

## **Region Maghreb old the Romanian and Byzantine Military Fortification in (Comparative Study)**

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### **Abstract:**

Defense architecture was a landmark and a military edifice characterized by a functional composition to achieve certain requirements through physical and human means. Architecture is subject to various influences, including natural conditions.

Due to the exposure of the Maghreb region to the Roman and Byzantine occupation, Rome, after its occupation, has worked to protect its settlements and counter various resistance by relying on a defensive device (the limes). While the Byzantine occupation was thinking about how to maintain control through a wise policy of surrounding their property with a series of defensive installations through a set of forward the following problem: what are the patterns of Roman and Byzantine defensive architecture in the old Maghreb? We will answer the problem through the following points;

- Romanian and Byzantine defense policy and its main pillars.
- Selected Models of Roman and Byzantine Military Fortifications
- Comparison of Romanian and Byzantine defense installations through similarities and differences

**Keywords:** Roman, Byzantine, military fortification, old Maghreb, comparative study.

### **Intervention Text:**

The region of ancient North Africa witnessed the arrival and succession of numerous civilizations, beginning with the Phoenicians and extending to the Roman occupation, followed by the Vandals and the Byzantines. Consequently, the region became a focal point of attraction where each foreign power sought to impose its influence through a set of strategies and plans that would ensure success and dominance. Chief among these was the reliance on military strategy—starting with the mobilization of armies, the fortification of areas under control, and expansion through defensive installations designed both to safeguard conquered territories and to guarantee continuity and survival. Within this framework, our study is focused on examining Roman and Byzantine defensive structures by analyzing their similarities and differences.

The **spatial scope** of this study covers the region of ancient North Africa, extending from the Egyptian frontier in the east to the Atlantic Ocean in the west, and from the Mediterranean Sea in the north to the

Sahara Desert in the south. The **chronological scope** spans from the 2nd century BCE to the 6th century CE. Despite the breadth of this timeframe, particular attention is given to the Roman occupation—which lasted for more than four centuries—along with the Byzantine presence that endured for approximately a century, without overlooking the intermediate period of Vandal occupation.

The significance of this topic lies in its attempt to study military fortifications—an endeavor that proves difficult, as it is not always easy to attribute these fortifications to either the Roman or the Byzantine era without in-depth investigation. The subject also offers a degree of originality, as it relies on a comparative methodology. From this perspective, we raise the following central problem: **What were the characteristics of Roman and Byzantine military fortifications in ancient North Africa?**

This main question branches into several sub-questions:

- What were the defensive policies of the Romans and Byzantines, and what were their key foundations? (Selected Models of Roman and Byzantine Military Fortifications)
- How can Roman and Byzantine fortifications be compared in terms of similarities and differences?

## **I. Roman and Byzantine Defensive Policies and Their Key Foundations**

### **1. The Roman and Byzantine Occupation of Ancient North Africa**

The Roman presence in ancient North Africa began after the conquest of Carthage<sup>1</sup>, following a series of wars known as the **Punic Wars**<sup>2</sup>. From this point, Rome extended its control over a significant part of the region. Its ambitions further expanded with the conquest of **Numidia** during the reign of King **Juba I**<sup>3</sup>, who became entangled in the civil war between **Julius Caesar**<sup>4</sup> and the supporters of **Pompey**<sup>5</sup>. Juba I sided with Pompey's faction, in exchange for the promise of restoring the province of Africa should Pompey emerge victorious<sup>6</sup>.

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<sup>1</sup> **Carthage**: Founded in 814 B.C. according to the legend of Princess Elissa, who fled from her brother Pygmalion with her treasures after he murdered her brother-in-law. See: Strabon, *Géographie*, trad. par Amédée Tardieu, tome 3, Librairie Hachette, 1880, liv. XVII, 15.

<sup>2</sup> **The Punic Wars**: These include the First Punic War (264–241 B.C.), caused by the Mamertines (inhabitants of Messina), which ended with Carthage's defeat; the Second Punic War (218–201 B.C.), instigated by Hannibal, which ended with the Treaty of Zama; and the Third Punic War (149–146 B.C.), after which Carthage was finally destroyed. See: Polybe, *Histoire générale*, trad. par M. Félix Bouchot, tome 1, Librairie-Éditeur, Paris, 1847, liv. 1, 7–12, 17–20, 24–25, 29, 31–35, 39–40; Dion Cassius, *Histoire romaine*, trad. par E. Gros, tome 2, Librairie de Firmin Didot Frères, Paris, 1848, fragment de livre XXXI, 219.

<sup>3</sup> **Juba I**: Son of Hiempsal, fond of warfare, and in conflict with the kings of Mauretania (Bocchus II and Bogud). He sided with Pompey's supporters against Caesar. See: Caius Sallustius Crispus, *Guerre de Jugurtha*, trans. Mohamed El-Hadi Harash, Algeria, 1991, §§25, 58.

<sup>4</sup> **Gaius Julius Caesar (100–44 B.C.)**: Belonging to one of Rome's oldest families from the equestrian order, though wealthy. Among his most notable achievements was his victory in the African War against Juba I. He had many rivals and was ultimately assassinated in 44 B.C. See: Suétone, *La vie des douze Césars (César, Octave Auguste, Tibère)*, published by C.L.F. Panckoucke, nouvelle traduction par M. de Golbéry, tome 1, Paris, 1830, 1, 2, 36, 66.

<sup>5</sup> **Gnaeus Pompeius Magnus (Pompey the Great, 106–48 B.C.)**: Awarded the title "Magnus" by Sulla after his victories over the followers of Marius in Sicily and Africa in 79 B.C., and his suppression of the slave revolt in 71 B.C. He became consul in 70 B.C. Once an ally of Caesar, alongside Crassus, he turned into Caesar's bitter enemy, culminating in Pompey's defeat and death in 48 B.C. See: Plutarque, *Vie de Pompée*, 12, 20, 23, 53, 56, 85.

<sup>6</sup> **Julius Caesar, The African War (47–46 B.C.)**, trans. Mohamed El-Hadi Harash, Algeria, 1991, §2

Realizing the gravity of the situation in Africa, Caesar sought to secure the support of the Mauretanian kings and hired Italian mercenaries under the command of **Sittius**. He eventually defeated Pompey's supporters and Juba I in the **Battle of Thapsus (46 BCE<sup>1</sup>)**.

