

# THAMUGADI: A ROMAN CITY IN NORTH AFRICA

## INTRODUCTION

The remains of the ancient Roman city of Thamugadi, also known as Timgad, are located northeast of present-day Algeria, in the Batna province, about 35 kilometres from its capital. Originally called *Colonia Marciana Ulpia Traiana Thamugadi*, it was founded around AD 100, during Trajan's government (AD 98-117).

Initially the city occupied an area of 12 hectares, and had important buildings and infrastructures such as *thermae*, temples, a theatre and a large forum. Later, and due to population growth, its extension increased to 50 hectares. It is considered one of the best urban examples from Roman times, and in 1982 it was classified as World Heritage Site by UNESCO.

## I. BRIEF HISTORY OF THAMUGADI

The founding of Thamugadi is closely linked to the presence and activities of the Legio III *Augusta*<sup>1</sup> in North Africa. In AD 81, a cohort belonging to that legion settled in Lambaesis<sup>2</sup>, and the rest of the aforementioned legion between AD 115 and AD 120. In AD 100 the Legio III *Augusta*, under the command of the *legatus augusti pro praetore* Lucius Munatius Gallus, received orders from Trajan to found a colony for the veterans of that legion. The name of the city as *Marciana* was a tribute to the emperor's sister, Ulpia Marciana (AD 48-112), and regarding the name of Thamugadi, it was probably an indigenous word used to name that area. It has been speculated that, prior to the founding of the Roman colony, there had been a native settlement.

The hypothesis that the foundation of Thamugadi had responded to strictly military interests has also been considered, despite the fact that in the first moments the protection that the veterans could have provided to the colony would not have been sufficient to face possible incursions by native tribes. Thamugadi contributed to the

---

<sup>1</sup> Founded by Caesar Augustus in 43 BC, its activity was limited to the North African Roman provinces, remaining in service until the beginning of the 5th century AD.

<sup>2</sup> It was originally a Legio III *Augusta* camp. In the 3rd century AD it became the capital of the Roman province of Numidia. In AD 325 it lost its status due to the imperial restructuring carried out by Emperor Constantine.

support of the Legio III *Augusta*, stationed near the city, providing recruits and supplies thanks to its abundant cereal and olive productions.

The founding of Thamugadi was one of the last examples of collective land donations and the granting of Roman citizenship to veterans in North Africa. The colonies that were founded later, only held an honorary position derived from their nomenclature, without this implying the granting of Roman citizenship to their inhabitants.

Throughout the 4th century AD, Christianity prevailed in Thamugadi, becoming one of the most prominent Donatist<sup>3</sup> centers, challenging the Catholic Church and the Empire. In AD 388, Optatus<sup>4</sup>, the Donatist bishop of the city, sealed an alliance with the Circumcellions<sup>5</sup> and will have the support of Gildo<sup>6</sup>, which allowed them to resist until AD 398. After the celebration of the Council of Carthage<sup>7</sup> in AD 411, the Donatists of Thamugadi resumed the fight, which lasted until AD 418.

With the establishment of the Vandals in North Africa in AD 429, the beginning of the end of Thamugadi began. Some years later, in AD 484, it will suffer the attacks of the Mauri<sup>8</sup>, which will cause the population to leave the city. According to Procopius, the city walls were torn down. Archaeological evidence shows that, despite its decline, agricultural activity continued in Thamugadi, but to a lesser extent than in Roman times.

---

<sup>3</sup> Rigorous heretical movement emerged in North Africa as a result of Constantine's policy and the situation of the Church at that time. Led by Donatus Magnus, bishop of Carthage, he placed special emphasis on moral demands and affirmed that holiness is only found in those who are free from sin and declared the invalidity of the sacraments administered by sinful priests. It also affirmed that the imperial power and the Church should not share ties.

<sup>4</sup> Also called Gildonianus for his relationship with Gildo. He promoted persecutions against other Christian currents such as the Rogatists, Maximianism and Catholicism. Saint Augustine of Hippo affirmed that his excesses and his absurdities were innumerable (*Contra epistulam Parmeniam*, vol II).

<sup>5</sup> Dangerous and uncontrolled gangs made up of uprooted people who added other religious and independence causes to their social causes. They identified with Donatist postulates and for much of the 4th century altered the established order in North Africa with their actions.

