscription has been recently studied and published by Stefano Struffolino: in a roughly-carved Greek writing, it mentions the anthroponym Ἐλεῖζαρος, a Jewish name in a Graecised version, already attested in Cyrenaica in the 1st century AD (the writing style seems to belong to the same period).<sup>20</sup> In this case, it is possible to hypothesise that a Roman farm or villa had been then fortified and reorganised in the late Imperial Period, re-using most of the building materials and even parts of the buildings of the earlier rural settlement. The location of the hillfort in an elevated position confirms its control over both the local road-network as well as the surrounding plots, which also show remains of the “centuriation” [Fig. 8].

A similar situation can be seen at Sirat al-Mliatc (about 15 km to the south-west from Cyrene and not far from the today’s village of Umar al-Mukhtar) where an interesting rural settlement is located, probably with a diversified exploitation of rural and natural resources [Fig. 9]. It is a large and fortified farm consisting of a main centrally-located fortified building, surrounded by several other buildings for production of oil and wine, and presenting rock-cut subterranean cisterns, storerooms, and tanks; the presence of a large rectangular structure, not far from the fortified building, has been interpreted as a small basilica related to the settlement. The fortified building has a rectangular plan itself and was built with ashlar masonry, consisting of medium-sized blocks very regularly-hewn and finely-worked. The so-called basilica consists of a larger building which is characterised by a similar masonry but employing larger blocks, mostly collapsed, and contains remains of a large arch; the typology of masonry and sporadic finds place the date of the building to late Antiquity, showing a continued use of the site. However, the possible interpretation of the building as a basilica was based only the presence of the arch, whereas arches could have been used also to support large storehouses, as attested in other sites (e.g. Lamluda and Mgernes discussed below), which were often also fortified to protect goods and agricultural products or to support



Fig. 8. Qasr Khurayba. The satellite view of the location of the hillfort with the delimitation of the ancient plots, mapping of the ancient rock-cut road (marked by dots) and the general view of the fertile lands around the site (compiled by O. Menozzi)

20 STRUFFOLINO 2020.



Fig. 9. Views of Sirat al-Mliatc. The general view and the main square fortification (above) and one of the rock-cut storerooms and the remains of the arched building (below) (photo courtesy of the Archive of the Archaeological Mission of the Chieti University)

the building with counterforts in seismic areas. Most of the numerous smaller buildings and rooms in the settlements were probably dedicated to production of oil, as attested by numerous and well-preserved oil presses whose typology is very well-recognised in Cyrenaica, such as those at Berteleis, Lamuda, and many other rural villages and farms of this region and Tripolitania.<sup>21</sup> Probably related to the farms' production were also the large rock-cut cisterns and storerooms which are still very well-preserved. The economy of these villages was related both to agricultural production, as the numerous presses attest, but probably also to extraction of rock salt whose presence and use in Cyrenaica is reflected by written sources<sup>22</sup> and supported by recent studies.<sup>23</sup> In this site, however, it is additionally confirmed by still visible traces of this product, creating frequent salt efflorescences in the rock, as well as by the toponym of the site, which in Arabic indicates a road (or a site of a road) of salt (*mlhiatc*). Concerning the chronology of the site, the data resulting from the surveys and finds around the small settlement, as well as from the tombs, point to the existence of a wealthy farm already in the 1st century AD, while the further buildings, as for instance the "basilica" building and some of the subterranean storerooms, were constructed in the late Imperial Period and late Antiquity.

The situation of the third category, that is the fortifications within "pseudo-urban" villages, is quite complicated, because these villages often show long continuity and may in fact consist of more than a single fortified building, which presents difficulties in interpreting and dating such structures without excavations. Quite frequently in the Cyrenaican territory, the rural villages in the late Roman and early Byzantine periods have one or more fortified buildings which played specific functions depending on their position within the village. The range of building techniques is quite standardised and characterised by large squared blocks, very regularly-hewn and homogeneously organised; in some cases, one also finds a course of vertical blocks within the lower section of the

21 BUZAIAN 2009; 2019.

22 Synesius, *Epistolae*, 148.15–27.

23 GARZYA, ROQUES 2000, p. 293; MENOZZI 2010, pp. 57–58; STRUFFOLINO 2012; 2014, p. 370.

buildings, a sort of local interpretation of the *opus Africanum* which is a combination of ashlar masonry and orthostates. When more buildings are present, such as in the case of Mgernes and Jubbra, they would assume very different functions in Antiquity – specific cases discussed below shall illustrate this point.

