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# The Architecture of the Colonnaded Streets in the Romano-Egyptian Cities Hassan Sayed Mohamed Osman

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#### **Keywords**

Egypt, Alexandria, Oxyrhynchus, Antinoopolis, streets, columns, urbanism, landmark, shops.

#### **Abstract**

The colonnaded streets were an architectural landmark in the urban structure of Roman Egypt. They served as a connection mean between different governmental institutions and public structures. Perhaps, they were the most visible architectural element within cities in the eastern Roman provinces. Such monumental streets varied in length, width, and decoration. This study adopts a holistic approach to oppose the ambiguities about possible meaning, origins, and architectural elements of the colonnaded streets in Roman Egypt. The colonnaded streets were introduced to Egypt in the Roman Period and influenced by Greek architecture, so they were a new adoption for Egyptian architecture as a hybridized architectural art. The architectural remains of the colonnaded streets in the urbanized Egyptian cities in the Roman Period like Alexandria, Oxyrhynchus and Antinoopolis confirm the adoption of new architectural elements in this period. The style of the columns and their various capitals at Antinoopolis is pure Egyptian like the closed and the opened lotus flower or the adopted Corinthian capitals. The placement of the memorial architectural elements like the tetrastyle, the memorial pillars and their capitals were new landmarks for Egyptian urbanism in the Roman Period on the colonnaded street. The colonnaded street of Roman Egypt connected the cities with transportation means like harbours as in Alexandria, Oxyrhynchus, and Antinoopolis. As colonnaded streets served as artery in cities planning, they attested different celebration, commercial and cultural activities.

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## 1. Introduction:

The colonnaded streets were one of the most impressive and remarkable structures in the eastern Roman cities, their classifications were mainly connected with a political point of view. It has been suggested that the concept of the colonnaded street originated in north Syria in the late Hellenistic Period, it then spread through the eastern Roman provinces and Asia Minor in the first century AD. Increasing the size of existing ones or refurbishing existing cities according to imperial standards depended on the norms of creating new cities. The cities of this typology were analysed based on the layout of their main and secondary streets, also the divisions of the city's functional zones. Some archaeologists argue that streets in unplanned cities emerge gradually according to their needs and the expansion of the city. The largest number and grandest examples were in Jordan, Palestine, north Syria and the neighbour of Cilicia. The colonnaded streets were introduced to the eastern provinces and north Africa like in Damascus where two colonnaded streets were marked with broken lines. The cities of Thamugadi and Djemila in Algeria refers to the Roman colonnaded street that has been dated to the reign of Emperor Trajan in AD 100.

The colonnaded streets were distributed with open spaces that served the free movement of the inhabitants and their commercial activities. The phenomenon of standardization in Roman urbanism in Egypt was approached through the use of an accepted and conventional standard of city structures, ornamentation and repeating them in different settings to generate standardized urban scenes.<sup>6</sup> The most characterized in Roman cities was the strictly axial-symmetrical grid of streets that displayed a standard point of reference where sacred and political spaces were united within the central forum. The colonnaded streets evolved as central axes with a similar width, intercolumniations, and standard form of capitals, they tended to mask the public structures behind them and also to standardize the landscape.<sup>7</sup>

<sup>&</sup>lt;sup>1</sup> Jacobs & Waelkens 2014: 220.

<sup>&</sup>lt;sup>2</sup> Shaher & Al Rabady 2014: 294.

<sup>&</sup>lt;sup>3</sup> Segal 1997: 5.

<sup>&</sup>lt;sup>4</sup> Burns 2017: 93.

<sup>&</sup>lt;sup>5</sup> Burns 2017: 195.

<sup>&</sup>lt;sup>6</sup> Zanker 2000: 32.

<sup>&</sup>lt;sup>7</sup> Stirling 2006: 81.

The Roman cities were widely built as a result of the political power and economic changes that occurred after the extension of the Empire to the eastern provinces, as many other Roman cities, were generally divided into quarters *amphoda* or rectangles by delineating two main streets that seemed to follow some pattern of orientation. In most cases, the streets were flanked by columns on both sides to form what came to be known as the "colonnaded streets". They were defined as streets with colonnades along their full length extending on either side and generally ran in straight, uninterrupted lines across the length and breadth of the city, connecting the different urban centers. 9

Analyzing the colonnaded streets from a Greek-based perspective, it confined to the 'functionality' and 'formality' of the colonnaded streets whilst undermining their symbolic value in making of the Roman Eastern cities. MacDonald referred to broaden our scope when he studied roman design and discard misleading assumptions such as the belief that all roman designs were based on Greek precedent, these speculations helped us to understand fully characterized roman architecture. Magli argued that the interrelation of this type of layout to military camp *castrum* or the Hellenistic orthogonal town planning. The colonnaded streets were evolved as a natural outgrowth of the form and function of Greek *stoa*, other sources of inspiration could be existed in former civilizations and affected the form, function and meaning of the colonnaded streets, including the Etruscans who established the first visible civilization in Italy and were developed during the 700 B.C. into a series of autonomous city-states like Rome.

