

Bulletins and Supplementary Papers  
of the British School of Archaeology in  
Jerusalem, 1922–1931

Edited by Jessica Holland and Kolya Abramsky  
Introduction by Sarah Irving

Produced by  
Council for British Research in the Levant (CBRL)



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### **Contributors' biographical information**

*Jessica Holland* is the Strategic Projects Director of CBRL, based in London. She is a digital archives specialist and a curator of contemporary art from South West Asia and North Africa.

*Kolya Abramsky* is an archives and records management consultant based in the UK. He is a Registered Member of the Archives and Records Association in the UK, and an individual member of the International Council on Archives.

*Sarah Irving* is Editor-in-Chief of CBRL's journal [Contemporary Levant](#) and Lecturer in International History at Staffordshire University in the UK and a Leverhulme Early Career Fellow researching the social and cultural history of the 1927 earthquake. She has worked in and on the Levant region, particularly Palestine, since 2001 and has written and edited a number of academic and trade books on its culture and history.

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### **Content warning**

Please note that, except for the introduction, the following articles are archival reproductions. The articles include textual references to indigenous people that use antiquated and potentially offensive language, and the plates include depictions of human remains.

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# Introduction to: Bulletins and Supplementary Papers of the British School of Archaeology in Jerusalem, 1922–1931

In 1922, only a few years after the turmoil of World War One died down in Bilad al-Sham, and despite meagre resources, the British School of Archaeology in Jerusalem (hereafter BSAJ) launched a scholarly bulletin. The publication ran for just three years, until 1925 (with supplementary papers to 1931), perhaps finding it hard to carve out a distinctive space in competition both with existing international periodicals<sup>1</sup> and with local publications such as the *Journal of the Palestine Oriental Society* (published 1920–1948), the *Revue Biblique* (official organ of the École biblique et archéologique française de Jérusalem, published from 1890 until today), and the short-lived journal of the first iteration of the Palestine Archaeological Museum.<sup>2</sup> A few years later, in 1931, the Department of Antiquities of Palestine, the official government body with which the British School of Archaeology co-operated and competed, established its own academic journal, the *Quarterly of the Department of Antiquities of Palestine*, which ran fairly consistently until the end of the British Mandate in Palestine in 1948, with its last issue dated 1950.

The journals presented in this volume form the output of that first short-lived British publication from Palestine: seven issues of the Bulletin itself, and the three supplementary publications — on Hittite names; the historical and architectural origins of the design of the Qubbet al-Sakhra (Dome of the Rock); and the churches excavated by a Yale University/BSAJ excavation at Jerash.<sup>3</sup>

I was hugely honoured to be asked to write the introduction to this volume, intended as the first publication from a larger programme of cataloguing, conservation and digitisation of the archives of the Council for British Research in the Levant (hereafter CBRL), the successor institution of the BSAJ and its sister centre in Amman, Jordan. In 2016, the CBRL, seeking to expand its journal coverage beyond the archaeology and ancient history that dominated *Levant*, launched *Contemporary Levant* under the editorship of Dr Michelle Obeid. Four years later, in 2019, Michelle passed that role on to me. In this

sense, as editor of CBRL's newest journal, a century after the establishment of its first, there is a certain continuity.

I believe I can speak for the broader CBRL community when I say that the main impetus behind the re-publication of these issues in a digital and open-access format is to make them more accessible to more people. Very few of these publications still exist — perhaps only single figures remain for each issue — and the political environment in which CBRL works means that many people are barred from accessing those few remaining copies by the restrictions imposed by visa regimes, state borders and separation walls. Whilst digitisation and online access are not perfect solutions to the many issues surrounding access to archives and scholarly publications, this project will, it is hoped, make publications such as these BSAJ Bulletins easier to obtain, read and study. Indeed, improving access to journals such as the *Bulletins of the BSAJ* is not just a matter of making them available to those who are researching and studying the history of British archaeology or British colonialism in the Levant. Publications like this, produced in Jerusalem in the early years of Britain's League of Nations Mandate in Palestine, are also part of the heritage of today's Palestinians, Israelis and Jordanians. Whilst the role and value of colonial documents in researching and writing the histories of colonised peoples is still very much a live — and at times contentious — field of debate,<sup>4</sup> materials produced by colonising peoples can often provide important information about the colonial society and situation, if read critically, 'against the grain' and with questions and challenges constantly in mind.<sup>5</sup> Indeed, sometimes it is the silences and lacunae which are most informative: the names, jobs and uncelebrated tasks which are not mentioned, were probably carried out by indigenous men and women (or sometimes by colonial women), but which we know must have underpinned everyday life, and whose absent presence I discuss below.

## The British School of Archaeology in Jerusalem

The British School of Archaeology in Jerusalem was born into a new and chaotic archaeological, institutional and regulatory environment. Before World War One, Britain had had no permanent or official archaeological presence in Ottoman Palestine. The Palestine Exploration Fund (hereafter PEF), a private organisation, had conducted annual excavations, as well as worked with the British military on surveys, but did not maintain a base in Jerusalem. This contrasted with the approach of other Western powers, such as France (École biblique et archéologique française de Jérusalem, established in 1890), Germany (Deutsches Evangelisches Institut für Altertumswissenschaft des Heiligen Landes, 1900) and the USA (American School of Oriental Study and Research in Palestine, also 1900).

In 1917, however, British and Commonwealth forces defeated the Ottoman and German armies in the Levant. Britain established itself as the colonial power in Palestine and Transjordan, first as a military and then a civil administration, finally institutionalised as a League of Nations Mandatory regime, informally from 1920 and officially from 1923. The British obsession with the 'Holy Land',<sup>6</sup> as well as the existence of the established archaeological institutions already in Palestine made the status of Palestine's antiquities a priority for both the local administration and international negotiators from very early in the British presence. The question of archaeology, and of international co-operation around antiquities laws and practices, was raised at the peace conferences that followed World War One and remained prominent in international affairs. This involved a delicate balance of Britain's position as the ruling power versus the established presence of the French and US institutes, given the long history of Anglo-French rivalry in Middle Eastern archaeology, and the significantly better funding available to US archaeologists from the country's lavish philanthropic tradition compared with that allocated by the British government to the new Department of Antiquities.<sup>7</sup> Germany, as the losing side, was excluded from negotiations as well as from actual excavation for at least a decade.

The British School of Archaeology in Jerusalem thus opened in 1919 in an atmosphere of competition and uncertainty in terms of the archaeological environment, as well as facing the challenges presented by establishing any kind of institution in Jerusalem in the immediate aftermath of World War One. The direct impact of four years of warfare on Palestine's society and economy was dire. The region suffered a terrible famine during the war,

which killed up to a third of the population in some areas.<sup>8</sup> Meanwhile Ottoman actions such as the forced displacement of people and communities deemed suspicious,<sup>9</sup> the Armenian genocide,<sup>10</sup> and the exile of political suspects, created thousands of refugees and displaced people and families, impacting supplies of food, housing and other necessities.<sup>11</sup>

The BSAJ thus spent its first years moving between a number of different buildings, often sharing these with the newly-renamed American School of Oriental Research (hereafter ASOR). Negotiations to rent Bute House inside Jaffa Gate (previously owned by an extremely wealthy British aristocratic family) fell through,<sup>12</sup> sending both BSAJ and ASOR towards the newer suburbs outside the city walls, which had begun to develop in the late Ottoman period. ASOR found a permanent base in the 1920s, in what is now the Albright Institute at the top of Salah ed-Din Street, but the BSAJ remained homeless, moving between sites in the Greek Colony and other parts of the city until it settled in the CBRL's present-day Jerusalem home at the Kenyon Institute in 1967.<sup>13</sup>

John Garstang, who had been one of the main figures in negotiations over antiquities during the peace conferences following World War One, was appointed in 1919–20 to the twin roles of head of the BSAJ and Director of Antiquities for the Mandate administration. He was thus tasked both with creating and imposing a legal framework for antiquities in Palestine and with running a British scholarly institution in Jerusalem — roles which did not always sit comfortably together. Although the British antiquities regimen in Palestine is often presented as a novel institution,<sup>14</sup> created from the ground up, there were in fact a number of continuities from the Ottoman period, including both the Antiquities Laws on which British regulations were based, and the Palestine Archaeological Museum, which was built around an Ottoman institution, the Jerusalem Government Museum, opened in 1901. The latter is another illustration of the complex and competitive environment into which the BSAJ was born; the museum, established under the aegis of Osman Hamdi Bey, Director of the Imperial Archaeological Museum in Istanbul and Ismail Bey, Director of Public Instruction in Jerusalem, had been strongly shaped by Frederick Jones Bliss and Père Louis-Hugues Vincent.<sup>15</sup> The latter was one of the archaeologists of the École Biblique, the base of Britain's French rivals, whilst Bliss was the Lebanese-born American son of one of the missionary founders of the American University of Beirut. Employed as its head archaeologist by the Palestine Exploration Fund between 1890 and 1900, Bliss' support for an Ottoman museum in Jerusalem

— housing artefacts which the PEF wanted sent to London for its own collection — was the main reason for his dismissal.<sup>16</sup> Those PEF members who had been party to the split in 1900 would no doubt have been delighted that the museum’s collection finally fell into British hands.

## The Bulletins and their writers

The *Bulletin of the BSAJ* is, to some extent, a hybrid publication, fulfilling at least three different functions. First, it was a means of outreach for the newly-established British School of Archaeology in Jerusalem, reporting on the School’s activities, informing its networks of archaeological events in Mandate Palestine, and strengthening its connections and support. The latter is emphasised by the small slip of pink paper bound onto the front of the first edition of the *Bulletin*, which states that the government grants allocated to the School from 1922 to 1925 were conditional upon what would now be known as match funding, to be accrued by increasing the *Bulletin*’s subscriber base. Second, it was intended to be a scholarly journal, publishing ongoing reports of the School’s larger excavations and briefer field notes on smaller sites, as well as contributions from archaeologists not working directly for the BSAJ. Third, it gives the impression of being a training journal — an opportunity for young archaeologists based at the BSAJ to write up their reports under the guidance of senior staff. The evidence for this last function comes from the style and format of much of the *Bulletin*’s contents. Many of its reports have no author credits attached to them, but the names of the current trainees at the School are sometimes found in the introductions to each issue, making it possible to identify probable, if not definite, authorship for each article. When the reports do have names (or, more commonly, initials), they are usually those of external contributors, such as P.L.O Guy (1885–1952), at the time Chief Inspector of Antiquities of the British Mandate government in Palestine, or Leo Aryeh Mayer (1895–1959), then Inspector of Antiquities for the Jerusalem district,<sup>17</sup> and a key figure in establishing Islamic studies at the Hebrew University.

Although the *Bulletin* is attributed to the British School in Jerusalem, each issue also bears the statement “Issued by the Council at 2 Hinde Street, London W1”. This highlights the entangled nature of the British archaeological institutions in Mandate Palestine, as 2 Hinde Street was owned by and provided the headquarters of the Palestine Exploration Fund from 1911 until 2018. The PEF provided an administrative base for the

committee of British archaeologists and orientalists which oversaw the BSAJ’s affairs (and which also overlapped with the PEF’s own personnel). In this sense, the *Bulletin* could be regarded as the least ‘Palestinian’ of the various archaeological publications that emerged from Mandate Palestine. The *Bulletin of the Palestine Archaeological Museum*, established in 1924 by the Department of Antiquities and running until 1927, declared itself to be issued by the Museum, i.e., an organisation based in Palestine rather than by an oversight institution in Britain. The copies I observed in the National Library of Scotland were printed by C. Tinling & Co. Ltd of Liverpool,<sup>18</sup> but it was not unusual for journals to be printed in two places and it seems likely that duplicates were also printed in Palestine; editions in the National Library of Israel are said in the catalogue to have been printed by an unknown publisher in Jerusalem.<sup>19</sup> There was considerable overlap between the two publications, with the *Bulletin of the PAM* often reproducing articles from the *Bulletin of the BSAJ*, without even the journal name in the header of each page being changed.<sup>20</sup> One notable difference, though, was in the design: where the BSAJ *Bulletin* remained spartan from first to last, the second, third and fourth issues of the PAM *Bulletin* all boasted a striking black-and-white border of humans, animals and objects such as amphorae and scrolls, drawn in a style influenced by the art of Pharaonic Egypt. Perhaps this was intended to appeal visually to museum visitors. But despite the *Bulletin*’s unadorned design, the budget apparently allowed for noticeably good-quality paper for all seven editions, with glossy photographic paper for some of the image plates in the final two issues.

The ominous financial message of the pink slip attached to the first edition of the *Bulletin of the BSAJ*, and the brief lives of this and the *Bulletin of the Palestine Archaeological Museum*, are likely evidence of the impact on archaeology of the British Treasury’s shoestring budgets during the Mandate administration.<sup>21</sup> The third archaeological publication to emanate from Mandate Palestine was the *Quarterly of the Department of Antiquities in Palestine*, which was also printed in both Jerusalem and Britain, this time by Oxford University Press. The longer lifespan of this journal might be linked to the fact that it was funded, along with the new Palestine Archaeological Museum, by US oil baron John D. Rockefeller, rather than by the parsimonious British authorities.<sup>22</sup> The *Quarterly* was a more substantial and scholarly effort than the *Bulletin*, clearly intended first and foremost to showcase excavations and other archaeological and antiquarian work being done in Palestine; it continued some of the *Bulletin*’s reporting of minor

events and archaeological news, but had less of the feel of an internal newsletter. Unlike the BSAJ and the PAM *Bulletins*, the *Quarterly of the Department of Antiquities* is also notable for the presence of a significant number of articles by indigenous scholars such as Stephan Hanna Stephan, who worked in the Palestine Archaeological Museum and the Department's library from the early 1920s until 1948. The *Bulletin's* named and hinted-at contributors are all white British men, with the sole exception of L.A. Mayer, who was a Jewish migrant to Palestine from Stanisławów, Galicia (now Ivano-Frankivsk, Ukraine), but who, with his doctorate in Islamic art from the University of Vienna, was certainly not an outsider to European orientalist scholarly circles.<sup>23</sup>

Given the limited lives of the official archaeological publications, it is worth noting that the longest-running journal covering this and related topics in Mandate Palestine was the *Journal of the Palestine Oriental Society*, published by a learned society which was inspired by members of the American School of Oriental Research in Jerusalem, and which from its earliest days published work by indigenous Palestinian scholars such as Stephan Hanna Stephan (1894–1949), Tawfik Canaan (1882–1964) and Omar Salih al-Barghuti (1894–1965), while also including Arabs and Jews on its management and editorial boards. Although the somewhat starry-eyed narratives of coexistence that are sometimes told about the Palestine Oriental Society are questionable, its *Journal* certainly provided a long-lasting and widely distributed platform for scholars from a wide range of disciplines and backgrounds to publish their work on archaeology, history, ethnography, linguistics and other aspects of Levantine culture, albeit one which was not entirely immune from the increasingly contentious politics of the region during the 1930s and 1940s. The fact that the *JPOS* was publishing work by local Palestinians from 1921 onwards, whereas the BSAJ *Bulletin* was not, is worth a moment of consideration. Articles in *JPOS* were often on ethnographic and folkloric topics, where native speakers of colloquial Arabic could make use of their local knowledge to reach places, people and subjects that were harder to access for foreigners; indeed, the US Biblical archaeologist W.F. Albright actively encouraged some of the Palestinian scholars he encountered to contribute to *JPOS* precisely because he saw such studies as a quick way to increase the volume of information available to those who, like himself, thought that studying Palestinian rural culture was one of the keys to understanding the days of the Old and New Testaments.<sup>24</sup> A second possible reason for the distribution of work between the different publications is perhaps that the resources needed

for ethnographic study were far smaller than those required for archaeology. With the latter dominated by European and north American scholars and demanding large-scale funding, especially for the huge workforces deployed on the sprawling excavations of the day, there were few spaces for indigenous scholars to become involved and especially to be recognised for it. By contrast, Tawfik Canaan did much of his ethnographic research whilst travelling around the villages of the Jerusalem region, pursuing his main job as a medical doctor,<sup>25</sup> whilst some of Elias Haddad's (1878/9–1959) investigations were seemingly conducted on a trip with just one companion, his friend and collaborator Hans Henry Spoer.<sup>26</sup>

Having said all this, what do the actual contents of the *Bulletins* tell us now, in the twenty-first century? What makes this digitisation and publication process something more than a collectable antique, a dead butterfly pinned into a case? The possible answers to this question are varied, and depend on a range of disciplinary and theoretical perspectives.

First, and most easily addressed, is the fact that the reports and details contained in these journal issues have the potential to fill gaps in archaeological knowledge — of the finds on certain sites or of structures which may now, a century later, be damaged or lost. For scholars with access to the libraries of old, established universities, this may seem a small matter. But for others, it is not — whether because they are cut off from access to such knowledge by political borders and boundaries, or because they are attached to less lavishly endowed institutions. As already conceded above, digitisation is not a panacea, but, as many discovered during the Covid lockdowns of 2020 and 2021, it can make sources far more widely available. In particular, making the second and third Supplements to the *Bulletin* available freely and online will be valuable, as K.A.C. Creswell's study of the Dome of the Rock and J.W. Crowfoot's survey of the churches at Jerash — a site best known for its Roman remains — are still widely referenced works.

Second, for those coming to the *Bulletins* from a perspective of the history of archaeology, rather than from the discipline of archaeology itself, the short run of the *Bulletins of the BSAJ* is an unusual and informative resource. The seven issues, with their numerous unsigned reports and oddly mixed nature of scholarly-journal-cum-training-ground, are a partial snapshot of an institution that did not just conduct archaeology in a remarkable, complex period of colonial and military history, but also trained new generations of archaeologists and was key in forming professional, intellectual and personal networks which helped shape the discipline in Palestine and beyond for several

generations.<sup>27</sup> In particular, the introductions and 'Notes and News' sections of each issue, as well as some of the articles themselves, sketch out an image of the School, with students, mainly but not exclusively, from British universities, and visiting scholars from Europe and North America, coming and going. Many of the names that appear in these early years, including some of the students, went on to make major contributions to their fields and/or to occupy roles that shaped the development of archaeology in Palestine and Transjordan, for good or ill.

Third, these journal issues can be read as texts produced by the new colonisers of a country only recently invaded and extracted from an empire that had controlled this terrain for the previous four hundred years. Moreover, the new occupiers had already promised it to an entirely different set of people. The articles, the ideas and assumptions that underpin them, and who or what does or does not get mentioned or discussed, all have something to tell us about the ways in which archaeologists and students writing about the land of Palestine thought about it, its people(s), and its manifold histories. The fairly frequent references to Biblical passages and events, for instance, illustrate a British (particularly Protestant) tendency to see anything and everything in modern Palestine through the lens of the Bible. On the other hand, sites of all dates, from early hominids until well into the Islamic period, are mentioned and discussed, so those in charge of both the School and the *Bulletin* did have a more rounded view on Palestinian history.

As discussed in greater depth below, Palestinians themselves are largely absent from the *Bulletins*, but the spaces where they should be — the shapes of the lacunae — are also historical facts, and archaeological writings are increasingly recognised as frequently being the sources of much unintended information.<sup>28</sup> And where they do appear, the brief mentions are sometimes highly informative: P.L.O Guy's report on his excavation of an Iron Age cemetery on Mount Carmel for instance, includes a passing comment in which we learn that Mr Aziz Khayat of Haifa, the landowner, had not only granted access to his property but "was good enough to provide the funds which enabled Mr G.M. Fitzgerald and myself to undertake the work which is here described". Khayat, a Melkite Christian Palestinian, was a businessman and entrepreneur who owned the city's most popular pleasure-beach (and after whom it was named), and was one of the most important figures in Mandate-era Haifa.<sup>29</sup> Given the tendency of both the Mandate authorities and many modern writers to dismiss Palestinians as uninterested in, and even destructive of, ancient heritage, to find Khayat paying for excavations by

the British state on his own land is a fascinating glimpse into local attitudes towards antiquities. As such, these digitised volumes will, it is hoped, be a valuable addition to the sources for those studying the social, cultural and intellectual histories of Palestine in the 1920s.

The scope of the articles contained in the *Bulletins* is also highly suggestive of how their mainly British authors viewed the geographical space in which they worked. When the British School of Archaeology in Jerusalem was established, the borders of the political entity of Palestine, and indeed of the other mandatory territories ruled by Britain and France, were still unfixed and contested. Only with the Battle of Maysalun in July 1920 was French rule over Syria imposed, with the defeat of Arab nationalist forces under Faysal, son of Sharif Husayn bin Ali of Mecca and one of the leaders of the Arab Revolt during World War One. Only in April 1921 did the British install Faysal's brother Abdullah as Amir (later king) of the Protectorate of Transjordan, marking more conclusively the separation of lands on the eastern bank of the Jordan River from Palestine — a division that enraged members of the Zionist political movement who considered these territories to have been promised to them under the Balfour Declaration and the terms of the League of Nations mandate over Palestine. This ambiguity of nomenclature and jurisdiction can also be witnessed in British approaches to antiquities. The earliest iterations of the Department of Antiquities for Transjordan might be found in Ottoman institutions; its Mandate existence began in 1923 as a sub-department to that in Palestine, under Garstang, remaining so until a separate body was established in 1928 — well after the demise of the *Bulletin*. Its contents, unsurprisingly, followed the same territorial imaginary, with articles in the *Bulletin* and its final, substantial, supplement featuring work on Jerash and a site near Amman, while mentioning field trips to sites such as Umm Qais.

## The missing voices

What is not evident in the articles within the BSAJ *Bulletins* is the presence of indigenous Palestinians who, as we know from many other sources, were involved in archaeology in the region, and had been for many decades. They appear, albeit fleetingly: in the final edition of the *Bulletin*, for instance, one of the photographs of the palaeolithic caves in the Galilee excavated by Turville-Petre shows five figures, at least two of whom are probably women, sitting with spoil-baskets or standing with digging tools in a large trench. The photo is labelled simply

“Ibid. [i.e., Le Zuttiyeh, the location named in the previous image], interior during excavation”. The workers, though clearly visible, are an irrelevance to the person writing the caption, unworthy even of the briefest mention. Workers are similarly unrecognised in Turville-Petre’s report on the digs he led, and thus join the hundreds, if not thousands, of nameless Palestinians upon whose labour rested the archaeological and anthropological discoveries of the Ottoman and Mandate periods. By extrapolating from other sources, we can nonetheless make informed guesses about their experiences in Turville-Petre’s employment. The men would have done the digging whilst women carried the spoil away in baskets; the latter would have been paid around half to two-thirds of the wages of the male workers. They probably came from local villages and most likely derived the vast majority of their living from agriculture, but seized the opportunity for daily paid work when it arose. And if the photo represents all of the local workers employed on the site, they were likely to have been related by blood or marriage, in order to operate within social rules about men and women spending time in close proximity.<sup>30</sup>

Photographs of archaeological excavations from the late Ottoman and Mandate periods often show large numbers of local workers engaging in the heavy manual labour of digging out huge quantities of earth and rubble, and then carrying it up from the trenches onto spoil heaps. It is notable that, despite Western stereotypes of the role of women in Arab societies as weak and secluded, many of these workers are female, and in fact women workers were a common sight on archaeological excavations well into the Mandate period. Examples of digs on which we know women workers were employed include Tel el-Hesi, excavated by the Palestine Exploration Fund in the 1890s,<sup>31</sup> and Sebastia, dug by an expedition from Harvard University between 1908 and World War One,<sup>32</sup> as well as digs carried out under license from the British Mandate Department of Antiquities in the interwar period, such as that at Tell an-Nasbeh, dug by the Pacific School of Religion in the 1920s and 1930s.<sup>33</sup> These massive-scale excavations were rarely undertaken by the Department of Antiquities or the British School of Archaeology in Jerusalem themselves — mainly for lack of resources — but by teams from universities in Europe and North America, or sometimes with the sponsorship of rich philanthropists. Even small-scale excavations, such as those undertaken by the students of the BSAJ on their field trips to the Plain of Acre in the summer and autumn of 1922, employed a range of Arab labour, with the report on exploratory digging at Tell Amr and Tell el Kussis mentioning “12 Bedwin

[Bedouin] from a neighbouring camp... four skilled Egyptian workmen with one Egyptian labourer... [and] Two local boys and one girl”.<sup>34</sup>

The visual record of Palestinian workers found in such images, however rich it may be, can be somewhat misleading, as it implies that Levantine or Arab people were only involved in archaeology as manual labour. An increasing number of studies have, however, highlighted the important role played by educated locals in regional archaeology, and the fact that this role increased in scope and seniority between the nineteenth century and World War Two. Examples from the Ottoman period include Yusif Khazine and Yusif Kanaan, both Lebanese Protestants who were employed by the Palestine Exploration Fund between 1890 and World War One as foremen, supervisors and dragomans.<sup>35</sup> Both men exercised considerable responsibility, handling payrolls and money, making large-scale logistical arrangements, and conducting sensitive negotiations with the owners of land on which the PEF wanted to dig. The stories of their involvement with British-funded archaeology can be traced because of the Palestine Exploration Fund’s extensive archives, and the habit of several of its head archaeologists of recording copious details about daily operations on their digs. We know much less about the men who occupied similar positions on other excavations, but we do know they existed: archaeologists such as Flinders Petrie, George Reisner and John Starkey, for example, brought Egyptian overseers to Palestine, where they both supervised work and trained Palestinians in specialised techniques.<sup>36</sup> Later, in the 1930s, Palestinian women were trained and promoted at least to the level of overseer and supervisor on excavations by Dorothy Garrod, on which local workers made finds which changed the understanding of human evolution.<sup>37</sup>

During the Mandate period, the role of local men extended beyond that of overseers and on-the-ground organisers. It is not clear from the existing archives when training Palestinians became part of the formal policy of the Department of Antiquities, but it seems to have been early in the department’s existence. From its inception, the British Mandate authorities employed highly-qualified Jewish staff such as Leo Mayer and Michael Avi-Yonah as antiquities inspectors or within the library and museum.<sup>38</sup> Arab Palestinians with similar qualifications were not, however, available, and it seems likely that the post of Student Inspector of Antiquities was instituted in order to meet the terms of the League of Nations Mandate under which Britain ruled in Palestine, and which specified that the Jewish and Arab populations were to be treated equally. It is also possible that the personal

opinions of John Garstang, the first head of both the BSAJ and the Department of Antiquities, played a part in the decision; certainly, he later sympathised with the Palestinian position and may have wanted to level the playing field a little.<sup>39</sup>

Again, the archives do not make it clear how exactly the student inspectors were trained, but the most likely explanation is that they split their time between the Department of Antiquities and the BSAJ, until such time as they were deemed to have qualified and were promoted to Inspector of Antiquities.<sup>40</sup> The student inspectors who passed through this system during the Mandate were, as far as we can tell, Na'im Shehadi Makhoully from Kufr Yasif, and Dimitri Baramki, Salem Abdussalam al-Husayni and Awni Dajani, all from Jerusalem.<sup>41</sup> All pursued long-term archaeological careers. Makhoully spent almost thirty years working for the Mandate authorities, reaching the level of Senior Inspector; as a refugee after 1948 he also found employment under his former colleague Cedric Johns, the former head field archaeologist for the Mandate, who in the early 1950s became Director of Antiquities for the province of Cyrenaica in the newly-forged Kingdom of Libya.<sup>42</sup> Dimitri Baramki, having made a considerable name for himself heading the excavation of the spectacular Umayyad palace at Khirbet al-Mafjar (better known as Hisham's Palace), also left Palestine in 1948, but for a professorship in Beirut. Al-Husayni, like Makhoully — a refugee who had trouble finding archaeological work in the immediate aftermath of the Nakba, also went to Libya to work for Johns, staying until the late 1960s and leaving not long before Colonel Qadhafi's coup.<sup>43</sup> Awni Dajani, the last student inspector, joined the Jordanian Department of Antiquities, which he headed through the 1960s until his early death from cancer in 1968.<sup>44</sup>

Alongside the student inspectors and inspectors of antiquities, over the course of the Mandate period, several other Palestinian and other regional staff joined the Department of Antiquities and thus the entangled relationship it maintained with the British School of Archaeology in Jerusalem. Most of these performed specialist and professional roles that evolved as archaeology became an increasingly complex and scientific discipline; cases in point include the chemist Haroutune Jamil Haleblian (an Armenian with a degree from the American University of Beirut) and Mubarak Saad, a well-known Palestinian sculptor whose skills were

used in the Palestine Archaeological Museum as a formator, repairing finds and making models.<sup>45</sup> That indigenous staff continued to be regarded as of lower status than European (including European Jewish) colleagues within the Department of Antiquities is, however, clear from the case of Stephan Hanna Stephan. He joined the department from the Mandate administration's Treasury; as a member of the civil service pool, perhaps his already-demonstrated interest in and talent for historical and ethnographic writing made allocating him to Antiquities a bureaucratic efficiency. Despite this, he remained an informal, seconded member of the antiquities team for over twenty years, only being promoted to a permanent and formal archaeological role in the final years of the Mandate, despite his copious publications in both the *Quarterly of the Department of Antiquities of Palestine* and the *Journal of the Palestine Oriental Society*.<sup>46</sup>

Of these generations of Palestinian archaeologists, we know of only one — Na'im Makhoully — whose association with the British archaeological institutions in Palestine definitely overlaps with the lifespan of the *Bulletin of the British School of Archaeology in Jerusalem*. Makhoully was not a prolific writer during his long career; he contributed a few brief excavation reports to the *Quarterly of the Department of Antiquities* but his talents very much lay in practical archaeology. As far as we can tell, he made no contributions to the *Bulletin*, unless his fingerprints might be detected in the abundant, unsigned work on the Plain of Acre and the site of Tantura, both of which were not far from his home in Kufr Yasif and were within his remit as Junior Inspector of Antiquities for the northern division of Palestine. *Bulletin* no.5 mentions that he had "cleared a number of tombs of the Roman age in the neighbourhood of Acre (at Shefr Amr and El Zib), of which we hope to give an account in a later Bulletin. He has been occupied principally with special inspections in Trans-Jordania".<sup>47</sup> The anticipated reports never materialised — there were, after all, only two more issues of the *Bulletin* before its demise. But this tantalising note is, as far as I know, the first published reference to a named Palestinian in the Mandate's archaeological institutions and, as such, represents a small but significant point in the long, complex, colonially-riven history of Palestinian, Israel and Jordanian archaeology.