Thus, Roman possessions gradually expanded. The Kingdom of Mauretania was among the last territories to fall under Roman rule. At that time, internal conflicts erupted among Octavian<sup>2</sup>, Antony (consul in 44 BCE), and Lepidus (governor of Hispania). The Mauretanian kings became involved in this conflict: **Bogud** sided with Antony, while **Bocchus II** supported Octavian<sup>3</sup>. After Bocchus II (38–33 BCE) annexed the territories of his brother (70–38 BCE)<sup>4</sup> upon the latter's death, he himself died in 33 BCE without leaving an heir. Consequently, Augustus annexed Mauretania, placing it under Roman administration until 25 BCE, when it was granted to **Juba II**, who ruled from 25 BCE to 23 CE. He was succeeded by his son **Ptolemy**<sup>5</sup>, who ruled until his assassination in 40 CE by Emperor **Caligula**<sup>6</sup>. Thus, Rome definitively consolidated its control over the region through gradual occupation.

As for the Byzantine occupation, it posed a considerable challenge. Despite widespread opposition to such a campaign<sup>7</sup>, **Justinian**<sup>8</sup> remained determined. He entrusted **Belisarius** with leading the expedition, assisted by **John the Armenian**, at the head of an army comprising **10,000 infantry and 5,000 cavalry**, supported by **600 allied troops** (including Hunnic<sup>9</sup> tribes), all transported aboard **500 ships** rowed by

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<sup>1</sup> **Julius Caesar, The African War (47–46 B.C.)**, trans. Mohamed El-Hadi Harash, Algeria, 1991, §8-86

<sup>2</sup> **Octavius**: Considered the first founder of a new constitutional system, distinguished by prudence and caution in decision-making. The Senate granted him the title Augustus. See: Al-Saadani, Mahmoud Ibrahim, *History and Civilization of the Romans: From the Birth of Rome to the End of the First Century A.D.*, 1st ed., International House for Cultural Investments, 2007, pp. 140–141.

<sup>3</sup> **Aksil, Istifan, Ancient History of North Africa**, vol. 7, trans. Mohamed al-Tazi Saud, Rabat, 2007, p. 239.

<sup>4</sup> **Charen, Shafia, et al., Settler Colonialism and the Policy of Romanization**, Publications of the National Center for Studies and Research on the National Movement and the November 1st, 1954 Revolution, Algiers, 2007, p. 33.

<sup>5</sup> **Ptolemy**: Son of Juba II and Cleopatra Selene. His policy was characterized by absolute loyalty to Rome. See: Gilbert (M.), *L'Algérie des origines de la préhistoire à l'avènement de l'islam*, Éditions Barzakh, Algiers, 2007, pp. 63–64.

<sup>6</sup> Suétone, *Vie de Caligula*, 9.

<sup>7</sup> **The opposition** may be traced back to earlier events connected with setbacks resulting from Emperor Majorian's attempts, which ended with the burning of his fleet in 460 A.D., in addition to the destruction of Emperor Leo II's fleet in 468 A.D. at the gates of Carthage. See: Drissi, Salim, *The Byzantines in North Africa – Occupation and Defensive Architecture*, Doctoral Thesis in Ancient Archaeology, supervised by Prof. Mohamed El-Bachir Cheniti, Algiers, 2007–2008, p. 59.

<sup>8</sup> **Justinian**: A rare historical figure, he regarded himself as a continuation of the pagan Roman emperors on one hand, while also being deeply versed in law and theology on the other. His reign endured thanks to his wife Theodora, who ascended the throne after having been merely a dancer. He pursued internal and external policies aimed at preserving the empire. See: Procopius, *The Secret History (6th century A.D.)*, *portraying aspects of Emperor Justinian, his wife Theodora, his renowned general Belisarius, and Belisarius' wife Antonina—a negative depiction*. Trans. Sabri Abu al-Kheir Selim, 1st ed., Ain for Human and Social Studies and Research, 2001, pp. 3–5.

<sup>9</sup> **The Huns**: Barbarian tribes of Turkish origin, belonging to the Mongolic peoples. They came from China under the pressure of harsh economic and social conditions, crossed mountains and the Black Sea, and advanced along Byzantine territories. See: Procopius, *ibid.*, p. 49.

30,000 oarsmen, under the protection of **92 warships** manned by 2,000 oarsmen<sup>1</sup>. The expedition was accompanied by **Procopius**<sup>2</sup>, as well as Justinian's wife **Antonina**.

The fleet departed from Constantinople in early 533 CE and reached the African coast in September of the same year, landing at **Caput Vada** (modern-day Ras Kaboudia), about 60 km south of Sousse and a five-day march from Carthage. The Byzantines exploited the fact that Vandal forces were preoccupied with suppressing a revolt led by **Stotzas** in the Aurès<sup>3</sup> Mountains. They seized several cities, including **Sicca Veneria (El Kef)**, without resistance, and advanced northward, taking **Leptis Minor** and **Hadrumentum** before reaching **Grasse (modern Sidi Khalifa)**, where the first skirmishes occurred<sup>4</sup>.

Two decisive battles followed:

- The **Battle of Adecimum**<sup>5</sup> (13 September 533 CE), after which Belisarius entered Carthage on 15 September 533 CE, claiming the throne of **Gelimer**<sup>6</sup> in the name of Emperor Justinian and initiating the Byzantine reconquest of Africa<sup>7</sup>.
- The **Battle of Tricamarum (533 CE)**, which resulted in the death of the Vandal general **Tzazo**, forcing the retreat of Vandal forces. Shortly after, King **Gelimer** surrendered, marking the definitive fall of the Vandal kingdom. Consequently, North Africa was incorporated into the Byzantine Empire.<sup>8</sup>

## II – Main Foundations

### 1. Concerning Rome:

In order to preserve the gains they had achieved, both the Romans and the Byzantines relied upon a defensive system known as the **limes**<sup>9</sup>. The Roman limes was established in two phases: the first during the **1st century BCE**, and the second in the **2nd century CE**<sup>10</sup>. Its extension corresponded to Rome's

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<sup>1</sup> Procope de Césarée, *La Guerre contre les Vandales, Guerres de Justinien*, liv. III, IV, traduit et commenté par D. de Roques, Paris, 1990, I–X, 1–21.

<sup>2</sup> **Procopius**: Being close to the emperor due to his position at court, he had access to official records. As a friend and adviser to the Byzantine general Belisarius, he accompanied him on many campaigns. See: Procopius, *ibid.*, pp. 6–7.