The colonnaded streets were centers of civic life and commercial activities. The ranges of shops which flanked them corresponded to the Hellenistic *stoai* market-places. The scholars used the term *stoai* to refer to these streets of shops. The colonnaded streets became crucial to the socio-political life of cities in the Late Roman Period, as like as the level of *agora* in the Hellenistic Period. The scholars

<sup>&</sup>lt;sup>8</sup> Shaher & Al Rabady 2014: 297.

<sup>&</sup>lt;sup>9</sup> Segal 1997: 5.

<sup>&</sup>lt;sup>10</sup> MacDonald 1984:30.

<sup>&</sup>lt;sup>11</sup> Magli 2008: 74.

<sup>&</sup>lt;sup>12</sup> Magli 2008: 76.

displayed the importance and the prestige of the colonnaded streets in their works such Libanios, <sup>13</sup>Diodore of sicily, <sup>14</sup>and Strabo. <sup>15</sup>

The next section explores the terminology, the literary evidence for colonnaded street, the origins, and the planning date to understand its development.

# 2. The Terminology of the Colonnaded Streets:

Polybios named the colonnaded street at Alexandria πλατεία. <sup>16</sup> Strabo referred to the same colonnaded street at Alexandria as πλατείας and the dromos of Serapis as Σαραπώς δρόμος. <sup>17</sup> Diodorus Siculus referred to the colonnaded street at Alexandria as *plateia*, <sup>18</sup> Achilles Tatius referred to the street as *pedion*. <sup>19</sup>

A papyrus, dates back to AD 61, listed districts names at Oxyrhynchus, it displayed the dromoi and the main streets of the city were two different places. <sup>20</sup> Based on many papyri from different nomes of Egypt in the Roman Period, the word  $\pi\lambda\alpha\tau\epsilon$ ία referred to the main streets of the polis or the chora, a guild ordinance that dates back to 26 August 43 AD refers to the  $\pi\lambda\alpha\tau\epsilon$ ία as the main street in the city of Tebtynis. <sup>21</sup> A lease of a house dates back to 21 Augusts 270 confirmed that the term  $\pi\lambda\alpha\tau\epsilon$ ία referred to the main street at Arsinoe. <sup>22</sup>

In the Byzantine Period, the term  $\xi\mu\beta\delta\lambda\delta\varsigma$  referred to the colonnaded street as streets with columns along their full length on either side and generally ran straight. The term was used in ancient sources to describe what is now called the colonnaded streets, which reflected a certain extent of the architectural history of the form. Throughout the Roman Period, the Greek word  $\pi\lambda\alpha\tau\epsilon i\alpha$  was used also to refer to the colonnaded street. There is some evidence that the fifth-century word  $\xi\mu\beta\delta\lambda\delta\varsigma$  did

<sup>&</sup>lt;sup>13</sup> Or. 11.90, 201, 215-216.

<sup>&</sup>lt;sup>14</sup> Diod. XVII, 52.

<sup>&</sup>lt;sup>15</sup> Strabo. XVII S, 6-10.

<sup>&</sup>lt;sup>16</sup> Polybios XV 30, 4.

<sup>&</sup>lt;sup>17</sup> Strabo XVII S, 792.

<sup>&</sup>lt;sup>18</sup> Diod XVII, 52, 3.

<sup>&</sup>lt;sup>19</sup> Achilles V, I, 1-5.

Achilles V, I, 1-3
20 *P.oxy.* 46, 3272.

<sup>&</sup>lt;sup>21</sup> P. Mich.V, 244.

<sup>&</sup>lt;sup>22</sup> P. Turner 37.

<sup>&</sup>lt;sup>23</sup> Liddel & Scoott 1996: 1300.

<sup>&</sup>lt;sup>24</sup> Strabo XVII. 1. 10.

come to signify more often than not the colonnaded streets.<sup>25</sup> The Greek word ἔμβολος literally means peg, wedge, or stopper': the term applied in Ephesus, but used by extension to refer to examples of a porticoed street dividing a city, particularly in the Late Roman or Byzantine Periods.<sup>26</sup>

# 3. The Origins of the Colonnaded Streets:

The origins of the colonnaded street are not definitively known. Scholarly argumentations range widely on the origin of the colonnaded streets, when they developed their characteristic form, and why they were created in the first place. According to one line of thought, they evolved from the need for shade in conjunction with street-based commerce, while another suggestion looks to the via sacra, the ceremonial processional routes of Greek and Roman cities that were lined with statuary.<sup>27</sup> Bulter has referred to them as "Syrian colonnades," implying their eastern origins.<sup>28</sup> Specifically western origins have also been considered, as colonnades have been found in Pompeii and Ostia, but these only exist in sporadic segments and are by no means continuous.<sup>29</sup> Other theories seek the colonnaded street's origin in the Hellenistic stoa, the stoas disappeared by the end of the Hellenistic Period but in the third and second centuries B.C was found in great numbers as parts of squares of four joined stoas which, were similar to the colonnaded street, associated open spaces with porticoed pedestrian passages.<sup>30</sup>

There are many arguments that the colonnaded axis evolved from the Greek stoa, a free-standing structure comprising a colonnade in front of a long wall.<sup>31</sup> Other scholars looked more broadly at the fertile mix of ideas in the late Hellenistic and Roman Republican Periods in the Mediterranean including the porticus of second or first-century B.C.<sup>32</sup> The third group of scholars found explanations in the Eastern province, reflecting ideas of axiality and perspective in ancient Egyptian and Persian architecture.<sup>33</sup>

<sup>&</sup>lt;sup>25</sup> Burns 2017: 41.