Sarah Irving,  
Staffordshire University

## Endnotes

<sup>1</sup> Such as the *Zeitschrift der Deutschen Morgenländischen Gesellschaft* (established 1847) and the *Palestine Exploration Quarterly Statement* (1869).

<sup>2</sup> In the 1920s the Palestine Archaeological Museum, although technically a state institution, was housed in the same building as the British School of Archaeology, and despite the grand name consisted of just a few rooms of finds. A donation from US oil magnate John D. Rockefeller funded the construction of a much more imposing structure between 1930 and 1938. Known as the Palestine Archaeological Museum under British and then Jordanian rule, it became known as the Rockefeller Museum after its incorporation into the Israeli Antiquities Authority after Israel's occupation of East Jerusalem in 1967.

<sup>3</sup> Originally published as L.A. Mayer, *Index of Hittite Names Section A. Geographical. Part 1*, 1923; K.A.C. Creswell, *The Origin of the Plan of the Dome of the Rock*, 1924; and J.W. Crowfoot, *Churches at Jerash: a Preliminary Report of the Joint Yale-British School Expeditions to Jerash, 1928–1930*, 1931.

<sup>4</sup> Although digitised archives can be made easier for many researchers to access, techniques and challenges related to digitisation include: questions of what gets digitised and the transparency with which it is edited and revealed to the public; the ethics of digitising personal or controversial materials; issues of file size, storage, longevity of digital platforms and the speed and reliability of internet connections which can affect the dependability and quality of digital sources or access to them; and experiential differences between physical and digital archives which create or maintain unacknowledged hierarchies between those researchers with the privileges such as certain passports or institutional funding and those without them. Whilst digitisation may be a valuable part of decolonising archives and access to them, the connection is not unproblematic or simple. For further discussion of such questions, see e.g. Lise Jaillant, Katie Aske, Eirini Goudarouli and Natasha Kitcher, "Introduction: challenges and prospects of born-digital and digitized archives in the digital humanities", *Archival Science* vol.22 (2022): pp.285–291; Charles Jeurgens, "The Scent of the Digital Archive: Dilemmas with Archive Digitisation," *BMGN — Low Countries Historical Review*, 128, 4 (2013): pp.30–54, <https://doi.org/10.18352/bmgn-lchr.9348>; Megan Ward with Adrian S. Wisnicki, "The Archive after Theory", in *Debates in the Digital Humanities 2019*, ed. Matthew K. Gold and Lauren F. Klein (Minneapolis: University of Minnesota Press, 2019), pp. <https://dhdebates.gc.cuny.edu/projects/debates-in-the-digital-humanities-2019>. These questions are especially complex in the Palestinian case, as large quantities of institutional and personal archives were looted by Israeli forces in 1948 and 1967, as well as on other occasions, such as the theft of the collections of the Palestine Research Centre in Beirut when Israel invaded Lebanon in 1982. See, *inter alia*, Sabri Jiryis and Salah Qallab, "The Palestine Research Center," *Journal of Palestine Studies* vol.14, no.4 (summer, 1985), pp.185–187; Kareem Estefan, "Narrating Looted and Living Palestinian Archives: Reparative Fabulation in Azza El-Hassan's Kings and Extras", *Feminist Media Histories* vol.8, iss.2 (spring 2022): pp.43–69; Blair Kuntz, "Stolen Memories: Israeli State Repression and Appropriation of Palestinian Cultural Resources", *Journal of Radical Librarianship* 7 (2021), <https://journal.radicalibrarianship.org/index.php/journal/article/view/54>.

<sup>5</sup> Ricardo Roque and Kim Wagner (eds), *Engaging Colonial Knowledge. Reading European Archives in World History* (Basingstoke: Palgrave Macmillan, 2012).

<sup>6</sup> See, e.g., Eitan Bar-Yosef, *The Holy Land in English Culture 1799–1917: Palestine and the Question of Orientalism* (Oxford: Oxford University Press, 2005).

<sup>7</sup> For a detailed explication of these dynamics, see Mathilde Sigalas, "Between Diplomacy and Science: British Mandate Palestine and Its International Network of Archaeological Organisations, 1918–1938," in K. Sanchez Summerer and S. Zananiri (eds), *European Cultural Diplomacy and Arab Christians in Palestine, 1918–1948: Between Contention and Connection* (Basingstoke: Palgrave Macmillan, 2021), pp.187–211.

<sup>8</sup> The famine of 1915–16 is often associated mostly with Lebanon (Melanie S. Tanielian, *The Charity of War: Famine, Humanitarian Aid, and World War I in the Middle East* (Stanford: Stanford University Press, 2017); Tylor Brand, *Famine Worlds: Life Amid Suffering in World War I Lebanon* (Stanford: Stanford University Press, 2022) but Palestine was also severely affected. See e.g., Salim Tamari, *Year of the Locust: A Soldier's Diary and the Erasure of Palestine's Ottoman Past* (Berkeley: California University Press, 2015); Eduardo Manzano Moreno and Roberto Mazza (eds), *Jerusalem in World War I: The Palestine Diary of a European Diplomat* (London: I.B. Tauris, 2011).

<sup>9</sup> See, e.g., Glenda Abramson, "The 1914 deportation of the Jaffa Jews: 'a little footnote of war?'" *Israel Affairs* 28, 5 (2022): pp.706–23; Khalil Sakakini, "Khalil Sakakini's Ottoman Prison Diaries: Damascus (1917–1918)", *Jerusalem Quarterly* 20 (2004): pp.7–23; Dotan Halevy, "The Rear Side of the

Front: Gaza and Its People in World War I", *Journal of Levantine Studies* 5,1 (summer 2015): pp.35–57.

<sup>10</sup> See, e.g., Hagop Arsenian and Arda Arsenian Ekmekji, "Surviving Massacre: Hagop Arsenian's Armenian Journey to Jerusalem, 1915–1916", *Jerusalem Quarterly* 49 (spring 2012): pp.26–42; Sato Moughalian, *Feast of Ashes: The Life and Art of David Ohannessian* (Stanford: Stanford University Press, 2019); Bedross Der Matossian, "The Armenians of Palestine 1918–48", *Journal of Palestine Studies* 41,1 (2011): pp.24–44.

<sup>11</sup> Reports by ASOR, which was presumably less constrained by the need for diplomacy than its British counterparts, give a sense of the situation in Jerusalem as ASOR and the BSAJ sought to (re)establish themselves: "All of our staff are now on the ground, Dr. Albright having reached Jerusalem December 30th. The members of the staff have been engaged in establishing the necessary relationships in Jerusalem and carrying out negotiations with the authorities, who have uniformly shown themselves most sympathetic. Of the staff of the British School, Mr. Mackay is on hand; Director Garstang is expected to arrive about Easter. Dr. Garstang has already drawn up a very elaborate scheme for the proper recording of all the antiquities of Palestine and Syria... After a good deal of delay and uncertainty a home has been secured for the Joint British and American Schools. This is the Lord Bute House, lying just within the Jaffa Gate...The second story contains six rooms in which members of the staff can be housed. The American Director still occupies our rented School building outside the Jaffa Gate. We understand that Drs. Clay and Peters are now in residence in the Bute House. Ultimately the British and American Schools, and it is hoped a French School, will locate together, with their separate national hospices but with a common building for the joint work. As soon as location is decided upon and title to our land secured the American School can proceed to erect its building with the funds provided by the late Mrs. Nies" (*Bulletin of the American Schools of Oriental Research* vol.2 (February 1920): pp.2–4). Perhaps a year or so after this, William Foxwell Albright, who would become one of the most famous Biblical archaeologists and who was writing as the new director of ASOR in Jerusalem, reported that: "In many respects the life of the scholar in Palestine has become more tolerable during the past year. Many of the restrictions which had hampered the work of scientific institutions under a military regime have been removed. While prices have not altered materially, there is reason to expect that they will remain fairly stable from now on. The housing problem, which has been no less serious in Jerusalem than in cities elsewhere, bids fair to be solved in large part in the course of next year, since building operations are planned, and some work has actually begun. It is, unfortunately, true that the country is not perfectly secure, and that riots and troubles of various kinds may be expected in the spring, but the uncertainty of life in Palestine for foreigners has been greatly exaggerated, and neither the present Director nor any of his associates have ever suffered personal loss or injury in any of their extended trips about the country" ("Report of the Director of the School in Jerusalem, 1920–1921," *Bulletin of the American Schools of Oriental Research* no. 5 (January 1922), pp.9–10).

<sup>12</sup> The files in the British National Archives at Kew contain correspondence to and from Garstang, the BSAJ and Department of Antiquities and the Colonial Office on the Bute House negotiations and other aspects of the longstanding question of the BSAJ's premises.

<sup>13</sup> Shimon Gibson, "British Archaeological Institutions in Mandatory Palestine, 1917–1948," *Palestine Exploration Quarterly* 131:2 (1999): p.123; Miriam Davis, *Dame Kathleen Kenyon: Digging up the Holy Land* (Walnut Creek, CA: Left Coast Press, 2008): p.146; Kathleen Kenyon, "The British School of Archaeology in Jerusalem the New School Building," *Palestine Exploration Quarterly* 89,2 (1957): pp.97–100; "Report of the director for 1967," *Levant* 1,1 (1969): p.V.

<sup>14</sup> Hamdan Taha, "Jerusalem's Palestine Archaeological Museum," *Jerusalem Quarterly* 91 (2022).

<sup>15</sup> Beatrice St Laurent and Himmet Taskömür, "The Imperial Museum of Antiquities in Jerusalem, 1890–1930: An Alternative Narrative", *Jerusalem Quarterly* 55 (2013): pp.17–18.

<sup>16</sup> *Ibid.*, pp.18–19.

<sup>17</sup> Government of Palestine, *Blue Book for 1928* (Jerusalem: Government of Palestine, 1929).

<sup>18</sup> Palestine Museum, Jerusalem, *Bulletin*, vol.1 (1924): p.62.

<sup>19</sup> National Library of Israel bibliographical listing, accessed 29th January 2023: <https://www.nli.org.il/en/journals/NNL-Journals990002783340205171/NLI>

<sup>20</sup> For example, the first issue of the Museum journal contains an article by the Chief Inspector of Antiquities, P.L.O. Guy, "Mt. Carmel: an early Iron Age cemetery near Haifa" which was originally published in issue 5 of the *Bulletin of the BSAJ*; the plates showing photographs and drawings of ceramics from the dig still bear the BSAJ heading — presumably removing this from the plates was too difficult or expensive.

<sup>21</sup> See, e.g., Suzanne Schneider, *Mandatory Separation: Religion, Education and Mass Politics in*

*Palestine* (Stanford: Stanford University Press, 2018: pp.48–50) on the limited investment of the British in Mandatory Palestine and its impact on sectors such as education. For impacts on archaeology, see Gibson, “British Archaeological Institutions”.

<sup>22</sup> W.J. Phythian-Adams, “THE QUARTERLY OF THE DEPARTMENT OF ANTIQUITIES IN PALESTINE. Vol. I, nos. 1 and 2. Jerusalem: Published for the Government of Palestine by Humphrey Milford, Oxford University Press, 1931. 5s each, yearly 18s 6d post free”, *Antiquity* vol.6 iss.21 (March 1932): p.125.

<sup>23</sup> Sarah Irving, “Stephan Hanna Stephan and Evliya Çelebi’s Book of Travels,” in *Cultural Entanglement in the Pre-Independence Arab World: Arts, Thought and Literature*, ed. Anthony Gorman and Sarah Irving (London: I.B. Tauris, 2020): pp. 217–238.

<sup>24</sup> W.F. Albright, “Report of the Director, 1920–1921”, *Bulletin of the American Schools of Oriental Research* 5 (January 1922): p.15.

<sup>25</sup> Khaled Nashef, “Tawfik Canaan: His Life and Works”, *Jerusalem Quarterly* 16 (2002): p.18.

<sup>26</sup> H.H. Spoer and Elias Nasrallah Haddad, “Poems by Nimr Ibn ‘Adwān,” *Zeitschrift für Semitistik* 7 (1929): p.29.

<sup>27</sup> Amara Thornton’s work is key in understanding the networks which were created and maintained by British archaeological institutions in the early phases of British Mandate rule in Palestine. See, “Social Networks in the History of Archaeology: Placing Archaeology in its Context”, in Gisela Eberhardt and Fabian Link (eds) *Historiographical Approaches to Past Archaeological Research* (Berlin: Edition Topoi, 2015): pp.69–94; “Archaeologists-in-Training: Students of the British School of Archaeology in Jerusalem, 1920–1936” *Journal of Open Archaeology Data* (2012), <http://dx.doi.org/10.5334/4f293686e4d62>; “British Archaeologists, Social Networks and the Emergence of a Profession: the social history of British archaeology in the Eastern Mediterranean and Middle East 1870–1939”, unpublished PhD thesis, 2011. London: University College London.

<sup>28</sup> See, for instance, Zeynep Çelik’s discussions of the range of unintended information available from archaeological writings, *About Antiquities: Politics of Archaeology in the Ottoman Empire* (Austin: University of Texas Press, 2016): pp.155–173.

<sup>29</sup> Maayan Hilel, “Cultural Diplomacy in Mandatory Haifa: The Role of Christian Communities in the Cultural Transformation of the City”, in *European Cultural Diplomacy and Arab Christians in Palestine, 1918–1948*, ed. K. Sanchez Summerer and S. Zananiri (Basingstoke: Palgrave Macmillan, 2021): p.144.

<sup>30</sup> Sarah Irving, “A Tale of Two Yusifs: Recovering Arab Agency in Palestine Exploration Fund Excavations 1890–1924”, *Palestine Exploration Quarterly* vol.149, iss.3 (2017): pp.223–236; idem., “Women versus Wheelbarrows: Labor and British Archaeology in Late Ottoman Palestine”, *Journal of the Ottoman and Turkish Studies Association* vol.8, no.1 (2021): pp.427–433.

<sup>31</sup> Frederick Jones Bliss, “Report of Excavations at Tell-El-Hesy during the Spring of 1891: Excavating from its Picturesque Side”, *Palestine Exploration Quarterly* 23, 4 (October 1891): pp.282–298.

<sup>32</sup> Irving, “Women versus wheelbarrows”, p.430.

<sup>33</sup> Melissa Cradic and Samuel Pfister, “Unsilencing the Archives: The Laborers of the Tell en-Nasbeh Excavations (1926–1935)”, online exhibition at the Badè Museum, 2021, <https://storymaps.arcgis.com/collections/dc601d4d131145f88f828196860b8a44>.

<sup>34</sup> Anon., “Tell el Kussis,” *Bulletin of the British School of Archaeology in Jerusalem* no.2 (1922): p.17.

<sup>35</sup> Irving, “Tale of Two Yusifs”.

<sup>36</sup> See, e.g., John D.M. Green and Ros Henry, *Olga Tufnell’s ‘Perfect Journey’: Letters and photographs of an archaeologist in the Levant and Mediterranean* (London: UCL Press, 2021): p.59; Joanne Rowland, “Documenting the Qufti archaeological workforce”, *Egyptian Archaeology* 44 (spring 2004): pp.10–12; Peter Der Manuelian, *Walking Among Pharaohs: George Reisner and the Dawn of Modern Egyptology* (Oxford: Oxford University Press, 2022): pp.217–20.

<sup>37</sup> Jane Callander and Pamela Jane Smith, “Pioneers in Palestine: The Women Excavators of El-Wad Cave, 1929”, in *Archaeology and Women: Ancient and Modern Issues*, ed. Sue Hamilton, Ruth D. Whitehouse and Katherine I. Wright (New York: Routledge, 2016): pp.76–82.

<sup>38</sup> As mentioned above, L.A. Mayer had a PhD from Vienna; Michael Avi-Yonah studied for a BA from the University of London in the 1920s, before studying at the BSAJ, and later earned an MA and PhD, also from London (“Prof. Michael Avi-Yona, 1904–1974”, Institute of Archaeology, Hebrew University of Jerusalem webpage, <https://archaeology.huji.ac.il/people/michael-avi-yona>, accessed 1<sup>st</sup> February 2023).

<sup>39</sup> In 1936 Garstang published a pamphlet titled *Palestine in Peril*, a reprint of a piece written for *The Observer* newspaper of 20th September, 1936 in which he urged the Royal Commission announced that year (known as the Peel Commission after its head, the Conservative politician Earl Peel) to respect the

rights of Palestine's Arab population (Professor John Garstang, *Palestine in Peril: reprinted from "The Observer," Sunday, September 20, 1936* (Leeds: Beckwith & Son, 1936).

<sup>40</sup> I am grateful to Dr Amara Thornton for her advice and discussion on the likely training route for the student inspectors and the possibility of the BSAJ being involved.

<sup>41</sup> Sarah Irving, "Palestinian Christians in the Mandate Department of Antiquities: History and Archaeology in a Colonial Space", in *European Cultural Diplomacy and Arab Christians in Palestine, 1918–1948* ed. K. Sanchez Summerer and S. Zananiri (Basingstoke: Palgrave Macmillan, 2021): pp.162–169.

<sup>42</sup> Sarah Irving, "Archaeological entanglements: Palestinian refugee archaeologists in Cyprus, Libya and Jordan", in T. Kiely, A. Reeve and L. Crewe (eds) *Empire and Excavation: Critical Perspectives on Archaeology in British-period Cyprus, 1878–1960* (Leiden: Sidestone Press, forthcoming 2023).

<sup>43</sup> Ibid.

<sup>44</sup> Mordechay Lash, Yossi Goldstein and Itzhak Shai, "Underground — Archaeological Research in the West Bank, 1948–1967: Management, Complexity, and Israeli Involvement", *Bulletin of the History of Archaeology* 30, 1 (2020): p.8. DOI: <http://doi.org/10.5334/bha-650>; Solomon H. Steckoll, "Marginal Notes on the Qumran Excavations", *Revue de Qumrân* 7, 1 (December 1969): p.33.

<sup>45</sup> Irving, "Palestinian Christians".

<sup>46</sup> Sarah Irving, " 'A Young Man of Promise': Finding a Place for Stephan Hanna Stephan in the History of Mandate Palestine", *Jerusalem Quarterly* 73 (Spring 2018): pp.45–7, 48.

<sup>47</sup> "Introduction", *Bulletin of the BSAJ* no.5 (1924): p.47. Makhoul is also mentioned in Bulletin no.6, which reports that he and his fellow inspector Jacob Ory had "accomplished the work of excavation" at a mausoleum at Tell Barak (p.77).

THE SCHOOL OF ARCHAEOLOGY IN JERUSALEM

BULLETIN No. 1

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'The Council bring to the notice of members that H.M. Treasury has undertaken to seek Parliamentary authority for a grant of £500 in each of the next three years.

This grant will be conditional on the public supporting the School with subscriptions of at least equal amount, and it is therefore vital to secure further contributions. The Council, therefore, requests each subscriber to make an earnest effort to enrol at least one new member during the next six months so as to bring the subscription list to an amount which will justify the Treasury grant.'

FOREWORD

Having to justify the School to the public and to the H.M. Treasury, the Council has endeavoured to set out the reasons for its existence and its aims.

The School of Archaeology in Jerusalem was founded in 1925 as a result of the efforts of the British and American archaeological societies in Palestine.

The School has since that time been engaged in the study of the history and archaeology of Palestine and the Near East.

The School has a staff of about 20 members, and its work is carried out in the excavations and in the study of the material remains of the past.

The School has a library of about 1000 volumes, and its collections of antiquities are of considerable interest.

The School has a museum of about 1000 objects, and its collections of coins and seals are of great value.

The School has a number of students, and its work is carried out in the excavations and in the study of the material remains of the past.

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# BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM

## BULLETIN No. 1

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*Issued by the Council at 2 Hinde Street, London W. 1*

1922

### DIRECTOR'S FOREWORD

It is three years since the British School of Archaeology in Jerusalem was founded and two years since we began active work in Palestine. We now commence the publication of an occasional Bulletin, in which there will appear, from time to time, studies by members and students, a summary of work done in the school or in connexion with it, a brief account of current research in Palestine and Syria, and any other information of general interest touching on the history and archaeology of the Holy Land.

These first years have been spent in preparation. Palestine as a field of special study was new to us whom the Committee had chosen to direct the School in its early years. Our work in the Hittite lands of N. Syria and Asia Minor on the one hand and in the Nile Valley on the other had indeed directed our thoughts as students to Palestine, but the archaeology of the land was known only indirectly through published material, notably that masterpiece of research and learning, the 'Canaan' of Père Vincent, and the accounts of isolated excavations made by the Palestine Exploration Fund and other bodies. For long Palestine has been to the historian only a frontier of Egypt, the pathway of armies, a battlefield of great nations and the birthplace of great religions; while the origins of the Canaanites and the Hebrews and the Philistines, their relations with one another and with the outer world, and the presence of Amorites and Hittites among them, have been regarded rather as matters of local interest, not likely to throw light upon the wider problems of racial migration and settlement, and the development of civilization. During this time we have been able to examine some of the problems upon the spot, to explore the ancient sites already so familiar in name, and to study afresh the links and clues provided by investigators in the past: the result is to convince us that our field of research was not only a battlefield of nations and the home of inspired thoughts, but it was in fact the meeting place of civilizations.

Palestine is geographically a focus upon which varied civilizations converged leaving trails in their passage—slender threads the ends of which lie buried in the soil. If then we can find these clues and trace them backwards step by step, with method and patience, they must lead us surely towards the solution of some of the most interesting historical problems of the day. The pursuit may take us far afield, and it is owing to the progress of research in the neighbouring lands of Asia Minor, Greece, Crete, Egypt, Mesopotamia and Babylonia, that the threads may now be traceable. Reciprocally the notable expansion of our knowledge of these surrounding areas during the last generation indicates Palestine as a natural centre for the task of co-ordinating the new evidence,—that further synthetic treatment, which now lies before us. And in Jerusalem the

student is happily placed. No horizon limits his vision. His neighbours are the historical lands of the Amorite and the Hittite and of Egypt; to the West is the bright sea which through all time has attracted venturous ships that come and go, while to the east and south are vast areas of partial desert, that invite but efface the tracks of intercourse almost as effectively as does the sea.

It is in illustration of this outlook that from a series of studies for publication we have selected as the chief features of our first bulletin the short monograph which follows, on the Hittite and Trojan Allies, by Mr. W. J. Phythian-Adams. The theme is relatively modest: subjects like 'Caphtor' or the Philistines or 'Sisera' might have seemed to claim previous consideration. Its wide and special interest will, however, explain our choice. Briefly the author points out that a group of Hittite allies who fought in Syria with the Great King of Kheta against the Pharaoh Ramses II. reappear as Trojan allies a hundred years later. The fact itself is simple; the lists from a study of which this result is derived have long been known, and no fresh archaeological evidence has been introduced. The conclusion was visible, almost obvious: only Greece and Egypt are each beyond the other's horizon; while both areas must come within the purview of the student of Palestine, who brings the fact to light. And though the fact in itself is a simple one, the result is far reaching, and it opens up new vistas of historical possibilities. Not only are Egypt and the Greek world brought into contact by the land route, a thousand years before Alexander, but the door of Europe is opened to bands of heroes of Homeric type venturing before the close of the 2nd millennium B.C. as far as the Euphrates, the Jordan and the Nile. A notable step has been taken towards the solution of several problems, and a new light is thrown upon the intercourse of antiquity from which our civilization emerged. How fascinating now becomes the pursuit of the Philistine to his homeland, and how full of new hope the enquiry!