<sup>3</sup> Procope, I–XI, 8–10.

<sup>4</sup> **Meftah, Mohamed al-Tajouri, The Political and Economic History of North Africa during the Reign of Emperor Justinian (528–565 A.D.)**, a dissertation submitted in partial fulfillment of the requirements for the Master's degree in Ancient History, supervised by Ahmed Mohamed Andeisha, Al-Merqeb University, Faculty of Arts and Sciences, Department of History, Libya, 2007, pp. 88–90.

<sup>5</sup> **Adicommum**: The Strait of Sidi Fathallah, located 15 km southwest of the capital, Tunis. See: Meftah, Mohamed al-Tajouri, *ibid.*, p. 91.

<sup>6</sup> **Gelimer**: A descendant of the family of Gaiseric; son of Geilaris, son of Genzo. He ranked second in succession to the Vandal throne after Hilderic. See: Meftah, Mohamed al-Tajouri, *ibid.*, p. 64.

<sup>7</sup> Drissi, Salim, *The Byzantines ...*, *ibid.*, p. 64.

<sup>8</sup> *Ibid.*, pp. 65–66.

<sup>9</sup> **Limes**: A defensive system projecting outward, composed either of a series of natural obstacles, or of camps, walls, trenches... all connected by an extensive network of main and secondary roads. See: *Le Bohec (Y.), "Frontières et limites militaires de la Maurétanie Césarienne sous le Haut Empire,"* in *Frontières et limites géographiques de l'Afrique du Nord, études réunies par Claude Lepelley, Xavier Dupuis, Publications de la Sorbonne, Paris, 1999, p. 113*

<sup>10</sup> Salama (P.), *Les voies romaines de l'Afrique du Nord*, Imprimerie Officielle du Gouvernement Général d'Algérie, Algiers, 1951, p. 19.

strategic objectives. According to the author of *Our History*<sup>1</sup>, the belt of military bases established by Rome stretched along the **Chott el-Jerid**, starting from **Tawrgha**, linking with other bases at **Leptis Magna**, **Tripolis**, **Sabratha**, and **Besida**, before extending westward along the Chott el-Jerid. West of Gabès, Roman expansion halted at the northern shores of **Chott el-Fejaj**; from there, the frontier advanced northward toward **Gafsa** and **Tébessa**<sup>2</sup>, continuing toward the northwestern regions of the **Mebaz**, before spreading across the plains of **Setif**, **Maghanna**, and **Sour el-Ghozlane**<sup>3</sup>. Further west, it linked with **El-Brouqia** and **Chlef**, then crossed **Relizane**, gradually approaching the sea, and ultimately terminating at **Melilla** in the far Maghreb<sup>4</sup>.

The second line of the limes, constructed between the late **2nd and early 3rd century CE**, lay north of the Sahara and coincided with the expansionist campaigns undertaken by the emperors toward the south. This line extended from the Tripolitanian region, south of the **Gefara Plain**<sup>5</sup>, westward toward Gabès, including fortifications along the southern edges of Chott el-Fejaj. It continued southeast–northwest, covering the **Aurès Mountains** since the reign of **Trajan**, before reaching **Bousaada**, **Bougar**, **Théniet el-Had**, **Sidi Ali Ben Youb**, **Ouled Mimoun**<sup>6</sup>, **Tlemcen (Pomaria)**, and **Lalla Maghnia (Numerus Sptorum)**<sup>7</sup>.

The Roman limes consisted of **ditches and walls, camps and forts, as well as towers and citadels**, extending across **Africa Proconsularis**, **Numidia**, **Mauretania Caesariensis**, and **Mauretania Tingitana**, in addition to a dense network of primary and secondary roads.

#### **a) Ditches and Walls:**

Among these was the **Royal Ditch** established by Scipio in 146 BCE to separate Numidia from the Roman province of Africa, along with the **Gemellai Ditch** (present-day Sidi Okba, near Biskra<sup>8</sup>) south of the city. Carcopino notes the discovery of a section of a ditch located 6 km south of Rabat, which extended westward to the small fort overlooking the great bend of the **Sella River (Bou Regreg)**.<sup>9</sup>

As for walls, two main types can be distinguished:

- The first type was constructed around cities, made of stone, to protect colonies.<sup>10</sup>

<sup>1</sup> *Our History*, Book III, Libya from the Fall of Carthage to the Era of Islamic Liberation, n.p., n.d., pp. 88–89.

<sup>2</sup> Harash (M. al-Hadi), *The Political and Cultural History of the Maghreb from Prehistory to the Islamic Conquest*, Dar Houma for Publishing and Distribution, Algiers, 2014, p. 186.

<sup>3</sup> Al-Mili (M. al-Mubarak), *The History of Algeria in Ancient and Modern Times*, vol. 1, National Publishing Corporation, Algiers, p. 256.

<sup>4</sup> Charles-André Julien, *History of North Africa*, trans. Mohamed Mzali and Bachir Ben Slama, Tunisian Publishing House, Tunis, 1969, p. 185.

<sup>5</sup> Charles-André Julien, *ibid.*, pp. 187–188.

<sup>6</sup> *Harash (M. al-Hadi), ibid.*

<sup>7</sup> Gsell (S.), *Les monuments antiques de l'Algérie, vol. 1*, éd. Albert Fontemoing, Paris, 1901, pp. 601–605.

<sup>8</sup> Harmond (L.), *L'Occident Romain: Gaule, Espagne, Bretagne, Afrique du Nord, préface de A. Grenier*, Payot, Paris, 1960, p. 273.

<sup>9</sup> Carcopino, Jérôme, *Ancient Maghreb*, trans. Mohamed al-Tazi Saud, *Publications of the Moroccan Academy, History of Morocco Series, Morocco*, 2008, p. 343.

<sup>10</sup> Cheniti (M. al-Bashir), *Algeria under Roman Occupation (A Study of the Military Control System: The Mauretanian Limes and Moorish Resistance)*, 2 vols., University Publications Office, Algiers, 1999, pp. 221–222; and *Insights into the Ancient History of Algeria: Research and Studies*, Dar al-Hikma, Algiers, 2003, p. 127.

- The second was less thick and built primarily to prevent the infiltration of raiding groups.

An example of the latter is the wall of **Tipasa**, which extended for **2,300 meters** with a thickness of **1.60 meters**.<sup>1</sup>

#### **b) Camps and Forts:**

Rome urgently required camps and forts due to constant local pressure, as well as to safeguard the provinces under its control. Their construction proceeded in stages, corresponding to the empire's expansion and military needs.

