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**DEFENSIVE SYSTEM OF ANCIENT CITY VOLUBILIS.
STATE OF RESEARCH AND NEW PERSPECTIVES**

Abstract

This contribution presents the first results of two surveys (2014, 2016) in the vicinity of the ancient city of Volubilis, situated in the southern part of the Roman province Mauretania Tingitana. The main purpose was to assess the possibilities of non-invasive research of the forts established by the Romans as part of the defensive system of Volubilis and to investigate the character of the Roman defences on the southern border. Forts were connected with watchtowers which completed the system protecting the territory in question. Many interesting fragments of pottery have been found at those sites, which may confirm Roman presence in many, though not all points. Collected field information as well as the analysis of publications leads to the conclusion that the border defence arrangements at Volubilis might not be considered as a part of a centrally organised limes system, safe guarding the entire province, but as the defensive system of the city and its surroundings.

Key words

Mauretania Tingitana, border defence, limes, Roman army, Volubilis, Roman forts

INTRODUCTION

The *limes* in the Roman province Mauretania Tingitana was a subject of scientific investigations since the beginning of the 20th century. This Roman territory in Africa – one of the most isolated by nature – was a place where Roman civilisation clashed with the local cultures. The province was not considered a dangerous and a problematic one. There was not even a single legionary camp situated there while the *auxilia* were the only military units present in this part of North Africa. However, according to G. Alföldy, Mauretania Tingitana was not a completely safe and peaceful territory. He had listed ten possible conflicts which took place between the first and the fourth century AD¹. Also, archaeological remains of military architecture indicate that the Romans established a special defensive system to hold enemies at bay and protect the inhabitants against them. They did it in different ways and the most fascinating amongst them was the system of the border forts and watchtowers constructed to establish control over people trying to enter Roman territory. But the answering whether that system worked similarly to the *limes* in other north African provinces does not seem to be easy. There have been numerous scientific attempts at examining the borders of Tingitana but none of them resulted in complete description of their entirety. The results of that research need to be analyzed and verified carefully to combine them with actual possibilities of non-invasive methods of prospection. The largest number of Roman military posts, forts and towers can be found in studies by M. Euzennat. His works were verified during my 2016 field prospection, which yielded confirmed locations of four Roman forts forming the military barrier against local pastoral and nomadic tribes trying to infiltrate the Roman territory during the times of conflicts. The field verification was also needed to explore the opportunities for future geophysical and aerial research using modern equipment and twenty-first century perspective which would permit the missing sections of the Roman frontier to be identified.

TERRITORY

Mauretania Tingitana occupied the territory of the present Kingdom of Morocco between Tangier, Rabat and Fez. Surrounded by the high Atlas

¹ G. Alföldy, *Bellum Mauricum*, Chiron XV, 1985, pp. 91-105.

Mountains on the East, the Rif Mountains to the North and the Atlantic Ocean to the West, the province had a specific character and climate. According to J. Spaul, Tingitana should not be regarded as a part of the Roman North Africa because of its natural isolation from other African territories². Trade routes, as well as administrative and military connections were close to the Iberian provinces. The southern border was demarcated by the Mamora Forest with its oak-cork trees, which formed a natural barrier that would have been difficult to cross for the largest hostile group capable of potential attack from the south. Only two main roads had been constructed to connect the most important cities and settlements. Both of them were described in the Antonine Itinerary and both started in Tingis (Fig. 1). The first one headed south, crossing the cities of Lixus, Thamusida, Banasa and ending in Sala Colonia (today's Rabat). The second headed south through Oppidum Novum to Volubilis and Tocolosida³. Volubilis was founded in the middle of a wide valley on a plateau located at 390 m above sea level⁴, surrounded by the relatively high massif of Zerhoun on the east and Geurouane to the west. The whole valley was divided into several parts by the wadis Rdom, Zegotta and Kroumane. That is why the military watchtowers had to be constructed in key locations, offering the best vantage point overlooking the wadis.