<sup>&</sup>lt;sup>26</sup> Williams 1979: 19-29.

<sup>&</sup>lt;sup>27</sup> Segal 1997: 5-8.

<sup>&</sup>lt;sup>28</sup> Bulter 1904: 5.

<sup>&</sup>lt;sup>29</sup> Segal 1997: 8-9.

<sup>&</sup>lt;sup>30</sup> Wycherley 1967: 32.

<sup>&</sup>lt;sup>31</sup> Abdo 2019: 28.

<sup>&</sup>lt;sup>32</sup> Wycherley 1967: 32.

<sup>&</sup>lt;sup>33</sup> Burns 2017: 6.

Literary sources from the first century and down to the sixth century confirm that the first colonnaded street was found in Antioch. Josephus writing in the first century, Libanius writing in the late fourth, and John Malalas writing much later in the sixth century, support this fact.<sup>34</sup>

The construction of colonnaded streets spread throughout the eastern provinces as a highly effective way to re-plan cities in the urban renewal of the early empire, this point of view supported the enlargement and transformation of pre-existing cities of Hellenic origin that were experiencing an increase of population. Standards of living were being bettered through improved supply systems and utilities, and large facilities were being developed for social, intellectual and leisure functions.<sup>35</sup> The expression architectural forms took to revitalize the Romanized Greek polis to emphasize luxury in an almost Baroque fashion.<sup>36</sup>

The wide avenues and impressive colonnades of these streets fit well into such a context. When Constantinople was built with colonnaded streets as political capital in the fourth and fifth centuries, it became a model for the revival of these constructions and ensured their continued status in the urban fabric of the cities of the eastern empire, which may have emulated the capital, well into the sixth century.<sup>37</sup> The fact that these constructions continued to be regarded as essential to urban living into the sixth century is evidenced in the structures of Procopius. Among the vast number of imperial structures projects, the cities that were founded during Justinian's reign like Justiniana Prima, Rusafa, and Zenobia are notable.<sup>38</sup> These cities received splendid thoroughfares flanked by long colonnades. The fact that these new, imperially commissioned cities of the sixth century should include colonnaded streets signals their importance in the mid-sixth-century urban fabric.<sup>39</sup>

Lehmann-Hartleben argued that the invention of the colonnaded street dates back to the Republican Period when wooden porticos were constructed along the streets. This innovation gave way in the first century to complexes in stone as the result of

<sup>&</sup>lt;sup>34</sup> Williams 1979: 13-16.

<sup>&</sup>lt;sup>35</sup> Yoncaci 2007: 54.

<sup>&</sup>lt;sup>36</sup> Hanfmann 1975: 48-49.

<sup>&</sup>lt;sup>37</sup> Crawford 1990: 125.

<sup>&</sup>lt;sup>38</sup> Hammond 2006: 12.

<sup>&</sup>lt;sup>39</sup> Segal 1997: 47.

Nero's structure regulations after the burning of Rome in AD 64.<sup>40</sup> Swoboda stated that the originality of the colonnaded streets was derived from the colonnaded streets of the Hellenistic world.<sup>41</sup> Von Gerkan suggested that the colonnaded street is a Roman invention, he disagreed with the association between the colonnaded street and the Greek stoa.<sup>42</sup> Fyfe argued that the example of Antioch proved an eastern origin for the building.<sup>43</sup> Egli dated the monumental streets to Hellenistic origin.<sup>44</sup> Wycherely linked between schemes of street management in the Imperial Period and the use of *stoas* on streets in the Hellenistic Period.<sup>45</sup> The colonnaded street was not a self-sufficient structure type which could be equated with the theatre, Odeon, bath, or even with an agora which was contained within a definite configuration.<sup>46</sup>

The colonnaded streets of the eastern cities impressed the western, like Strabo in Alexandria, travellers to venture into these regions in recent centuries to satisfy curiosity interest. the Augustan building boom was getting under way, it would not have seen the impact of colonnading along public streets.<sup>47</sup>

The use of the colonnading along the streets in Rome had been continued for practical purposes as providing shelter in the second century AD. At the end of the second century the prime role of the colonnaded streets was explored in Rome. It would say that the architecture of the colonnaded streets in Rome was attached with Septimius Severus as a way of paying tribute to several eastern cities as well as the example of his birthplace in Lepcis Magna, as he used the colonnaded streets as a device for replanning the whole sections of the city, it was an idea which he seems to have transferred to Rome itself. A study confirmed that the colonnaded streets architecture was not introduced to Rome till the gesture of Nero.