- In **Numidia**, Roman control over the south began during the **Antonine dynasty**, while in **Mauretania Caesariensis**, such control was only consolidated at the beginning of the **Severan dynasty**.<sup>2</sup>
- Notable camps in **Africa Proconsularis** include **Julaia Bungem**, **Qaryat Fort**, and **Ghadames**.<sup>3</sup> The **Tazoult Camp** constituted the nucleus of Roman fortifications in Numidia<sup>4</sup>, alongside **Besseriani** in the southern part of the province.
- In **Mauretania Caesariensis**, most camps were established around **201 CE**, including **Tarmount**, which contained ten forts and four towers, as well as **Takhmart** and **Timzouine**.<sup>5</sup>
- In **Mauretania Tingitana**, available information remains scarce, except for the mention by **Raymond Chevallier** of the **Ad Mercurius Camp** near Tangier.<sup>6</sup>

Forts represented a strategic response by Rome to the mounting pressures from tribes in the **Aurès** and desert frontiers, compelling them to build fortified posts along the borders. The **Third Augustan Legion** and auxiliary units played a significant role in constructing these forts<sup>7</sup>. Examples include the **Henchir Mila Fort**, the **Qasr Tower**<sup>8</sup>, and others.

In **Mauretania Caesariensis**, fort-building remained limited in the 1st century CE but expanded in the 2nd century, focusing on the protection of elevated areas such as the **Djurdjura Mountains**<sup>9</sup>, **Aïn Kebouche** (between Saldai and Tiklat), **Henchir Souik** (Saïda hills), and **El-Benian** (southeast of Mascara)<sup>10</sup>. In **Mauretania Tingitana**<sup>11</sup>, notable forts include **Taberni** (between Lixus and Zilis), **El-Benian** (between Tamuda and Tangier), and **Frigidae Fort** (between Lixus and Banasa).

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<sup>1</sup> Manasser, Karim, "Roman Military Fortifications in Mauretania Caesariensis," *Journal of Historical and Military Studies*, January 2020, p. 31.

<sup>2</sup> Cheniti (M. al-Bashir), *ibid.*, p. 127.

<sup>3</sup> **On military camps, see:** Maha Mohamed al-Sayyid, *Forts and Defensive Fortifications in North Africa during the Roman Period*, Faculty of Arts, Tanta University, Egypt, 2008, pp. 30–47.

<sup>4</sup> Sahraoui (Abdelkader), *Military Fortifications in Numidia and Mauretania Caesariensis during the Roman Occupation (46 BCE–284 CE)*, Dar al-Huda, Algiers, 2011, p. 52.

<sup>5</sup> *Ibid.*, pp. 55–57.

<sup>6</sup> Chevallier (R.), *Les voies romaines*, Librairie Armand Colin, 1972, p. 322.

<sup>7</sup> Sahraoui (Abdelkader), *ibid.*, p. 98.

<sup>8</sup> *Paradez (J.), Fossatum Africae (Aerial Research on the Organization of the Saharan Frontiers in the Roman Period)*, Paris, 1949, p. 152.

<sup>9</sup> Sahraoui (Abdelkader), *ibid.*, p. 100.

<sup>10</sup> Setti, Souad, "The Severan Camps in Western Mauretania Caesariensis," *New Ages Journal*, vol. 12, no. 1, 2022, pp. 67–68.

<sup>11</sup> Ashi (M.), *Military and Political Relations in Mauretania Tingitana between the Maghrebis and the Romans (140–285 CE)*, supervised by Mohamed Suleiman Ayoub, Mohammed V University, Rabat, 1980, p. 42.

### c) Towers and Citadels:

Towers constituted another form of Roman fortifications. They were used to reinforce walls and secure key points. Their designs varied—rectangular, square, and even circular<sup>1</sup>—depending on the conditions of construction<sup>2</sup>. Most towers were erected in strategically significant areas to ensure communication between different limes centers and to monitor population movements.<sup>3</sup>

Examples include the **eight towers** built in the eastern camp of Tazoult in Numidia. In Mauretania Caesariensis, two towers were discovered along the road between **Sétif** and **Bordj M’Raouar**, serving to monitor routes. Additional towers were found in the **Azefoun** area, some rectangular, others semi-circular<sup>4</sup>. References also indicate towers connecting the regions of **Sala**, **Thamusida**, and **Banasa**.<sup>5</sup>

Citadels, on the other hand, were fortified structures smaller than camps, designed for defending borders and cities, as well as monitoring roads and tribal passes. They were typically square or rectangular in design<sup>6</sup>. Notable examples include the **Qusayba Citadel** in Numidia, the citadels of **Mount Obdir** and **Kharbet al-Roumi**<sup>7</sup>, and the **Messaad Citadel** in Numidia.<sup>8</sup>

In **Mauretania Caesariensis**, citadels were built in **Aïn Ghrimid** and **Aïn Touna**, protecting the area stretching from **Sour el-Ghozlane** to **Cherchell** through **El-Brouqia** and **Médéa**<sup>9</sup>, as well as the **Tizi Ghenif Citadel**, located along the road between **Ifliçen** and **Aït Khelfoun**, overlooking the plains extending between **Draa el-Mizan** and **Bogni**<sup>10</sup>. Carcopino also mentions the **Siaoun Citadel**, about 40 km south of the eastern limes passing through **Tilipari** and **Remada**, in **Mauretania Tingitana**.<sup>11</sup>

Moreover, the Romans invested heavily in constructing an extensive **road network** throughout the African provinces, reflecting their intention not only to dominate but also to settle the land.

Out of their eagerness to benefit from agricultural lands<sup>12</sup>, it was the locals who initially undertook their establishment, and their density was closely tied to demographic concentration, decreasing progressively the further west one goes.<sup>13</sup>

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<sup>1</sup> Cagnat (R.), *L’armée romaine d’Afrique et l’occupation militaire de l’Afrique sous les empereurs*, 1912, p. 437.

<sup>2</sup> **On the conditions, see:** Sahraoui (Abdelkader), *ibid.*, pp. 126–127.

<sup>3</sup> Gsell (S.), *Les monuments antiques de l’Algérie*, *op. cit.*, p. 692.

<sup>4</sup> Sahraoui (Abdelkader), *ibid.*, p. 126.