The village of Mgernes is an apt example of this kind of settlement for reasons already mentioned and also because it has been partially published<sup>24</sup> and is very well-preserved as far as monumental architecture is concerned [Fig. 10]. An early settlement is attested in the area, dated to the Classical and Hellenistic periods, as the typology of the nearby tombs [Fig. 10a] seems to suggest. The village had since the beginning a rural character, thanks to its location in a very fertile plateau. An interesting epigraphic find from this site,<sup>25</sup> in Greek and dated to the early Roman Period (1st century BC), mentions the settlement, designating it as “a village”, using the word κώμα specifically and also attesting the presence of magistrates — πολιάνομοι (the Greek term for *aediles*) as well as of a priest of Dionysus. Moreover, the inscription also mentions construction of a “public” granary for the village, which is extremely interesting considering that most kinds of these sites contain large monumental fortified structures which can be interpreted as fortified granaries or storehouses. The inscription is fundamental for understanding that already in the early periods these structured “pseudo-urban” villages had public magistrates and public buildings (temples, storehouses). It is also plausible that in the Roman times some of these fertile lands were donated to veterans,<sup>26</sup> thus leading to gradual transformation of the Hellenistic settlements into larger villages which could include a baths complex [Fig. 10b], two fortified palaces, and two basilicae. In this case, the position of the fortifications facilitates interpretation of their role in the settlement. The larger fortified building [Fig. 11a–b], located centrally in front of an open square and characterised by a rectangular plan and two storeys, seems to be interpretable as the main centre of the civic as well as economic life. The large main square, with large cisterns and a wide open space, was probably used as a marketplace, a large caravanserai, or *forum* which was completely open towards the caravan routes and roads coming from the southern pre-desertic and desertic areas. Probably, the large square was a central market and local products as well as imported goods were exchanged



Fig. 10. Mgernes: a – view of the most monumental tombs in the cemetery (above);  
b – bath complex (below)  
(photo courtesy of the Archive of the Archaeological Mission of the Chieti University)

24 ROQUES 1987, pp. 118, 149, 401, 475, 506; WARD-PERKINS, GOODCHILD 2003, pp. 311–315; STUCCHI 1975, pp. 80–81, 226, 448; ANTONELLI, MENOZZI 2014; MENOZZI, ANTONELLI 2014; ABDALRAHIM SHERIFF SAAD *et alii* 2016.

25 SEG IX, no. 354.

26 MENOZZI, ANTONELLI 2014; ABDALRAHIM SHERIFF SAAD *et alii* 2016.

there and stored in the large fortified central “palace” or storehouse, in case of need or danger. The second fortified building [Fig. 11c] is located at the boundaries of the settlement, to the north of the baths complex and centre of the village, and is completely surrounded by numerous presses and mills which were probably closely-related to the role of the building. The plan of the building resembles a “palatial” structure, with a central open courtyard surrounded by a two-storeyed building. By all probability, it functioned as a “palace” or “fort” administrating the local economy. Moreover, the main gate of the building is truly monumental, with a large arch [Fig. 11c], and it faced a square and surrounding production areas. A deep and monumental rock-cut ditch [Fig. 11c] surrounded the “palace”, and was probably used mainly as a large cistern important for the water supply system of the building and its specific functions.

Another interesting case is the village of Jubbra [Fig. 12], whose long temporal span, with Hellenistic and Roman tombs, farms, and later fortifications seems to share chronological and typological features with other villages in this territory — a smaller earlier settlement which was delimited by numerous monumental sarcophagi surrounding the original site. The village had a rural character since the earlier phases, probably belonging to the late Hellenistic Period, as attested by the monumental sarcophagi on high podia [Fig. 12] preserved and then included within the later development of the village, but originally placed at the edge of the settlement. These tombs are quite important markers also for the Roman phase of the village, when the sarcophagi



Fig. 11. Mgernes: a-b – central large fortified building facing the large *forum*-caravanserai and the monumental rock-cut cisterns (above);  
 c – second fortified building, the view of the façade with the arched gate (below)  
 (photo courtesy of the Archive of the Archaeological Mission of the Chieti University)

were re-used and small niches for funerary Romano-Libyan portrait busts were created [Fig. 12]. In this second phase, the village was still of quite limited size and characterised by a large number of oil presses and a small quadrangular fortification [Fig. 12] — a modest “fort” or “control point” (belonging to the first category, as mentioned above) built of regular blocks on a high podium and overlooking the surrounding fertile plots and lands, as well as the main road network along the *limes*. Between the mid-Imperial and late Roman times, the settlement grew and new, wider pressing complexes were added to the earlier ones. The latter consisted of large rock-cut quadrangular “pools” or basins with wide presses arranged around them and associated with large millstones attesting their use for production of oil rather than wine, at least in these later phases. At this point, the village was larger than the original settlement and also included the earlier sarcophagi mentioned above, which by then may have lost their original meaning and use. Probably, associated with this later phase, new buildings and infrastructures were built, as were the large cisterns, directly quarried in the bedrock [Fig. 13]. In addition, a large fortified granary or storehouse [Fig. 13] was built with the use of large blocks in regular and monumental ashlar masonry. It was probably used as a fortified storehouse not only for the local produce, but, in case of need, also as a refuge for livestock, as suggested by the presence of some troughs cut into the limestone. The village is located at a nodal point of the main regional road network and along one of the main roads characteristic of this part of the *limes*, as additionally witnessed by monumental rows of orthostates marking the main road [Fig. 3].