While this study has been based upon familiar materials, and no attempt is here made to develop its archaeological consequences, it helps to indicate the full range and interest of our new work in Palestine. This is one of the first-fruits, and it was ripe to pluck. But in general much serious spadework must be done before the ground of our local archaeology can be deemed adequately sifted. We must learn, by years of systematic and patient work, to recognise and to distinguish between the archaeological remains of the different racial elements that have contributed to found the civilization of the Holy Land. This is a complex problem with a worthy goal. We propose to examine a selection of historical sites from each area of settlement, to compare and map the results, so to determine the distribution of each type of archaeological remains, and to ascertain their relationship. The precious fragments of history in early Hebrew literature will help to interpret these results; and we may hope then, but only then, to distinguish and locate the Canaanites, the Philistines, the Amorites, the Hebrews and the Hittites wherever in Palestine they have left their traces. Having in this way prepared our material, the next step will be to follow up each clue methodically by comparison with discoveries in other areas of research abroad. In this way students of Greece and Crete, of Asia Minor and Mesopotamia, of Arabia and of Egypt will each and all find a field of interesting study in Jerusalem, where their help will be equally indispensable to the interpretation of results. This is not the programme of a year but for the future: others we hope will reap where we now sow. But each year will be filled with active work, and many moments will provide their special interest and charm. Hardly can any problem outside of the struggle for existence be of wider or more enduring interest than that of the complex civilization of this small tract, the Holy Land, wherein the most sacred associations of mankind are concentrated to an extent without precedent or parallel upon the globe.

We have spoken chiefly of our investigations of the early civilizations of Palestine, because that is the archaeological period most concerned in the study which here follows. In other branches of research, the Stone Age, the Graeco-Roman, Arab and Crusaders' periods, while the methods remain the same, visible material is more abundant and in general more readily accessible. Students desiring to specialize in one or other of these fields may approach their task confident of a great opportunity for original research, which the organization of the allied Schools of Archaeology in Jerusalem and the Department of Antiquities for Palestine will do all that is possible to facilitate.

J. G.

1st June, 1922.

# HITTITE AND TROJAN ALLIES

1290-1190 B.C.

In 1287 B.C. the Egyptian Pharaoh Ramses II. fought a desperate and only partially successful campaign against a confederacy of tribes or nations from Asia Minor and Syria, under the leadership of the Great King of Kheta. A century later an Achaean host waged their famous 10 years war against a confederacy of tribes or nations in the N.W. corner of Asia Minor, under the leadership of Priam, king of Ilion (Troy). Between these two events so distant in time as well as in geographical space, there would seem, on the face of it, to be no natural connection, but a study of the lists of their enemies which by good fortune both the Egyptians and the Greeks have left us, brings out some interesting and perhaps significant points of resemblance.



The Catalogue in the Second Book of the Iliad gives us what is now generally admitted to be a faithful account of the allies who fought for Troy. With those on the distant Axius and Halys we are not now concerned; we are interested only in a small group which lies for the most part in the Troad between the Sea of Marmora and the Gulf of Adramyttium.

This group contained the following members:—

(1) The TROES, we are told, were commanded as a body by Hector (*Il.* II. 816); but there were sub-divisions. (a) First there were the DARDANOI, who dwelt in the Scamander Valley under the spurs of Ida (*Il.* 821. cf. *Il.* XX. 215-218). (b) Next were certain Troes living in the Aisepos Valley 'and commanded by Lukaon's glorious son, Pandaros, to whom Apollo himself gave the bow' (*Il.* II. 824-7). In two other passages (*Il.* V. 105, 173) this region is called LUKIA (Lycia); and the name 'Lukaon' no less than the mention of Apollo Lukegenes, shows that this name has not been attached in error.

These Lycians were, of course, distinct from the people who inhabited the well-known district of that name in the South-West corner of Asia Minor; the latter are mentioned separately at the end of the Catalogue as being under the leadership of Sarpedon and Glaukos (*Il.* 815-7). It is clear, nevertheless, that the two were intimately connected in much the same way as the Bretons were once connected with their kinsmen in Cornwall and Wales. Both were distinctively a race of bowmen and as such worshipped Apollo the lord of the bow; and it is probably by no accident that the name of Tloes was to be found in Southern Lycia (Strabo XIV. 3. 3 Steph. Byz.s.v. Tlos) and that the famous river of that region, the Xanthos, once had a namesake in the Troad (*Il.* XX. 74. Strabo XIII. 1.21). Finally, the usual Trojan war-cry, 'Ye TROES, LUKIOI and DARDANOI' in which the Southern Lycians must, on any theory, be included, points to the existence of some special link between these three peoples and suggests a common origin or at least a common home in the past. Slight as this evidence is, it seems to support the view that the Southern Lycians had at some date broken away from the old confederacy, leaving behind them a remnant which became gradually merged in the surrounding tribes.

After the Aisepos valley, the Catalogue takes us round the coast South-Westwards and as no tribes are named we must assume that they were all called Troes. In *Il.* I. 840, however, we find,

(2) PELASGOI inhabiting 'deep soiled Larisa' a tract which may be located at the North-West end of the Gulf of Adramyttium, (Troy pp. 198-213). Eastwards of them, as we learn from other passages in the *Iliad* (*Il.* VI. 34-5. XXI. 87) were certain

(3) LELEGES, the name of whose capital was PEDASOS. Strabo tells us that the Leleges were driven out by the captors of Troy and migrated to Caria where a district called Pedasis and a small town called Pedasum remained as a memory of them to his day (Strabo VII. 7. 2. XIII. 1. 50). Whoever these Leleges were, it is evident that the name Pedasos was so identified with them that it accompanied them persistently in their travels.

(4) East again from Pedasos lay Thebe held by a people called the KILIKES (Cilicians *Il.* II. 693. VI. 415).

(5) To the East of the Troad itself we find the MUSOI (Mysians. *Il.* II. 858) and

(6) beyond them by the Ascanian Lake the PHRUGES (Phrygians. *Il.* II. 862).

(7) Finally, for our present purpose, we may note the MAIONES (Maconians. *Il.* II. 864) on the spurs of Tmolos.

The Trojan allies, then, who are of special interest in this enquiry are the following:—TROES, DARDANOI, LUKIOI, PELASGOI, LELEGES of PEDASOS, KILIKES, MUSOI, PHRUGES, and MAIONES.

We may now go back 100 years and consider the Hittite allies recorded by Ramses II. The poem of Pentaur (B.A.R. III. 306) opens with the following 'Beginning of the victory of King Usermare Setepnere (Ramses II.) . . . which he achieved in the land of Kheta and Naharin, in the land of Arvad, in Pedes, in the Derden, in the land of Mesa, in the land of Kelekesh—Carchemish, etc.'

Later on (B.A.R. 309) we have this list repeated with variations 'The chief of Kheta had come, having gathered together all countries from the ends of the Sea to the land of Kheta, which came entire: the Naharin, and Arvad, . . . (lost), Mesa, Keshkesh, Kelekesh, Luka, Kezwedden,

Carchemish, Kode, the land of Kadesh, Ekereth,' etc. In place of Mesa and Keshkesh the hieroglyphic texts have Pedes and a name which has been variously read as Yr-wn, Ariunna, Iliunna (Iliion ?), Ari-wen-na (Oroanda ?) and Ma-un-na (Maeonians ?)—(Hall p. 179).

A third reference (B.A.R. 312) speaks of the 'youth of the wretched Kheta together with its numerous allied countries: from Arvad, from Mesa, from Pedes, from Keshkesh, from Yr-wn-t (?) (for variations see above), from Kezweden, from Aleppo, Eketeri, Kadesh, and Luka.'

The first thing we have to note about the Hittite confederacy is that it has been collected '*from the ends of the Sea,*' a phrase meaningless if applied to the Eastern Mediterranean. Since Kheta occupied the great bend of the Halys and extended thence South-westwards to North Syria, it ought to follow that the most distant of its allies came either from the North, the North-East, or the North-West, coasts of Asia Minor, and that their names will be carefully recorded on the principle '*omne ignotum pro magnifico.*' The lists will therefore contain some Hittite names, some Syrian, and some belonging to people 'from the ends of the Sea' nor is it difficult to distinguish most of these from one another. Kheta, for instance, explains itself; Naharin, Carchemish, Arvad (Ruad), Ekereth (= the Ugarit of the Tell Amarna letters), Kadesh, Kode (= Phoenicia), Kezweden are all known to us from other sources and can be located without much hesitation. Not one of them is to be found West of the Halys; in fact all but one are in North Syria.

There remains a residue which we have now to study, namely:—PEDES, DERDEN, MESA, KESHKESH, KELEKESH, ILIUNNA (or Mawanna or Arwanna) and LUKA, which may be tabulated for comparison with our previous list of Trojans.

<i>Homeric List</i>	<i>Egyptian List</i>
TROES (of ILION) . . . . .	ILIUNNA (?)
DARDANOI . . . . .	DERDEN
LUKIOI . . . . .	LUKA
PELASGOI of LARISA . . . . .	
LELEGES of PEDASOS . . . . .	PEDES
KILIKES of THEBE . . . . .	KELEKESH
MUSOI . . . . .	MESA
PHRUGES . . . . .	
MAIONES . . . . .	(MAWUNNA* ?)
	KESHKESH

The resemblance between these two confederacies is surely too striking to be due to a pure coincidence. At the same time several points have obviously to be examined.

(1) The Pelasgoi of Larisa do not appear in the Hittite list, but as they were obviously an unimportant sub-division of the Trojans (they do not appear in the Catalogue and only incidentally elsewhere), this fact need not surprise us.

(2) The Phruges are likewise absent, but this is due to the fact that at the beginning of the 13th Century they had not yet arrived in Asia Minor. Priam, who speaks of their numbers, (*Il. III. 187*), mentions them in a tone which implies only a limited knowledge of their nation, and it is significant that on the only occasion on which he joined their army the common enemy were the Amazons, who presumably represent the remains of the Hittite Empire. In other words, we infer that between 1290 and 1190 B.C. an invasion of Phrygians burst into Asia Minor and helped to overthrow the ancient kingdom beyond the Halys, and from other sources we know this to be a historical fact.

(3) The Iliunna or Mawunna must still remain undetermined. The name, as we have seen, occurs with Pedes as a variation to Mesa and Keshkesh. The identification of PEDES with the Troadic PEDASOS (*not* the Carian, since the migration of Leleges had not yet taken place) and

\*[Very doubtful reading.—Ed.]

of Mesa with Musoi seems irresistible. It would appear reasonable, then, to locate Iliunna or Mawunna in the same geographical area, and either reading will enable us to do this (see above).

(4) The same argument should apply to Keshkesh, if this is not after all a scribe's error for Kelekesh. The identification of this place with the Gashga of the Boghaz Keui texts (Hrozny p. 157 f) seems at first sight attractive, but Gashga appears to have lain between the Halys and the Euphrates, (Hrozny p. 158) and Keshkesh, which we find in company with Mesa (Mysians) and Kelekesh (Cilicians), should surely be looked for in the neighbourhood of these peoples.

Can Keshkesh possibly be Kuzikos (Cyzicus)? In support of this identification we can cite an exact parallel. The Libyan enemies of Ramses III., whom the Egyptians called Mesh-Wesh are identical (in name) with the later Libyan tribe of MAZYES or MAXYES and with the modern Berber IMAZIGH-EN and IMUSHAGH. (The dominant root is M - z - GH Bates p. 42, 46 f). Thus, the termination -sh being the same in both cases, we have

$$\begin{aligned} M(E) - SH - W(E) - (SH) &= M(A) - Z - U - (ES) \\ K(E) - SH - K(E) - (SH) &= K(U) - Z(I) - K - (OS). \end{aligned}$$

If this identification is accepted, we gain yet another ally whose home was in the Troad.

(5) As to the position of the Mesa, if these are the Mysians, there is no dispute. Close beside them, to the West, were the Kilikes who centred round Thebe. The country which was later to be known by their name, Cilicia, was at this date called Arzawa or Luvia (Forrer p. 21). The Assyrian 'Khilakku' belongs to a date long posterior to the Hittite war and the most reasonable supposition is that the body of Kelekesh who fought at Kadesh on the side of Kheta, settled, or were settled, in 'Cilicia' after that event. The remnant left behind in the Troad survived for a century more and then disappeared, just as the Lycians on the Aisepos vanished while their migrant kinsmen have preserved their name for all time in their new home.

(6) The identification of Luka with the Lukioi presents no difficulty nor does it affect our argument that we are unable to determine to which branch of that people the name refers. We have seen the special grouping of Troes, Lukioi, and Dardanoi, and we may assume that the causes or motives which brought Sarpedon and Glaukos into such close connection with the Troad would have been still more cogent a hundred years before.

At this point we touch the vital problem which underlies our argument. What created this North-West Anatolian confederacy? What caused it after a century of alliance with Kheta to repudiate that alliance and range itself on the side of the Phrygian invaders? What gave it such cohesion that it not only survived the wreck of the Hittite Empire but embraced in an unbroken chain the Southern Lycians and the Paconians of Macedonia? What, in short, is the link between the Hittite allies of the thirteenth century and the league which fought for Priam at the siege of Troy?

Briefly the answer is twofold, Race and Trade. All the known evidence (archaeological, geographical, linguistic and historical) goes to show the intimate connection which existed between the Troad, the Balkans, and the Danube valley. (For a detailed examination of these facts the reader is referred to the works mentioned in the bibliography).

This connection was due in the first place to the invasion of North-West Asia Minor by Danubian or Balkan tribes which made their way down the valleys of the Vardar or Maritza, crossed the Dardanelles or Bosphorus, and drove out or absorbed the original inhabitants of the Troad. These tribes can be traced by the survival of the parent body which they left behind. (cf. Ridgeway p. 351, 355, etc.) Thus in Roman times Dardani were to be found in Illyria (Strabo VII. 5. 7.) while a legend related the migration of Dardanus through Samothrace to Troy. Similarly the Brygi or Bryges in Thrace and Macedonia were well known to be of the same race as the Phrygians (Herodotus VII. 73. Strabo XII. 3. 20) and to have been left behind by them when they crossed to Asia. The Mysians and the Moesians on the Danube had once been one (*Iliad* XIII. 5, Strabo VII. 3. 2). The Bithynians came later from Thrace (Herod. VII. 75) and left behind them the Thyni. The Maeones of Lydia and the Pacones of Macedonia look back

to a common origin (Arkwright p. 62 and Note 133). Finally a study of Lycian and Phrygian names has revealed many interesting connections between Phrygia, Illyria, and Thrace. (Arkwright.)

The Eastward movement of these tribes was checked for a time on the frontiers of the Hittite Empire, and their invasion converted into an alliance. Trade followed migration. The doors of the mountains once unlocked, the new peoples of Western Asia Minor now looked back to their kinsmen in Europe and invited the commodities which they had enjoyed in their old homes. Amber from the far-off Baltic, gold and silver from the Paeonian mines of Pangaeum must have met in their passage to Asia the copper of Cyprus and the rich robes of Phoenicia. At one end the Paeonians, at the other the Lycians, Carians and Maeonians acted as middlemen between East and West. (Troy p. 312, p. 321 etc., Thallon p. 200), and in the centre at the junction of the land and sea-routes from the Danube to the Euphrates, from the Nile to the Axius, from Iolcos to Colchis stood Troy, the mart and the meeting place of this ancient world.

The league of kindred tribes, created at the first spontaneously by the need for united effort in a strange land, was perpetuated by the new impulse of commercial interests and when its integrity was threatened at the vital point by the rising ambitions of Greece, it rallied to that point and fought for its very life (cf. Troy p. 321). The complete disappearance of Troy after the Achaean victory is in itself a sufficient proof of the issues which were at stake in that momentous war.

May 27, 1922.

W. J. P.-A.

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## NEWS AND NOTES : EXCAVATION AND DISCOVERY

BEISAN. The Expedition of the University of Pennsylvania resumed active excavation this Spring. Dr. Fisher has completed the plans of the two uppermost city layers of the great mound. On the top he uncovered some interesting mediaeval monastic buildings, and has now disclosed the foundations of a great 'rotunda' of Byzantine age. Very large columns and other traces of good Roman work begin to appear. In section he has worked down to the period of the Pharaohs of the XVIIIth and XIXth Dynasties (c. 1500 B.C.) without nearing the bottom of the mound. His discoveries include an historical stela of the early XIXth Dynasty which may throw light on the foreign and local relations of the age, as well as a number of tombs of the same period, with a representative series of ceramics of the well-known types of the Late Bronze Age as found at Ascalon and elsewhere in Palestine and in Cyprus. The work is proceeding and merits the warmest congratulations both as to its method and its execution.

BEIT JIBRIN. An exceptionally fine mosaic pavement, reported by Mr. Champion, Governor of Hebron, during the winter, has been examined by members of the British and French Schools. Arrangements have now been made for a fuller excavation by the French School (Ecole Biblique) with the co-operation of the Department of Antiquities, commencing in July.

TELL EL FUL. The American School under Dr. Albright has commenced excavation in this mound which lies just N.E. of Jerusalem. The great glacis has been exposed and may prove to be much older than had been supposed. The work will continue after the harvest.

VALLEY OF THE JORDAN. Mr. Guy, Inspector of Antiquities, has examined 40 ancient mounds to the south of Beisan: 17 of these were unrecorded. He reports very early pottery from several of these sites.

MISCELLANEA. The expeditions from Chicago and Harvard that are to work at Megiddo and at Samaria respectively are not yet announced. The British School is making preparations to examine, in the autumn, Tell Harbaj and Tell Amr (the possible sites of Harosheth of the Gentiles and of Sisera's outpost) and the Palestine Exploration Fund will resume work in the vicinity of Ascalon. The Arab pottery found on the site of the great mosque which overlay Herod's Cloisters at Ascalon proves to include a number of rare and early fabrics comparable with those of Fustat and especially akin to specimens which M. de Lorey has recently recovered at Damascus.

In Syria work is mostly closed down for the summer. Early Egyptian objects continue to be reported from Byblos (Jebel) where a land slide by happy chance disclosed a tomb and sarcophagus of great size, suggesting a non-human interment, accompanied by a deposit of alabaster and metal vases of special character. At Kedesh (Tell Nebi, Mindu), where a monument of Sety I. was found last year, work was still proceeding at the time these notes were written; early pottery is reported. At Tyre massive masonry foundations have been uncovered on the approach to the former island, and there are abundant traces of activity of the period of Alexander and thereafter. No buildings of the earlier periods have been discovered as yet, and the Late Bronze and Early Iron Ages are indicated by typical ceramic fragments.

# BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM

## BULLETIN No. 2

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### FIELD WORK, 1922

INTRODUCTION. During the Summer and early Autumn of this year the British School has been enabled to devote itself to field work. In the first place a preliminary visit was paid to the sites of Amman, Jerash (Gerasa) and Umm Keis (Gadara) in Trans-Jordania. Successful photographs were obtained of the standing monuments and of interesting architectural details. Measurements were taken of some classical buildings at Amman and at Jerash which seem, hitherto, to have received inadequate attention. We particularly admired the proportions and detail of the hexastyle temple which faces the rising sun from a knoll overlooking the southern entrance to Jerash. Mr. Ernest Richmond, F.R.I.B.A., who was a member of the expedition, is devoting his leisure moments to working out measured drawings of this and other monuments, and we hope to publish these in an early Bulletin.

During part of August we camped on Carmel and began to explore the ridge which lies between the Plain of Esdraelon and the Sea-coast. We examined and photographed the mounds of Tell Keimun (Jokneam), Abu Shusheh, Tell El Mutesellim (Megiddo) and Tell Ta'anak, which indicate the Canaanitish frontier along the south-west edge of the Plain, and also those of Khurbet Belameh (Ibleam) and Tell Dothan. We traversed the pass of Wady Milh, starting from Keimun at the foot of Carmel, and emerging opposite Tanturah which was visited and inspected; also the historic pass of the Wady Arah, with Tell Arah in the middle of its course and Tell El Asawir at its mouth. We should like to include in this survey an exploration of the less frequented tracks and of the Sahel El Arâbeh which leads westward from the plain of Dothan, so as to be able to publish a complete description of this important area.

In the cooler weather of September, we began a systematic exploration of the Plain of Acre, of which little has been recorded. In this work we had a special objective, namely, the location of 'Harosheth of the Gentiles,' and to this end two Foundation Members of the School, Mr. T. W. Woodsend and Lt.-Col. Sir J. Reynolds, had contributed a special fund, so that we might test the result of our investigations with the spade. We devote this Bulletin to a description of the preliminary results, which are of immediate interest, while providing us with welcome new material for comparative study. It will be seen that Tell Harbaj, which commands the opening of the pass connecting this Plain with that of Esdraelon, seems to fulfil the conditions indicated in the fourth chapter of the 'Book of Judges' and the 'Song of Deborah' for its identity with Harosheth.

During October the Assistant Director devoted himself to the researches of the Palestine Exploration Fund in the vicinity of Gaza. Here, again, the first results are of striking interest, and they will be published in the Quarterly Statement of that Society.

Mr. Fitzgerald, first student of the School, in addition to assisting in the field work during September and October, spent the months of May to August at the excavations of Beisan. Dr. Fisher, who directs this work on behalf of the University Museum of Pennsylvania, is a master of archaeological method, and this privilege is greatly appreciated. By his courtesy we are able to include a general outline of his results in this Bulletin.

## GEOGRAPHY OF THE PLAIN OF ACRE (S.)

With a Map and Photographs [Pl. II].

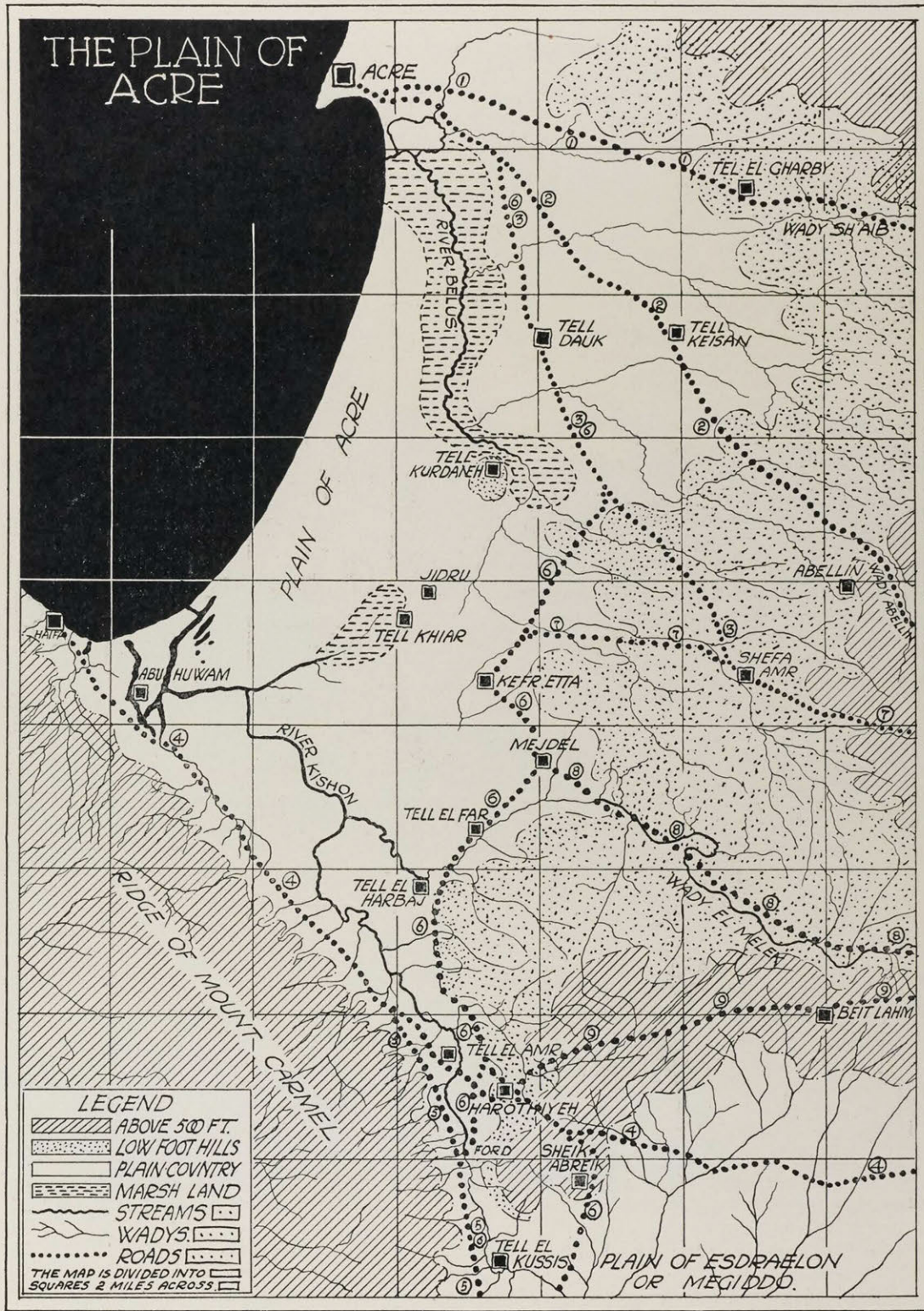
The Plain of Acre extends from Ras En Nakura in the North to Carmel on the South. In shape it may be described as like the capital letter 'B', the coast line forming the vertical stroke, and the hill country of Upper and Lower Galilee rounding off the Plain into the two curves, while sending to the coast approximately in the centre a spur which divides the Plain into two almost distinct sections. The town of Acre situated at this central point draws, as it were, the two parts of the Plain together, and affords a meeting place for the streams of commerce which converge upon it both by land and sea. Its principal exports to-day are, as they have probably always been, grain from the Hauran and olive oil from the Galilean hills; and it is important in this connection to remember that Akka had enjoyed centuries of prosperous existence before the relatively new port at Haifa began to steal away its trade.

The southern half of the Plain (the lower loop of the 'B') is that to which the School's work this season was confined; and all that follows refers exclusively to this, which we call the southern Plain. It is divided by a low spur thrown out westwards from the hills near Shefa Amr, down which run several water courses to join the River Belus. The largest Tell on the Plain, namely, Keisan, is invisible from Khurbet El Burj and from the small mud village of Jidru to the South. On the other hand Tell Kurdaneh, around which the Belus river bends, standing on higher ground opposite the western extremity of this spur, overlooks both the areas into which the southern Plain is thus resolved.