HISTORY

The city of Volubilis had been established before the Roman conquest in the times of the Mauretianas cendancy in North Africa. It was one of the most important cities of the indigenous tribes and probably the Western capital of the Mauretania King Juba II⁵. The Roman attack on the province is explained as the attempt to secure the Iberian provinces against the raids of the Moors⁶. The province was established in 42 AD, and two years later the city was raised to the status of *municipium*⁷. Several ancient authors mention

²J. Spaul, *Across the frontier in Tingitana*, [in:] W. Groenman van Waateringe (ed.), *Roman Frontier Studies*, Oxford 1997, p. 253.

³Y. Le Bohec, *Histoire de L'Afrique Romaine*, Paris 2005, p. 149.

⁴P. MacKendrick, *The North African Stones Speak*, London 1980, p. 300.

⁵R. Rebuffat, *La frontière de la Tingitane*, [in:] C. Lepelley, X. Dupuis (eds.), *Frontières et Limites Géographiques de l'Afrique du Nord Antique*, Paris 1999, p. 270.

⁶L. Chatelain, *Le Maroc des Romains. Étude sur les centres antiques de la Maurétanie Occidentale*, Paris, 1944, p.123.

⁷R. Rebuffat, *La frontière*, p. 268.

the city in their writings: Pomponius Mela⁸ and Pliny the Elder⁹. Crucial topographical information is also to be found in the Itinerary of Antoninus¹⁰. Amongst the inhabitants of Volubilis, ancient authors enumerate citizens originating from local tribes, Spaniards, Gauls, Brits, people from the Balkan Peninsula, the Danube provinces, Celts, German barbarians, Greeks, Palestinian Jews, Syrians and Arabs¹¹. Still, the majority of the city's population consisted of local people with Punic or Libyan names. It was one of the largest and the most important centers of trade in this part of the Roman World, as well as an important military and administrative hub. The city walls were constructed during the reign of Marcus Aurelius¹². More than 20,000 inhabitants lived in the city at the peak of its history. The Roman administration abandoned the city in 285 AD, after Diocletian's decision to reduce the extent of Rome's territory¹³. Auxiliary units stationed in the forts near the city had left their posts between 274 and 285 AD. Subsequent centuries saw numerous foreign invasions (Vandals, Arabs) and the city was ultimately abandoned in the eleventh century, after new administration center had been established in Fez.

The first scientific investigations of remnants of the Roman military installations in Tingitana started in the early 20th century. One of the first studies were conducted by R. Cagnat in 1912-1913, who did not embark on fieldwork, but described the south border of the province as a strong limes constructed between Sala and Fez¹⁴. Very interesting surveys in the field were carried out by H. Rouland-Mareschal in 1922. He discovered a mysterious *fossa* carved in the rock a few kilometres south of Sala Colonia. He also described some remains of the Roman towers and forts in region of the Wadi Bou Regreg and noted that it might have been a part of the limes which had no connections with the forts in the Volubilis region. In 1940, J. Carcopino described the Tingitana *limes* as a part of African defensive system connecting the Atlantic coast with the region of Oran in Mauretania Caesariensis through the Taza corridor. Studies publications devoted to the Roman sentry

⁸ Pomponio Mela, *De Chorographia libri tres*, III, 10, G.F. Muratori, Torino 1855, p. 187.

⁹ Gaius Plinius Secundus Maior, *Naturalis Historia V*, ed. P. Holland (1847-1848), p. 46.

¹⁰ L. Chatelain, *Le Maroc*, p. 140.

¹¹ J. Marion, *La population de Volubilis a l'époque romaine*, *Bulletin d'Archéologie Marocaine* IV, 1960, p. 148.

¹² J. Spaul, *The Roman "Frontier" in Morocco*, *Institute of Archaeology Bulletin* 30, 1993, p. 107.

¹³ J. Marion, *La population*, p. 160.