<sup>5</sup> Nicholas Roy Hodgson, *The Military Limes: Aspects of the Comparative Development, Function and Significance of the Linear Frontier Systems of the Roman Empire up to AD 200*, Doctor of Philosophy Dissertation, University of Newcastle Upon Tyne, 1993, p. 401.

<sup>6</sup> Cagnat (R.), *L’armée romaine...*, *op. cit.*, p. 48.

<sup>7</sup> Sahraoui (Abdelkader), *ibid.*, p. 94.

<sup>8</sup> Carcopino, Jérôme, *ibid.*, p. 352.

<sup>9</sup> Benabou (M.), *La résistance Africaine à la romanisation*, Éditions Maspero, Paris, 1976, p. 174.

<sup>10</sup> Taman Nourredine, “The Roman Military Fortifications in the Province of Mauretania Sitifensis between the 3rd and 5th Centuries CE,” *African Studies Journal*, University of Algiers, vol. 3, no. 6, 2018, p. 7.

<sup>11</sup> Carcopino, Jérôme, *ibid.*, p. 355.

<sup>12</sup> Salama (p), *les voies Romaine de l’Afrique du Nord*, préface Louis Leschi, 1951, p. 42.

<sup>13</sup> Carcopino (J.), *Ancient Maghreb...*, previously cited reference, pp. 190–197.

## 2. Concerning Byzantium:

From its earliest years in North Africa, the Byzantine administration sought to develop defensive systems capable of securing its presence and ensuring political and economic stability<sup>1</sup>. For that reason, they surrounded their possessions with a chain of fortifications. Construction began under Solomon, yet the period of Justinian was the most significant, given that the majority of defensive structures date back to his reign.<sup>2</sup>

The Byzantines sought to identify suitable conditions to ensure the success of their defensive system by focusing on strategically elevated sites, which would facilitate control over the surrounding urban areas, guarantee effective distribution, and reduce both effort and cost. They relied heavily on fortifications such as walls and towers<sup>3</sup>. Knowledge of these defensive systems is based on texts, inscriptions, and attempts to trace the frontier lines.<sup>4</sup>

- **From a geographical perspective**, Byzantine control was never absolute. Even though their influence extended along the northern coast from Tripoli in the east to Tangier and Ceuta in the west, this authority appears to have been fragile. In the south, their occupation never exceeded half the extent of Roman Africa. Hence, Justinian's dream of restoring all the Roman provinces was never realized on the ground; their dominion was, in fact<sup>5</sup>, narrower than it had been under Diocletian<sup>6</sup>. In general, Byzantine constructions were concentrated along the coastal strip of the Tripolitanian region. During this period, however, fortifications came closer to the coastline, before turning northwest along the line of Chott el-Jerid, then ascending towards Gafsa and Theveste, and from there into Numidia, encompassing the Aurès Mountains<sup>7</sup>. A second defensive line encircled a number of mountain ranges forming the boundary between the provinces of Proconsularis and Byzacena<sup>8</sup>, while also monitoring the Aurès through the defensive line comprising Bagai, Khenchela, Timgad, and Lambaesis. The Medjerda Plateau was guarded by a third defensive belt intended to secure the province of Proconsularis.<sup>9</sup>
- **Defensive Architecture of Byzantine Africa**: It is evident that the Byzantines drew heavily on Roman military building traditions, which has led to their architecture being described as

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<sup>1</sup> Meftah, Mohamed Al-Tajouri, previously cited reference, p. 193.

<sup>2</sup> Drissi, Slim, previously cited reference, pp. 183–184.

<sup>3</sup> Ibid., pp. 252–254, 259.

<sup>4</sup> Diehl (Ch.), *L'Afrique byzantine: histoire de la domination byzantine en Afrique 533–709*, Ernest Leroux Éditeur, Paris, 1996, p. 226.

<sup>5</sup> Meftah, Mohamed Al-Tajouri, previously cited reference, p. 188.

<sup>6</sup> Eric D. Nelson, *L'Empire romain*, Preface by Janes J. Claude, Marabout, 2008, pp. 239–240.

<sup>7</sup> Diehl (Ch.), op. cit.

<sup>8</sup> Byzacena: this province was established at the end of the 3rd and the beginning of the 4th century AD. Its borders are difficult to determine; it is believed to begin at Gabès, beyond the chotts, following the road linking Gabès to Gafsa. See: Drissi, Slim, previously cited reference, p. 128.

<sup>9</sup> Aibesh (Y.), *Social and Economic Conditions of the Maghreb during the Byzantine Occupation*, PhD Dissertation, supervised by Cheniti, Department of History and Archaeology, Mentouri University, 2006–2007, p. 291.

unrefined, little more than architectural remnants of Roman models. Their technique relied on massive stone blocks for the outer faces of walls, with the gaps between filled with smaller stones.

<sup>1</sup> The distribution of Byzantine defensive architecture can be outlined as follows:

**A-Tripolitania:**

Byzantine presence was limited to the coast. Cities such as Leptis Magna, Sabratha, Tripoli, and Gabès were fortified. This retreat to coastal defenses was due to the decline of the *limes* at the end of the Roman period<sup>2</sup>, as the forward defensive boundaries at Bu Ngem, al-Qaryat, and Ghadames had been abandoned shortly after 259 CE.<sup>3</sup>

**B-Byzacena Province:**

This province was marked by numerous fortifications, interconnected by a dense road network, such as the route linking Gabès to Gafsa, and Gafsa to Thala, which passed either through Biram Ali or Tamsida. Many fortresses were constructed under Justinian to repel Moorish tribal incursions, including the fortresses of Haidra<sup>4</sup>, Sbiba, Mamma, and Geloula<sup>5</sup>.

**C-Numidia Province:**

Associated historically with revolts, this province was traversed by two main routes: one leading from Tébessa towards Cirta, passing through Sétif and thus covering the Aurès; and another linking Gafsa to Lambaesis through Meskiana and Timgad<sup>6</sup>, thereby securing the south<sup>7</sup>. Numerous forts were erected, many of them flanked by watchtowers to control access to the region<sup>8</sup>. Among these were the forts of Qasr al-Kalb, Meskiana, the Zab region, Timgad, and Lambaesis<sup>9</sup>.

**D-Mauretania Sitifensis:**

Byzantine control here was short-lived, as frontiers receded in the mid-sixth century, and the remaining eastern territories, including Sétif, were absorbed into Numidia. The defensive system relied on a limited number of centers near Moorish tribal emirates in Mauretania Caesariensis<sup>10</sup>. Some Byzantine fortifications have been identified here, including eight rectangular forts and several fortresses dating to Justinian's reign<sup>11</sup>.