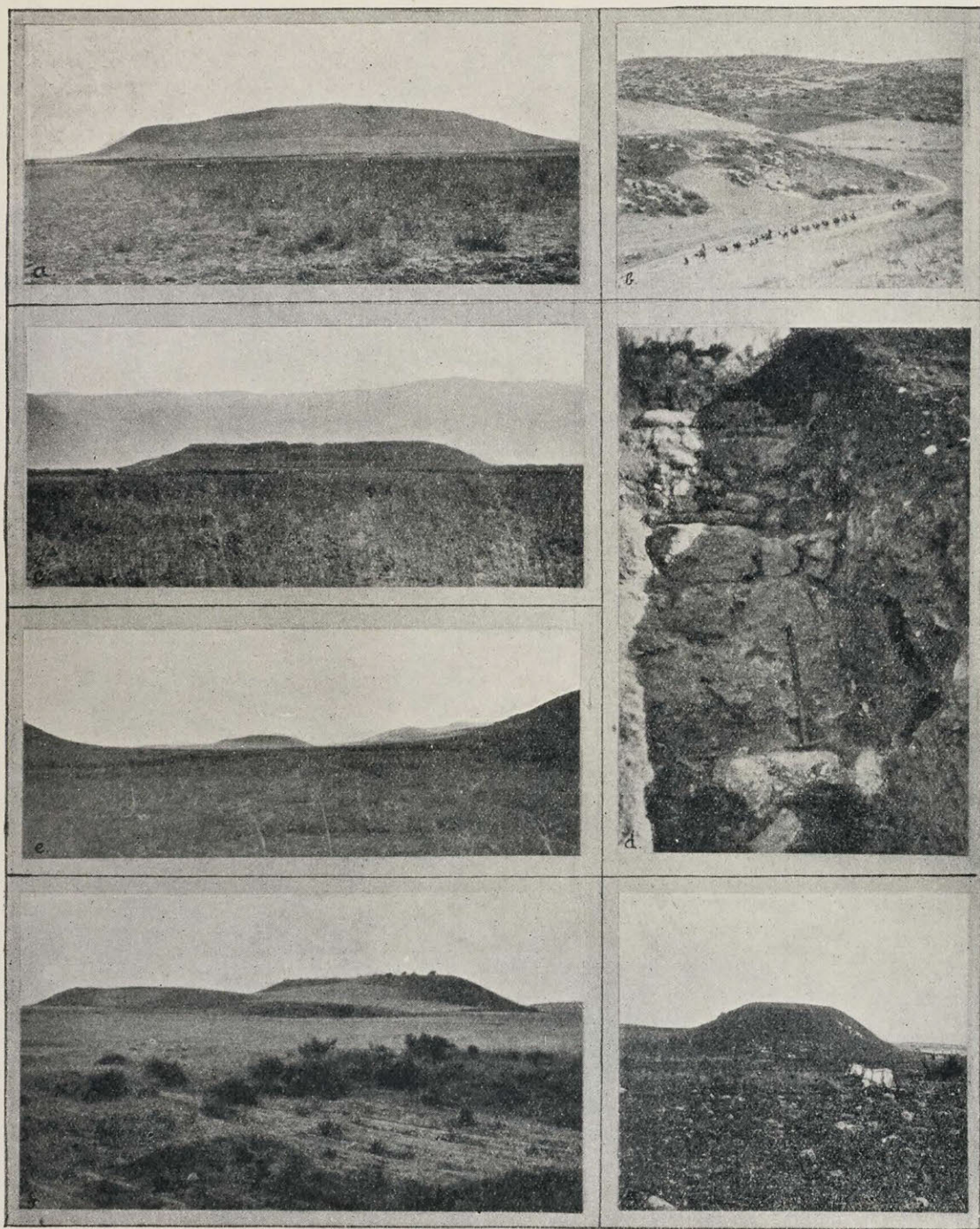
The northern section, bounded on its South by this ridge and the lower course of the Belus itself, forms an open but slightly undulating plain, crossed by three main caravan routes which diverge from Acre. That furthest North [No. 1 in the Map] runs along the edge of the foothills which form our northern boundary, and passing by Tell El Gharby enters the hill country by the Wady Sh'aib. Its further course need not here detain us. (See P.E.F., Q.S., 1888-9). The central route [2] leads by the imposing Tell of Keisan [Pl. II, a], enters the hills by the Wady 'Abellin [Pl. II, b], and reaches by easy gradients the inland Plain of El Buttauf, at the entrance to which stands Tell Bedeiwiyeh. The last and southernmost track [3] passes by the low Tell and mud village of Daûk, and crosses the southern ridge obliquely to Shefa Amr.

The southern section presents a different aspect: the low ridges give way almost entirely to a broad expanse of alluvial soil. Two miles south of the marshes round Tell Kurdaneh another source, this time a belated tributary of the Kishon, rises near Tell Khiar, and flowing southwards along the eastern extremity of the sand dunes reaches the parent river little more than a mile above its mouth. Another tributary of the same river rises at Tell El Harbaj in the south-east corner of the Plain, and this joins the Kishon at a point a mile and a half away. Lastly, the Kishon itself adds a final barrier to the South of our area, effectively separating Haifa and Carmel from the Plain of Acre. Such East and West tracks as cross this southern section, depending on either Summer fords or modern bridges, diverge from Haifa through Jidru and Kefr Etta and meet once more at Shefa Amr. These routes are all of subsidiary importance and seem only to serve the local needs of the nearest villages. The modern road from Nazareth [4] which descends from the foothills at Harithiyeh, crosses the Kishon almost at once by a permanent stone bridge. But the main caravan route from the South and East [5], after collecting the numerous cross tracks in the Plain of Esdraelon, emerges upon the single route which, skirting the foot of Carmel, keeps throughout to the South of the river and so avoids the crossing. The Kishon, in fact, before entering the narrow passage to the Plain of Acre, unites the many unseen tributaries of the Muketta that water the Plain of Esdraelon. The last ford is in the Pass itself. Thereafter the river becomes deep and relatively broad; its banks are for the most part steep and slippery, and during the rains the torrents from Carmel swell it to overflowing, so that no further crossing is possible except in the driest weather. So level also is the Plain that towards its mouth the waters stagnate, resulting in large areas of swamps, amidst which the low mound of Tell Abu Huwam alone marks a place of ancient habitation. It was this potent factor, doubtless, that restrained the development of Haifa as a port; and so is explained at the same time how, for a double reason, namely, the obstacle itself and the lack of objective which resulted, nature's channel of communication with Galilee and Damascus by the Wady El Melek, which drains the Sahel El Buttauf, has never been developed as a highway, but remains to this day a simple and scarcely used track.

In ancient times, while the maritime supremacy of Akka was as yet unchallenged, the principal road in this southern section [6] ran not West and East, but South and North. Leaving Esdraelon by the ford in the Pass or by the higher ground near Sheikh Abreik, it sought the Galilean foothills



THE PLAIN OF ACRE AND ITS COMMUNICATIONS



ANCIENT SITES IN THE PLAIN OF ACRE, ETC.

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|---|---|
| <i>a.</i> Tell Keisan from the N.W.                   | <i>b.</i> Caravan in the Wady 'Abellin.                     |
| <i>c.</i> Tell El Harbaj, with Carmel.                | <i>d.</i> Tell El Harbaj: City Wall of the Late Bronze Age. |
| <i>e.</i> The pass to Esdraelon, with Tell El Kussis. | <i>g.</i> Tell El Kussis from the West.                     |
| <i>f.</i> Tell Amr from the S.E.                      |   |

below Harithiyeh, and, skirting these, passed by El Harbaj, Mejdal, Kefr Etta and Da'uk to Acre or the North. Branches from this main route lead eastwards, as already noted, from Kefr-Etta by Shefa Amr [7], and from Mejdal by the Wady El Melek [8]. A third [9] leads north-eastwards from Harithiyeh, where it leaves also the modern road, heading by a steep gorge for Beit Lahm (Bethlehem) and Seffurieh.

At first glance there might appear to be one central point on which all the communications of the southern plain converge. This point is Shefa Amr, a well-built and imposing town, perched on an eminence at the head of a charming recess in the Galilean hills. But Shefa Amr commands no pass; on the contrary the hills behind are lofty and precipitous, and offer no natural channel of communication with the East. It has required the skill of the engineer, alike in Roman as in modern times, to make this route practicable for active commerce. The key of the whole of this district lies not here, but to the East at Tell Bedeiwiyeh in the Sahel El Buttauf. This ancient site commands one of the great sea-roads of antiquity [2] along which caravans still pass from Acre by Tell Keisan eastward through the Wady Abellin, and so to Semakh. On it converge the tracks from Seffurieh (and so from Nazareth), from the Wady El Melek, from Shefa Amr, and from the Buttauf itself. No estimate of the historical geography of this area can be regarded as complete which does not give its full value to this pregnant fact.

It is evident already from the foregoing physical considerations that the Plain of Acre can have no separate history of its own. Acre itself, while providing the commercial focus of the road system that necessarily traversed this plain, does not dominate the situation. On the other hand, its position on an isolated beak of land, with its converging roads and narrowing communications, was primarily defensive. Its outlook was towards the sea, not inland. It could only offer protection to the Plain by an extensive occupation of the eastern hills, to which this lies exposed. Here is no 'Shephelah' to form a frontier, a boundary between hills and plain, such as gave to Philistia its separate history; nor any ridge like Lebanon that protected Phoenicia, while denying to it expansion towards the East. The Plain of Acre belongs to Galilee, and the power that held the hills controlled the plain. There were, indeed, periods when that power was maritime, as when Phoenicia extended as far as Joppa. But, in fact, the sovereignty of Tyre tended to disappear at Ras El Nakura, where the protective wall of Lebanon ends. For Phoenicia to hold the ports and coastal towns of Akka and Achzib, as she held once Dora and Joppa, was natural and relatively easy: but to occupy the Plain was probably more troublesome than profitable. Nor was it necessary. All she required was the establishment of peaceful relations with the interior, together with the power of protecting her landward front against sporadic raids. Her commerce was of mutual interest, alike to her as to the merchants of Palestine and Damascus, and so established the one; while her geographical situation and maritime power secured the other. In any case the history of the plain is inseparable from that of the hills and valleys which bound it on the East.

To-day the southern plain is practically deserted. Those who cultivate or feed their flocks upon it have tended more and more to seek refuge from the scourge of malaria in the foothills. In the northern section, Tell Keisan, which marks a town that flourished and prospered for two thousand years at least, now rises solitary and imposing, amid an area that boasts not a single habitation. In the southern section Tell Harbaj attracts first attention [Pl. II, c]. This mound, still occupied, indeed, by a few fever-stricken villagers, preserves little trace of its former importance, which is amply attested, however, both by its position and the results of our examination. Situated at the narrowing of the passage between the Galilean hills and the Kishon, it was the veritable guardian of the Plain. Our section cut in its slopes gives proof of a continuous occupation throughout the Bronze Age, towards the close of which the city was encircled by a protective wall of stone. [See Pl. II, d and the Report in this Bulletin, with Plates III and IV.] Its history seems to have terminated, so far as antiquity is concerned, with the close of the Bronze Age, the late Canaanite period, about 1200 B.C. With very little debris of later periods on the top, and few modern houses, this Tell presents a unique opportunity for investigating by excavation the culture of the Bronze Age. In particular there is a ready chance of throwing direct light upon the civilization of the Canaanites, which is already distinguished archaeologically by its Mediterranean relations, and as known to us from contemporary Egyptian sources attained a high level in the development of its characteristic arts. The special interest of this ancient site must in any case arrest attention; for it is the nearest upon the northern bank of the Kishon to Harithiyeh, the name of which reflects, if it does not perpetuate, the historic Harosheth though the village itself is modern. Tell Harbaj is not, however, the nearest site: on the southern bank of the river, close under Harithiyeh, stands Tell Amr, in a position of tactical importance which invites a brief description.

The narrow passage between Carmel and the foothills of Harithiyeh, through which the Kishon finds its way from the Plain of Esdraelon to that of Acre is practically level and free from obstacles [see Pl. II, *e*]; it is consequently the natural channel of communication between the two plains. With a length of more than four miles it nowhere attains a mile in width, while for some two miles after leaving Esdraelon it narrows to five hundred yards. Tracks pass along both banks, and a ford is found at a bend just under Harithiyeh. At either end of the narrower reaches of this pass, some three miles apart, and in full view of each other, two mounds rise like sentinels, Tell El Kussis and Tell Amr, the former on the right bank and the latter on the left [Pl. II, *f, g*]. They are both partly natural formations, crowned with the characteristic indications of ancient occupation. It might reasonably be supposed that they would represent the defences of the pass throughout a long period of history. But the suggestion proves to be illusory, as the further reports in this Bulletin will show. Tell El Kussis was occupied only during the earliest phase of the Bronze Age (c. 2000 B.C.), while the development of Tell Amr was confined entirely to the Early Iron Age (c. 1000 B.C.), with the exception of some traces of Arab habitation. Thus during the whole period of Canaanitish domination the pass was left without special protection; nor does the site of Harithiyeh upon the foothills present any traces of antiquity. The result of this examination is very striking. Protected rather than menaced by the heights of Carmel, this pass belonged by nature and by right to the Galilean side. It linked the two plains together; and during the period of alliance between the Canaanites and the Goyim of Galilee it determined the course of their common frontier, which passing along the south-western ridge of Esdraelon by Taanak and Megiddo to Jokneam, skirted the protective wall of Carmel until it reached the Kishon, which it then followed to the Sea.

The following is a brief summary of the results of our examination, or excavation, of the several Tells.

(a) *Tell Keisan*. A prominent isolated artificial mound [Pl. II, *a*], 1,000 paces around the bottom of the slope: about 25 m. high. Signs of two entrances, N. and S., and suggestion of enclosing walls around the middle and upper slopes. Pottery fragments on the surface and slopes. range from the middle Bronze Age to Roman.

(b) *Tell El Far*. A small knoll like mound, possibly partly natural. Pottery of the Iron Age (Geometric) and Graeco-Roman period found on the surface.

(c) *Tell Harbaj*. Low level mound with steep slope: about 200 m. across the top, and 12 m. high. Trenching from bottom to top on the western face showed continuous occupation throughout the Bronze Age, with a strong encircling wall of the later phase. No traces of occupation during the Early Iron Age. [See Report 2 and Plates II, *c*, III and IV.]

(d) *Tell Amr*. A natural low ridge about 250 m. in length with an artificial mound on the northern end. [See Report 3 and Plates II, *f, V* and VI, *a*]. Occupation from the Early Iron Age (Geometric) c. 1000 B.C. until Hellenistic times c. 300 B.C.

(e) *Tell El Kussis*. A small, steep Tell, mostly natural, with traces of occupation during the earliest phase only of the Bronze Age. [See Report 4 and Plates II, *e, g*; V and VI, *b*].

(f) *Tell Bedeiwiyeh*. A great mound dominating the several approaches to the Sahel El Buttauf. Abundant traces in pottery fragments and bronze of extensive occupation during the Bronze Age. Superficial observation indicates a subsequent gap until Hellenistic times, when the occupation was, however, sparse. Nothing of Greek or Roman periods. A mediaeval fortress upon the broad summit.

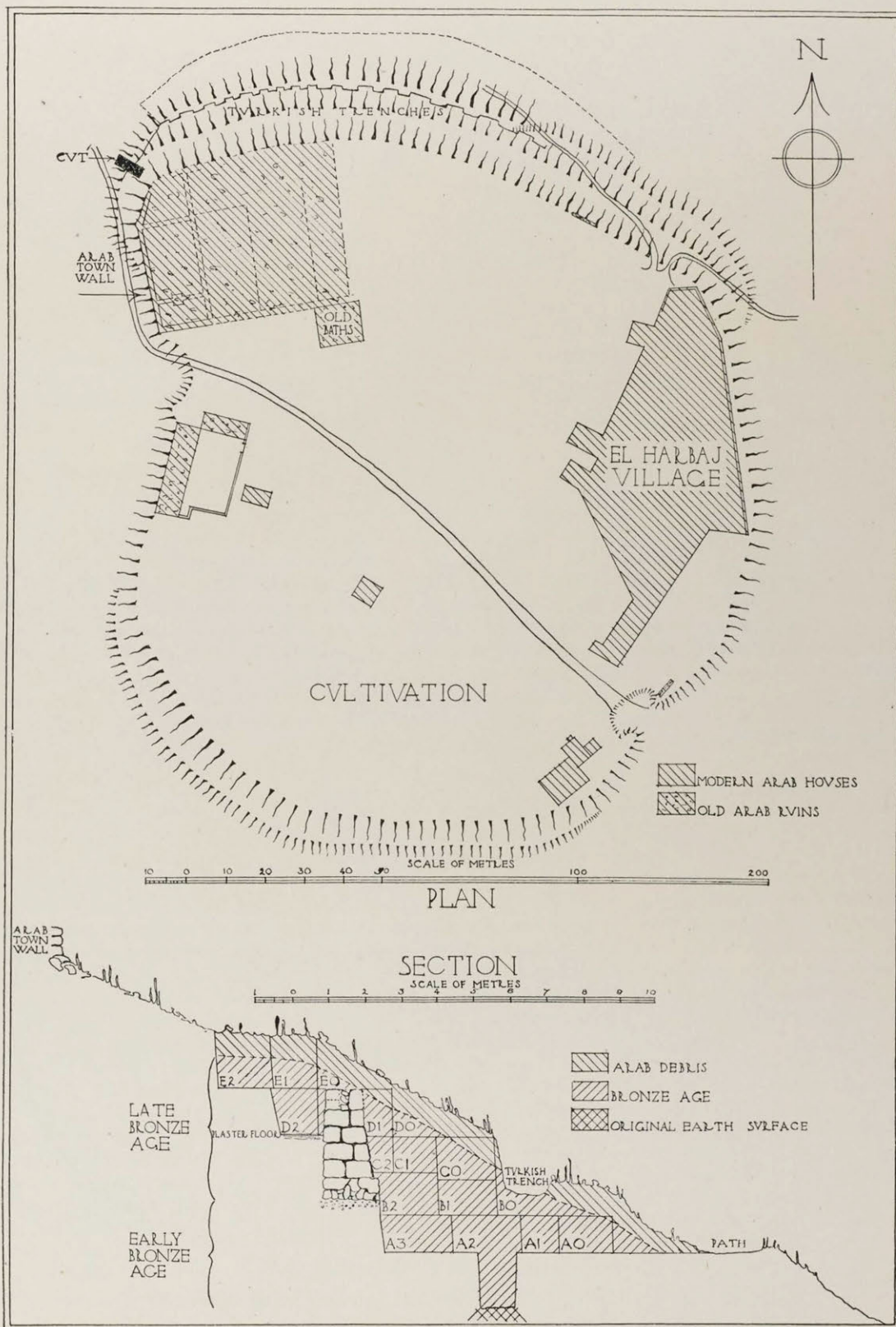
The Map of the Plain of Acre has been prepared by Mr. A. St. B. Harrison.

The Plans of Tell Harbaj and Tell Amr [Plates III and V] by Mrs. A. C. Holliday.

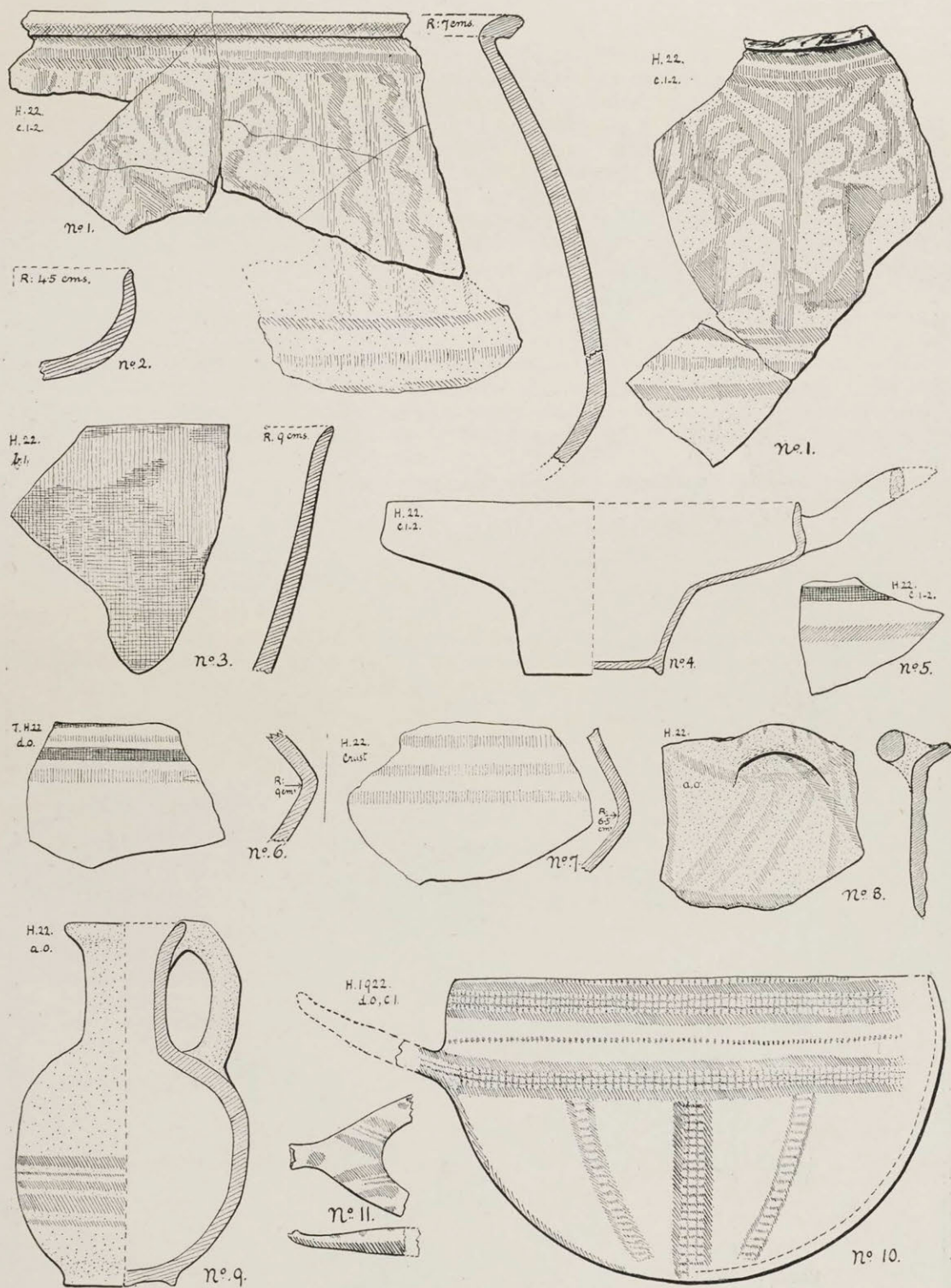
## TELL EL HARBAJ

(With Plates III and IV.)

This Tell for reasons which afterwards become apparent nowhere attains a height of more than 15 metres. Its general features can be inferred from the sketch plan [Pl. III]. The summit is occupied in the north-west corner by the ruins of an Arab castle or public building and on the East and South-East by the modern Arab village which extends across the old south-east gateway. The rest of the surface with the exception of the few buildings indicated in the sketch is given up to the sparse cultivation of tobacco.



TELL EL HARBAJ: PLAN AND SECTION



R=RADIUS. ■ Red ■ Yellow ■ Brown ■ Purple ■ Black.

The slopes are steeper on the West, North, and East than on the South. On the North is traced a line of Turkish trenches now thickly overgrown with thistles and other rank vegetation. Their 'siting' is of interest as indicating the importance of the position: surrounded on all sides but the east by marshes which still hold water in September, the town faces naturally through the south-east gate toward the adjacent foothills of Galilee which at this point approach one of their spurs to within a few hundred yards of the mound. Along the plain below these foothills runs the ancient high road from the North to Tell Amr and the Plain of Esdraelon, and the wheels of many centuries have bitten deep furrows in the soft limestone outcrops along its track. The narrow passage between the marshes and the hills is guarded by El Harbaj which thus assumes the rank of a frontier town to any power holding the Plain of Acre north of the Kishon. In early Arab times the mound was encircled by a strong wall and probably boasted a castle, but to-day it is inhabited by no more than 80 souls, whose obvious distaste for hard work is no doubt due to the constant ravages of malaria.

The soundings took the form of a single sectional trench about 20 metres North of the north-west angle of the 'Castle.' The sectional diagram [Pl. III] shows the extent of the cut and the stratigraphical nature of the Tell. The discovery on the first day in the outer 'crust' of 'ledge handles' and 'base ring' ware seemed to foreshadow some confusion in the underlying strata; but the appearance of a massive strong-wall dating back to the Late Bronze Age (c. 1500 B.C.), at no greater depth than 1.20 m. from the surface, confirmed the evidence of the sherds and shewed that we had found in El Harbaj that site for which the archaeologist usually seeks in vain, a mound deserted before the beginning of the Iron Age and not re-occupied until the arrival of the Arab conquerors.

The ceramic evidence shewed two distinct strata, if we may except a small percentage of Arab wares on the crust and an occasional fragment which might be dated to the Early Iron Age without bearing witness to any permanent settlement of that date.

(a) At the foot of the strong-wall in C.1 and 2 as also in D.0 just above them [see Pl. III] were found typical specimens of 'base-ring' jugs, white slip wishbone handle bowls, and 'cyma'—or funnel-shaped cups of hard metallic clay [cf. Pl. IV. Nos. 10 and 4]. The painted pottery of this period was finely represented by the fragments of a small pithos [Pl. IV. No. 1] decorated in red and brown with panels shewing two animals heraldically opposed on either side of a palm tree (a motif found at Ascalon last year in pottery of the same date but in a different paint); the rim was also painted on the top with streaks of alternate red and brown. Other painted fragments were very scarce in this cut; those discovered had simple bands of red, black, or brown and in one case of dark muddy blue [Pl. IV. Nos. 5—9].

The unpainted wares were also curiously scarce, being represented largely by the base rings of moderate sized jugs.

(b) The stratum below this formed an abrupt contrast. All base rings vanished and flat-bottomed vases appeared with ledge handles, 'comb faced' red pottery, and 'porridge' wares with raised indented bands. The milieu, in fact, was that of the Early Bronze Age c. 2500 B.C., though it no doubt lasted down to Late Canaanite times.

The chief types of this period appeared to be the ledge-handled flat-bottomed vessel, often covered with an unequal brownish yellow wash, and a peculiar very large flat dish or straight-sided bowl with rim sharply upturned and occasionally also curved inwards towards the centre. Fragments of these two latter types were extremely frequent and shewed great variety both in manufacture and material. The best fabric was a hard smooth brick-red clay which was found later at Tell el Kussis [see Pl. VI, fig. b, Nos. 9, 11, &c.]. In addition to these types two specimens with lug handles were found in B.1 and B.2, while the bottom of A produced a fragment of small lug handled juglet (red slip on buff clay).

Finally two fragments in B.1 deserve special notice. The first of these [Pl. IV. No. 3] is the rim of a wide bowl with almost vertical walls. The clay which is light yellow has been covered inside and out with a slip of brownish pigment. The interior colour has been allowed to remain but the external has been altered by firing to a mottled pattern of red and brownish black. Both inside and out this slip has worn through and the original clay appears beneath, but it is noticeable that this has occurred more generally on the interior than on the more hardened outer surface. The second fragment [Pl. IV. No. 2] formed part of the bottom of a small saucer. The clay is redder than that of the last specimen and the exterior has been burnished by pebbling into a high polish. Both fragments have an affinity with the 'pan' pottery of Egypt.