Fig. 12. Jubbra. The Hellenistic tombs (above) and the Roman fortification (below) among the presses and mills (photo courtesy of the Archive of the Archaeological Mission of the Chieti University)



Fig. 13. Jubbra. The large fortified storehouse or granary (above) and the cisterns (below) (photo courtesy of the Archive of the Archaeological Mission of the Chieti University)

One of these villages, Lamluda [Figs. 14–15], has been recently excavated by the Chieti Mission in order to better understand the different phases of these sites. The role of this settlement within the *limes* is attested clearly by its ancient name — Limnias — mentioned in both the *Itinerarium Antonini* and the *Tabula Peutingeriana*.<sup>27</sup> Survey and excavations have shown that the site had had a long and interesting history, with the earliest finds, mainly pottery and re-used blocks, dating to the Hellenistic Period (between the 3rd and the 2nd centuries BC). This phase of settlement is extremely difficult to identify and delimitate, since the later phases have obliterated the earlier structures. Our finds seem to suggest an initial small settlement, probably a village, with some fortified or monumental building (where the masonry with squared blocks and *anathyrosis*, found in secondary contexts, are coming from) and a clearly rural character. It exploited the fertile upland plateau surrounding the site, served by scattered small farms revealed by the survey. From the geological point of view, these plots, today as much as in Antiquity, seem to be particularly

<sup>27</sup> *Itinerarium Antonini* 68, 70; *Tabula Peutingeriana*, segm. VIII; GOODCHILD 1953; JONES, LITTLE 1971.



Fig. 14. Lamluda. The satellite view of the settlement and the plan of the main structures and elements: A – area of the excavation of the storehouse with *dolia*; B – other *tabernae* and storerooms; C – large central basilica; D – late building related to the church and connecting the church with the late fortification; E – late fortification limiting the *cardo*; F–G – area of the excavation of the late buildings built along the *decumanus* (compiled by O. Menozzi)

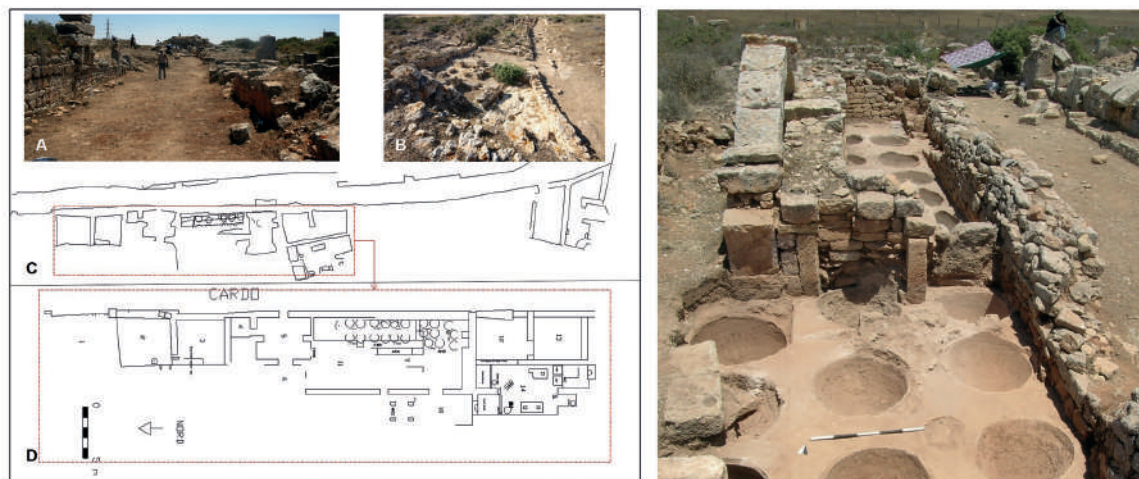


Fig. 15. Lamluda: A – *cardo maximus* during the excavation; B – late building excavated in the area of the *decumanus* [F in Fig. 14]; C – plan of the *cardo maximus* (compiled by D. Fossataro and E. Di Valerio); D – plan of the storehouse with *dolia* excavated along the *cardo* (compiled by D. Fossataro and O. Menozzi); E – view of the *dolia* in the storehouse during the excavations (photo courtesy of the Archive of the Archaeological Mission of the Chieti University)