In the western provinces the colonnades were rarely continuous, they were confined to particular *insulae* with no interconnected porticos or gateways and they

<sup>&</sup>lt;sup>40</sup> Lehmann-Hartleben 1929: 41.

<sup>&</sup>lt;sup>41</sup> Swoboda 1919: 46.

<sup>&</sup>lt;sup>42</sup> Von Gerkan 1924: 16.

<sup>&</sup>lt;sup>43</sup> Fyfe 1946: 82.

<sup>&</sup>lt;sup>44</sup> Egli 1959: 17.

<sup>&</sup>lt;sup>45</sup> Wycherely: 1967: 36.

<sup>&</sup>lt;sup>46</sup> Williams 1979: 19.

williams 1979: 19
47 Burns 2017: 13.

<sup>&</sup>lt;sup>48</sup> Kockel 1991: 114.

<sup>&</sup>lt;sup>49</sup> Wallace-Hadrill 2003: 193.

provided a perspective across the cities.<sup>50</sup> The lack of the colonnaded streets in Greece, which along with Asia Minor was the source of much of architectural thinking explored in the eastern provinces and where the climatic and the cultural differences from other regions of the eastern Greek cities were minimal.

The colonnaded streets gave structure to the Roman cities and connected their major structures within a unifying urban scheme.<sup>51</sup> A different hypothesis has been developed for determining the possible origins and genealogy of the colonnaded streets. Discussing these hypotheses, it has been mostly referred to the colonnaded streets as almost entirely limited to eastern provinces.<sup>52</sup> MacDonald argued that the colonnaded streets have also been found in many western provinces. Accordingly, the origin of the colonnaded streets can be discussed as an urban element that could have been descended from different civilizations, including the Greek, Etruscan, and eastern civilizations.<sup>53</sup> Egypt was an eastern Roman province so the colonnaded street was an architectural element in the Egyptian urban.

### 4. The Colonnaded Streets in Egypt:

#### 4.1. Alexandria:

Strabo's description of Alexandria came too early in the imperial Period to have noted the colonnaded street, his euphoric description of Alexandria's vast cityscape and its broad central spine makes no mention of colonnades.<sup>54</sup>

After a voyage lasting for three days, we arrived at Alexandria. I entered it by the Sun Gate, as it is called, and was instantly struck by the splendid beauty of the city, which filled my eyes with delight. From the Sun Gate to the Moon Gate . . .led a straight double row of columns, about the middle of which lies the open part of the town, and in it so many streets that walking in them you would fancy yourself abroad while still at home. . . . for there was a row of columns intersected by another as long at right angles. I tried to cast my eyes down every street, but my gaze was still unsatisfied, and I could not grasp all the beauty of the spot at once; some parts I saw, some I was on the point of seeing, some I earnestly desired to see, some I could not pass by; that which I actually saw kept my gaze fixed, while that which I expected to see would

<sup>&</sup>lt;sup>50</sup> Burns 2017: 303.

<sup>&</sup>lt;sup>51</sup> Mango 2001: 33.

<sup>&</sup>lt;sup>52</sup> Shaher & Al Rabady 2014: 299.

<sup>&</sup>lt;sup>53</sup> MacDonald 1982: 44.

<sup>&</sup>lt;sup>54</sup> Strabo 1049, 103-109.

drag it on to the next, and at last, my vision unsatisfied, exclaimed in weariness, 'Ah, my eyes, we are beaten'.55

Two centuries later the spectacular vista of the main street of Roman Alexandria, by then in its colonnaded street (fig 1), caught the aesthetic eye of classical scholars. Whereas writers before Dio had concentrated on the prosaic and on the maintenance of architectural norms, the flowery and free-form narrative of the novel Leucippe and Clitophon by Achilles Tatius provided a platform for a full description of the impact of second-century Alexandria. Tatius began the narrative of the lovers' arrival in the city with a long description, which starts by noting the colonnaded prospects. <sup>56</sup>



Figure (1): Alexandria, colonnaded section of the 'Canopic Way' near the Attarin Mosque columns as seen in 1785 (McKenzie 2007, 62, Figure 14).

Only scattered evidence remained from the colonnaded streets in Alexandria. These survived largely as the footprint of the classical city had become unoccupied ground. Small clusters of columns were noted by some visitors. Mahmoud Bey confirmed that the grand central avenue stretched five Kilometers across the city from the east to the west, this avenue was colonnaded with massive red and grey granite monolith columns. The slabs of the paved colonnaded street were survived until the

 <sup>55</sup> Strabo 17, 1, 8–10.
 Achilles Tatius V, 1, S.

reign of Mohamed Ali.<sup>57</sup> Hass mentioned that the colonnaded street in Alexandria served as the prime axis to facilitate numerous ritual processions and popular demonstrations. The events gave the crowd a prominent role in the history of Alexandria up to Late Antiquity and speculated the architecture of the city and the society in Roman Alexandria.<sup>58</sup> Tomlinson mentioned that the street was later confined to shops and colonnades.<sup>59</sup>