The history of the site as evidenced by its stratification has already been briefly described. The line of the ancient wall [Pl. II, d] can be traced by the small platform which it has formed for itself along the sloping sides of the Tell; and in view of the good condition of that part of it

which we uncovered in our cut it is extremely probable that this wall with its towers and guard rooms is lying intact beneath the surface. That the city itself is in an equally good state of preservation is no doubt too much to expect, but that it contains tablets of the Tell Amarna period is, to say the least, quite possible, and there can be no doubt as we have said above that it presents exceptional opportunities to the excavator.

#### DESCRIPTION OF PLATE IV.

- No. 1. Coarse buff clay with white gritty particles. Rough surface. Lustreless red and brown paint.  
No. 2. Fine yellow clay. Highly burnished polish on exterior only.  
No. 3. Fine light yellow clay. Brown slip with slightly burnished polish, brownish yellow on interior and mottled red and dark brown on exterior face.  
No. 4. Dark grey metallic clay, turning from black to brown. Rough surface.  
No. 5. Badly baked reddish clay. Rough surface. Lustreless vermilion and bluish black paint.  
No. 6. Coarse badly-baked buff clay. Rough surface. Lustreless red and black paint.  
No. 7. Coarse buff clay. Rough surface. Lustreless red paint.  
No. 8. Coarse buff clay. Rough surface. Lustreless brown paint.  
No. 9. Coarse badly baked clay. Rough surface. Lustreless brown paint.  
Nos. 10 and 11. Dark slaty grey clay covered with smooth white slip. Lustreless brown paint.  
The handle does not fit to the bowl.

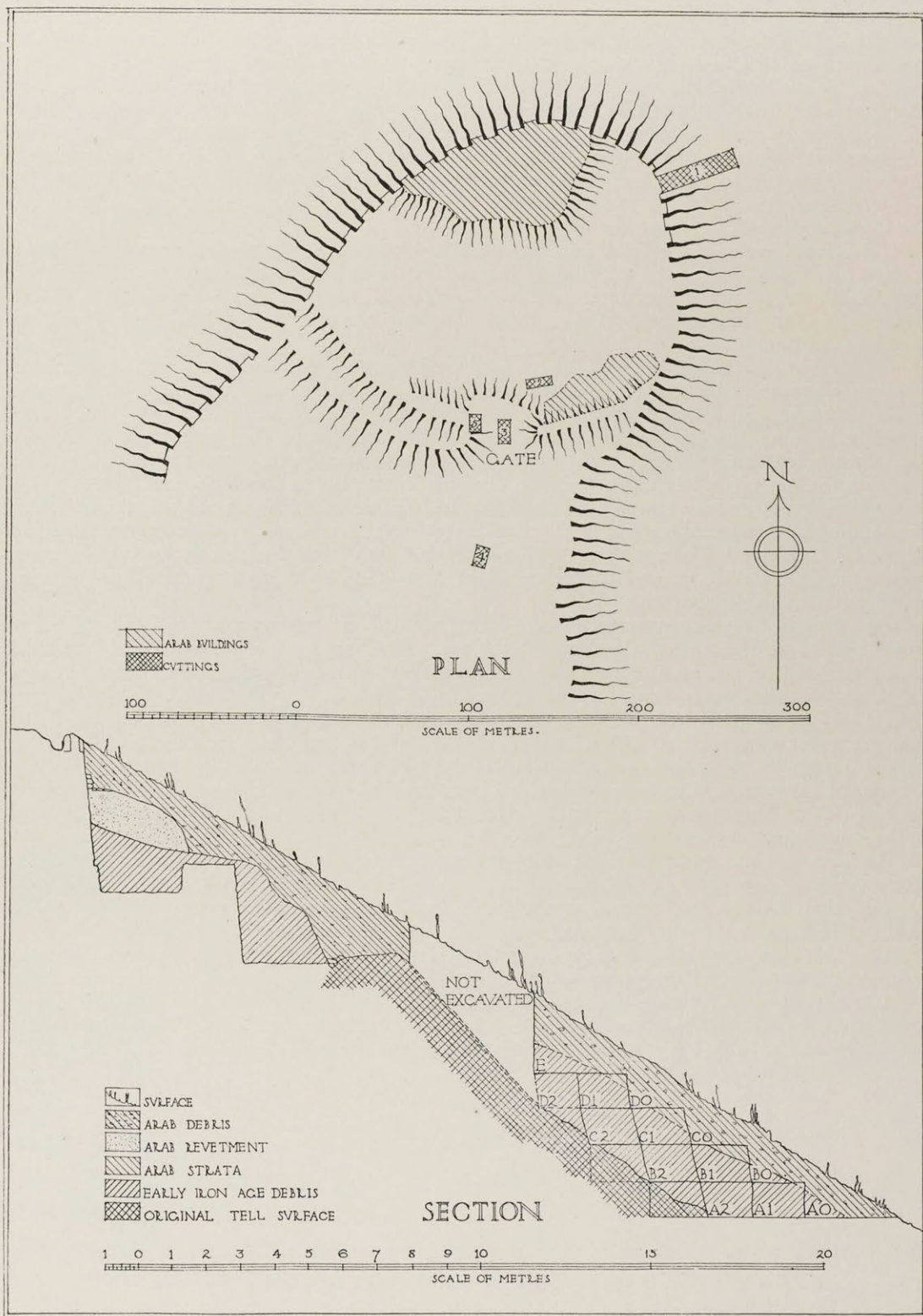
## TELL AMR

(With Plates V and VIa.)

The Tell stands in an imposing position in the mouth of the pass from Esdraclon into the Plain of Acre. It is between twenty and thirty metres in height and is almost circular on the summit (diameter c. 80 metres). On the North and East its sides descend steeply to the level of the river (the angle is c. 32°) but on the South and South-West this fall rapidly decreases and at the point where the gateway gives access to the interior the ground slopes gradually to a saddle which connects it with a second smaller and entirely natural hillock overlooking the Nazareth-Haifa main road. Within the gate [Pl. V] the ground rises gradually on all sides to the circumference and on the northern edge there can be discerned the tumbled remains of a small building of the Arab period. With this exception and a slightly elevated vallum at the gateway, the rim (as it were) of the saucer is quite flat, shewing no signs of a rampart except where a line of Turkish trenches made during the war have formed for themselves a low parapet on the side facing the sea. Generally speaking, the Tell gives the impression of concealing an ancient walled stronghold or frontier post and it is therefore all the more surprising to find that this idea is completely illusory.

The soundings took principally the form of a sectional trench three metres broad taken from the top to a point over half way down the slope of the eastern flank, where the gradient began to fall away more easily to the Plain. The sectional diagram [Pl. V, *b*] will indicate the method pursued, and the general results of the sounding. The absence of any trace of walls during our excavations seemed at first to be ended by the appearance of large stones (49 × 33 × 20 cms.) at a depth of two metres below the seven metre peg [see the section in Pl. V]. From this point upwards and inwards could be traced a fairly clear sloping deposit of hard clay full and, in some parts, crowded with stones and pebbles of all sizes and shapes. The suggestion was that of a revetment to a city wall; but as this deposit was traced still further up the hillside, till it disappeared under the later Arab parapet, it became obvious that it represented the remains of early house walls which had been built on the north and east sides of the Tell presumably to catch the sea breeze which rarely fails to refresh the plain from late forenoon to sunset. This conclusion was confirmed by the presence of sherds of the Early Iron Age (c. 1000—500 B.C.) throughout the deposit and by the discovery of a three-legged mortar of the usual basalt type four metres below the summit of the Tell.

It remained to discover what traces of ancient occupation crowned the top plateau and to what date its gateway could be assigned. The result was once more surprising. Soundings in the 'saucer' and in the centre of the gateway [Pl. V] brought the hill surface to light at depths of 2.20 metres and 2.50 metres respectively. In the former a stone floor bearing Arab



TELL AMR : PLAN AND SECTION

glazed ware immediately overlay the marl. In the latter a few coarse sherds (c. 800 B.C.) were found under a loose pebble layer (a roadway?) 60 cm. deep and 60 cm. below the surface. To make assurance doubly sure, a third sounding was made on the saddle to the South of the gate. Here the surface was found at 1.60 metres. Finally a section was taken of the West side of the gateway vallum to a depth of three metres. It revealed the fact that with the exception of inferior Arab wall foundations on the top, the rampart was composed of loosely packed earth and had no sustaining wall on the outside. The pottery found agreed as to stratification and character with that discovered in the centre of the gateway.

The pottery in the principal trench, after an initial deposit of glazed and painted Arab wares, which varied from two to three metres in depth over the whole site, presents a homogeneous character from top to bottom. Of the characteristic Base Ring ware of the Late Bronze Age one piece alone was found at the foot of the 'village deposit.' Its presence cannot invalidate the overwhelming evidence of the other sherds.

(a) *Lamps* were of the usual Iron Age pinched type, but distinctly late in point of shape. A fragment from A.0 (buff clay) was roughly flattened along its base and the interior was markedly shallow. A second found four metres below the summit of the Tell was shaped like a shallow saucer with a flat circular base. A more normal (rounded) fragment of a third lamp came from the same stratum.

(b) *Juglets* (A.2, A.1, D) were of the rounded type made of red clays lightly pebble-burnished in a vertical sense and furnished with a single loop handle and circular mouth.

(c) *Saucers*. The better class were made of buff coloured clay, on which a red, almost vermilion, slip was applied and in some cases pebble burnished. The application of the slip was very uneven and has either worn through or failed originally to cover the entire surface. The exterior was often left untreated, the slip only extending as far as the rim.

(d) *Larger vessels* are represented by the typical Hellenistic amphora of hard, almost white, clay shewing a sharp metallic angle at the shoulder (this type was found in A.0 and, generally, just below the Arab crust), by large bowls, generally treated with a red slip on the rim, and by ruder double-handled cooking pots of chocolate coloured clay having a slight raised flange running round outside, and under, the rim.

(e) *Painted fragments* were very rare. The rude and native wares shewed bands of brown or black paint on the untreated surface of the pot. One fragment of a large vessel had thick concentric bands of red on a reddish clay. More elaborate vases shewed distinct affinities with, if not ultimate derivation from, Cyprus. [See Pl. VI, Nos. 4, 6, 7.]

(f) The 'Cypriotic' or 'Phoenician' character of these finer painted wares, so completely different from those called 'Philistine' on the sites of Ascalon, Ain Shems and the Shephelah was marked further by the presence of a miniature bottle of Cypriotic Iron Age type with globular body and slender pipe neck decorated with concentric black circles on the natural red clay of the vase (D.2). The neck of a jug with a trefoil lip (A.1 red slip on buff yellow clay) pointed in the same direction.

To sum up, the stratigraphical and ceramic evidence of this site indicates with some precision:—

(a) that the first inhabitants came to it during the Early Iron Age and continued living on it till Hellenistic times (c. 300 B.C.).

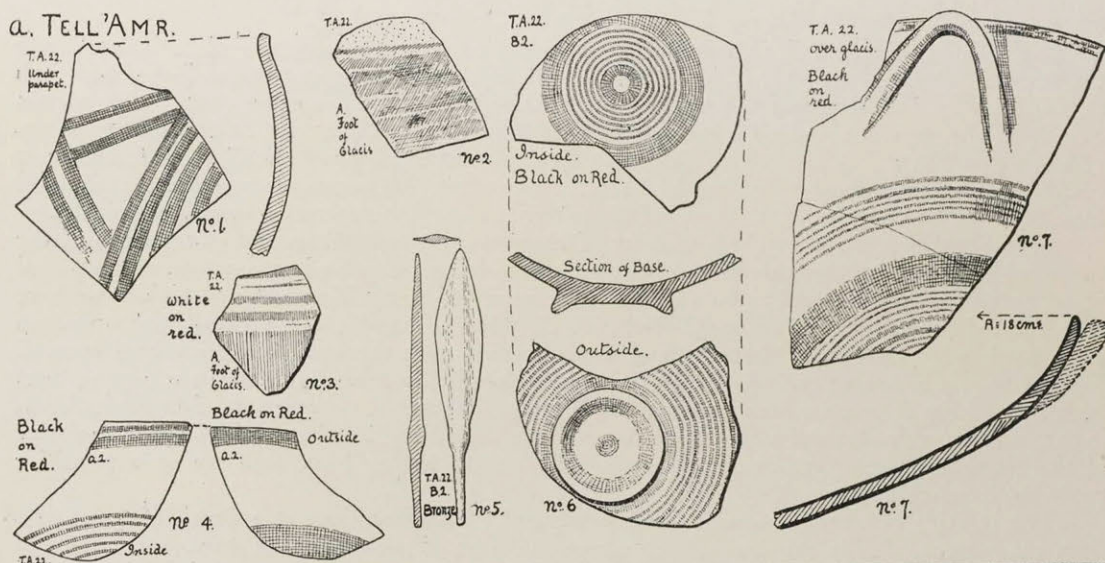
(b) that their occupation took the form not of a walled town or military settlement but of an unimportant unwallled village whose houses clustered chiefly on the seaward slopes of the Tell.

(c) that after a long period of abandonment which lasted through the Roman and Byzantine domination the site was re-occupied by Arab settlers who built their village facing not North but South and provided a gateway opening towards the Plain of Esdraelon.

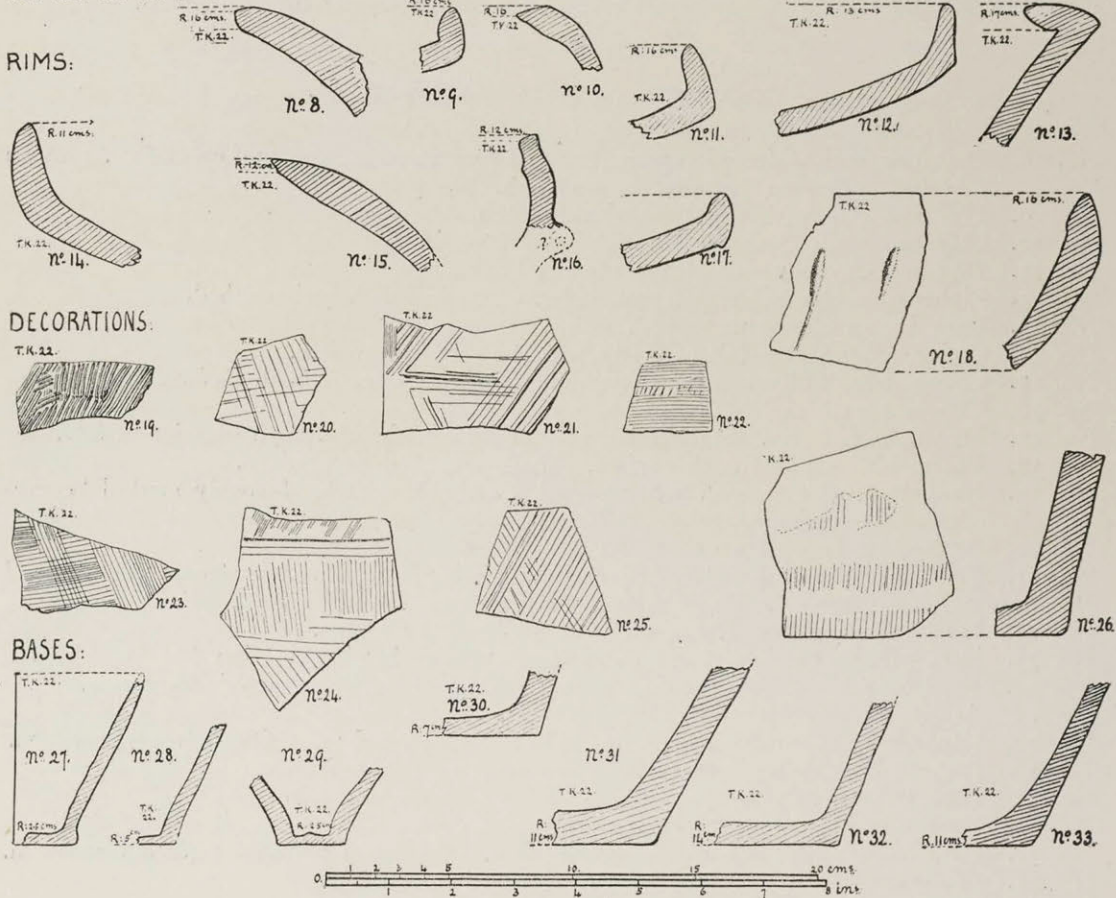
#### DESCRIPTION OF PLATE VIa.

- No. 1. Badly baked reddish clay, dark brown on interior face. Rough surface. Lustreless black paint.
- No. 2. Fine pale yellow clay. Smooth surface. Lustreless dark brown paint.
- No. 3. Dark grey metallic clay, brown on exterior face and smooth surface. Lustreless white paint.
- No. 4. Fine red clay with slightly burnished polish. Lustreless black paint.
- No. 5. Leaf shaped bronze arrow-head with straight tang and slight centre rib.
- No. 6. Fine red clay as No. 4. Lustreless black paint.
- No. 7. As Nos. 4 and 6.

A. TELL'AMR.



B. TELL EL KUSSIS.



(a) TELL AMR; (b) TELL EL KUSSIS. POTTERY TYPES (1922)

# TELL EL KUSSÎS

(With Plate VIb.)

This Tell though smaller than Amr, bears a curious resemblance to it since in each case the extremity nearest the river is markedly higher than that at the opposite end [see photograph on Pl. II]. In Tell el Kussis the western bluff shews the chalky limestone rocks a few metres only from the summit: indeed it is doubtful whether there is a deposit of more than 2.0 metres of earth over the whole site. The Tell is, in fact, an outlying spur of the Galilean foothills; it could have maintained a small block house and its commanding position suggested that it must have done so, but here as in the case of Tell Amr reasonable expectation was disappointed.

Soundings were made at the extremity of the eastern slope and on the eastern side of the western bluff: in each case the rock was encountered within a depth of two metres. One period of occupation only was found to be represented, that of the Early Bronze Age, which as we have seen, formed the lowest stratum at El Harbaj. The 'ledge'-handle, the flat dish with upturned edge, hard red 'comb faced' pottery, and wares covered with the usual brownish wash were all found here in some quantity. [See Pl. VIb.] Loop handles were not unknown, but no ring bases occurred, all the fragments found having flat bottoms whether they were jars of large size or as in three instances smaller and more fragile vessels. It should be added that while the great majority of the fragments were hand-made a few shewed signs of having been built up on a primitive probably hand-turned wheel.

The remains of a rough masonry wall was found in the lower cut at a depth of .50 metres from the surface; inside this and slightly above the level of the remaining stones was a floor of beaten earth, which no doubt belonged to the same house. There were no signs of the destruction of this early village nor were any seen above the contemporary stratum at Harbaj.

## DESCRIPTIONS OF PLATE VIb, Nos. 8—33.

- No. 8. Drab clay with white gritty particles, dark grey at centre and buff on surface. Rough surface. Uneven lustreless brown wash.
- No. 9. Fine red clay with slight burnished polish.
- No. 10. Clay and wash as in No. 8.
- No. 11. Fine red clay covered with a smooth brown slip.
- No. 12. Light grey clay with gritty particles. Exterior slightly burnished.
- No. 13. Dark brown clay with smooth brown surface.
- No. 14. Coarse reddish clay full of gritty particles. Rough surface.
- No. 15. Coarse reddish clay turning to yellow on exterior face. Rough surface.
- No. 16. Clay and wash as Nos. 8 and 10.
- No. 17. Fine light red clay. Smooth red slip on interior face. Rough exterior surface.
- No. 18. Coarse buff clay. Rough surface. Shallow incised decorations.
- No. 19. Hard dark red clay with gritty particles. Rough surface. Strongly marked 'comb-face' decoration.
- No. 20. As No. 19.
- No. 21. Very hard dark brown clay, brick red on exterior face. Rough surface. 'Comb-face' decoration.
- No. 22. Hard red clay. Rough surface. 'Comb-face' decoration.
- No. 23. Hard reddish buff clay. Rough surface. 'Comb-face' decoration.
- No. 24. Hard bright red clay. Rough surface. Very slight 'comb-face' decoration.
- No. 25. As No. 24.
- No. 26. Hard black clay, bright red on exterior face. Rough surface. 'Comb-face' decoration.
- No. 27. Reddish brown clay. Traces of a red slip on exterior face.
- No. 28. Hard red clay. Slightly burnished polish on exterior surface.
- No. 29. Hard bright red clay. Rough surface.
- No. 30. Hard reddish clay, smooth red exterior face. Bottom of base and exterior face rough.
- No. 31. Coarse reddish clay with gritty particles. Rough surface.
- No. 32. Very hard coarse red clay. Rough surface.
- No. 33. Clay and wash as in Nos. 8, 10, and 16.

It may not be inapposite to summarise briefly the record of 17 days work in and around the Plain of Acre, and the results which it brought to light. For two days out of the 17, 12 Bedwin from a neighbouring camp were employed at Tell Amr. The greater part of the work was carried out by four skilled Egyptian workmen with one Egyptian labourer to assist them.

Tell Amr was examined from September 3rd to September 12th, when one man was left for further probing, while the remaining four went daily to El Harbaj, which was examined from September 13th to September 18th. Two local boys and one girl worked for part of this time. Tell el Kussis occupied the 19th and 20th. No local labour was available. Camp was struck on the morning of the 21st. The total cost of all charges was £58.

In the course of this rapid and inexpensive survey, it has been found possible to probe the secrets of three Tells and bring the outline of their history to light. It has been possible to prove conclusively that Tell Amr and Tell el Kussis were never (as might have been supposed) opposing frontier posts of contemporary and perhaps hostile kingdoms, since the one belonged to the Early Bronze, and the other to the Early Iron Age only. It has disposed completely of any possibility of identifying Tell Amr with Harosheth of the Gentiles, and as El Harithiyeh itself is a village of very recent origin (the rock can be seen cropping up in the middle of it) we are forced to look elsewhere for the capital of Sisera. Finally it has revealed the existence of a lightly buried city of the late Bronze Age, which, while it may or may not prove to be Harosheth itself, belongs to the same date and may well contain correspondence tablets from neighbouring cities like Acre or Megiddo.

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## NEWS AND NOTES:

### THE EXCAVATIONS AT BEISAN BY THE UNIVERSITY MUSEUM OF PENNSYLVANIA (SEASON 1922)

The excavation of the important site of Beth-Shean by the University Museum of Pennsylvania, which was begun towards the end of June, 1921, and continued for about four months, was resumed in April of this year. The work is again under the direction of Dr. C. S. Fisher, to whose courtesy we are indebted for permission to publish these notes with the accompanying photographs. The results of the excavations in 1921 have been described in the *Museum Journal of Philadelphia*, March, 1922, pp. 32-45, and it is only necessary to recall in outline the work of the preliminary season.

The Canaanite city which in the Bible is called Beth-Shean is believed to have been confined to the mound, now called Tell-el-Husn, which rises above the fertile valley of the River Jalud, at the eastern extremity of the plain of Esdraelon, overlooking a long stretch of the Jordan valley. During the Hellenistic Roman and Byzantine periods, under the names of Nysa and Scythopolis, the city largely extended its boundaries in every direction. The latest city-wall had a length of two miles, and was carried across the Jalud so as to include the slopes which rise to the North of the river.

As was natural, the season of 1921 was devoted to the Tell, which proved to have been continuously occupied from at all events the earliest Canaanite period till early Arab times. A wide trench was opened in the upper slope of the Tell, and was carried down to the early Canaanite stratum, (c. 2000 B.C.) without, however, reaching the natural rock surface. After this preliminary sounding, the work of excavating the summit of the Tell and a portion of its lower terraces was begun, with the result that on the lower terraces the Arab and Byzantine levels were uncovered and part of the underlying Roman masonry brought to light, while on the summit the Arab level, which had consisted of streets and small houses, was cleared away. The removal of this level revealed the foundations of a Byzantine church which appeared to have been built over a rectangular basilica of Roman or early Byzantine date. The church is almost circular in plan, with an apse towards the East, its diameter being about 36 metres. The foundations of the walls, however, hardly give the impression that a dome of such a span can have been supported by them; it is not improbable, therefore, that there was an open space in the centre of the church.

The most interesting find of the 1921 season was a basalt stele, inscribed with a hieroglyphic inscription of Sety I. Unfortunately, it has been re-used and is badly weathered. During the present year the difficult task of deciphering the inscription has been carried out by Mr. A. Rowe.

The publication of the stele, may, we understand, be shortly looked for in the *Museum Journal* of Philadelphia; and it is safe to predict that it will prove to be an interesting contribution to the history of the relations between Egypt and the peoples of Canaan.

On the resumption of work in April of this year, it was decided to excavate a portion of the northern cemetery, which lies on the slope facing southward above the Jalud, opposite the Tell. That an abundance of tombs existed in this area was suggested by the very large number of holes which pitted the hill-side. The tombs proved to be even more numerous than was expected; in a strip about 50 metres wide, no less than 130 tombs and graves were excavated in about two months. In form they range from plain surface graves to elaborate tombs, consisting of a central hall with radiating chambers, cut in the hill-side. The diversity of periods is even more remarkable; in the same small area are found Early Canaanite circular chambers, resembling cave-dwellings, side by side with Byzantine arcosolia and many other types representing the intervening periods. When, in due course, the whole cemetery comes to be excavated, material will doubtless be available for a complete analysis of the type of tomb prevailing in each period. The rock into which these tombs are cut is a soft limestone marl, which, especially towards the lower part of the slope, crumbles easily. It is no wonder, therefore, that a large number of the tombs, cut close in one upon the other as they were, with sometimes only a foot or two between the roof of one and the floor of another, should have collapsed. In most cases, however, only a portion of each tomb had slipped down to the lower level, and the original plan could be determined. It is a regrettable fact that, with hardly an exception, every tomb had been entered and looted by tomb-robbers. Nevertheless, a large amount of pottery of all the periods represented in the cemetery, a fine collection of glass vessels, together with a considerable number of scarabs, coins, and other small objects which had been overlooked by the looters, remained to reward the excavators. A number of sarcophagi have been found, both of stone and of clay, of which the latter especially promise to be of great archaeological interest.

On the crest above the cemetery a strip of the outer wall, which enclosed the whole city in its later days, has been dug to its foundations, and on the same level an octagonal tower, forming the north-west angle of the wall has been cleared.

Towards the end of June, the excavation of the cemetery was suspended and work was resumed on the Tell. It will be remembered that on the summit and part of the lower terrace the Arab level, which lies close under the surface of the Tell, had been laid bare in 1921. A considerable area, however, remained unexcavated, especially upon the western side of the Tell, which forms a slope between the terrace and the summit and affords the natural means of access from the one to the other. The clearance of the upper level in this area was continued till nearly the end of the season, uncovering the entire Arab stratum, which consists mainly of small houses and does not appear to possess any features of exceptional interest. Traces of the Byzantine and Roman strata are visible below the Arab walls; in the foreground there may be seen a paved street of good workmanship probably dating from the Roman period, over which later walls and thoroughfares have been constructed. This street winds gradually up the slope from the great gate at the north-western angle of the city wall to the summit of the Tell.