suitable for cultivation of cereals, vines, and olives. The local soils seem to be quite rich in minerals and suitable also for mixing extensive and intensive cultivation for a more complete exploitation, probably especially in the Roman times. A few late Hellenistic rock-cut tombs around Lamluda and Hellenistic tombs along the road from Lamluda towards the coast support the hypothesis about a limited settlement in this territory. This settlement would develop in close connection with the farms, witnessed by the widespread tombs along the road leading northwards up to the coast and to the ports. Moreover, it would also show relationship with other small settlements, such as Sirat al-Bab and some *qsur* adjoining the road, which played a certain role, although still limited, already since the Hellenistic Period.<sup>28</sup> The plentiful funerary finds from Lamluda's surroundings are equally interesting for a reconstruction of the use of this site; they consist of more than 40 anthropomorphic tombstones without any physiognomic characterisation,<sup>29</sup> some of which came from the recent surveys.<sup>30</sup> This type of funerary tombstones dates mainly to the early Roman times, and it could be hypothesised that between the end of the 1st century BC and the 2nd century AD the settlement was transformed into a more regular village, probably already with an organised, even if simple, plan. It seems reasonable to compare this phase of Lamluda with the contemporary evolution of Mgernes into a “pseudo-urban” village, traceable also in the epigraphic source mentioned above.<sup>31</sup> A preliminary analysis of the numerous tombstones and other funerary finds yields interesting results from a historical and archaeological point of view, as they range from the early Roman to the mid-Imperial periods. The anthropomorphic tombstones [Fig. 16] belong to two main types: completely aniconic and very crudely iconic, but always without any physiognomic intent. They are attested in abundance at Lamluda, representing one of the best testimonies of the Roman cultural impact on the indigenous Libyan *substratus* in this area. This substrate was still strongly linked to the local Libyan culture and simultaneously showed a basic level of “Hellenisation”, at least in the use of Greek in brief inscriptions. Otherwise, however, they remained very far from the strictly Graeco-Roman cultural and “artistic” contemporary funerary finds from Cyrene. It was probably in this territory, just at the limits of the Roman *limes*, where the Libyan tribes and Graeco-Roman settlers would experience free and long-lasting co-existence, sharing not only the fertile lands but also some aspects of the native tribal culture — a visible sign of local cultural hybridisation.<sup>32</sup> It is conceivable that for a long time the two groups mingled with each other, and through mixed marriages, slave manumissions and/or adoptions, as well as alliances engaged in common economic exploitation of the area and reciprocal trade. Lamluda would have functioned as a market centre of a wider productive countryside without proper economic boundaries. Libyan names, in a Greek transliteration, are attested on the anthropomorphic tombstones (albeit only a small percentage of them), testifying to a long survival of Libyan names despite a lengthy exposure to Greek and Roman customs. Most of the tombstones display Greek names contemporarily in use at Cyrene, probably widely employed throughout the *chora*, because they were fashionable and no longer held ethnic connotations. The Roman names feature on 24% of the tombstones, in the form of *tria* or *duo nomina*, for both males and females; most of the Roman names are attested in Greek transliteration, but in one case Latin was attested too — on the tombstone of *Caius Iulius Epafroditus*.<sup>33</sup> Joyce Reynolds has suggested that the individuals with Roman *tria* and *duo nomina* could be interpreted as veterans, or their direct descendants.<sup>34</sup> It is

28 CATANI 2010.

29 BACCHIELLI 1987; BACCHIELLI, REYNOLDS 1987.

30 ANTONELLI, MENOZZI 2014; MENOZZI, ANTONELLI 2014; ABDALRAHIM SHERIFF SAAD *et alii* 2016.

31 SEG IX, no. 354; MENOZZI, ANTONELLI 2014.

32 MENOZZI 2014.

33 BACCHIELLI, REYNOLDS 1987, p. 506, n. 22.

34 BACCHIELLI, REYNOLDS 1987, pp. 494–495, 501, 506.



certainly conceivable that soldiers coming from the Lamluda area had served in the *legio III Cyrenaica*, and therefore participated in the land distributions probably during the earlier campaigns of this legion, between 36 BC and the Julio-Claudian Period, as suggested by the dates of these tombstones between the end of the 1st century BC and 1st century AD. Some of the inscriptions show a very definite date, as they mention the time around the Battle of Actium, again with strong military implications and involvement of the *legio III*.