**E-Mauretania Caesariensis:**

Defensive sites were concentrated in coastal ports such as Ras Matifou, Algiers, Tipasa, Ténès, and

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<sup>1</sup> Drissi (S.), *ibid.*, p. 224.

<sup>2</sup> Meftah Mohamed Al-Tajouri, *ibid.*, p. 203.

<sup>3</sup> Diehl (Ch.), *op. cit.*, pp. 232–235.

<sup>4</sup> Meftah Mohamed Al-Tajouri, *ibid.*, p. 204.

<sup>5</sup> Drissi (S.), *ibid.*, pp. 226–227.

<sup>6</sup> Diehl (Ch.), *op. cit.*, p. 237.

<sup>7</sup> *Ibid.*

<sup>8</sup> Diehl (Ch.), *op. cit.*, pp. 239–253.

<sup>9</sup> Meftah Mohamed Al-Tajouri, *ibid.*, p. 204.

<sup>10</sup> Drissi (Sp. 234.

<sup>11</sup> Diehl (Ch.), p. 256.

Cherchell, whose city walls were rebuilt under Justinian following Moorish<sup>1</sup> raids. In Mauretania Tingitana, remains of a fortress were reported at Ceuta<sup>2</sup>.

- **General Characteristics:**

Byzantine fortified centers typically relied on double walls reinforced by massive towers, fronted by ditches sometimes six to eight meters deep. These were strategically connected to water sources and important urban sites. Forts and castles, usually rectangular, were intended to secure major roads of both economic and military significance<sup>3</sup>.

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### III- The Transitional Phase Between Roman and Byzantine Occupation

It is evident that the Vandals had no intention of leaving a lasting imprint in terms of defensive architecture; indeed, they did not even bother preserving the Roman fortifications. This unquestionably hastened their downfall at the hands of the Byzantines. This is reflected in Genseric's deliberate destruction of the defensive walls of cities, with the sole exception of Carthage's walls. His policy likely stemmed from fear that enemies might use these fortifications as bases for launching attacks. Yet this same policy paved the way for the Moors to strengthen their power and facilitated the Byzantine penetration of the region<sup>4</sup>.

### IV. Selected Models of Roman and Byzantine Military Fortifications

#### 1. Roman Fortifications

##### 1.1. Rapidum

- **Location:** Situated in Sour El Ghozlane (formerly Sour El Jouab), 27 km away, at the northern gateways of the Tellian Atlas. More precisely, it lies in the high plains area bordered on the southwest by the Ouarsenis, on the southeast by the Biban range, on the northeast by the Djurdjura mountains, and on the northwest by the Mitidja Atlas<sup>5</sup>. The city of Rapidum appeared for the first time in 122 CE with the establishment of the camp of the Sardinian cohort. The name is of Latin origin, unlike most cities of Mauretania Caesariensis, and it resembles the meaning of "settlement."<sup>6</sup>
- **General Layout and Dimensions:** Among the most significant constructions, we note the camp of Rapidum. It has an almost rectangular plan, measuring 135 × 127 m (about 1.7 ha), built with dressed stone, with walls 1.6 m thick.<sup>7</sup>

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<sup>1</sup> Mohamed Meftah Al-Tajouri, p. 204.

<sup>2</sup> Ibid., p. 205.

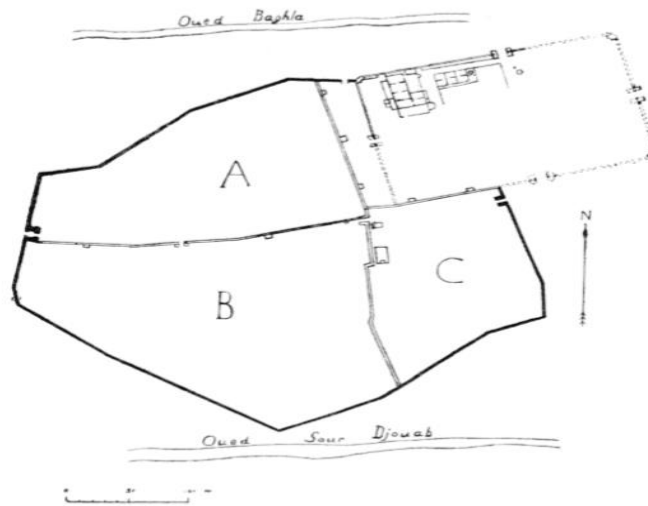
<sup>3</sup> Mohamed Meftah Al-Tajouri, pp. 206–209.

<sup>4</sup> Drissi (S.), *ibid.*, p. 54.

<sup>5</sup> Tourirt, M. "The Rapidum Camp in Mauretania Caesariensis and Its Strategic Role during the Roman Period." *Mediterranean Dialogue Journal*, vol. 10, no. 2, June 2019, p. 353.

<sup>6</sup> Arabawi, M., and Annan, S. "The Importance of the Roman Camp of Rapidum and Its Military, Economic, and Regional Roles." *Annals of History and Geography*, vol. 7, no. 2, 2018, p. 72.

<sup>7</sup> Seston, W. "Le secteur de Rapidum sur le limes de Mauritanie Césarienne d'après les fouilles de 1927." In *Scripta varia: Mélanges d'histoire romaine, de droit, d'épigraphie et d'histoire du christianisme*, École française de Rome, 43, 1980, p. 337.