During the last few weeks of the season further excavations were made on the summit, in the area occupied by the apse and north-eastern section of the round church. It is somewhat surprising that no trace remains at this point of any important Roman building, since the previous discovery of large column drums and other architectural fragments had suggested the likelihood of finding the summit of the Tell occupied by the foundations of a temple, or other large edifice. The foundations of the round church in this area are now seen to cut through a level of mud-brick buildings, the walls of which are substantially built and coated with plaster. This stratum appears to be remarkably well preserved; some of the walls remain standing to a height of ten or twelve feet; a flight of steps, of the same material as the wall, leads from the floor level of one room to what may well have been the level of the roof, and between two of the rooms an arched doorway runs through the brick wall. The excavations of next year will, no doubt, furnish the materials for determining the precise date of this mud-brick stratum, and its relation to other buildings on the Tell.

The foregoing notes will have made it clear that the past season's work has been of exceptional interest; there is every reason for being confident that the season of 1923 will be no less fruitful in important results.

BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM

BULLETIN No. 3

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INDEX OF HITTITE NAMES. Sec. A., Geographical. Pt. 1 . . . . . *Special Supplement*

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1923

INTRODUCTION. Our third Bulletin is devoted chiefly to the results of studies carried out during the Winter months. Mr. Phythian-Adams, Assistant-Director, by comparing pre-existing data with the new evidence derived from the excavations conducted by him for the Palestine Exploration Fund at Ascalon (the reports of which have been duly published in the Quarterly Statements), has developed his views as to the origins and relations of the Philistines, following up the line of thought indicated in his first paper 'Hittite and Trojan Allies' to which this contribution forms a natural sequel. He now indicates a series of successive migrations of Indo-European tribes emanating from the Balkan area, affecting most nearly the Aegean world, but leaving traces, along the line of communication by sea, in Rhodes, Crete and Caria, until in the age of Rameses III the Philistines appear upon the threshold of Egypt. The theory which he propounds seems to reconcile and explain the literary and material evidence which he has examined, and it cannot fail to prove of special interest to those who have followed the trend of recent investigations.

*Jerash.* We publish, without technical comment, the drawings prepared by Mr. Ernest Richmond, F.R.I.B.A., from our field notes on the Southern temple at Jerash. This fine monument of the Imperial Age seems to have escaped the attention it deserves: we have searched all the publications available in Jerusalem without finding an adequate plan and elevation. The temple is oriented about 23° N. of E., so that it faced towards the rising sun at midsummer. Perched on a knoll overlooking the Forum and the main approaches to the City from the South, it must have been a conspicuous feature of the landscape. It presents many features of interest and beauty, noticeably the deep carving and full treatment of the frieze and mouldings of which we publish also some photographs. After the Syrian fashion, a great stairway led up from the causeway to the portico, but without excavation it is not possible to represent this faithfully in the plan. There is doubt also as to the detail of the stairs giving access to the roof on the left of the main doorway, and of the chamber opposite, the whole being very ruinous. In its main features, however, the plan can be traced with some degree of certainty. We share Mr. Richmond's hopes that his present 'Conjectural Plan and Elevation' will attract some archaeologist trained in classical architecture to make a detailed study of this and other monuments of the site.

*Students.* Mr. G. M. Fitzgerald has devoted his Winter to Semitic languages; and in this connection the Director would like to express the special gratitude of the British School to their French colleagues of the Ecole Biblique, who have extended to Mr. Fitzgerald and Mr. Turville Petre the full facilities of their institution and courses of instruction.

Mr. D. Stiven has also been untiring in his studies. He commenced a course of regional archaeology in the late Autumn, and when Winter weather put an end to continuous field work he devoted himself to topography, as well as Hebrew and Arabic. By courtesy of the Director of the American School he has been able to accompany several of their tours, notably an excursion

to Transjordan. The notes which he has prepared on his personal observations in the passes between the Jordan Valley and the ridge of Samaria will be utilized in connection with an archaeological survey of the Valley of which we hope to publish an account. He has extended his stay so as to take part in the season's field work.

Mr. F. Turville Petre, who joined the School temporarily, earlier than was contemplated, has been assiduous in his exploration among the remains of the Stone Age and other early monuments of Galilee. The note from his pen which we print, though but an *aperçu*, seems to have a permanent value, and will, we expect, appeal to other students of prehistoric antiquity to join with him in this unexplored field.

*Field Work.* It had been our intention to open the Spring Season with preliminary soundings on Tell Keisan in the Plain of Acre and Tell El Bedeiwiyeh in Galilee, the importance of which was indicated in our second Bulletin. The late harvest, however, prevented this, so we began with an examination of the site of Dora, at Tantura, and then fixed camp at Harbaj for a more extensive excavation of the Tell. Since the appearance of the last Bulletin, as stated in the Annual Report, Mr. Fitzgerald and the Baron Edmund de Rothschild have placed at the Director's disposal the funds for carrying on these important investigations, the first results of which are outlined under Notes and News, reserving the detailed description for the next Bulletin.

*Supplement.* The remarkable expansion of Hittite studies and their increasing interest for Palestine leads to a first contribution from our School to the common effort which is being made to interpret the new Hittite archives. In connection with the records-scheme of the School, the Director has been at work personally for a year or more on the geography of the Hittite Empire, and by request of interested scholars has decided to publish his index of geographical names. To this end he has invited the collaboration of Dr. L. A. Mayer, Inspector in the Department of Antiquities, who has devoted all his spare time to editing this register, and the result is a tribute to his industry and scholarship. He has in fact to a great extent personally copied and checked the published, and a considerable proportion of unpublished, readings. This combined work is printed as a supplementary paper in a form which it is hoped will be found permanently useful for ready reference.

## PHILISTINE ORIGINS IN THE LIGHT OF PALESTINIAN ARCHAEOLOGY

With Plate I

The origin of the Philistines is one of the most vexed questions in Palestinian History and a complete solution of it is not yet in sight. Nevertheless the results of recent excavations at Ascalon (conducted by the British School of Archaeology in Jerusalem for the Palestine Exploration Fund in 1920 and 1921) have in one respect proved so striking that we are led to reconsider the whole problem in the light of the new evidence which they have provided.<sup>1</sup>

This evidence may be summarised thus,—At a point roughly six metres below the present surface of the Tell, a thick and continuous line of ashes was found to be the dividing line between two easily distinguishable cultures. The lower of these was that which we now associate with the Mycenaean Age (Late Minoan III or Late Helladic III) of the Aegean islands and the Greek mainland: it is characterised not only by the Mycenaean wares with their lustrous paint and curvilinear designs but to a much more marked degree by several well-known types of vase which are usually and perhaps correctly regarded as being of Cypriot origin, the 'Base-ring' flagons and bilbil, the metallic-sounding funnel-shaped bowls with *cyma* section and the white-slip bowls with wish-bone handle. All these vases are found in Cyprus in association with the Mycenaean wares and can be dated with certainty to the end of the Bronze Age (c. 1400—c. 1200 B.C.). In Egypt they are contemporary with the Tell Amarna period (c. 1370 B.C.) and it will probably be found that their duration in that country does not go below 1100 B.C. In other words the beginning of the Early Iron Age saw their final disappearance over the whole of the Eastern Mediterranean. We need not trace these wares further afield, though their distribution was a very wide one; it may be sufficient to say that no evidence has yet been discovered which disproves the dates to which we have assigned them. These Cypriot and Mycenaean vases mark the end of a definite stage of civilisation in our area. With the ceramic types which succeeded them in Greece and the Aegean, and the causes which brought about their introduction into those places, we shall have to deal later; at the moment our concern is primarily with the upper stratum at Ascalon.

In this stratum, which was about two metres thick, the Cypriotic and Mycenaean vases abruptly vanished, for the few fragments of them found in this layer may be attributed to disturbance of earth and the difficulty of effecting a perfectly clean horizontal section. Their place was taken by large quantities of small bowls or cups with a tilted horizontal loop-handle (French 'oblique' handle) and by larger bowls (*craters*) of the same type. All of these are made of the local reddish-buff clay; some of them are coated with a thin greenish-white wash on which the decoration is painted in lustreless red and black; more usually, however, the paint is laid upon the untreated surface of the pot. The commonest forms of motif are the spiral (usually in black with a red centre), the checker-board (in red and black), the swanlike bird, and the four-spoked wheel or cross (alternate red and black). The execution shows only mediocre talent. (Cf. Pl. I).

The importance of the new culture lies in the fact that neither the vase shape itself nor any of these designs is to be found in Palestine before the Early Iron Age. Their sudden appearance shows them to have been introduced from without, but, while the true Cypriotic-Mycenaean wares of the preceding epoch can be proved by their paint to be foreign imports, easily distinguishable from the crude local imitation which accompanied them, no such distinction exists among the vases which we are now considering. All of these, as we have said, are of purely local manufacture nor is there any trace of any imported vase-model from which they might have been copied by the native Palestinians. We may infer, then, that they owe their presence to the arrival of foreign invaders and that these invaders became permanent settlers in the Maritime Plain.

If we are asked who these intruders were, we can surely answer that they must be the Philistines, who can be shewn both by Biblical and Egyptian evidence to have entered the country at this date and to have occupied those very parts of it in which we find these sherds—viz., the Philistine Plain, with parts of the Negeb and Shephelah. It will be useful, therefore, before we proceed to archaeological data, to summarise this evidence and discover how far it contains indications of Philistine origins.

1. The Bible references to the Casluhim and Caphtorim and their relations with the Philistines need not detain us. They might be serviceable as clues if we knew who these people were and whence they came, but so long as the equation Caphtor = Keftiu remains unproved any argument based upon it must be merely speculative. We propose, then, to set these passages on one side and turn our attention rather to the facts given us by the Old Testament.

We learn from passages too familiar to require examination in detail, (*a*) that the Philistines were uncircumcised, and hence that they were non-Semitic foreigners; (*b*) that, notwithstanding this fact, their religion (when we first hear about it) was of the normal Semitic type. Their chief god was Dagon, a very ancient Semitic deity; one of their principal goddesses was Derketo, a Canaanite variety of the old North Syrian Atargatis; finally, Astarte whom they also seem to have worshipped is, it need scarcely be said, the Semitic goddess *par excellence*. It is, perhaps, not too rash to infer from this curious paradox that the original band of Philistines entered the country in comparatively small numbers, that they intermarried with the Canaanites and Amorites, and that their children were thus naturally taught by their mothers both the language and the religion of the land. (*c*) Notwithstanding this last conclusion, the Philistine Polity was essentially non-Semitic. It took the peculiar form of a Pentapolis or group of five independent cities, each being governed by its own overlord (Seren), and owing no allegiance to the rest, yet so closely bound together as to be ready at all times to join forces for common aggression or defence. No such mixture of independence and cohesion is to be traced in the confederacies of the Canaanites of Esdraelon or of the Amorites of the Shephelah.

Coming down to greater detail we find (*d*) that the Philistine armour bears a noticeable resemblance to that worn by the Achaean heroes of the Iliad. Here we must necessarily cite the one case known to us, that of Goliath (I Sam. 17, 5-7). We learn that he wore a helmet, a scale-breastplate, and greaves, all of brass (bronze), and that he carried an enormous spear with an iron head, a javelin (of bronze) slung between his shoulders, and a sword. His shield was borne in front of him, but this last detail may not have been the normal Philistine custom since the attitude of the champion was one of utter contempt for the weapons and courage of the Israelites. In any case, the armour here described is almost exactly that of a Homeric warrior in the Iliad, and the curious detail of the javelin suspended between the shoulders is paralleled by the Achaean custom of slinging the sword in this position. (Iliad II, 45 al.)

(*e*) From the foregoing passage we may draw the further inference that the stage of culture reached at this date by the Philistines was that which marked the transition from the Bronze to the Early Iron Age. In Late Bronze Age sites—as, e.g., in Cyprus—where iron is found at all, it is treated as specially valuable and never used for swords or spears.<sup>2</sup> The armour and weapons of Goliath show a slight advance on this stage and may be compared usefully with the arrow heads

and other metal objects found at Ain Shems in Tomb 1.<sup>3</sup> Here—in contrast with Tomb 8, which is purely Israelite and belongs to the full Iron Age—bronze predominates in both weapons and ornaments but a few of the arrow heads are made of iron.

Summarising these notices of the Old Testament we gain the impression that the Philistines were an invading band of non-Semitic origin, who, coming in small numbers, were rapidly absorbed by the native population although for several centuries they preserved their political individuality and their original form of government. Their armour suggests, further, that they had had some connection with the proto-Hellenic or Homeric culture and this indication, slight as it is, points to their having once come from the West or North-West.

2. These conclusions are greatly strengthened by the Egyptian Records, if we admit the now commonly accepted equation, *Pelishtim* = *Peleset* (P-r-s-t-w). From the reliefs of Rameses III we learn:—(a) the Philistines (like the other ‘peoples of the isles’) were probably uncircumcised; (b) their armour consisted of a feathered helmet, and a breastplate formed of metal (?) bands, and that they carried two spears, a sword, and a round shield; (c) their faces were clean shaven and of a wholly non-Semitic cast; (d) they attacked not only by sea but also by land, in the latter case bringing some of their women and possibly children with them in ox-carts under a special guard.

From these initial considerations we should infer that they were a non-Semitic people who were not undertaking a mere marauding expedition but were ‘on trek’ from some northern region. The correspondence between the Egyptian and Biblical data is certainly not perfect, but in view of differences in date and if we allow for some mental confusion on the part of the recorders, such variations as there are cannot discount the remarkable similarity between the Biblical and Egyptian names.

(e) In the eighth year of Rameses’ reign (1190 B.C.) the ‘Northerners in their islands were disturbed’ and as a result the Hittite Empire, together with all North Syria as far as Arvad and Amor, was plunged in chaos, while Egypt was exposed to the attack of a confederacy of sea-peoples, the ‘main support’ of whom were the *Peleset*, *Zakkara* (or *Thekel*), *Shekelesh*, *Denyen* (*Denyew* ?), *Weshesh* and *Sherden*. Some, at least, of these peoples were already settled in Syria, for the records state that after defeat, they were ‘hung up in their towns’; and that their ‘gardens were desolated’; moreover they are actually described in one passage as countries *in rebellion* against Egypt.<sup>4</sup>

But this invasion of the sea-peoples of the North does not stand alone; in fact, if we are to take a broad view of the political situation in the Eastern Mediterranean at this date, we cannot divorce their activities in the twelfth century from the very similar appearances made by Northerners in the reigns of Merneptah and his predecessor Rameses II. In Merneptah’s reign (1225-1215 B.C.) a confederacy of these sea-rovers joined hands with the Libyans in an attack upon the Delta.<sup>5</sup> Their names are given as the *Ekwesh*, *Teresh*, *Luka*, *Sherden* and *Shekelesh* and it will not escape our notice that the last two of these ‘tribes’ took part in the later enterprise which included the *Zakkara* and the Philistines. Passing over this point for the moment, we may go still further back in history and consider the names of certain non-Hittite allies who fought for the Hittites against Rameses II (1280 B.C.).<sup>6</sup> Here we find the *Luka*, *Sherden*, *Derden*, *Mesa*, *Mawuna* (*Yaruna* ?), *Pedes*, and *Kelekesh*, and here once more we note an overlapping of names with the Merneptah expedition (*Luka* and *Sherden*) which suggests that the peoples engaged in all three enterprises were bound together by some common tie either of kinship or of geographical contiguity. There are cogent reasons to believe that the former of these suppositions is the correct one. It would appear that the Hittite allies against Rameses II were all, or most of them, Balkan or Danubian peoples, who had crossed from Europe into the Troad and had either gradually worked their way thence round the coast of Asia Minor or were enrolled on the spot as mercenaries under the banner of the Great King of the *Kheta*. Certainly their names bear a very remarkable resemblance to Troadic or West Anatolian place-names and peoples mentioned in the *Iliad* as combined against the army of Agamemnon (*Lycians*, *Dardanians*, *Mysians*, *Maeonians* (?), *Cilicians*).<sup>7</sup>

That the relations between the Lycians and Trojans on the one side and the Achaeans of the Greek mainland on the other were close, and in the case of the Lycians almost intimate, seems to be proved by their common worship of Zeus, Athene and Apollo no less than by the exchange of greetings and armour between Glaucus and Diomedes recounted in the sixth book of the *Iliad* (Il. VI, 153 ff.). It is therefore of special interest for our present purpose to find the *Ekwesh*, who are now usually identified with the Achaeans, actually appearing in company with the Lycians some thirty years before the migration of the Philistines and their allies. It can hardly be doubted that similar relations once existed between the remaining members of these confederacies, whose

movements, following like waves the one upon the other, seem to indicate a slow but irresistible infiltration of European tribes from the Balkan, and perhaps also the Danubian, provinces into the circle of Minoan or 'Minoized' peoples who had prospered so long undisturbed in the Eastern Mediterranean and on the more favoured parts of the Aegean sea-board.

We may now briefly review the indications given us by the Egyptian records. They agree with the Biblical evidence in shewing that the Philistines were foreign invaders but they take us still further by deriving these invaders from among the northern peoples of the sea, and they provide an explanation for the resemblance between the Philistine armour of the Old Testament and the Achaean panoply of the Iliad by thus bringing the Philistines into direct or indirect association with a large group of Balkan or Danubian peoples amongst whom were the Ekweh or Achaeans themselves. At the same time it must be noted that the three references to these northern peoples occur at intervals of 60 and 30 years respectively and that there is nothing in the Egyptian evidence to determine the cultural or geographical relations in which the latest arrivals stood to their predecessors in history. Finally the presence of slow-moving ox-transport in the Philistine army and the fact that it apparently kept pace with the fleet suggests that the point of departure for this invasion of Egypt lay at no great distance from its frontiers. We may infer from this that the Philistines did not arrive in Palestine directly from their far-off northern homes but had been settled for some time previously in some half-way halting place in Northern Syria or Southern Asia Minor, and the survival of the feathered head-dress in Caria (Herodotus I, 171) tends to confirm this view even if we do not go to the extent of deriving the one from the other. It should be noted that if this hypothesis is corroborated by future explorations it will not provide us with an *original* home for the Philistines either in the Aegean or on the coasts of Asia Minor, since their culture, as we shall find, is no more Aegean or Anatolian than it is Semitic, but points decidedly to a proto-Hellenic source.

3. At this point documentary evidence fails us and we must have recourse to Archaeology. It must be stated at the outset that the data examined below are concerned almost exclusively with a single type of vase, the bowl fitted with a horizontal loop-handle which we have mentioned above. This bowl, however, is the chief surviving characteristic of the Philistine culture, for not only is it found on all Philistine sites at the level which corresponds with the Philistine invasion while it is conspicuous by its absence on all the sites so far excavated with which the Philistines had no historical connection, but it is shewn by the new evidence from Ascalon to have been by far the commonest type of drinking cup and mixing bowl of the period, or, in other words, the Philistine vase *par excellence*.

If this last assumption is granted—and it must be admitted frankly that if it is not, much of the subsequent argument must be held to fail—it becomes important to notice that vases of precisely the same shape begin to appear in the Mediterranean at the beginning of the thirteenth century B.C. and survived in Greece until the coming of the Black Figure style. The following table gives an indication of the dates and distribution of these bowls.<sup>8</sup> Selected illustrations appear on Pl. I.

*Circa* 1300—1200 B.C. END OF LATE BRONZE AGE

(Late Minoan or Late Helladic III). Argolis (Mycenae, Tiryns, Heraeum), Corinth, Melos, Rhodes, Cyprus.

*Circa* 1200—1000 (?) B.C. TRANSITION FROM BRONZE TO IRON AGE

(L.M. III, b.). Crete (Kastri, Kouramenos, Mouliana), Philistia, Skyros, Macedonia.

*From* 1100 B.C. EARLY IRON AGE (GEOMETRIC STYLES).

Crete (Cnossos, Praesos, Tylissos), Boeotia (Rhitsona), Delphi, Argolis (Asine), Achaean Phthiotis (Halos), Magnesia (Theotokou), Thera, Aegina.

It will be seen from the above table that the bowl makes its earliest appearance in the Argolis, in the adjacent city of Corinth, and in a number of important islands which lie on the direct coasting route from Greece to Phoenicia and Egypt, while Crete, now in her last stage of degenerate Minoan culture, is left entirely on one side. This distribution points to influences from the Greek mainland and in fact the portrayal of human and animal figures which appear for the first time on this type of vase has long been recognised as due to the Achaean newcomers whom tradition brings into the Peloponnese at this date.<sup>9</sup> Other signs of its intrusive character are not wanting. At Corinth its appearance is markedly abrupt, as though a new influence had suddenly entered

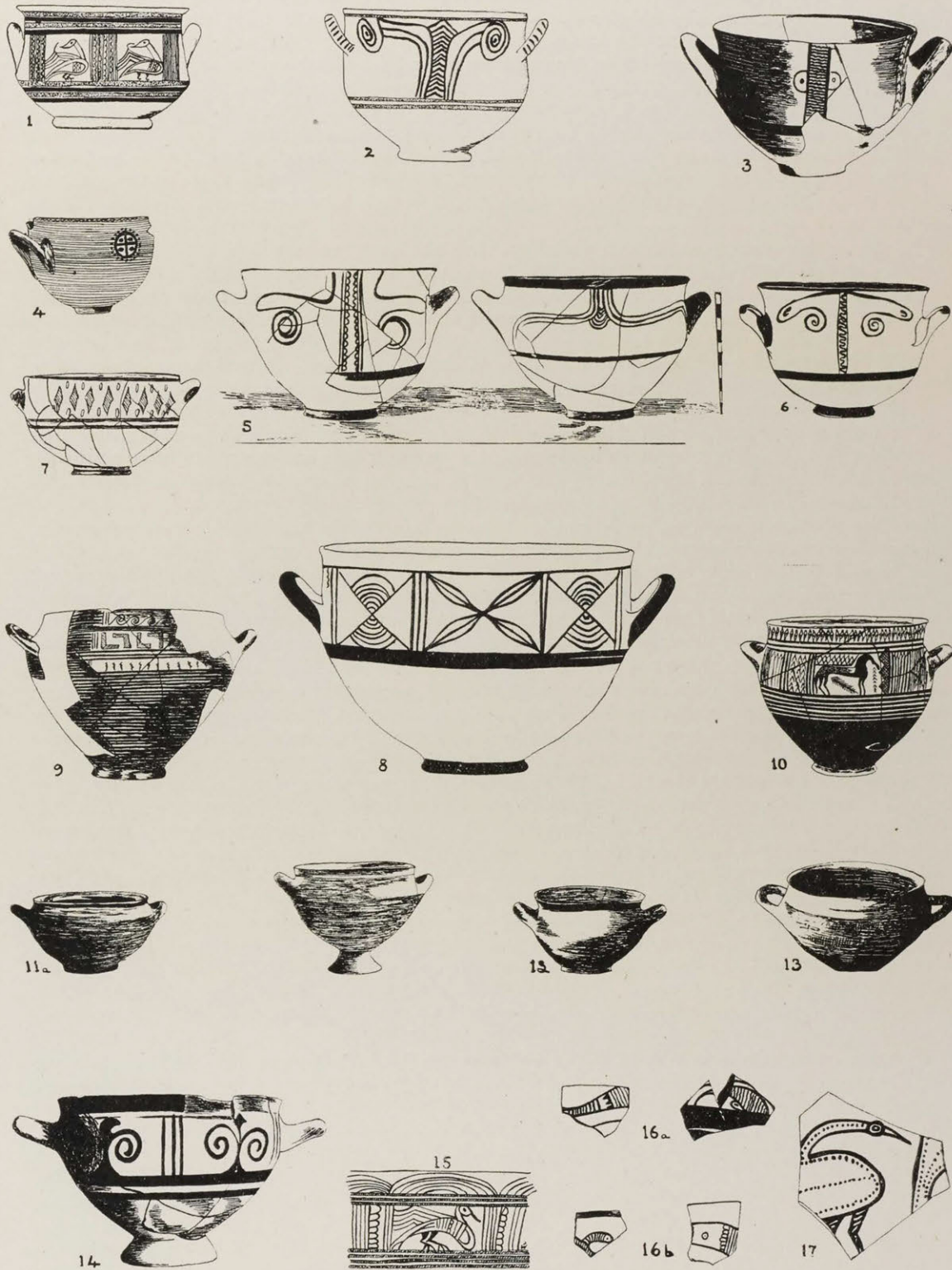
the Peloponnese<sup>10</sup> and there are some indications that Melos experienced a similar, wholesale invasion.<sup>11</sup> Whether Rhodes or Cyprus received the new culture from the Achaeans or whether some other of the sea-roving peoples must be held responsible, is a question which cannot yet be answered, but it is certainly important to remember that the Luka (Lycians) were known in these waters as early as the reign of Ikhenaton,<sup>12</sup> that a king with the Indo-European name 'Alakshandu' is found in Ialysus (Rhodes) at the same date<sup>13</sup> and that the famous Lycian river, the Xanthus (Sianti) occurs also at this time in the Hittite texts.<sup>14</sup> These facts—especially the appearance of the Balkan name Alexander—suggest that by the beginning of the thirteenth Century not only the Achaeans but some or all of the other members of their confederacy were already harrying, or settling in, the southern sea-board of Asia Minor and the islands which lie along it.

The expedition against Merneptah was followed, as we have seen, by another and more serious attack thirty years later. The confederacy in this case included amongst others the Philistines (Peleset) the Weshesh and the Zakkara, and the Philistine evidence shews that its culture belonged to the transitional stage which bridges the gulf between the Bronze and Iron Ages. It can be hardly a coincidence therefore that the characteristic bowl appears at this very date not only in Philistia itself but also in Crete, where the place-names Axos (Oaxos, Faxos) and Zakro have been attributed (quite independently of this evidence) to the Weshesh and Zakkara.<sup>15</sup>

It might perhaps be held that the Philistines and their allies took over the typical bowl from peoples who had previously introduced it into the Mediterranean, but there is a striking fact which seems to render such a view untenable. The practice of cremation, hitherto unknown in Crete, now appears there in association with the bowl, and one of the large craters of this type was actually used as the repository of the ashes.<sup>16</sup> That this association was not fortuitous, but based on tribal custom, is confirmed by the 'Geometric' burials at Halos in Achaean Phthiotis, which must be ascribed either to the degenerate Achaeans or to later invaders from the North.<sup>17</sup> Here the bowl was the commonest shape of vase in use: it occurred in burials of the earlier period when inhumation was practised; but its popularity seems to have reached its zenith when cremation was introduced, for large numbers of fragments were found in the funeral pyres of that date. Nothing is yet known of the burial customs of the Philistines, but it is perhaps significant that not a single Philistine vase has yet been found in an undisturbed tomb-deposit, while great quantities of typical fragments are to be picked up (as at Ain-Shems) all over the city-sites. Had the bowl stood by itself, it might reasonably be argued that the new-comers, who presumably arrived in the Eastern Mediterranean before the beginning of the twelfth century, adopted this vase-type and made it their own, although, even so, its popularity would seem strange for an article borrowed from strangers. But the introduction of a new burial practice *in close association with it* forbids us to accept this explanation; for, of all customs in the ancient world, the cult of the dead is perhaps the most immutable.