Therefore, in the Roman times the original limited Hellenistic settlement was gradually transformed into an urbanised one [Fig. 14], with a regular town plan based on an intersection of the main *cardo* with the *decumanus maximus* — at the crossing point of these main axes a sort of large *forum*-caravanserai was located, originally opened towards the south and thus facing the pre-desertic areas. Hence, it would act as a market with the economic and political functions typical of *fora* and *conciliabula* settlements within the Roman Empire. It appears, however, clearly adapted to the local conditions and the needs of large caravanserai intended for agricultural and animal trade, as well as dairy products and other goods derived from breeding and pastoralism, such as meat, leather, or wool. A quite important role in these large caravanserais along the *limes* was played by salt trade, particularly well-developed in this context, including both the marine salt coming from the coast and the mineral salt from the countryside — the salt was, in fact, necessary for preservation of the majority of products coming from breeding and pastoralism. Moreover, the large size of the market square hints at the presence of herds and flocks, which entails a need for a large quantity of water. Therefore, the large and long cisterns, attested in Lamluda as well as Mgernes and Jubbra, likely supplied water to the town and the market alike.

The *cardo* and the *decumanus maximus* are wide and regular. The buildings along these main axes were constructed in a truly monumental way but served production and commercial purposes. Probably already between the 4th and the 5th centuries AD, the Christian Basilica [C in Fig. 14], or the Urban Church, was built, located directly on the western side of the caravanserai, delimiting the large market space for the first time. In the late Byzantine Period and then during the early Islamic Phase, the town plan was gradually transformed, with a partial reconstruction of the Urban Church, which was mainly reinforced with supporting walls (*contrafforti*), possibly combined with construction of a nearby related building [D in Fig. 16]. Moreover, a fortified structure [E in Fig. 14] was built just in front of the church, changing completely the layout of the village, restricting the *cardo maximus*, and occupying the area of the *forum* and a part of the *decumanus maximus*. In this way, the access to the town centre became limited thus facilitating control of the flow of people, herds, flocks, and goods — for the first time the settlement had a formal “town gate”, changing completely also the meaning of the *forum*-caravanserai which maintained the role of the main market but became external to this formal town gate.

For the late Roman or Byzantine and Islamic periods, Lamluda is a good example of a large settlement managing the agricultural exploitation of the region as well as trading with the tribes of the pre-desertic and desertic countryside, similarly to other analogous sites, such as Mgernes, Jubbra, Qabu Yunis, and Umm Sellem. For Cyrene, they represented the main poles for the territory’s economy, thanks to their location on highly fertile soils, along the main road network, along the *limes*, and at an intersection of the E–W road as well as the roads coming from the southern desert and going north, towards the coast and the main harbours. Looking at the huge number of presses, grinding stones or querns, and storehouses with *dolia* or *pithoi*, still very well-preserved in most of these villages, Lamluda in particular [Fig. 15], it seems conceivable that the economic life of these sites revolved around production and export of local wine and oil, especially in the

period between the 4th and the 7th centuries AD, with a *floruit* between the 5th and early 7th centuries AD.<sup>35</sup>

Another type of fortification are the fortified basilicae, quite common in the Cyrenaican territory, especially in the vicinity of Cyrene. They consist of earlier basilicae or religious buildings which have been “fortified” or “reinforced”, probably in later times. Synesius<sup>36</sup> attests that in the face of attacks of the tribes from the inner Cyrenaica, a programme of fortification of these buildings had started already in the 5th century BC, together with a programme of re-building of some of the forts which were previously destroyed by earthquakes. These basilicae are numerous and often well-preserved; they have also been mapped in recent works.<sup>37</sup> Some of them have also been studied, for example the site of Sirat al-Jamil which was excavated and investigated by the Mission of the Macerata University,<sup>38</sup> with a religious building associated with a farm, both characterised by the presence of imposing fortifications.



Fig. 16. Lamluda. Some examples of anthropomorphic tombstones (above) and the view of some rock-cut tombs around Lamluda (below) with numerous niches both for Romano-Libyan portraits and anthropomorphic tombstones (photo courtesy of the Archive of the Archaeological Mission of the Chieti University)

35 CATANI 1976; 1998.

36 ROQUES 1987.

37 WARD-PERKINS, GOODCHILD 2003; ABDALRAHIM SHERIFF SAAD *et alii* 2016.

38 CATANI 1998, pp. 113–135.

Another great example of this type of fortified religious buildings is the case of the basilica at Berteleis [Fig. 17a–b], a site located just below Cyrene, a few kilometres from both the town and the coast, and in a very fertile plateau. The site was surveyed for the first time in 1969 by Ward Perkins<sup>39</sup> and has a well-preserved basilica, collapsed internally, with a rectangular plan, a main central nave, two minor lateral naves, and an apse oriented to the west, while the façade of the church is facing to the east. The basilica, together with strong fortifications of the lower section, has also a deep ditch surrounding the building and partially cut into the rocky soil, in part built with rough masonry. The basilica was certainly constructed in relationship with the nearby farms, dating to the Roman or late Roman Period, and probably in place of an earlier settlement, as numerous rock-cut tombs [Fig. 17c] seem to indicate.