Erdmann mentioned that two columns near Rosetta Gate had white marble capitals, 60 also Valentia said that the columns near the mosque of Al attarin were granite. 61 A part of the colonnaded street measured 7.45 meters below Horeya Street, the successor to the canopic way, has columns in Doric order that indicated the earliest decorative style may have been less flamboyant than the street that Tatius has described with their mixture of black and white stone also Corinthian capitals.<sup>62</sup>

The height of these columns was 12-13 m, their diameter was 1.40 m. The distance between columns was 15 to 20 steps, but it is difficult to convert into meters.<sup>63</sup> The space between two of the three columns in front of the mosque was sufficient for at least two more columns. The two outer preserved columns had polished surfaces, but the middle column was eroded, and the two columns were cracked horizontally. The columns were surrounded with 6 m thick debris, considering the height of the columns in relation to their diameter.<sup>64</sup>

The only dating clue in the chronology of the colonnaded street in Alexandria remains the description of Tatius indicating that the street was colonnaded by the Late second century. There is no confirmation in other sources that earlier Ptolemaic or Roman colonnades preceded this version, as Pensabene examined the ancient Egyptian traditions that may have influenced the early development of the Alexandrian axis but he noted that the architecture of the colonnaded streets was introduced from Syria. 65 Based on the grounds of the materials as well as the size, it

<sup>&</sup>lt;sup>57</sup> Mahmoud Bey 1872: 17.

<sup>&</sup>lt;sup>58</sup> Hass 1997: 33.

<sup>&</sup>lt;sup>59</sup> Tomlinson 1992: 99.

<sup>60</sup> Erdmann 1883: 121.

<sup>&</sup>lt;sup>61</sup> Valentia 1811: 451.

<sup>62</sup> Tkaczow 1993: 107.

<sup>&</sup>lt;sup>63</sup> Tkaczow 1993: 77. <sup>64</sup> Tkaczow 1993: 77.

<sup>65</sup> Pensabene 1993: 354.

would say that the columns date back to the Roman Period.<sup>66</sup> Gate argued that the colonnaded street was dated back to the Roman Period.<sup>67</sup>

Breccia reported that the street was lined with two walls area around the actual mosque of Abdelraziq, the walls were built out of irregular limestone blocks. The wall constituted the stylobate of a colonnade, a column was preserved upon its base, while three other bases marked the places of the other columns, and the bases were built carelessly into the wall. The preserved column was carved out of the granite of Aswan and it was 5.85 m high and 0.80 m in diameter. All the bases were curved out of white marble, but they differed in size and moulding. The diameter of the columns was different from their bases which indicates the reuse of the columns and pillaging from old structures. Based on the fragments of the capitals most of the columns were crowned with Corinthian capitals (fig 2), and the remains of the paved colonnaded street were uncovered 1.40 m under the bases of the columns.<sup>68</sup>

Adriani uncovered several levels of pavement and a canal. In the space between the relics and the colonnade, he uncovered a limestone pavement at a depth of 5.85 m below Nabi Daniel Street, the remains of the surrounding structures indicate many traces of renovations. Adriani stated that the paved limestone colonnaded street was overbuilt with basalt masonry, Adriani dated the pavement of the colonnaded street to the late Roman Period based on the construction style. He mentioned also that a water cistern has existed on the colonnaded street.<sup>69</sup> Alongside the colonnaded street many remains of structures were uncovered. On the south side of the street, the foundation deposits and two magnificent Corinthian capitals of the temple of Serapis and Isis. Remains of a Ptolemaic or early Roman villa. On the northern side of the street, a large carved Greek-style granite podium of unknown structures and remains of Ptolemaic temples. Ruins of an early Roman villa, the wall painting could have included elements of architectural decoration found at Kom el-Dikka. A Hathoric capital was reused in the walls of the Rosetta Gate. The head of Alexander the great. Remains of a villa from the first century AD. A large fragment of ancient Egyptian hieroglyphic inscriptions. Mahmoud Bay stated that the street was 14 meters in width

<sup>66</sup> Tkaczow 1993: 79.

<sup>&</sup>lt;sup>67</sup> Gate 2003: 401.

<sup>&</sup>lt;sup>68</sup> Tkaczow 1993: 79.

<sup>&</sup>lt;sup>69</sup> Adriani 1966: 76.

and had paved ground, he uncovered different archaeological evidence that referred to the historical background of the colonnaded street.  $^{70}$ 



Figure (2): Ptolemaic architectural fragments in the Graeco-Roman Museum in Alexandria as they appeared ca. 192.0. From E. Breccia, Alexandria ad Aegyptum (Bergamo 1922: 45)

Strabo stated that the street was 4.95 km by 30 stadia.<sup>71</sup> It would say that the correlation between both figures justified the silence of Strabo on the sepulchral nature of the eastern suburbs. Hence, at the advent of the imperial rule, athletic edifices such as settlements and hippodromos were developed in the Roman Period into villas, they were extending to the east of the Ptolemaic periphery. It would be reasonable to find the estimated planning by Mahmoud Bey for the length of the city at its maximum extent 5.09 km in length by 30.84 stadia.<sup>72</sup>

<sup>&</sup>lt;sup>70</sup> Mahmoud Bey 1872: 19.