<sup>6</sup> *Comes Africae* between 386 and 397. He rose up against the Emperor Honorius.

<sup>7</sup> Promoted by an imperial mandate from Honorius to definitively end Donatism, it was led by the Hispano-Roman diplomat Marcellinus of Carthage, later venerated as a saint.

<sup>8</sup> Latin term to designate the Berber tribes of the ancient Roman province of Mauretania.

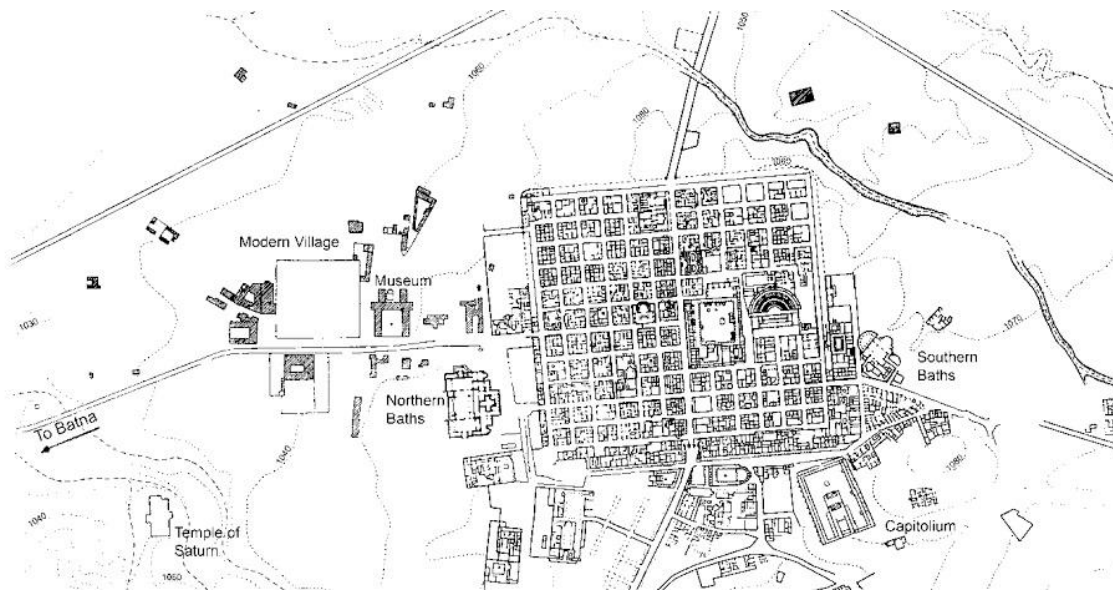
## II. THE ARCHAEOLOGICAL SITE

In the archaeological site of Timgad there are important remains, among which are:

- the forum: located in the center of the city. Its construction, sponsored by the city, could not be carried out according to the original plan and, because of this, the capitol was not included. It is rectangular in shape and had four porticoes that outline its space. In the forum were important buildings such as the curia, a basilica and a tetrastyle temple dedicated to Victoria. The discovery of several podiums with inscriptions has confirmed the presence of several statues in the enclosure.
- the theatre: located south of the forum, it was built on a hillside. Its cavea is 63 meters in diameter and it is estimated that it could have housed up to 3500 or 4000 spectators.
- the library: with the discovery in 1906 of a Latin inscription identifying this building as such, we know that sometime in the 3rd century AD, a senator named Marcus Flavius Rogatianus donated 400000 sesterces to the city for its construction. According to estimates made from its remains, it is believed that it could have had up to 28000 volumes.
- the Capitolium: because it was located outside the forum, it stood out with its great monumentality. It was built during the 2nd century and was remodeled in the 4th century. Due to its unusual location, the urban layout of the city underwent profound modifications and was reorganized from this building.
- the Sertius neighborhood: as a consequence of the expansion of the city to the west, the wall that originally protected the city ended up being included in the center of this new area. It was decided to tear it down to have new developable land. The distribution of this new area did not respect its original layout.
- Aqua Septimiana Felix: natural spring near the city that supplied water to a large pond. In the 2nd century a sanctuary was built in its surroundings, which was considered one of the most important in North Africa due to its size. Its remains are located 300 metres south of the archaeological site. At the back of the sanctuary there were several temples, highlighting that of Dea Patria, a deity represented with an elephant skin on her head and carrying a cornucopia in her

arms. The sanctuary was connected to the urban centre and the *thermae* through a large walkway surrounded by columns. This shrine enjoyed great popularity during the Severus dynasty (193-235).