We must hold, then, that as the Achaeans and their allies brought this bowl with them before the close of the Bronze Age, so the Philistines and their companions brought it in the Transitional period which followed. In other words, we must assume that the vase in question was one designed (because found useful or necessary) by the inhabitants of the regions from which the sea-rovers and their kinsmen of the Troad originally came. But we have seen in the case of the latter that the evidence points very strongly to the Balkans as being the homeland in question, and since the whole group seems to have been bound together by the ties of a common religion, it is at least probable that the former will also be found there. Moreover, the fact that the bowl descends into late Geometric times, as at Rhitsóna in Boeotia, and that it then develops into the classical Scyphus, not only shows that it was a natural and not an exotic Hellenic type, but leads us in our search for its origins into the regions beyond the frontiers of Greece, since it was from these that the historical Hellenes descended to their new homes.

It happens, fortunately, that this statement can be tested in the case of a people who lie otherwise outside our line of enquiry. At some date between the Achaean and Dorian invasions a tribe called the Dryopes, moving probably from Aetolia, occupied the mountain mass of Tymphrestus from which the Dorians, pressing onwards by the same route, drove them first to Mount Oeta and then to Asine in the Argolis. The Dryopes, like the Dorians, were ardent worshippers of Apollo; and the occurrence of the typical bowl in a purely Geometric context at Delphi is aptly, if not certainly, explained by this fact; but its appearance at Asine in deposits which can only be assigned to the Dryopes is a far more significant piece of evidence, and affords a fresh indication of the regions from which it came and the wide popularity which it enjoyed amongst their inhabitants. Both Dorians and Dryopes, it may be added, had for their Polity the unusual system of a Tetrapolis or group of four independent but closely confederate cities, and it is tempting to compare with this the similar organisation of the Philistines. (Strabo VIII, 6, 13; IX, 5, 9, ff.).



THE PHILISTINE VASE AND ITS RELATIONS

- |                            |                                      |                                       |
|----------------------------|--------------------------------------|---------------------------------------|
| 1. Philistia               | 7. Kastri (East Crete)               | 13. Halos (Achaean Phthiotis) Pyre IX |
| 2. Philistia. Tell el Safi | 8. Kouramenos (East Crete)           | 14. Rhitsóna (Boeotia)                |
| 3. Argive Heraeum          | 9. Delphi                            | 15. Philistia                         |
| 4. Tiryns                  | 10. Asine (Argolis)                  | 16. Argive Heraeum                    |
| 5. Corinth (Korakou)       | 11. Theotokou (Magnesia)             | 17. Tiryns                            |
| 6. Melos                   | 12. Halos (Achaean Phthiotis—Tomb 6) |                                       |

The evidence so far surveyed seems clearly to indicate that the bowl which we have been examining was originally the common possession of a group of peoples who, after residing together in the Upper Balkans, migrated or were driven from their homeland. The movement took two directions, to the East where the Dardanians colonised the Troad, and to the South where the Achaeans settled in the Peloponnese. It must therefore have taken place from some region which commanded passes in those two directions, or, in other words, some point North of the Shar Massif which would allow a dispersion of these people not only southwards through Epirus and Aetolia but eastwards down the valleys of the Vardar, the Struma and the Maritza. This point should lie North of the Uskub pass by which the second of these migrations may be conceived to have taken place, and it is surely not fortuitous that we find a 'Dardania' in classical times precisely at this spot, while on both sides of it the names Sard-ica and Sard-iotis recall yet another of the Peoples of the Sea.

But if this evidence shews that we are on the right track, we may logically go further. We have seen that only two of the Hittite allies recur in the later maritime expeditions against Egypt. The explanation probably is that the remainder were landsmen and not sailors, and the continental position of the old Dardania tends to confirm this view. But what then of the sea-rovers themselves? Obviously they must have been bred on some sea-board adjacent to Dardania and specially fitted by nature to produce a race of Vikings. One of these peoples, the Achaeans, came from the direction of Epirus; and once more it can scarcely be a coincidence that we find above this point the very coast which circumstances seem to demand, the long indented littoral of Dalmatia which was so long notorious as the home of the Illyrian pirates. Is it a mere coincidence that a tribe called the 'Pirustae' dwelt in Roman times near the lake of Scutari, and that this name agrees exactly with the Egyptian P-r-s-t-w? It survives to-day as Perasto on the Gulf of Cattaro.

Nor is archaeological evidence wholly lacking to confirm the tendency of these arguments, for at Glasinatz near Serajevo we find an Early Iron Age civilisation strongly reminiscent of Halos in its dual practice of cremation and inhumation and its custom of multiplying burials under a single tumulus. Moreover the Glasinatz warrior wore armour which was not only Homeric in its use of the helmet, shield, greaves and enormous spear, but approximated even more closely to the Philistine in employing a breastplate composed of separate studs or scales. Finally the Scyphus is one of the vase-types found on this site.<sup>18</sup>

It may be useful in conclusion to summarise the arguments advanced in this paper. All the available evidence shews that the Philistines were a non-Semitic race and certain details of their equipment suggest 'Achaean' or Proto-Hellenic affinities. We have to ask, then, whether it is impossible that the Philistines should have come from the Proto-Hellenic stock; and we find on enquiry that it is not only possible but even probable, since members of this stock had been sweeping the Eastern Mediterranean for something like a century before the Philistine invasion, and it is obvious that where one could go, another could follow. But here the matter becomes complicated by the fact that we cannot separate these earlier sea rovers from the kindred peoples who invaded Asia Minor at about the same date, and since these shew strong traces of a Balkan origin, it follows that the sea rovers must be traced back to the same regions.

But were the Philistines really akin to the Achaeans and their allies? As a practical test of this we can adduce the characteristic Philistine bowl, which should, if our hypothesis is correct, shew definite traces of a Proto-Hellenic origin. We find that it does so. It first appears in the Mediterranean area at a date and in circumstances which connect it with the Achaean invasion. It is found next in a more degenerate form in Crete and Philistia at a date and in circumstances which connect it with the later attacks on Egypt; it is then closely associated with the practice of cremation, a practice not Minoan but common to the Proto-Hellenic stock. Finally it survives in Greece as one of the classical vase-types; while in non-Greek countries, like Philistia, its exotic character is shewn by its rapid disappearance.

It is impossible to halt here. If the Achaeans brought this vase into Greece, they brought it from their old homes. The earliest Achaean home for which we have any evidence is Epirus; but since the Troadic and Helladic peoples were once occupying a common habitat, this habitat must lie further to the North in such a position as to allow of their dispersion by passes or waterways leading to East and South. We are thus brought to Serbia as a starting-point for the former migration and here we actually find the name of Dardania surviving into Roman times. For the latter a well-harboured sea-board seems essential, and we find it close at hand in the Eastern shore of the Adriatic which is 'replete with islands and ports bold of approach.'<sup>19</sup> Finally, on one

of the principal rivers of this region we discover traces of a Proto-Hellenic culture, some details of which remind us quite as much of the Philistine as of the Achaean civilisation.

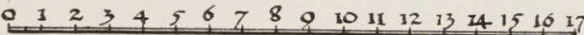
It would be idle to pretend that the evidence adduced above provides a final solution of the Philistine problem. We can, however, at least say this, that its combined effect points so strongly in one direction that we may surely claim it as a working basis for future researches in this field.

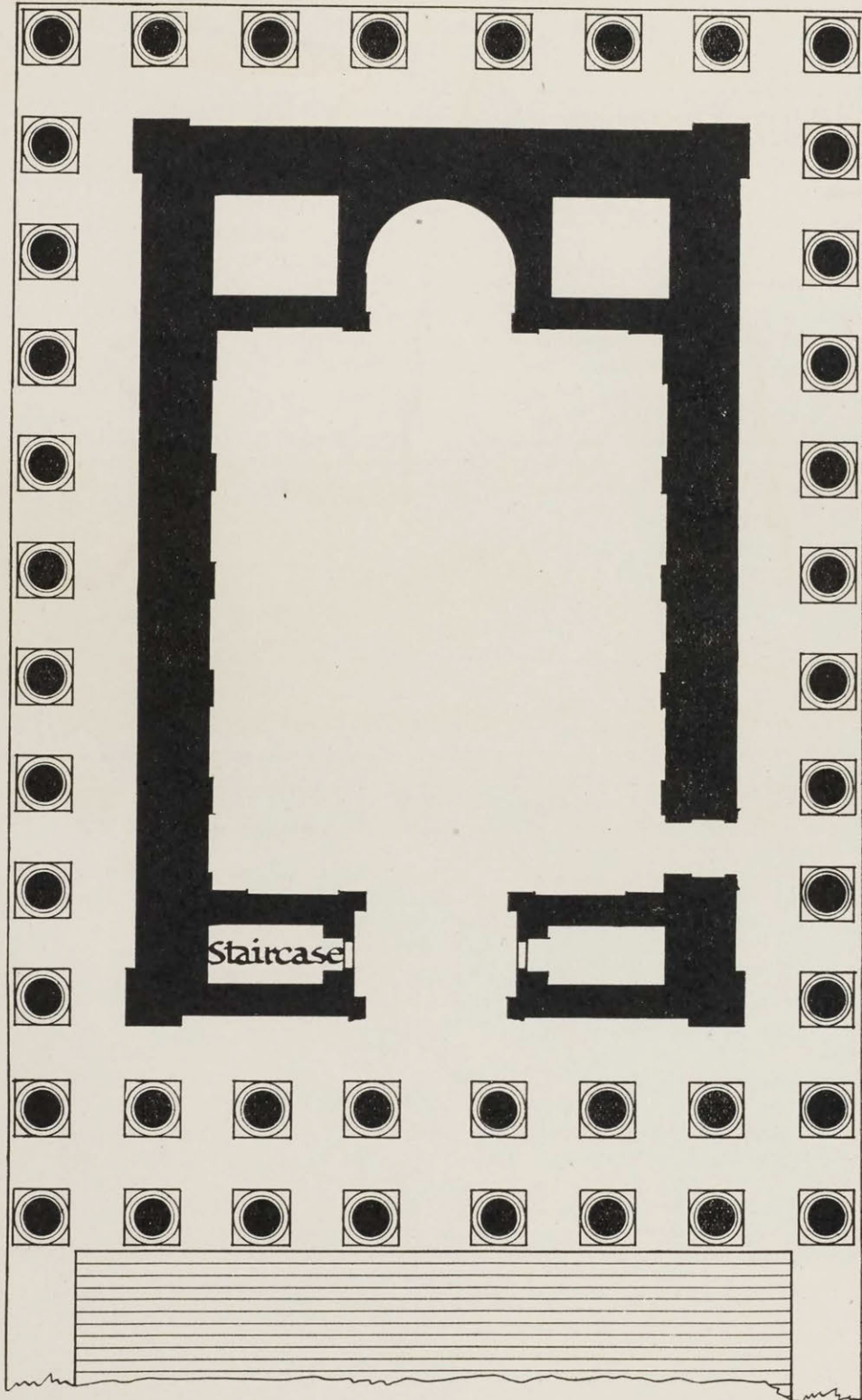
W.J.P.-A.

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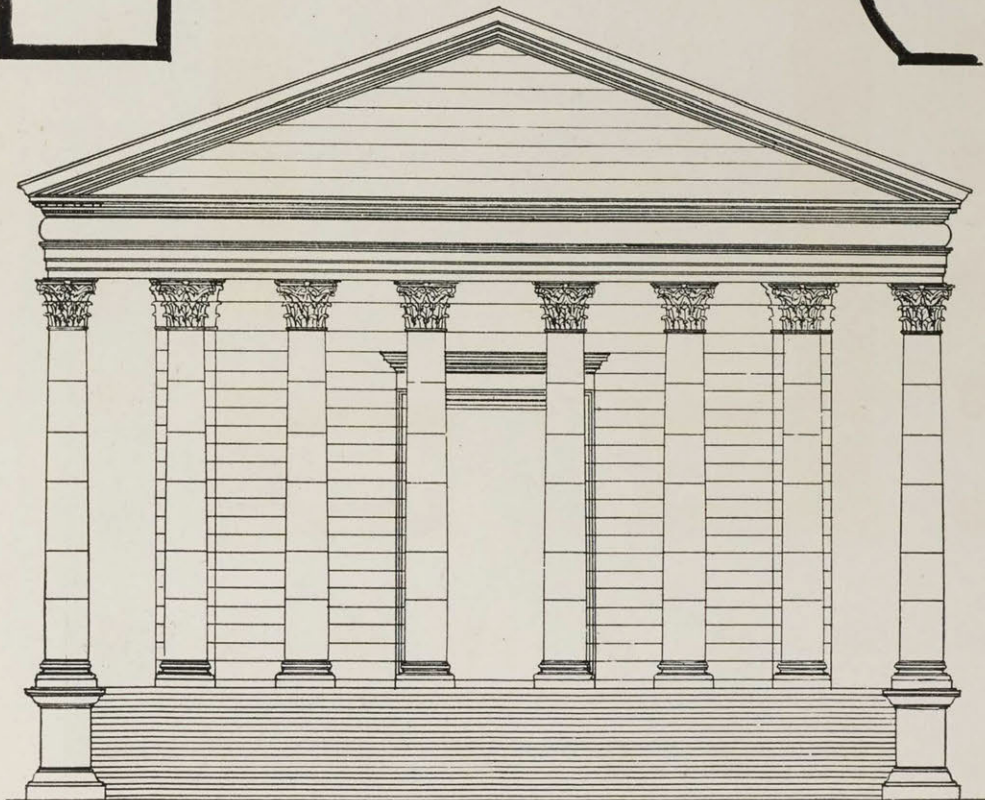
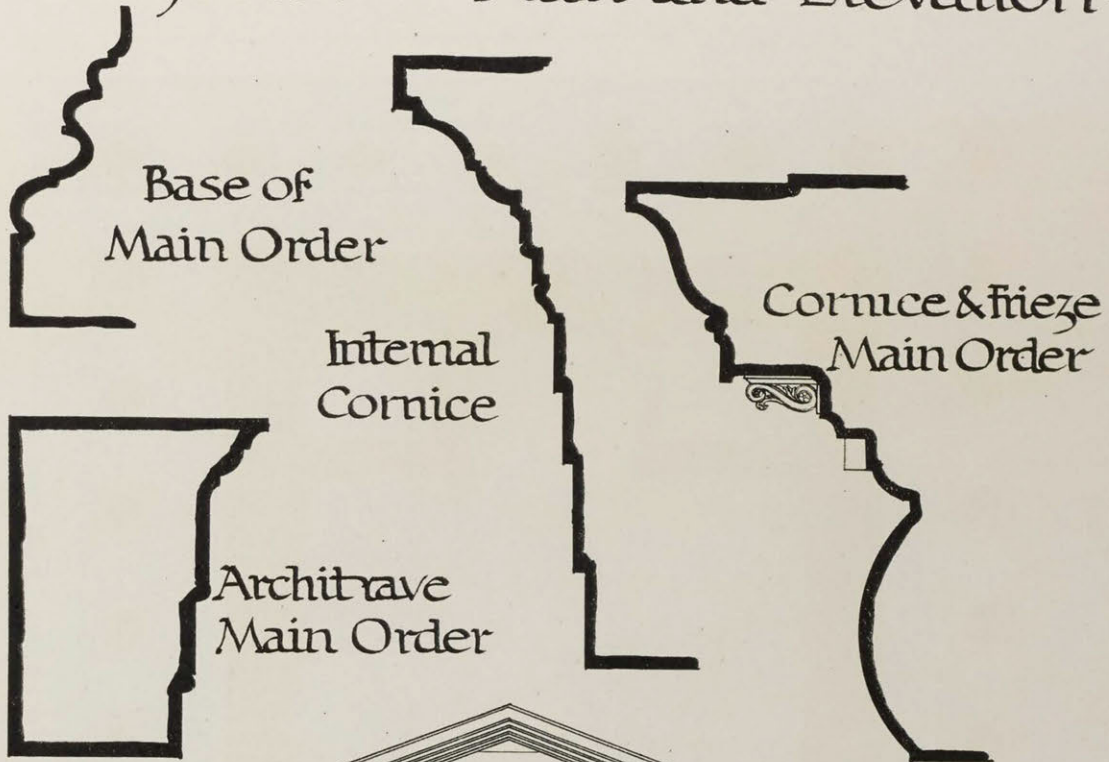
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# Jerash · Southern Temple ·

Scale · Metres 



# Conjectural Plan and Elevation.



Elevation.



JERASH, SOUTHERN TEMPLE : GENERAL VIEW FROM THE SOUTH  
(Beyond, right, the Forum enclosed by Ionic Columns ; left, the well-known hexastyle Temple)



JERASH, SOUTHERN TEMPLE

1. General view from the West
2. Detail of cornice
3. Fragment of frieze
4. Base of column
5. Mouldings of the architrave

## PRE-HISTORIC REMAINS IN THE VICINITY OF ET TABGHAH, LAKE OF TIBERIAS

The importance of this region for the study of the pre-historic archaeology of Palestine was first pointed out by Professor Karge of Münster University, who surveyed the district from this point of view during the years 1910-11 and published his results in his work *Rephaim* (Padeborn, 1917). The remains in question fall naturally into the following groups:—

(1) Surface deposits of worked flints; (2) Caves; (3) Cup marks; (4) Megalithic remains; (5) Tells with early pottery. It will be most convenient to consider the remains under these headings and in this order.

1. SURFACE DEPOSITS OF WORKED FLINTS. Along a stretch of the lake shore, some 100 yards long, immediately North of the Et-Tabghah landing bridge, fragments of worked flints are to be found in considerable quantities; their deep brown patination shows that they have long lain in the water, consequently they are all much water-rolled. The forms which occur are fragments of knives and chisels, borers, particularly the shouldered borer and occasionally sickle blades, two to three centimetres long, originally no doubt hafted in a curved handle (cf. *Rephaim*, p. 177). These implements are attributed by Karge to the late Neolithic period. A few paces north of the deposit just mentioned two typical Chellean *coups-de-poing* were found; these are roughly made, and considerably water-rolled, and have a brown patination.

A few hundred yards south of the landing bridge, on the terraces of Hirbet-el-Oreime, a small hill which separates the plain of Et-Tabghah from the Plain of Genasereth, and also on the cultivated land round the spring of 'Ain Tine at the southern foot of Hirbet-el-Oreime implements similar to those on the lake shore are found, almost all very fragmentary (cf. *Rephaim*, p. 172). Similarly worked flints of the same type as the above occur sporadically over all the agricultural areas of the district.

2. CAVES. Numerous natural caves occur in the hills of this region and it is at least probable that many of them were occupied by pre-historic man, though in most cases any early remains that may exist have been covered by later deposits. Working from South to North the following are the main cave groups of the region:—

(a) *Wadi Hamam*. On the right hand side of the Wadi, immediately above the point where it enters the Plain of Genasereth, is a complicated cave system known as the Kalat Ibn Ma'an. The natural caves have been artificially enlarged and strengthened by masonry (cf. *Rephaim*, p. 300). Occasional flint implements of a neolithic type are to be found on the slopes leading up to the caves, and among the stony floor deposits of some of the smaller and lower caves, which do not form part of the system of artificially fortified caves, attempts to imitate flint work in an unsuitable soft limestone have been found. Opposite the Kalat Ibn Ma'an, on the other side of the Wadi, another similar cave system with artificial enlargement occurs.

(b) *Wadi Amud*. (Cf. *Rephaim*, p. 294). A short distance beyond the point where the stream of the Wadi Amud enters the Plain of Genasereth there is, on the left hand side, a massive limestone bluff containing three rock shelters known locally as the Mugharet-el-Emire. These shelters measure respectively  $8 \times 5.70$  metres,  $5.70 \times 3$  metres, and  $2.70 \times 2.70$  metres; face approximately south-east, and are reached from the plain level by ascending a short but steep grass slope. At the foot of this slope, and again half way up, traces of a rough fortification wall can be seen. Out of the back of the central shelter a series of low natural galleries form, as it were, a tunnel into the rock. On the slope outside the caves Karge found worked flints similar to those from Et-Tabghah. On the floor of the small galleries, lying among stones and earthy deposit, flint implements, mainly rough flake knives and chisels, were to be found in large numbers, as also nuclei and hammer-stones. Immediately to the north-west of the entrance of the smallest cave is a well-worked cup mark, while two more are to be found on the summit of the bluff. Flint has been hammered out in very large quantities from the limestone rock round the cave.

Further up the Wadi Amud, on the same side as the Mugharet-el-Emire, is another cave, the Mugharet-*ez-Zuttije*. This is by far the largest single cave in the neighbourhood, measuring 13.50 metres broad by 28 metres deep and 20 metres high. One worked flint was found in a rock gallery opening from the back of the cave, and Karge found another outside the entrance, but since the cave has for centuries been used by the Beduin as a stable for goats and cattle, it is not possible except by excavation to ascertain whether the cave was ever occupied by a flint-using population.

Still further up the Wadi, on the opposite side, situated high above a natural column of

limestone which gives the Wadi its name, is the Mugharet-el-Amud. This consists of two rock shelters, one at a considerably higher level than the other, and can only be reached by traversing a steep and more or less smooth face of rock in which foothold places have been cut to facilitate ascent. In the upper of the two caves pottery is found, while on the slope below the cave roughly worked flint points and fragments of blades are numerous.

Still further up the Wadi, on the same side, are the Mugharer Sebabic, an artificially enlarged group of caves similar to those in the Wadi Hamam. Many smaller caves are also to be seen on the banks of this Wadi, some of which have apparently been used as flint quarries.

(c) *Wadi Yubeira*. On the left hand side of this waterless Wadi is a large cave in which Roman pottery has been found but no traces of earlier occupation have yet come to light. The Mugharet-el-Kur and the Mugharet-ed-Dlemi have also yielded no evidences of occupation in early times.

3. CUP MARKS. These are very common all over the district; from South to North the following may be noted. Outside the smallest of the three caves forming the Mugharet-el-Emire is, as has already been mentioned, a small regularly worked cup mark; it has a diameter of 26 cm., but being filled with mud its depth could not be ascertained. On the summit of the rocks above this same Mugharet-el-Emire is an irregular cup mark, 40 × 36 cm. in diameter and 24 cm. deep, with a narrow cylindrical deepening of some 12 cm. in the bottom; near by is another irregular cup mark of roughly elliptical shape.

Further up the Wadi Amud, on the summit of the hill which forms the left bank of the gorge, and almost opposite the Mugharet-es-Sebabic, is a series of very large cup marks, or perhaps they should rather be called cisterns. These consist in a line of four irregularly circular or elliptical excavations in the rock. The approximate measurements of these are: 1, 109 × 104 cm.; 2, 54 × 54 cm.; 3, 65 × 80 cm.; 4, 67 × 108 cm.; the depth varies from about 64 to 88 cm. The thin wall of rock between these hollows has been broken through so that the four form one complete cistern. A few paces to the East is another cup mark 52 × 59 cm. in diameter, and near by is a large roughly rectangular excavation.

There is a further cup mark on the hills between this point and the Wadi Yuheira which lies immediately to the North.

On the Jebal-ed-Dlemi above the Wadi Janus and the road to Safed, and a few paces below the Mugharet-ed-Dlemi, are two irregular cup marks showing the following dimensions:—41 × 55 cm. in diameter and 15 cm. deep, 92 × 126 cm. in diameter and 48 cm. deep.

On the hill immediately north of the Italian Colony, and half-way between that point and Kerazeh, is a regularly worked cup mark 52 cm. in diameter and about 13 cm. deep.

4. MEGALITHIC REMAINS. The megalithic sites of the district have been fairly fully described by Karge, so that all that is here necessary is to give a list of these sites with references to Karge's descriptions.

(1) *Kurun Hattin*, the summit of which hill, probably the crater of an extinct volcano, has been strongly fortified, presumably as a place of refuge. (*Rephaim*, p. 352).

In the plain south-east of Kurun Hattin, and connected with the latter by a walled road, are a small group of megalithic constructions known as el Kunkuzah. (*Rephaim*, p. 354).

(2) *Shegerat-el-Mubarakat*. On the northern slopes of the Jebal-ed-Dlemi, North of the Wadi Janus, an extensive group of megalithic remains are to be seen and would seem to mark the site of a megalithic village. The remains include a stone circle some 70 feet in diameter with a dolmenic entrance arch on its south side and numerous small circular groups of stones of varying dimensions, probably hut foundations. (*Rephaim*, p. 320).

On the hills immediately east of Kh. Kerazeh and between that hill and the Jordan Valley several hundreds of dolmen graves are to be found. The plan on which the majority of these are constructed would seem to be as follows:—A wedge-shaped chamber was formed by four large slabs of stone, which was then roofed over by an enormous capstone; the whole construction was then probably covered by a tumulus of smaller stones. The dolmens are orientated East and West with the broader end of the chamber facing West. The dimensions of one of the smaller dolmens are as follows:—Lateral walls, 230 cm. Back (East) wall, 92 cm. Breadth of chamber at broadest point (West) where stone has been removed, 140 cm. Height from floor to under surface of capstone, 65 cm.

5. TELLS WITH EARLY POTTERY. The following Tells would seem to yield Early Bronze and Early Iron Age pottery:—

(a) *Tell-el-Oreime* on the summit of the hill of the same name where trial excavations have been made by Karge.

(b) *Tell-el-Mureibid*, also called Tell-el-Nasara, in the Plain of Genasereth between Khirbet Minia and the Wadi Amud, near the lake shore.

F.T.-P.

## NOTES AND NEWS : EXCAVATIONS AND RESEARCH

*Tantura.* The site of Dora lies just to the north of the modern seaside village of Tantura. The indications are a mound occupying an irregular promontory between two small bays, covering three to four acres of ground, and the remains of a stout sea-wall of Tyrian character. Two sectional trenches were cut in the north and south slopes of the mound respectively. The results suggest that the site was inhabited continuously from the Late Bronze Age (*c.* 1400 B.C.) until the Arab Conquest, when, except for a fortified promontory at its south-west corner, it was completely abandoned. Its present name—El Burj—probably refers to this Arab or Crusaders' fortress.

Traces of occupation by the sea-roving Zakkara (or Thekel) of the Wen-Amon story have so far been inconsiderable, but there is enough evidence to suggest that occupants of the site during the Early Iron Age (B.C. 1200–B.C. 500) introduced a culture similar in many respects, but not identical with, that which we now ascribe to the Philistines.