¹⁴ D.J. Smith, *Durham University Exploration Society's Expedition to French Morocco 1952*, [in:] *Archaeological Report*, Durham 1956, p. 93.

posts in Tingitana were published in 1941 by L. Chatelain and R. Thouvenot but they did not offer any new observations. Researchers from Durham University organized in a field expedition in 1952 to verify the sites discussed in the French publications. Important campaigns in 1952, 1953 and 1955 were directed by Colonel J. Baradez who was the first to use aerial photography in searching for archaeological sites. In the course of these explorations about 134 sites were discovered or verified with respect to previous research. From 1955 to 1989 it was M. Euzennat who was concerned with investigating Roman military remains on the border of M. Tingitana, conducting numerous field surveys which resulted in many interesting discoveries in the area of Volubilis. He identified 6 military forts placed as strong points in the African limes chain near the city and many watchtowers. In 1989, M. Euzennat published the highly interesting *Le limes de Tingitane. La frontière méridionale*, in which he presented his views regarding the Roman border in North Africa. According to him, the existence of so-called limes in Tingitana was beyond doubt and there were certain clues warranting the conclusion that the defensive lines were connected with those in Mauretania Caesariensis¹⁵.

This publication was the starting point for my research on the system of defences at Volubilis. The last fieldwork by M. Euzennat was completed in the mid-1980s and certain information needed to be verified. A survey of parts of the valley was organized in 2016, relying satellite imagery, previous publications and suggestions provided by archaeologists from the Musée Archéologique de Volubilis. My attention focused on the means of protecting the inhabitants of the city. Field verification of the Roman forts and a number of watchtowers listed in the available publications was the primary task of my research. During the several days of very intense work I also attempted to assess the possibilities of using modern methods of non-invasive prospection for future research.

FORTS AND WATCHTOWERS IN THE VOLUBILIS DEFENCE SYSTEM

Volubilis was one of the most important cities, not only in the southern part but in the entire province. Well-preserved remains of rich houses,

¹⁵M. Euzennat, *Le limes de Tingitane. La frontière méridionale*, [in:] S. Sempère, *Études d'Antiquités Africaines*, Paris 1989.

forum, basilica and other public buildings demonstrate the opulence and splendour of the city (Fig. 3). It is obvious that the local authorities wanted to ensure safety of the city and its inhabitants, which why the defensive system was constructed in the first century AD. It consisted of four main forts garrisoned with military units and many watchtowers, situated in strategic places offering the best range of visibility and equipped with facilities to alarm garrisons stationed in the forts (Fig. 2). Another element in the defensive system were the city walls (Fig. 3) constructed in 166 AD following a special permission from the highest authorities in Rome¹⁶. Only substantially ruined remnants of the walls have survived until today, and at location where they are best preserve they stand up to 1.5 meters of original height. There are also visible remains of 6 city gates and 21 defensive turrets constructed within the city walls. The length of the walls is approximately 2.6 kilometres¹⁷.

TOCOLOSIDA

A roman fort situated 4.5 km S-W from Volubilis. It was not difficult to find but entering inside was somewhat problematic due to dense and high growth of bushes. It was constructed on a plateau with some eastward exposure, on a square plan measuring 150 x 150 meters (Fig. 4). Multiple pottery can be found there, including small pieces of good quality sigillata (Fig.8). Some carved blocks, old trenches as well as the perimeter of the fort are still visible. Few pieces of interesting pottery were collected for documentation. The ort was the final point of the Roman road running from Tingis. It was probably the last post on the southern border of the province. According to J. Spaul it was where the *Ala Augusta Gallorum* was stationed¹⁸.

SIDI MOUSSA BOU FRI

This is a fort situated above the small village of Aïn Gharbaoui, 20 kilometres west of Volubilis, on a small altered hill, measuring 100 x 100 metres (Fig. 5). There are still some remains of the internal structures visible and many pieces of pottery of different quality. The Roman provenance of the site should not be doubted. The line of the *vallum* is well visible.

¹⁶ J. Spaul, The Roman "Frontier" in Morocco, p. 108.

¹⁷ G. Hallier, La fortification des villes de Tingitane au second siècle, [in:] Studienzu den Militärgrenzen Roms III, Stuttgart 1986, p. 606.

¹⁸ J. Spaul, Ala. The auxiliary cavalry units of the prediocletianic Imperial Roman Army, Andover 1994, p. 53.