- Trajan's Arch: it is one of the few monuments that remain standing. It is located at the western end of the *decumanus*, facing towards Lambaesis. It was 12 metres high and has three arches whose dimensions are: the central one has a height of 6 metres and those on the sides are approximately 4 metres high.



*Grid plant of Thamugadi (Timgad) in Trajan's time and later expansions, including the area to the north with the temple of Saturn (Lassus, 1969).*



*Satellite view of the ancient Roman city of Thamugadi (Airbus Defense & Space)*

### III. DEMOGRAPHY

Studying the demographics of the Antiquity in general, and population estimates for the Roman world in particular, can be problematic due to the limited amount of data available. Censuses were carried out every five years, but unfortunately no quantitative data have been preserved, with the exception of some papyri referring to Egypt during Roman times, which have provided important data (Bagnall and Frier, 2006).

To calculate the population, various quantitative analysis methodologies are used, such as the dimensions of the urban nucleus, the density of the housing structures, calculations on the productivity of the surrounding territory, the volume of water channeled to the settlement, the capacity of theatres and amphitheatres and the number of members of the *ordo decurionum*. Although not all researchers agree with the figures, generally, and taking into account population dynamics, it could be said that the Mediterranean basin was characterized by very few large cities, but with a significant number of populations of medium (between 20000 and 50000 inhabitants) and small size (5000 - 10000 inhabitants).

It has been estimated that, originally, Thamugadi was conceived to contain a population of about 16000 inhabitants, but due to successive modifications, as a consequence of the population increase, that number could be exceeded. Authors such as Gallo (1981), Duncan-Jones (1982), Henige (1998) or Fusshöller (1991) disagree, and doubt that Thamugadi achieved such number, estimating a population of 4000 to 6000 inhabitants. For their calculations they took into consideration the size of the built area, the number of residential units and the extension of the surrounding farmland necessary to satisfy such population volume (about 5000 hectares).

After considering these data and comparing them with other studies in settlements with similar characteristics, according to these authors, the average population density in Thamugadi would be 80 inhabitants per square kilometer, but this does not explain how a city with that population density could have a theatre of those dimensions. Other researchers do not share this result, and estimate that the population density of Thamugadi was 360 inhabitants per hectare.

According to the formula proposed by Carreras-Montfort in his article *Una nueva perspectiva para el estudio demográfico de la Hispania Romana* (*A new perspective for the demographic study of Roman Hispania*), which takes into consideration the area occupied by the population nucleus, as well as a previously estimated population density, the number of inhabitants of Thamugadi changed according to its minimum (12 hectares) and maximum (50 hectares) extension over time. It should also be taken into account that the results obtained from this formula are variable, depending on whether it is a rural or urban nucleus and whether the latter are primary or secondary. Thamugadi is clearly an urban center, as can be inferred from its infrastructures and buildings.

If we apply the formula proposed by Carreras-Montfort and 12 hectares are accepted as the most probable extension of the city, and the most accepted population density (360 inhabitants per hectare), a population of 4320 inhabitants is obtained, very similar to the estimates presented by Gallo, Duncan-Jones, Henige or Fushöller. If the maximum extension of 50 hectares and the previous population density are taken, the population rises to 18000, which would explain the capacity of the city's theatre.

#### **IV. NATURAL RESOURCES**

Roman cities were not conceived without surrounding farmland, basic for the sustenance of the population. The massif is crossed in a northeast-southwest direction by a synclinal depression through which the Abiod river flows. The Aurès is a privileged area as it collects annually about 1.2 billion cubic metres of water from the rains, which allows the exploitation of several springs in the province of Batna, where the archaeological site of Thamugadi is located.

The agricultural activity in Batna has a strong tradition since ancient times, and its most representative production is cereals. The province has at least eight hot springs, with Oughendja being the one that supplies water to Thamugadi. Furthermore, the Aurès region has important mineral resources, such as aggregate, dolomite, marble and gypsum mines. Until recently, it has been believed that the Aurès area was on the fringes of Romanization, or at least it had little penetration, being considered a focus of resistance and conflicts, which motivated the Roman military establishment in the area. Thanks to the studies of Morizot (1994), it is known that this was not the case, and that the Aurès was, generally, a peaceful agricultural region.