<sup>&</sup>lt;sup>71</sup> Strabo XVII, I, 10.
<sup>72</sup> Mahmoud Bey 1872: 23.

#### 4.2. Oxyrhynchus:

The lack of archaeological remains and the paucity of the papyri make it difficult to come to a definite conclusion about the archaeology of the colonnaded streets at Oxyrhynchus and its adjoining structures (fig 3). The previous excavations may convene for these descriptions. Bagnall mentioned that Oxyrhynchus had colonnaded streets.<sup>73</sup>

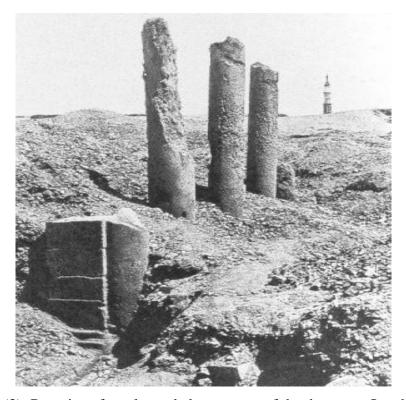


Figure (3): Remains of a colonnaded street east of the theatre at Oxyrhynchus (McKenzie 2007, 162, Figure 277).

Based on a letter dating back to 283 A.D a colonnaded street in Oxyrhynchus was roofed, as the letter was to the *Prytaneis*, executive members of the boule, seeking payment of joiners for work on the erection of the roof along both sides of the street, the length of the beam was 6 meters.<sup>74</sup> Petrie uncovered columns lining the street leading from the theatre to the center of the city and other remains of colonnaded streets, one of which culminated in a pillar dedicated to emperor Phokas (fig 4).<sup>75</sup> Comparing the description of Petrie to the actual archaeological remains, he referred to the east-west main colonnaded street as the pillar of emperor Phokas was a

<sup>75</sup> Petrie 1925: 12.

<sup>&</sup>lt;sup>73</sup> Bagnall 1993: 45-7.

<sup>&</sup>lt;sup>74</sup> P.oxy, I, 55.

memorial landmark on the street. the memorial pillar was mentioned in the description of Egypt as 21 meters column including the composite capital and the imperial statue, it would say that the statue stood on the top, and suggested that the column was part

of a portico, but the size of the pillar refers second-century tetrastyla.<sup>76</sup>

Figure (4). the actual Phokas' column (author) and in 1798 (Parsons 2007: 24).

The colonnaded street at Oxrhynchus was similar to the colonnaded street at Antinoopolis, they had the same tetrastyla as the unusual use of the composite capitals

<sup>&</sup>lt;sup>76</sup> Abdelwahed 2016: 25.

in the tetrastylon, it was 17.85 m, at Antinoopolis of Alexander Severus Julia Mamaea.<sup>77</sup>

## 4.3. Antinoopolis:

At Antinoopolis, there are obviously two main streets in the city, which were called the *cardo*, the north-south street or the colonnaded street (fig 5), and the *decumanus*, the east-west street. Some historians mentioned that the streets were paved with basalt but according to the ruins and the remains at the site, there are no remains of basalt except the white local intact limestone pavement which covers the ground of the colonnaded street.<sup>78</sup> The two main streets were 16 meters wide, but the actual measurements were different from one part to another.<sup>79</sup>

Noack argued that the Greek levels were the bases of the paving of the street. The early pavements were not raised above the street but it was defined with a narrow limestone line, neither the blocks nor the footpath would have been fitted on the basis of accounts before the removal of the remaining columns in the first half of the 19<sup>th</sup> century was consisted with the origin in the second century A.D for the red and the grey granite column shafts. The colonnaded street intersected with the east-west street at a point that was marked with a tetrastylon. Kühn mentioned that the colonnaded street is 954 meters in length, it was lined with 572 columns, also the ground was covered with white limestone. 82

The colonnaded street at Antinoopolis was 12 meters in width, it was connected to the north of the city where public buildings such as baths to the south of the city were the theatre and settlements. The first phase of the paved street would be dated to the first century AD and it would be a *cardo* with its north-south direction. Coins were found by the Italian mission to display the Colonnaded Street such as other destroyed and lost buildings in the city in the fourth century.

<sup>&</sup>lt;sup>77</sup> Abdelwahed 2016: 26.

<sup>&</sup>lt;sup>78</sup> Mckenzie 2007: 132.

<sup>&</sup>lt;sup>79</sup> Swelim 2015: 62.

<sup>80</sup> Noack 1900: 236.

<sup>81</sup> Burns 2017: 49.

<sup>82</sup> Kühn 1913: 34.