A similar example of this category is the site of al-Mtaugat, published by Goodchild as “the typical fortified basilica of the *limes*”.<sup>40</sup> While not well-preserved, its location shows a strong relationship with farms and production areas. Moreover, an interesting find in this context is a three-storeyed tower built in ashlar masonry.<sup>41</sup> The building has been interpreted as a Hellenistic tower tomb, but it is likely that it could have been used as a part of a fortification system and a territory marker.



Fig. 17. Berteleis/Bertelles. The views of the basilica (above) and some of the tombs (below) (photo courtesy of the Archive of the Archaeological Mission of the Chieti University)

39 GOODCHILD 1966, pp. 225–250; STUCCHI 1975, pp. 377, 386–387, 429–435; DUVAL 1989, pp. 2761–2763.

40 PACHO 1827, pp. 156–157; STUCCHI 1975, pp. 376–377, 396, 429, 431, 433; WARD-PERKINS, GOODCHILD

2003, pp. 316–325; ABDALRAHIM SHERIFF SAAD *et alii* 2016.

41 KENRICK 2013, p. 309.

A quite impressive and well-preserved example of a fortified basilica can be seen in the site of Sirat al-Rheim,<sup>42</sup> located about 15 to 20 kilometres to the south of al-Bayda and not far from Umar al-Mukhtar. It represents a truly monumental building [Fig. 18] with three naves, the central one being strongly emphasised by a monumental apse and rows of arches separating it from the lateral ones; two *pastoria* are completing the lateral naves. A rock-cut ditch surrounds the church from three sides (north, east, and south) and was probably the original area of quarrying for the construction material, later transformed into one of the defensive systems of the building. Again, its position, within a fertile plateau and not far from ancient farms, seems to indicate a role in the management of agricultural plots and their produce.

Certainly, these “fortified basilicae” need to be studied in more detail from both the topographic and planimetric perspectives, because they often seem to show a “reinforcement” of the structures — not “fortifications” proper — probably because of the frequent earthquakes menacing this region. Moreover, the topographic contexts of these basilicae need more attention and study, because they are certainly located in fertile areas, within the contexts of earlier farms, and with the specific purpose, in the late Roman times, of controlling the management of local agricultural production around Cyrene, probably directing both the production and trade of this eastern section of the later “northern African Granary”, as often called by scholars and sources.<sup>43</sup>

The last category of fortifications is represented by fortified villages, which are not so numerous in this region; most of the villages mentioned above do not present any type of a walled system for the settlement, but only for specific fortified buildings. One case of a village with a fortified



Fig. 18. Sirat or Qasr al-Rheim. The view of the main fortified basilica (photo by Abdlrehim S. Sherif)

42 STUCCHI 1975, pp. 404–406; WARD-PERKINS, GOODCHILD 2003, p. 356; S. ANTONELLI in ABDALRAHIM SHERIFF SAAD *et alii* 2016, esp. pp. 47–48.

43 ROQUES 1987; WILSON 2004, pp. 143–154.

circuit is Sirat al-Bab [Fig. 19], explored and mapped by Enzo Catani of the Macerata University. The village is characterised by well-preserved monumental wall system and gate — these features are behind the toponym of Sirat al-Bab (“the site along the road of the gate”). Within the village a fortified building is located. It was erected later, probably in the late Hellenistic or early Roman Period, just at the borders of the inhabited area. Moreover, another two monumental buildings are still visible in the plan.<sup>44</sup> In this case, the village must have been related not only to local agricultural activities, but also to quarrying of limestone for construction purposes, as several quarries



Fig. 19. Sirat al-Bab: A – map of the fortified settlement (compiled by the team of E. Catani of the Macerata University); B – overview of the valleys from the fortified site; C–D – view of the main gate both from the outside and inside; E – main rock-cut road to the site and to the main gate (which gave the site of Sirat al-Bab its name, i.e. “the Road of the Gate”); F – fortified building which is the best-preserved in this settlement (photo courtesy of the Archive of the Archaeological Mission of the Chieti University)

44 CATANI 2010.

have been identified nearby. The settlement controlled the surrounding area and activities — the surveys performed by the Macerata and Chieti universities have been able to show that the territorial system included the main settlement of Sirat al-Bab, a small squared hillfort known as Qasr al-Raqiq (one of the fortified control points), and several plots and quarries in the areas also containing truly monumental Hellenistic and Roman tombs, located in the area known as Snibat al-Awila or Swani al-Abyad,<sup>45</sup> and in close proximity to each other.