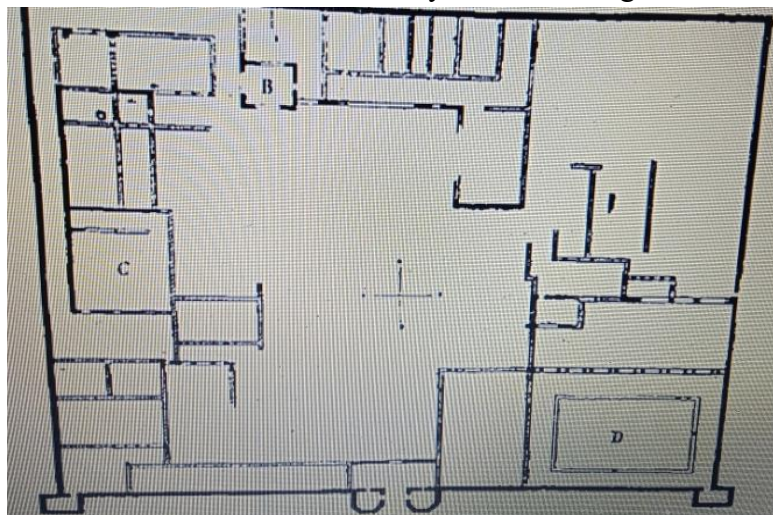


**Figure 01: The camp of Rapidum**

(Seston, W., op. cit., p. 338)

### 1.2. Tamsida

- **Location:** The city of Tamsida lies on the eastern bank of the Sebou River, facing the sanctuary of Sidi Ali Ben Ahmed<sup>1</sup>.
- **General Layout:** The principal fortification is the fortress of Tamsida, located between the cities of Banasa and Sila. It has a rectangular plan with rounded corners, 22 towers, and four gates. The walls and towers were built with rubble masonry, under the reign of Marcus Aurelius.<sup>2</sup>



**Figure 02: The fortress of Tamsida**

(Maha Mohamed El-Sayed, op. cit., p. 154)

<sup>1</sup> El-Sayed, Maha Mohamed. *Military Fortifications in North Africa during the Roman Period*. [Publisher], [Year], p. 154.

<sup>2</sup> Ibid., pp. 154–157.

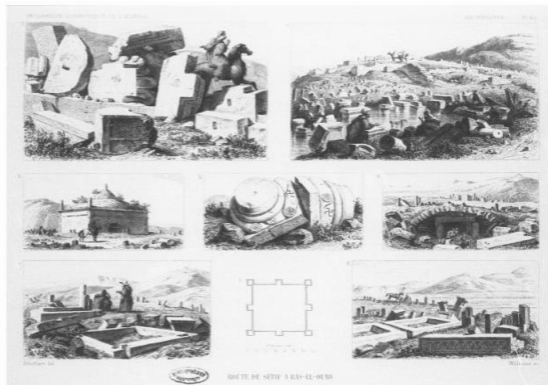
## 2. Byzantine Fortifications

### 2.1. Sitifis

- **Location:** Sitifis was a settlement complex located west of the High Plains, about 130 km from Constantine, at the entrance to Mauretania. Emperor Nerva (96–98 CE) established there a colony inhabited by veteran soldiers. By the early 4th century, it had become the capital of the new province of Mauretania Sitifensis. The city was protected by a 5 km wall. The Byzantines recaptured it from the Vandals in 540 CE and reinforced it with walls. A Byzantine fortress was later built there by Solomon.<sup>1</sup>
- **General Layout and Dimensions:** The most notable fortification is a rectangular fortress measuring  $158 \times 107$  m (approx. 1.69 ha), supported by 11 rectangular towers. It seems to have been built around 540 CE along the edge of the forum.



**Figure 03: Plan of the Byzantine fortress at Sitifis according to Delamare** (Delamare A.D.H., *Exploration scientifique de l'Algérie pendant les années 1840–1845*, Imprimerie nationale, Paris, 1850, pl. 69, fig. 1–2)



<sup>1</sup> Amrous, F. *Roman Funerary Mausoleums in Algeria: An Architectural and Artistic Study*. PhD Thesis in Ancient Archaeology, supervised by Prof. Mustapha Fellah, University of Algiers, 2009–2010, p. 319.

**Figure No. 04: Archaeological remains of the site of Tamaloula according to Delamare's description.**

Delamare, A.H., *op. cit.*, Pl. 67, Fig. 1–7.

**2.2. Ras El Oued – Tamaloula**

- **Location:** Situated on the northern heights bordering the Hodna mountains, overlooking the Magana plains. It lies midway between Zabi and Magana (about 45 km), only 1 km from the modern city of Ras El Oued. The fortress was built on a plateau near a spring.
- **General Layout and Dimensions:** The main fortification is a square fortress measuring 105 × 105 m, reinforced by eight quadrangular towers averaging 10 m<sup>2</sup> each. The construction technique follows typical Byzantine methods, with walls about 2.5 m thick. Many spolia (architectural remains from earlier periods) were reused.<sup>1</sup>

**V – Comparison of Roman and Byzantine Defensive Installations through Similarities and Differences**

**1. In terms of occupation:** Both the Roman and Byzantine administrations sought, from the earliest years of their presence, to develop defensive systems that would ensure their survival and secure their political and economic stability. The defensive organization of both powers relied essentially on two pillars: the military institution, embodied in the army, and the construction of fortifications. This made the ancient Maghreb a common focal point for both occupations. Despite the chronological difference—since Roman presence began with the conquest of Carthage in 146 BC, followed by the progressive annexation of Numidia in 46 BC and Mauretania in AD 40—the Byzantine occupation came only with the accession of Justinian in AD 527. Claiming to be the heir of the Caesars, Justinian made it his dream to restore the frontiers and possessions of the Roman Empire.

Undoubtedly, the economic factor was one of the primary motives that drove both Rome and Byzantium to occupy the region, given its geographical location and natural resources. Both powers endeavored to preserve and safeguard it through defensive installations, particularly in the case of the Romans.

Between the Roman and Byzantine occupations there existed an intermediary phase: the Vandal period, during which the Vandals controlled the region for about a century.

It is striking that the fragmented tribal structure during the Roman era facilitated control of the territory thanks to Roman military superiority. In contrast, the unified tribal organization during the Vandal period proved more resilient: tribal alliances caused numerous setbacks for the Vandals. Local tribes quickly sought to overthrow Genseric's successors. The Aurès witnessed independence under Huneric (477–484), while Tripolitania saw a revolt led by Gabaun. During the reign of Hilderic, Mazac tribes inflicted repeated defeats on Vandal armies<sup>2</sup>, exhausting and weakening them. Thus, when the Byzantines destroyed the Vandals, they soon realized that new challenges awaited them, for the threat of the resistant Moorish tribes remained constant<sup>3</sup>.

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<sup>1</sup> Aibesh, Y., *op. cit.*, pp. 322–323.

<sup>2</sup> Harash (M. El-Hadi), *Maghrebi History...*, *op. cit.*, p. 235.

<sup>3</sup> Aibach (Y.), "The Resistance of the Moors during the Sixth Century AD," *Algerian Resistance through the Ages*, National Symposium, University of Setif 2, 11–12 December 2012, p. 111.