SIDI SAÏD

The site is located about 21 km north – west from Volubilis. It proved difficult to find, and it was only thanks to the local farmers that we had a chance to see some remains of the preserved walls (Fig. 6). The site is mentioned in the studies by Euzennat, but there is no information about dimensions of the fort and even its location is uncertain. There are many pieces of the pottery at the site and a bulky profile of about 2 meters high. Several stone structures may also be seen by the river. It has to be checked carefully with using Modern methods of geophysical prospection would have to be employed in this case, to locate the exact perimeter of the Roman fort. Numerous trees and the short distance from the river can present an impediment. The Sidi Saïd fort might be the erstwhile base of the *Cohors IIII Gallorum equitata*¹⁹.

AÏN SCHKOUR

The last of the forts and the closest one to Volubilis. The site is situated about 3.5 kilometres North from Volubilis, amongst dozens of olive trees on a private property (Fig. 7). There are many remains of well-preserved stone blocks from unknown buildings. The line of the walls is still visible and many good-quality pieces of pottery, including *sigillata* were recorded in field documentation. *Cohors I Asturum et Callaecorum* is likely to have been stationed there²⁰.

EL MELLALI TOWER

The very meagre remains of a structure from the Roman period listed by M. Euzennat are visible found 2 kilometres south of the Tocolosida fort. The remnants include a hardly visible, square platform, 10 x 10 meters. Multiple storage or kitchen ware pottery may be encountered on the site. Approximately 25 meters east of the site there is a hollow, 3.5 meters in diameter, and filled with stones. Good visibility northwards and westwards.

KOUDIA AÏCHA HADDOU TOWER

Remains of the structure listed by M. Euzennat as an presumable tower, situated 1.5 kilometres south-east from the Sidi Moussa fort. The pottery

¹⁹ J. Spaul, *Cohors. The evidence for and a short history of the auxiliary infantry units of the Imperial Roman Army*, BAR International Series, 841, 2000, p. 167.

²⁰ *Ibidem*, p. 79.

found a tthe site does not allow the structure to be identified as constructed in the Roman period. The diameter of 5.5 meters seems to be insufficient for a Roman watchtower.

BOU REBAA TOWER

The tower is located about 2.75 kilometres north-west from the Sidi Moussa fort. Clearly visible remains of an earthen, circular structure with multiple remains of the pottery datable to the Roman period. The terrain is well exposed with perfect visibility in all directions. There are two lines of the earthen structures with 10 meters of internal diameter and 13 meters for the outer circumference.

PROTECTION OF THE INHABITANTS

How did the Romans protect the inhabitants of the city? They employed many measures to ensure that if one of the defensive lines was broken, the next would be the enemy. It was not only the military skill which gave the city many years of peace: the diplomatic and political activity as well helped to maintain continual stability in the area. The Romans tried to bargain with the local tribes to avoid costly military intervention. The Zegrenses, Baniures and Baquates were the largest communities neighbouring Volubilis²¹. Among them the Baquates seem to be the most important. This would follow from the analysis of the so-called „treaty altars” found in the city. Perhaps the Roman citizenship was granted to some local elites to keep them affiliated with the Roman interests while the elites sought to strengthen their dynasties through approval with the Roman authorities. In that case, the inscriptions on altars were a kind of recognition of the lordship of the local rulers. On the other hand, the altars are likely to be a proof of numerous conflicts with the autochthonic tribes. When the Romans arrived in Tingitana, they started to reshape the life of the region after their own fashion. The introduction of the Roman model of agriculture was one of the basic elements of Romanization. Seizure of the land for cultivation diminished the extent of pastures and that might have been considered a *casus belli* by the local tribes²². French excavations inside the city did not yield any evidence that the city or its part

²¹ R. Rebuffat, *La frontière*, p. 278.