In conclusion, the results of the surveys and the GIS data for the fortified buildings and settlements are beginning to suggest an extremely interesting *limes*-system for the territories of Cyrene and Cyrenaica, characterised not only by a single “boundary road” with regular fortifications meant for controlling the “Romanised” lands, but rather a more elaborated and pluri-stratified territorial system, employing different types of forts and settlements to control a large road network that served a rich market of local products, goods, and cattle or flocks coming from the pre-desertic contexts. The presence of large open areas in the pseudo-urban settlements, used as market-*fora* or caravanserais along the *limes*, is certainly due to their close relationship with these roads. These large *fora* or caravanserais are located to the south of the settlements and always outside their centres, such as in the case of Lamluda, Mgernes, Jubbra, and probably Qabu Yunis. They often include large cisterns or water reservoirs which were certainly used not only to supply water to the settlements, but also to cater for merchants, cattle, and flocks. These larger settlements along the *limes* (pseudo-urbanised) played the role of *fora* and/or *conciliabula*, not only because they were used as marketplaces, but also due to their “synergistic role” in the territory, characterised by strongly-scattered minor settlements and farms. Looking at the topographic distribution of the pseudo-urban settlements on the upper terrace of the Al-Jabal al-Akhdar, they seem to represent, from the hierarchic point of view, the main means for exploitation of agricultural products, pastoralism, and other local resources, with smaller satellite sites, mainly farms, rural structures, and small fortified buildings. Almost all of the pseudo-urban settlements, as well as the secondary ones, are associated with large storehouses, at times even fortified, as in the cases of Mgernes, Jubbra, and Sirat al-Mliatc. This feature certainly confirms the strictly production-related purpose of these villages and the role of stocking and managing the local produce, at some sites probably even in early phases, as attested by the above-mentioned inscription at Mgernes<sup>46</sup> mentioning construction of a public granary for the village. In later times, these settlements generally present more of a single fortified building, including not only “residential palaces”, but mainly storage facilities, such as in the cases of the granaries or storehouses of Jubbra, Mgernes, probably also Lamluda, as well as the so-called “palace” or “citadel” of Mgernes or the public buildings of Sirat al-Mliatc. However, no proper wall system existed in these villages, probably because generally only buildings with a specific function were fortified and defended. Sirat al-Bab seems the sole exception, as it has a regular circuit of town walls, which should supposedly be dated, however, to earlier periods on the basis of their building technique. A particular case is represented by Lamluda, which had initially been a Hellenistic village, characterised by scattered farms and a smaller settlement, becoming between the end of the 1st century BC and the 1st century AD more “urbanised”, with town planning based on the main *cardo maximus* and several *decumani*, but remained an unwalled settlement for a long time. It was not until the late Roman or Byzantine Period when a

45 KENRICK 2013, pp. 322–323.

46 SEG IX, no. 354.

restructuration of the town planning took place, with a particular fortification system of the town centre based on the construction of a squared fortification controlling the *cardo maximus* from the south, creating a sort of a gate for the settlement, while different buildings around the town centre were reinforced, including the basilica, some storehouses, as well as other edifices along the *cardo*. This way, a citadel was created within the settlement.

The secondary villages seem to have been located as satellites of the larger pseudo-urban settlements, in the pre-desertic areas, along the S–N caravan routes, again with the function of small markets, but also as *stationes* along the roads. Moreover, in some cases, they could have been used for control and management of the exploitation of specific products, such as mineral salt, and for quarrying of limestone, as in the cases of Sirat al-Mliatc, Sirat al-Bab, and probably al-Mtaugat.

The smaller and scattered sites (such as mansions, small *qsur*, fortified farms, and control points) are mainly attested on the second plateau of Jebel, with the specific function to control the rural exploitation of the fertile lands of the Green Mountain. Their position along the secondary paths of the road system and along the *widian* certainly suggests their role in controlling the main passages and resources. In this category, scattered basilicae are also attested, as in the case of the fortified basilica at Berteleis or the fortified farm of Qasr Khurayba which present a single monumental buildings within apparently “isolated contexts” but whose location appears related to the rock-cut “semi-hypogea” storehouses and production areas as well as, probably, wooden superstructures; these must be considered to have been large farms with presses, millstones, and storage areas, where the fortified buildings were added later.