Thamugadi had a territory estimated at 150000 hectares, although much of it was not suitable for cultivation due to the rocky nature of the environment. Heading west, the territory was not very extensive due to its proximity to Verecunda, a colony of Legio III *Augusta* veterans located northeast of Lambaesis. To the east was Mascula, whose remains have disappeared. Some 25 kilometres to the north, traces of centuriations have been found, characterized by their regularity, which reveals the painstaking work of Roman surveyors.

The ownership of the farmland was not exclusively in private hands, since the emperor himself owned a good part of them that were administered in his name by freedmen, who were in charge of their exploitation or leasing. The presence of large estates has not been detected in Thamugadi, but according to the investigations carried out by P. Morizot (1994), the most productive ones would be owned by the most powerful inhabitants of the city.

The products obtained from the farmlands of Thamugadi consisted mainly of cereals and olives, although others were also obtained from logging. Remains of several oil mills and farms have been found, as well as a large building that would have managed the production of a 7 or 8 hectare estate. In addition, and according to the studies carried out by A. Wilson (2000), textile production enjoyed a certain importance.

## CONCLUSION

The lands of North Africa under Roman rule were for a long time considered to be of great wealth, and thanks to the development of agriculture it was possible to obtain surpluses that were exported throughout the Mediterranean. Among the most outstanding agricultural productions were wheat and oil, as well as other resources such as those from arboriculture. The crops destined for the local market were also very important for the adequate supply of the city, although due to the lack of demand for grain, they were sometimes abandoned.

Thamugadi was a rich and prosperous colony that served to show the power of Rome in North Africa thanks to its sumptuous buildings and infrastructures, which reflected the advantages of the Roman way of life compared to other peoples.

Regarding its geographical situation and the different resources available in the area, although currently the lands of North Africa currently show significant desertification and a notable lack of water and plant resources, the Algerian region of Aurès has abundant water resources, sufficient to meet the demands of a city like ancient Thamugadi.

## BIBLIOGRAPHY AND INTERNET SOURCES

- BAJO ALVAREZ, F.; CABRERO PIQUERO, J.; FERNANDEZ URIEL – *Historia Antigua Universal III (Historia de Roma)*, UNED, Madrid (2008) Pp. 605-607
- CARRERAS MONTFORT, C. - *Una nueva perspectiva para el estudio demográfico de la Hispania Romana*, en Boletín del Seminario de Estudios de Arte y Arqueología 62 (1996) Pp. 95-122
- FERNANDEZ URIEL, P.; MAÑAS ROMERO, I. – *La Civilización Romana*, UNED, Madrid (2013) Pp. 49-54; 202-212
- MORIZOT, P. – *Timgad et son territoire; mélanges à la mémoire de Marcel Le Glay*, en Revue d'études latines, Paris (1994), Pp. 227-243
- SCHEIDEL, W. – *Progress and problems in Roman demography*, in SCHEIDEL, W. (ed.), *Debating Roman Demography*, Brill, Leiden (2001) Pp. 1-83.
- SCHREIBER, H.; SCHREIBER, G. – *Ciudades malditas de la Antigüedad*, Círculo Latino, Barcelona (2005) Pp. 228-236
- WHITTAKER, C.R. – *Africa*, en BOWMAN, A.K.; GARNSEY, P.; RATHBONE, D. (eds.) *The Cambridge Ancient History (vol. 11)*, Cambridge University Press, Cambridge (2000) Pp. 514-547
- WILSON, A. I. - *Timgad and textile production*, in J. Salmon & D.J. Mattingly (eds.), *Economies beyond agriculture (Leicester-Nottingham Studies in Ancient Society)*, Routledge, London (2000) Págs. 271-296.
- Aurès: <https://fr.wikipedia.org/wiki/Aur%C3%A8s> (accessed June 2021)
- UNESCO: <http://whc.unesco.org/en/list/194> (accessed June 2021)
- Batna Province: [https://en.wikipedia.org/wiki/Batna\\_Province](https://en.wikipedia.org/wiki/Batna_Province) (accessed June 2021)