²² E. Frézouls, *Rome et la Maurétanie Tingitane: un constant d'Échec?*, *Antiquités Africaines*, 16, 1980, p. 72.

had been destroyed²³. The wall, for instance, did not suffer damage during the Roman period. The hypothesis which presumes that the wall was erected in 168 AD is supported by the fact that it was necessary to stop the epidemics brought from the Middle East in the times of Lucius Verus²⁴. Nonetheless, that does not explain why the Romans had so many agreements with the locals. The fear of the local enemy was not the reason, because according to Spaul the total contingent of the Roman units inside the province was nearly 9,500 soldiers²⁵. Perhaps the treaties were a kind of renewal of a previous agreement to keep peace in the province. Territorial defence was based on the deployment of forces in key points in the area to allow control of the people passing through. Four Roman forts were situated close to water sources and to the road connecting Volubilis with the rest of the province. To complement the system, many watchtowers were constructed at locations which commanded the best view of terrain, valleys and clue passes.

CONCLUSIONS

The 2016 research made it possible verify the most important sites of the defensive system of the city of Volubilis. The process of identifying and verifying Roman sentry posts in the vicinity of the city marks the beginning of a more extensive Polish – Moroccan project setting out to describe the border protection system in Mauretania Tingitana. Previous results of French investigations need to be revised in a twenty-first century perspective, using modern methods of non-invasive prospection. This will facilitate answering a number of questions concerning the area of the defensive military installations and their functions. Following an analysis of relics of military frontier facilities put in place by the Romans, it is possible to challenge M. Euzennat's assertion about the linear nature of border defences around Tingitana. There are proof of any military *limes*-type structures in the area adjacent to Volubilis. The entire system might be considered an isolated arrangement, intended to ensure defence of the city itself, but not whole province. The analogy to that system can be found on the territory of ancient Khersones Tavriysky in Crimea²⁶.

²³ M. Euzennat, *Le limes de Volubilis*, *Roman Frontier Studies* 6, 1964, p. 196.

²⁴ J. Spaul, *The Roman "Frontier" in Morocco*, p. 108.

²⁵ *Ibidem*, p. 116.

²⁶ R. Karasiewicz-Szczypiorski, *The Roman Fort in Balaklava and its surroundings*, *Światowit XII (LIII)*, Fascicle A, 2014, p. 69.

Certain findings of the previous French research have been verified, but it will take a few more seasons to complete field prospection in the Volubilis area. There is no doubt that in some cases geophysical methods should be used to acquire more data for further analysis of the defensive system. Further research is also required in order to document endangered locations such as Sidi Said, a site situated just beside the river which causes damage with each rainy season. In a border perspective, research in the Volubilis region may help to answer questions concerning the frontier defence system which functioned in Mauretania Tingitana.

Summary

Since the beginning of the 20th century researchers have tried to describe the defensive system of Mauretania Tingitana. The latest survey from 2016 made it possible to approach the subject with a twenty-first century perspective. With the arrival of the Romans in North Africa started former pastures began to be reduced and that could cause potential conflicts with the local tribes. There was strong need of providing security for the inhabitants of Volubilis. The Roman authorities tried to use their diplomatic skills and the success of those activities is evinced in the series of so-called 'treaty altars' found inside the city. The other kind of protection was based on a well-constructed border defence system with four main military forts and many watchtowers around them. As the last line of defence, the Romans built the city walls with turrets and gates. That territorial defence system might be considered as being geared chiefly towards protecting Volubilis. There is no proof that a *limes* system existed in Mauretania Tingitana and that it had a connection with the *limes* in Mauretania Caesariensis. Our prospection allowed to verify a number of previous findings and offered interesting insights into the possibilities of further investigations. The prospects for research are very promising and the data collected to date can yield very interesting results.