Byzantine control of the Maghreb was never complete. Even though their influence stretched across the northern coast from Tripolitania to Tangier, it remained fragile. In the south, their occupation did not exceed half of Roman Africa. Most Byzantine defensive installations were limited to the eastern Maghreb, particularly Proconsular Africa, Byzacena, and Numidia, with some additional sites in Tripolitania, Mauretania Sitifensis, and Mauretania Caesariensis. This clearly reflects the Byzantine concentration only in regions formerly dominated by the Vandals<sup>1</sup>. This is evidenced by Justinian's decree of April 13, 534, which mentioned several territories outside Byzantine control, whether in Mauretania Tingitana or most of Mauretania Caesariensis, where they held only Caesarea (Cherchell), Jijel, and Saldae in Mauretania Sitifensis. This illustrates a lack of real attention to the actual conditions of occupation<sup>2</sup>.

Roman occupation of the Maghreb had been progressive, beginning with Carthage, then Numidia, and finally Mauretania. Byzantine occupation, however, followed only two decisive battles. Despite differences in method, the objectives of both powers converged: exploiting internal conflicts and forging alliances with local groups. Numerous examples of this are recorded, especially for Rome. Moreover, the conflict between the Vandals and the Moorish tribes weakened the former and facilitated Byzantine entry.

**2. In terms of the *limes*:** Roman defensive lines were highly diversified, comprising ditches, walls, camps, forts, towers, and strongholds, as well as a dense road network that played a key role in the defensive system. The Roman *limes* was developed in two major phases, often associated with specific emperors. Its purpose was to complete the encirclement of mountain populations by creating a buffer zone between them and urban centers<sup>3</sup>, making its construction an urgent necessity.

By contrast, the archaeological map of Byzantine occupation reveals a predominance of forts and strongholds, fitting what Diehl<sup>4</sup> described as a "fortress-based defensive system." Many Byzantine fortifications were constructed on or near earlier Roman defensive sites.<sup>5</sup>

Historians differ sharply regarding the extent of Roman versus Byzantine control in the Maghreb. Some argue that the Byzantine *limes* did not differ substantially from the Roman one, at least in Tripolitania, the Mazac, and Numidia. Others maintain that Byzantine frontiers were less extensive than Rome's. Genseric's kingdom, for instance, had never extended beyond the eastern Maghreb<sup>6</sup>. Byzantine control in Tripolitania was limited to coastal areas<sup>7</sup>. In the Mazac, the *limes* followed the Gabès–Gafsa road, a gateway to the Sahara, continuing along the Gafsa–Thelepte route. Numidia, on the other hand, became a contested zone. Theveste provided a strategic location for defending Africa Proconsularis from southern

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<sup>1</sup> Dreesi (S.), op. cit., pp. 189–190.

<sup>2</sup> Harash (M. El-Hadi), *Maghrebi History...*, op. cit., pp. 253–254.

<sup>3</sup> Bashari (M. El-Habib), "Roman Defense Systems in the Eastern High Plains of Numidia," *Proceedings of the International Symposium – Military Systems in the Maghreb from Antiquity to the End of the Ottoman Era*, Heritage Studies, No. 5, 26–27 November 2014, pp. 32–33.

<sup>4</sup> Diehl (Ch.), op. cit., p. 172.

<sup>5</sup> Miftah Mohamed Al-Tajouri, op. cit., p. 202.

<sup>6</sup> Harash (M. El-Hadi), *Maghrebi History...*, op. cit., p. 246.

<sup>7</sup> Diehl (Ch.), op. cit., p. 228.

incursions, whether from Numidia or the Mazac, while also forming a defensive barrier between the sea and the Hodna region, where major roads converged.<sup>1</sup>

Examining Roman versus Byzantine control shows that Roman dominance owed much to the strength and organization of their army. Roman commanders' achievements demonstrate their mastery of military techniques. The army was divided into structured units; the success of the *Legio III Augusta* exemplifies this, as it built cities, roads, and contributed to Romanization through the spread of Latin culture. Its reconstitution by Emperor Gordian III after its dissolution highlights its enduring importance.

The Byzantine army, in contrast, relied heavily on foreign mercenaries such as Huns, reflecting internal weaknesses. Realizing his forces were insufficient for wide conquest, Justinian adopted exceptional measures, entrusting Belisarius with their implementation<sup>2</sup>. He abolished certain Roman offices such as the *proconsul*, while introducing new positions like *dux* and *comes*, tasked with frontier defense.<sup>3</sup>

**3. In terms of construction techniques:** Architectural construction required abundant raw materials. The Romans primarily used stone quarried near urban centers, varying in hardness, and polished at the extraction sites.<sup>4</sup>

It is clear that both Rome and Byzantium relied on similar architectural techniques for their defensive works, though the Romans applied them more effectively. The main techniques included:

- **Opus Quadratum:** Emerging in the 2nd century BC, aided by Greek engineers, this method used large, carefully cut rectangular or square stone blocks of uniform dimensions, tightly fitted without mortar. It was common in forts and strongholds.<sup>5</sup>
- **Opus Africanus:** Originating in North Africa and later transmitted by the Carthaginians, this technique involved placing large stone blocks in vertical chains, aligned either horizontally or vertically, serving as regular supports. The intervening spaces were filled with rubble.<sup>6</sup>
- **Opus Mixtum:** A composite technique combining different methods of wall construction, often used in rubble masonry.<sup>7</sup>

### Conclusion:

There is no doubt that defensive architecture played a major role in the expansion of Roman, and later Byzantine, influence. Although the occupied sites were not always identical, the objective remained the same. Each power relied on a set of strategies through which they ensured control over the region, which possessed resources and conditions that pushed both to adopt various measures to secure its potential. Despite the difficulty of the task, given the inhabitants' determination to hold on to their lands, both Rome—and to a lesser extent Byzantium—were compelled to intensify their efforts to preserve their gains, which could only be achieved through reliance on a strong defensive system.

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<sup>1</sup> Ibid., pp. 232–238.

<sup>2</sup> Dreesi (S.), op. cit., p. 252.

<sup>3</sup> Idem, p. 98.

<sup>4</sup> Adam (J.P.), la construction romaine, matériaux et techniques, éditeur A.et J. Picard, Paris, 1993, p 23.

<sup>5</sup> ibid, p 130.

<sup>6</sup> ibid, p 184.

<sup>7</sup> Martha(J), Manuel d'archéologie étrusque et Romaine, imprimeur éditeur, Paris, 1853, p 200.

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