Figure (5): The main lengthwise and cross-street at Antinoopolis in 1799 (McKenzie 2007, 155, Figure 259).

Jomard also, argued that these columns had been brought from Hermopolis Magna, but it would say that it is not accepted as the dromos of Hermes and the Antione Street witnessed their glorious time during the reign of Hadrian.<sup>83</sup> Many quarries were located near Antinoopolis like Hatnoub. The columns remaining in Antinoopolis were outnumbered. Jomard saw the rest of these columns, on the northern side and estimated each row consisted of 10 columns, the traces of chariots and carriage wheels are still visible on the northern side of the colonnaded street.<sup>84</sup>

<sup>&</sup>lt;sup>83</sup> Alston 2002: 242. <sup>84</sup> Kühn 1913: 33.



Figure (6): The remains of the pavement (Author).

There are socket holes on the top and the bottom of the preserved drums at different dimensions of 0.19 by 0. 19 m, also 0. 23 by 0. 23 m, which possibly belong to timber dowels to bind the drums together. Ten Corinthian limestone columns capitals exist at the northern half of the colonnaded street. The columns' capitals are 0.53 m in diameter and 0.86 m in height and they have generally a square abacus with 0.73 m in diameter.<sup>85</sup>

At the middle part of the street, the existence of the columns directly on the first phase pavement borders of the street without bases, also the Corinthian capitals (fig 9) most probably belonged to those columns indicating that there were porticos in Doric order at each side of the colonnaded street. As could be observed on the preserved stuccos at some of the Corinthian capitals and on the unearthed fluted stucco parts, the columns are covered with stucco similar to the capitals and fluted. The process of

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<sup>85</sup> Burns 2017: 223.

covering with stucco would not have taken place at the same time as the construction.86



Figure (7): The remains of the sandstone columns at the eastern side of the colonnaded streets at the southern end (Author).

It would say that the limestone capitals with double annulets might have been used without stucco covering at least for a certain time, also they have been covered later during the repairs or reconstructions (fig 7). The traces of the stucco repairs on the capitals refer to the scattered broken parts that were repaired with stucco, then placed on the limestone columns and coated together with stucco in order to give them a marble appearance.<sup>87</sup>

Based on the middle-preserved part of the colonnaded street, it would say that the pavement consisted of different phases (fig 6), the upper layer of the pavement could be identified as the second phase of the pavement, as it is still intact in a part of 35 m of the colonnaded street. The first layer was destroyed by a flood or erosion, so the

<sup>&</sup>lt;sup>86</sup> Rasselan 1982: 51. <sup>87</sup> Fox 2014: 23.

second phase pavement was added after elevating the level of the ground of the first phase with white limestone mortar.  $^{88}$ 



Figure (8): The bases of the columns (Author).





Figure (9): lotus and Corinthian column capitals (Author).

The colonnaded street is highly damaged on the southern side, there is another filling that had been levelled and compressed with lime, sand and debris under the limestone slabs. The joints are plastered with lime mortars (fig 10). The slaps of white stone of the second phase are also paved in rows and they were directed in the eastwest direction. The length and the width of the slabs were different in dimensions because of the irregular paving order of the stone.

<sup>88</sup> Fox 2014: 23.



Figure (10): The scattered columns and pavement slabs (Author).

At the northern side of the colonnaded street, the bottom drums of 12 columns are *in situ* or slightly scattered away from their places, the inter-axial dimension of the columns ranged between 2.24 and 2.35 m. the bases drums of the columns were placed directly at the east-west side borders of the first phases of the pavement (fig 10).

The colonnaded street is articulated with the east-west street, this cross point was marked with tetrastyla, based on the votive steles, Jomard suggested that the remains of the *tetrastyle* date back to the reign of Alexander Severus, as a commemoration of Alexander Severus and his mother, he has seen a standing column, two destroyed columns, and half of standing column. The intact column reached 18 meters in height, and all columns of the tetrastyla were crowned with acanthus capitals, on the top of the acanthus capital rested a slap of stone to serve as a base for the standing statues of the emperor. <sup>89</sup>

#### 5. The colonnaded streets as a place for public activates:

The colonnaded streets were accessible places for the whole populace, so it gave free access to the folk to take part in different celebrations and various occasions, the colonnaded streets at Alexandria attested the first glories ruler birthday celebration or his divinity, the birthday of the emperors was attested in some other cities in Rome

<sup>&</sup>lt;sup>89</sup> Jumared 1798: 167.

and Palymare in the second century AD.<sup>90</sup> The space alongside the colonnaded streets was publicly owned but available for lease for a variety of activities, perhaps with the municipal authorities allocating it either for commercial purposes or for educational and religious activities. Many professions were practiced to conduct their business on this basis.<sup>91</sup>

A papyrus form Oxyrhynchus confirms that the colonnaded streets were associated with commercial activities, as it gives a report on recommended repairs to colonnaded street and their associated shops, the shops were leased by dentists and barbers. A report to the city *logistes*, dates back to AD 315, confirm that a list of various professions that carried alongside the colonnaded streets of Oxyrhynchus like education, a surgery, also food and beverage activities including pastry, a condiment-sellers, a vetch-seller, a beer-seller, and butchery. Strabo confirmed that the colonnaded street at Alexandria was flanked with many shops which referred to the commercial activities on the street.