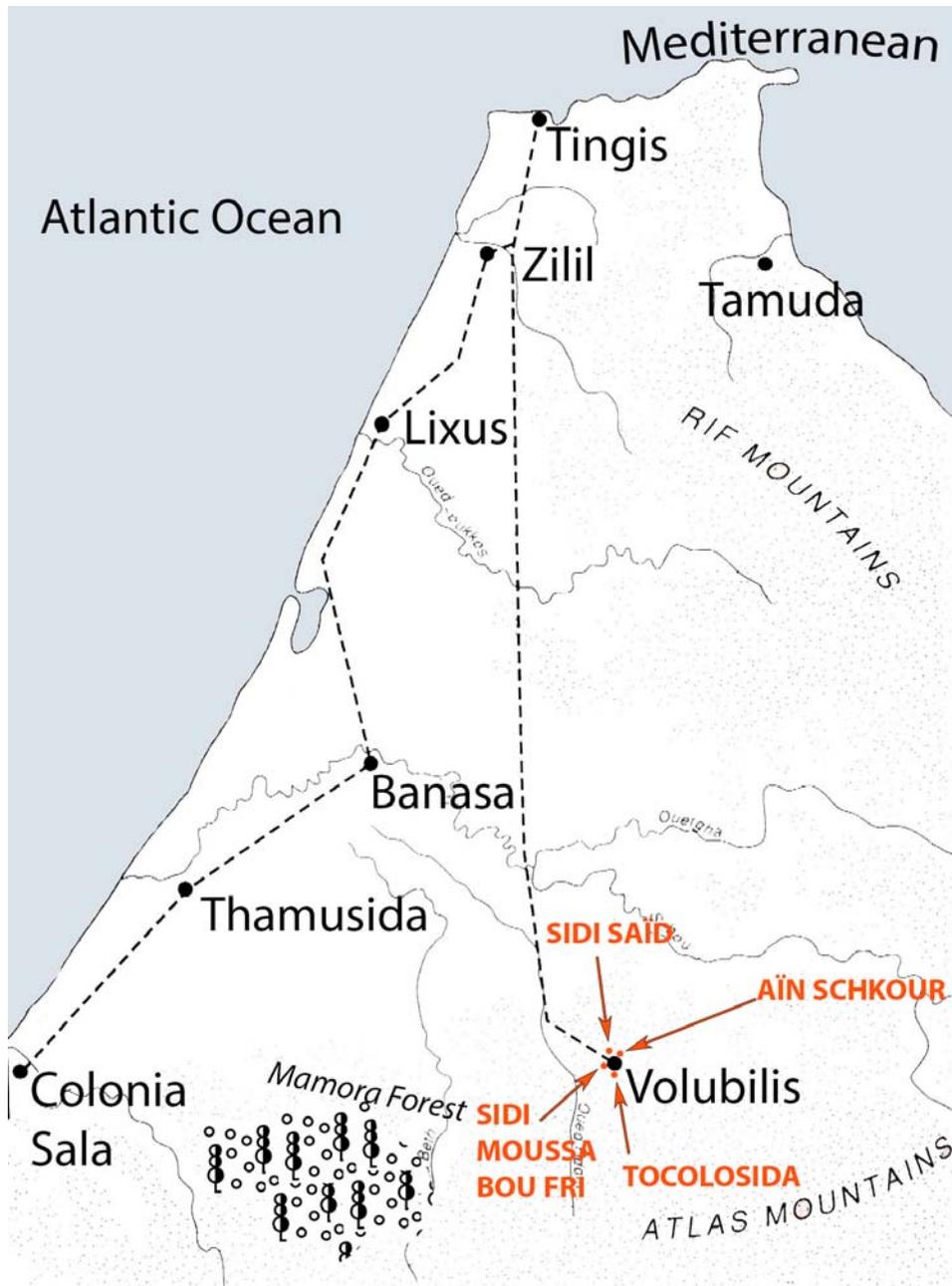


Fig. 1. Map of the Mauretania Tingitana with the most important cities and forts around Volubilis marked (M. Czapski, based on Spaul, 1993)



Fig. 3. Volubilis (fot. M.Czapski)



Fig. 4. Tocolosida fort (M. Czapski, based on Euzennat, 1989)



Fig. 5. Sidi Moussa fort (M. Czapski, based on Euzennat, 1989)



Fig. 6. Probable location of Sidi Said fort (M. Czapski, based on Euzennat, 1989)



Fig. 7. Ain Schkour fort (M. Czapski, based on Euzennat, 1989)



Fig. 8. Pottery fragments from Tocolosida fort (K. Trusz, M.Czapski)

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