Looking at the chronology of the fortified buildings, certainly the control points and smaller fortifications seem to have originated between the late Hellenistic and early Roman periods, indicating a regular organisation and control of this territory since early periods. In the Roman times, these early forts, towers, and fortified buildings would often see continued use and were re-monumentalised, enlarged, or included within larger buildings or settlements. The monumentalisation of the pseudo-urban settlements, the proliferation of the Romano-Libyan portraits, and the anthropomorphic funerary tombstones all seem to reflect regular growth of the villages and farms along the *limes* starting from the end of the 1st century BC and continuing throughout the 1st and the 2nd centuries AD, certainly due to viritan distributions and reorganisation of plots and lands. Particularly interesting for the 1st century AD is the intervention of *legati Augusti* sent by the emperors Claudius, Nero, and later Vespasianus, in order to solve controversies around the occupation by local inhabitants of the Roman lands in Cyrene and in the region while re-establishing the boundaries between private and public plots; the *legati* tackled this task with operations of *restitutio*, attested by literary<sup>47</sup> and epigraphic sources,<sup>48</sup> and, in some cases, inscriptions make specific references to the boundary of the province. For the 1st century AD, this kind of interventions may represent interest for both reorganisation of the lands as well as redefinition or proper definition of the limits and boundaries of the province. It seems plausible that one of the main phases of the monumentalisation of the fortifications, as well as of the *fora* or *conciliabula*, may date to this period — between 53 and 79 AD — in combination with operations of *restitutio* and land redistribution.

47 Tac. *Ann.* 14.18.

48 *IGCyr* M.275, M.141. ALSHAREEF, CHEVROLLIER, DOBIAS LALOU forthcoming: with an interesting and clear picture of this kind of epigraphic finds.

In later periods, the fundamental role of the fortifications in the region is clearly indicated by the so-called decree of Anastasius I, dated to the early 5th century AD. The document mentions the military structure of the region based on *arithmoi* — imperial regular units in the main towns. Those were then supported also by *kastresinoi*, assigned in *castra* regularly scattered across the territory for a tighter control over the *limes*. The decree has been found in three different epigraphic versions, in Apollonia, Ptolemais, and Taucheira, thus attesting to the importance of this military reorganisation.<sup>49</sup> A further militarisation is known for the Justinian Period, with the edict on the Libyan *limes*<sup>50</sup> dating to AD 539, which may indicate a reform aiming to reinforce the military presence in the region, probably prompted by incursions and pressures by the Berber tribes coming from the southern desertic areas and perpetrating raids against towns, villages, and farms in the territory.<sup>51</sup> The fortification or “re-fortification” around the 6th century of some of the basilicae, such as at Lamluda, al-Mtaugat, Umm Sellem, and Berteleis, can certainly be seen within this “programme” of re-fortification of the *limes* as well as the countryside, but it is also plausible that in some cases these reinforcements happened not exclusively due to the need to fortify, but rather to support the structures against earthquakes. These fortifications or counterforts may have played an important structural role, especially after the seismic events reported for this area between the 4th and the 6th centuries AD.<sup>52</sup> Moreover, the use of the fortifications or counterforts also contributed greatly to the monumentality of the buildings, thus emphasising the power of religious institutions.

The numerous sites, the articulated road network, the differentiation of roles, sizes, and uses of these fortifications, as well as their changes and reorganisations throughout the centuries, all suggest that the *Cyrenaicus limes* should be seen as a large strip system which was used for territorial control as well as for overlooking the flow of goods and produce. It was not a single territorial limit, but a wider boundary system, strongly characterised by a network of different infrastructures (roads, small fortifications, larger settlements, markets, and production centres), monumentalisation of the main road axes, and significant interconnection between minor sites, main towns, and harbours. The fortifications were used for different purposes along this network, depending on their location, and they were constantly reorganised and reinforced or re-monumentalised on the basis of specific needs and in response to varying military pressures at different points in time.

## Abbreviations

*CIC* — *Corpus Iuris Civilis. Novellae*, ed. R. SCHOELL, Berlin 1895.

*IGCyr* — C. DOBIAS-LALOU, *Inscriptions of Greek Cyrenaica*, in collaboration with A. BENCIVENNI, H. BERTHELOT, with help from S. ANTOLINI, S. M. MARENGO, and E. ROSAMILIA [<https://igcyr.unibo.it/>].

*SEG* — J. L. E. HONDIUS *et alii*, *Supplementum Epigraphicum Graecum*, Leiden, then Alphen aan den Rijn, then Amsterdam, then Leiden, 1922–.

49 CAPIZZI 1969, pp. 142–143; HAARER 2006, pp. 213–216; JONES 1970, p. 293; OLIVERIO 1936, pp. 135–163; *SEG* IX, no. 356; WARD-PERKINS, GOODCHILD 2003, p. 4; M. C. SOMMA in ABDALRAHIM SHERIFF SAAD *et alii* 2016, pp. 35–36.

50 *CIC* XIII, 17–22, 789–792.

51 ROQUES 1987, pp. 226–227.

52 STUCCHI 1975, pp. 333, 334, 351, 357, 363, 418, 445, 448, 536.



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