The traffic control was a strict separation of pedestrian from wheeled and animal traffic, there is evidence in the grooved paving at Antinoopolis, the traces are obviously seen at the northern end of the colonnaded street and in the way the stones were set at a 32-degree angle to avoid snaring cartwheels that the central roadway was used by wheeled vehicles.

#### 6. Conclusion:

The study sought to confront the ambiguities about possible uses and meanings of the colonnaded streets in the Egyptian cities during the imperial Period. It shows that, for the Romans, these two levels have so much in common and are so interrelated that we may see them as belonging to the same process of designing the urban space.

The colonnaded streets were known under different terms like  $\pi\lambda\alpha\tau\epsilon$ i $\alpha$  and  $\xi\mu\beta$ o $\lambda$ o $\zeta$  but the second term was used widely way all over the eastern roman provinces to define as streets with colonnades along their full length on their sides and

<sup>&</sup>lt;sup>90</sup> Burns 2017: 271.

<sup>&</sup>lt;sup>91</sup> Burns 2017: 278.

<sup>&</sup>lt;sup>92</sup> P. Oxy, nos, 55.

<sup>&</sup>lt;sup>93</sup> P. Oxy, 4441.

<sup>94</sup> Strabo XVII, I, 10.

generally ran straight. Strabo referred to the colonnaded street as  $\pi\lambda\alpha\tau\epsilon$ iα the dromos of Serapis as Σαραπώς δρόμος, so he cleared the difference between the dromos as a religious architectural element and the colonnaded street as an architectural landmark of urbanism. Based on many papyrological sources the term  $\pi\lambda\alpha\tau\epsilon$ iα referred to the all-main streets of the cities if they were colonnaded or not.

Some historians argued that the colonnaded street is a development of the dromos. Based on the previous studies, it would say that the dromoi were different from the colonnaded street in their planning, architectural elements, and uses, the colonnaded streets had a mundane purpose but the dromoi had a religious purpose. The structures and institutions were different, the structure served as cultic and religious places to the visitors of the temples alongside the dromoi, but the structures served as the glorious manifestation to the wealthy of the owners like villa Hadriana alongside the colonnaded street at Alexandria. Based on the description of Strabo to Alexandria he definitized the dromos as  $\delta\rho\dot{\phi}\mu\sigma_{\zeta}$  and the colonnaded street as  $\pi\lambda\alpha\tau\epsiloni\alpha$ , so the dromos and the colonnaded street were two different thoroughfares. The dromoi had sphinxes, in the image of the main deity of the temple, chapels for the secondary deities and trees alongside but the colonnaded street had columns alongside and memorial tetrastyle at the Crosspoint with streets like at Oxyrchunus and Antinoopolis.

The colonnaded streets equally had a utilitarian and symbolic meaning in creating urban cohesion in the Romano-Egyptian cities. The monumental treatment of the colonnaded streets evolved from the Hellenistic Period to the End of the Byzantine Period, they reached their glory in the Byzantine Period. The colonnaded streets were surrounded by various kinds of activities like vehicular traffic, linear, markets, public shelters, and social formations built by individuals for the ruler and the plebs, the architectural and decoration configuration of the colonnaded streets conveyed a powerful representational message to the urban space in Roman Egypt.

The lavish use of the colonnaded streets became an architectural feature of the new precincts, it gives insights into how the imperial programme saw the use of public buildings as signalling the priorities of the new regime. The function of the colonnaded streets increased in the first century AD, they displayed the polis as a theatre.

The Augustan building program reached the point where larger urban vistas was to be manipulated, it would say that the statue-framed *dromos* of ancient Egypt was the precedent in the Roman context for the colonnaded streets that set a magnificent scene along. The colonnaded streets were an innovation of the collective inventiveness of the architects and administrators managed within a system that allowed ideas to flow freely and the interaction of ancient civilizations. As the colonnaded street was an accessible for the populace, so it served as a place for the political propaganda through royal cult celebration. Many visitors came to attend the celebration, so the economic institutions were intensively needed to serve the needs of the individuals on the colonnaded streets. The colonnaded streets were as a sightly landmark in Roman Egypt.

City	Alexandria	Oxyrchunus	Antinoopolis
Date	332BC	unknown	130 AD
width	30 stadia	unknown	12 m
length	4.95 km	unknown	960 m
Number of	More than 1000	uncovered	560
columns			
Distance between	15 to 20 steps	2.20 m	2.30 m
columns			
Columns capital	Varied, but most of	uncovered	varied, but most of
	them were		them were papyrus.
	Corinthian.		
Adjacent structures	Villas, Nymphaum,	Nymphaum,	Nymphaum,
	library, exedra,	markets, theatre.	markets, theatre.
	markets, theatre.		

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