The Hellenistic period seems, from our examination, to have been that of the city's greatest prosperity, and this is confirmed by the importance which Josephus assigns to Dora especially under the rule of the tyrant Zoilus (*c.* 100 B.C., *Ant.* XIII. 12.2, &c.). The sea-wall belongs to this age, and after tracing it for a distance we concluded that it had been surmounted by an esplanade supported by massive columns with Ionic capitals of simple design. A sea-gate was found with a flight of later steps leading down to the water level, suggesting an earlier feature of similar kind that remains to be uncovered.

*El Harbaj.* This season we initiated a systematic excavation of the north-west corner of the mound lying immediately above last year's sectional trench. The foothills to the east of the site were also explored and several tombs were discovered.

The first point of interest established was the discovery of traces of occupation during the Early Iron Age (B.C. 1200–500). This evidence was not furnished by our sections of last year—described in the second Bulletin—a fact which may be tentatively ascribed to the survival of the great wall of the Late Bronze Age, which at this point must have been still too high to permit the ejection of debris. Numerous decorated fragments of the Early Iron Age have now been brought to light, but it would be premature at this stage to discuss their origin and affinities. Other finds include terra-cotta plaques of Astarte, the head of a bull in the same; and a unique collection of Bronze-Age vases from one of the tombs referred to above. The terra-cottas were found in the fourth metre, representing, generally, the Earliest Iron Age. But the tomb group is earlier, and though fragments of original Mykenaeen pottery were found in an inner chamber, it may date in fact to the Early or Middle phase of the Bronze Age (*c.* 1800 B.C.).

As a general indication of the history of the knoll it may be said that the first metre and a half of depth were due to Arab buildings and activities. Below that, to the bottom of the third metre was abundant trace of an important Hellenistic building of red brick on stone foundations, of date about 400 B.C. The fourth metre revealed two layers of buildings superposed, both of the Early Iron Age, the later of the eighth or ninth century B.C. and the earlier one, seemingly, of about 1100 B.C. Below these, in metres 5–7, were two levels of buildings dating from the Late Bronze Age. The upper one was built of large mud bricks, suggestive of Egyptian handiwork, though no Egyptian remains were found. Its date must be about 1300 B.C. It partly followed the lines of the lower one, which was, however, of stone, its date being the beginning of the Late Bronze Age, about 1400 B.C. Both buildings are connected structurally with the main outer wall discovered last year, as described in the second Bulletin. This outer wall was traced, right and left, to a distance of 14 metres, where it was found to be discontinuous; it is, however, of much more massive construction than the houses within, and the interruption requires explanation. All is ready now to excavate this most interesting series of buildings.

*Beisan.* Dr. Fisher has discovered an important series of buildings with stout brick walls, inside which, lying prone, were two monumental stelae of Sety I and Rameses II respectively, as well as bundles of arrow heads and minor objects. The buildings seem to be attributable to Egyptian handiwork, and to have remained standing for several centuries, a fact which explains the abnormal stratification of the Tell at these levels. Roman buildings are now coming to light outside the area indicated, on the edge of the Tell.

*Ez Zib and Shefa Amr.* Government inspectors have recovered the contents of intact tombs from these two sites, providing a basis for the dating of Roman and Byzantine glass.

*Trans-Jordania.* The Emir Abdallah has given orders for the registration and protection of historical monuments and for the creation of Museums at Amman and Jerash.

# BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM

## BULLETIN No. 4

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1924

INTRODUCTION.—The Issue of this Bulletin has been delayed by the loss of some manuscript in the post. It contains as its chief feature an account of the history and a preliminary sectional examination of the ancient site of Dora, which lies just north of the village of Tanturah. A new survey of the area has been completed, and a general description of the visible ruins will accompany its publication. Of the various sites now examined by the School in Palestine, this one seems to afford the best prospects as a training ground for the School's students, alike from its healthy situation, its accessibility and its preservation, in addition to its special historical and archaeological interest. The area has accordingly been rented for a number of years (at a very reasonable figure) and so far as funds permit, regular courses of practical instruction in the Methods of Excavation will be given there each Spring by the Director and his colleagues.

We publish also a preliminary note on our work at Tell Harbaj—the probable site of Harosheth—which really occupied most of our time and attention last Spring. Unfortunately the site proved to be dangerous to health; three of our own staff (including the Assistant Director and two students), as well as an alarming number of workmen were down with malaria at various times, and the Director found it necessary to suspend work. This was a great misfortune. The discoveries fulfilled all our anticipations, and the excavations had just attained the level of the previous external soundings. Meanwhile we publish a summary of the archaeological results and a detailed account of an important cave-tomb on the adjoining hill slope.

### TANTURAH (DORA). PART I.—HISTORICAL NOTES

With Plate I

In examining the history of the ancient port of Dora we are faced at the outset with a problem which must affect the whole of our survey. Is this site identical with the Dor mentioned in the *Old Testament*? Hitherto, it would seem, most authorities have taken this equation for granted. 'Bethshan, Taanach, Megiddo, Dor. These formed a strategical line of fortresses on the one great avenue across Country, yet that line did not run north but south of Carmel. Megiddo and Taanach backed by Bethshan were not in line with Acre or Haifa but with Dor, the present Tanturah, a few miles to the north of Caesarea. Nothing could be clearer than this. The break across Palestine which Esdraelon affords is a break into Sharon, and not into the Plain of Acre.' Such is the conclusion reached by Sir George Adam Smith (*Hist. Geog.*, pp. 389-390). To us, however, who have had an opportunity of studying closely and repeatedly all the districts mentioned in the above passage, who have, in fact, examined every hill and valley along the S.W. ridge of Esdraelon, and have followed two of the routes that traverse it as far as the sea, there appears to be no physical reason in favour of the conclusion quoted, which seems to be based largely upon the hitherto unchallenged identification of the Biblical Dor with the Classical Dora

at Tantura. On the other hand, the Plain of Esdraelon belongs, in our view, politically, commercially, and geographically, to Galilee and the Plain of Acre. The line of hills that links Gilboa with Carmel constitutes in fact an east and west frontier which divides Palestine into two separate parts, and excavation is already revealing certain cultural differences which distinguished these two areas in early times. Commercially, the Plain of Esdraelon and the lowlands of Galilee provided the only approach to the sea which was possible for the merchants of the Hauran. The main caravan routes diverged at Semakh and passed thence, as they do to-day, either by the Wady Abellin or by the Kishon defile into the Plain of Acre, access from one to other being preserved by the easy passage from Nazareth to Seffurieh and by the ancient chariot road which leads from Sheikh Abreik to Tell El Harbaj.

That this and no other is the correct reading of the situation is confirmed by both Biblical and Egyptian Records. It is from Harosheth, a site somewhere within the Plain of Acre, if not Harbaj itself, that Sisera comes to the assistance of Ta'anach and Megiddo; just as it is the king of northern Kadesh who rallies the cities of Galilee and Esdraelon against Thothmes III and prepares to resist the invader on the line of hills which these two fortresses defended. No such historical situations link Esdraelon with Sharon.

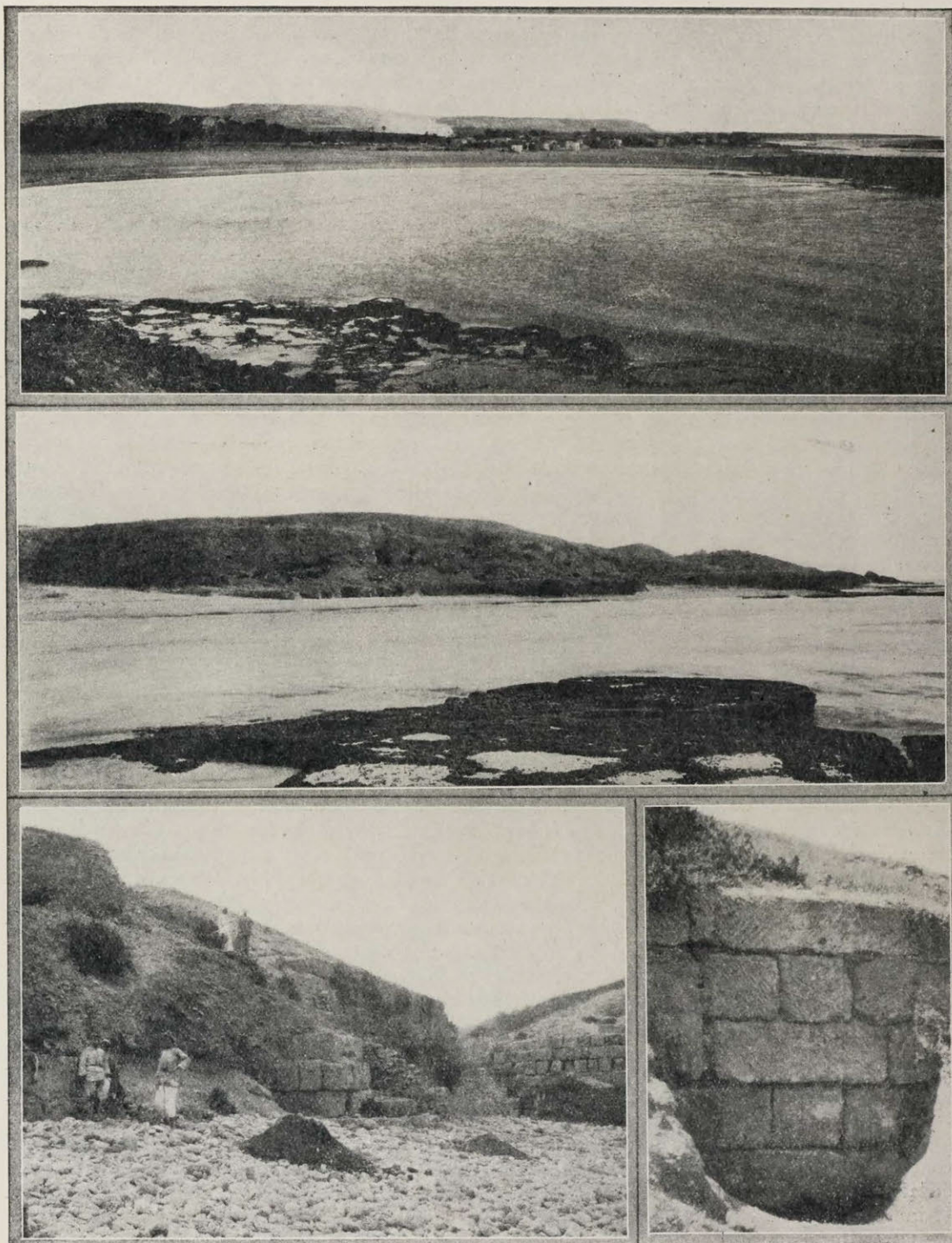
If we turn to consider the position of Dora (Tanturah), we find that it has no place in this picture. Firstly, it lies outside the Carmel-Gilboa frontier; secondly, it is far away from the main Egyptian trade-routes which led by the Wady Arah and the Plain of Dothan into Sharon and Philistia; thirdly, it is a port, and this is the factor which must be emphasised. Apart from Ascalon and Gaza, which belonged to a people who were at once sailors and landmen, the seaports of Palestine play no part in Biblical history. Neither Joppa nor Accho is heard of in the conquests of Joshua, nor do they join in any warfare either for or against Israel. The obvious explanation of this is that those who inhabited them were interested not in the land but in the sea. In the time of Solomon Accho was in the hands of King Hiram, as probably was Joppa, and this was the natural fate of both. Possibly they were in origin Phoenician colonies. In any event, their chief interest and their best hope of survival lay in a benevolent neutrality, and as they lay far off from the main centres of friction the task of preserving it was probably not a heavy one. But if this were true of Joppa and Accho, it is probable that it was true of Dora also, and we shall have to take this into account in our examination of the Biblical references.

(1). The first Biblical reference to Dor is in Joshua 11, 2, in connection with the peoples assembled by Jabin of Hazor against Israel. He sent to 'the kings of Shimron and Achshaph and to the kings who were on the north in the hill country, and in the Arabah south of Cinneroth and in the Shephelah and in Naphoth-Dor on the west.' The list of kings smitten by Joshua in this campaign (Joshua 12) includes the following:—Madon, Hazor, Shimron-meron, Achshaph, Taanach, Megiddo, Kedesh (near Taanach), Jokneam in Carmel, Dor in Naphoth-Dor, Goim in Gilgal and Tirzah.

In both passages we see that Dor is carefully distinguished by the additional title Naphoth or Naphath, as if there were another Dor known to the writer and not to be confused with this one. As regards location Naphath-Dor seems to be a town and, perhaps, a region situated in or near the Shephelah of Israel, that is the range of hills between the southern point of Carmel and Gilboa. The order of kings in the second list may be slightly confused, since Kedesh should properly be named between Taanach and Megiddo, but it is at least significant that we find Naphoth-Dor in close company with the group of Esdraelon fortresses.

(2). In Joshua 17, 11-13, we have a list of cities assigned to Manasseh 'in Issachar and in Asher.' This list reads, 'Bethshan, Ibleam, Dor, Endor, Taanach, Megiddo,' and ends with an obscure reference to Naphath and the number three, which it has been suggested with reason is probably a marginal gloss originally referring to Dor (the third city on the list) and indicating that it is Naphath-Dor which is intended. Here, then, once more we not only find the mysterious Naphath as apparently designating this particular Dor, but we find Dor in a context which limits us severely to the plain of Esdraelon. The reference to Asher certainly seems to imply a coastal situation for the town, but it looks suspiciously like an insertion due to the compiler's ignorance of any Dor in Esdraelon. In the list of towns assigned to Asher (Judges 1, 31 ff.) LXX, actually inserts a Dor between Accho and Zidon. Those who would read Sor = Tyre (with one inferior Greek MS.) must explain, firstly, how the easier reading became transformed into the more difficult, and, secondly, why the Hebrew texts do not read Tyre or some equivalent name in its place. It is noteworthy that LXX agrees with the Hebrew text in assigning a second and distinct Dor to Manasseh, as we shall see below.

(3). In Judges 1, 27 and 28 we are told that Manasseh failed to dispossess Bethshan, Taanach,



TANTURAH (DORA): VIEWS OF THE SITE AND WALLS

1. Modern Village and Port, as seen from the ancient site to the N.
2. El Burj, the site of Dora, showing Cut II, viewed from N.W.
3. Sea Wall and Gate (Hellenistic Period).
4. Detail of 'Tyrian' masonry.

Dor, Ibleam and Megiddo. Here, once more we find Dor associated with Bethshan, Ibleam, Taanach and Megiddo, three of them cities of Esdraelion and the fourth in the valley of Jezreel. What is the significance of this group of stubbornly defended towns? A glance at the map should leave us in no doubt of the answer. All of these cities but Bethshan were strategic fortresses posted on the main roads which crossed the Gilboa-Carmel frontier from north to south, and Bethshan itself performed the equally important duty of guarding the vulnerable eastern flank of the Plain. The chief passes across the Shephelah of Israel were three in number. The easternmost ran from Jenin by the Ascent of Gur; about a mile up the pass Ibleam (Belameh) guarded the junction of the roads to Samaria and into Sharon. The next in order westwards was the famous Wadi Arah, defended by Megiddo (Tell Mutassellim); but between these the hills fall away into valleys which necessitated the presence of an intermediate fortress at Taanach (Tell Taanuk). Still further west another, but somewhat rougher, route enters the hills under the steep slopes of Tell Abu Shusheh\* and finally the old Acre-Subbarin-Ludd road diverges from Wadi Milh (itself an easy pass to the sea) at the very gates of Jokneam of Carmel (Tell Keinun). In every case, it will be observed, the fortress is placed at the *northern* mouth of the pass: and while this chain of towns held out the frontier was secure. It is in this context and amongst these towns that we repeatedly find Dor or Naphath-Dor. Surely it can be no mere coincidence that the dominating site of Abu-Shusheh, the ancient name of which is otherwise unknown, fulfils all the conditions indicated for the site of Dor. But these considerations do not stand alone. The position of the coastal Dor is due not to the configuration of the hills behind it, but to the simple fact that the rocks at this point are perfectly adapted to form a harbour. In any other coast but that of Palestine this reason would probably never be considered, but we are dealing here with a seaboard which is practically harbourless. In the long stretch from El Arish to Acre there are only two points suited by nature to form a port: one of them is Tanturah, the other is Athlit. Of these Tanturah is certainly the superior, for the rocky islets which lie just off the shore form, with the promontory on which the old town stood, an admirably protected haven for the small shallow-draught vessels of those days.

It is true that the hills of the Shephelah behind Tanturah open out below Zimmarin to allow an easy route from the coastal plain to Jokneam or Abu-Shusheh. But the importance of such a route for Tanturah must have been commercial, for the city lay far too distant from the mouth of this pass to have been strategically useful in barring it in any direction. Anyone, in fact, who visits the site will notice at once its remarkable aloofness. Separated even from the main coast road by the ridge of rocks which at this point runs parallel to the sea, and at a distance of only half a mile, it displays no interest in the traffic which passes just out of sight on its way to Haifa or the Plain of Sharon, and its inhabitants to-day admit that they have practically no dealings with the colonists of Zimmarin, although their fields must in most cases be in contact, and the latter is the local administrative centre. That there should have been any political connection between this denizen of the sea and the inland fortresses beyond the foothills of Carmel is surely inconceivable, and the little we know of the coastal conditions in early times serves only to confirm us in this view. We have seen that in Solomon's time Acre and possibly Jaffa were in the hands of Hiram, and later history will show us that Dora itself was normally a possession of Phoenicia. It is scarcely likely then that Solomon either possessed or desired to possess a spot so remote for him, and so desirable for Hiram, as Tanturah, and when we read (I. Kings 4, 11) that one of his victualling officers had charge of all the district of Naphath Dor we shall have no hesitation in assigning this name to the Naphath Dor of Esdraelion and its territory to the plateau of Belad Er Ruhah which lies immediately above Tell Abu Shusheh. It is also noteworthy that if 'Naphath' is to be understood as meaning 'Heights,' the usual *Old Testament* translation, these heights or rolling hills cannot refer in any case to Carmel, the name of which was far too familiar to the Israelites; it must, therefore, designate the whole or a part of the Israelite Shephelah, and this would be an appropriate designation while agreeing with our present hypothesis.

To sum up, the combined evidence of the Biblical records and of historical and geographical considerations makes it necessary for us to dissociate the Dor of Joshua and Judges from the Dora of later times. Naphath Dor is as distinct from Dora as Hammoth Dor or En-Dor from either. It must have been a frontier fortress of Esdraelion which fell early into decay though the name of its territory survived at least into the ninth century. By this time, however, the maritime city of Dora was becoming famous for reasons with which we shall have to deal shortly, while the older and, no doubt, once greater town at Abu-Shusheh became only a memory and fruitful source of confusion for the scribe.

\*This was one of the routes employed by Lord Allenby for his cavalry. Napoleon made use of the Ludd-Acre road. The Wadi Arah has always been the chief line of communication.

Having considered the Biblical references we may confine ourselves henceforward to the maritime town which now bears the name of Tanturah. Its history, thus restricted in date, begins for us with the story of Wenamon, the luckless Egyptian traveller who sailed from the Delta to Byblos about 1100 B.C., and put in at Dora during the course of his voyage. The city at that time was in the hands of a people called the Zakkara, and from subsequent notices we gather that they were of an active seafaring disposition, possessed a fleet of their own, and were strong enough to demand the surrender of a refugee from the prince of Byblos himself. Thus at the very outset we find, as we should expect, that the story of Dora is a story of the sea. These Zakkara were themselves invaders from the isles of Greece or beyond. They came with the Philistines in the great invasion of 1190 B.C., when a combined force of foreign sea-rovers, foiled in their attack on Egypt, settled along the Palestine coast from Carmel to Gaza. How long the Zakkara remained strictly independent we have no means of knowing. But ports are not like inland fortresses. The common interests of commerce, the common profits and perils of the sea, forge imperceptibly between them a bond at once more close and less obnoxious than that of undisguised vassalage and the burden of land taxation. With Tyre predominant along the coast, it is scarcely likely that Dora long retained an unchecked liberty of action; but if Tyre became the master it remained always the market, and in any event an alliance of some kind was essential for self-protection.

There follows a long gap in the city's history but when we pick up the threads of it in the fourth century B.C., we find the same relations prevailing. The Eshmunazar inscription has been variously ascribed to this and the succeeding century, but the testimony of the Periplus of Scylax written as internal evidence about 350 B.C. shows that already at that date the town belonged to the Sidonians, and must refer the inscription to the period of Persian domination. Eshmunazar, second king of that name in Sidon, states: 'Furthermore, the Lord of Kings gave to us Dor and Joppa, the glorious lands of Dagon which are in the field of Sharon.' No mention is made of Acre but as Scylax calls both it and Ascalon cities of the Tyrians, while he assigns Dor and an unknown Aradus (? Haifa) to Sidon, it is clear that the Persian monarch distributed the Palestine harbours impartially amongst the Phoenicians. Maybe that in so doing he was merely confirming them in possession of towns which they had already acquired or founded.

Once more there is an interval of silence, but when we reach the period of the Seleucid wars Dora appears once more. In 219/18 B.C. it was in the hands of Nicolaus, the lieutenant of Ptolemy IV, and triumphantly defied the assaults of Antiochus III who conducted an abortive siege till bad weather made further operations impossible. It is interesting to notice that although Antiochus had just captured the naval arsenals of Acre which included 40 vessels, half of which were decked ships of war, he was even thus unable to prevent Nicolaus from provisioning the beleaguered city from the sea. We gain from this failure on the part of a determined and by no means mediocre commander the real difficulty which the ancients experienced in the reduction of maritime cities. It was in fact a task which no general would have attempted without the help of a powerful fleet.

The next known incident in the city's history illustrates the same lesson. In 137/8 B.C. Trypho the usurper fled to Dor and was closely besieged there by Antiochus Sidetes (VII). Though a large force encompassed the city by land and a fleet joined in the attack from the sea, he had no difficulty at the last in making his escape by water; and the siege, fortunately for Dora, was raised when the news became known.

Thirty years later (104 B.C.), and for how long before this we do not know, the town was in the hands of one Zoilus, who made himself tyrant of Dora and Strato's Tower (the later Caesarea). Zoilus was obviously a prince of some importance for he had no hesitation in assisting Acre (Ptolemais) in its fight with Alexander Jannaeus. In the end he lost Strato's Tower, but whether Dora shared its fate is doubtful for it is not included by Josephus in his list of Phoenician cities held by Alexander at the close of his career. Possibly, however, it was wholly or partially destroyed by the conqueror, for when Pompey in 63 B.C. restored certain captured or demolished cities of Palestine to their old inhabitants, Dor appears in the catalogue with Gaza, Joppa, and Strato's Tower. It was incorporated henceforth in the Roman province of Syria and its 'autonomous' coins are dated from this year. From 36 B.C. till Antony's defeat at Actium in 31 B.C., this city may have been nominally in the hands of Cleopatra, but on the arrival of Augustus in the East it reverted to Syria, and geographers of the first century, A.D. describe it without comment as Phoenician. The creation by Herod of a great artificial harbour at Caesarea might have been expected to reduce the small neighbouring port to insignificance, and the evidence of Pliny (c. 70 A.D.) who describes it as a mere memory, and of Strabo (c. 25 A.D.), who omits all

mention of it, certainly appears to confirm the supposition. Yet from Antoninus Pius (64 A.D.) to Elagabalus (222 A.D.) the city was of sufficient size and importance to issue its own autonomous coinage, while in 66 A.D. it was used by Cestius as a convenient prison for his Jewish hostages and can, therefore, hardly have been altogether in the state of decay which Pliny and Strabo both suggest. Until more archaeological evidence is available this puzzling contradiction must remain unsolved, but we may suspect that, for all its fair show, Dora was gradually dwindling to the status of a hamlet. Certainly by the time of Jerome (*c.* 370 A.D.) it had fallen temporarily into ruins, though it recovered sufficiently by the fifth century to have a bishop of its own and does not seem to have suffered final destruction until the Arabs swept away the last vestiges of Byzantine civilisation. It is typical of the history of this town that even at the close of its life it is still described by Stephanus Byzantinus (sixth century A.D.) as a 'City of Phoenicia.' This was its inevitable fate, a fate dictated by the nature of the Syrian coast and the physical configuration of its hinterland. The fortunes of Dora lay upon the sea.

## TANTURAH. PART II.—ARCHAEOLOGICAL RESULTS

With Plates II, III

The two sections (see Pl. II, Figs. 1 and 2), which were cut in the north and south slopes of the city mound respectively cannot, of course, be expected to give us exhaustive information as to the history of the town. Especially is this true where purely negative evidence is concerned and our conclusions must, therefore, for the moment remain general and to that extent indefinite.

Nevertheless the broad line of our city's career can be described with some attempt at precision and will be found to accord well with what we have gleaned briefly from our historical survey.

The site was inhabited in the fourteenth century B.C. (towards the close of the late Bronze Age) and its culture at this date was similar to that of the other Canaanite cities which have so far been examined. It is typified in the first instance by the presence of the now familiar 'wish-bone handle' and 'base ring' Cypriot wares and the black slip vases with red parallel brush-strokes which are contemporary with them both in Cyprus and Palestine. The primitive comb-faced pottery which was found at Ascalon in this context re-appears at Dora and may be ascribed to the native inhabitants. We can no longer place this type exclusively in the middle or Early Bronze Ages.

At the other end of the scale we find the Cypriotic pilgrim bottles which seem to have become popular at Ascalon after the Philistine invasion. Perhaps it is an accident that they have not been yet found at Dora at this later period. The clay of these Bronze Age vases is as usual of the local red or buff varieties; the baking is indifferent and the sections show quantities of gritty particles. Such painted fragments as we have discovered show a simple monochrome ornament of one or several parallel bands in black, brown or red on the natural surface of the vase. The curious greenish clay observed at Ascalon and elsewhere occurs at Dora also and must be referred to some special Palestinian locality as it appears to be a native product and not an import. One or two pieces of painted ware exhibit an unusual orange tint with a semi-lustrous appearance: these show a distinct resemblance to some of the Late Bronze Cypriot pots and may, perhaps, have come from overseas. A few fragments of native manufacture were covered all over with an opaque white wash, a form of decoration perhaps intended to receive a painted pattern, though so far no trace of such have been found on any of them. (Dr. Fisher found a fine painted vase at Beisan which seems to belong to this class.)

The vase-shapes of this period displayed no uncommon features. We find the usual chocolate-coloured cooking pots, 'milk jugs' with a single vertical loop handle, and open bowls or saucers the rims of which are either unmoulded or with a raised flange running round the interior. The base usually employed was of the ring type. In the case of one large vessel it was made separately and attached to the pot while wet by means of a number of jagged incisions stabbed all over the point of junction. The lamps were of the pinched-spout type of the Middle Period.

The evidence detailed above is derived from our lowest steps and more particularly from steps F and G of Cut I. (Step G formed the lowest level on the exterior of the mound and disappeared later as the slope of the rock rose from the beach.) The pottery of step E of the

FIG. 2

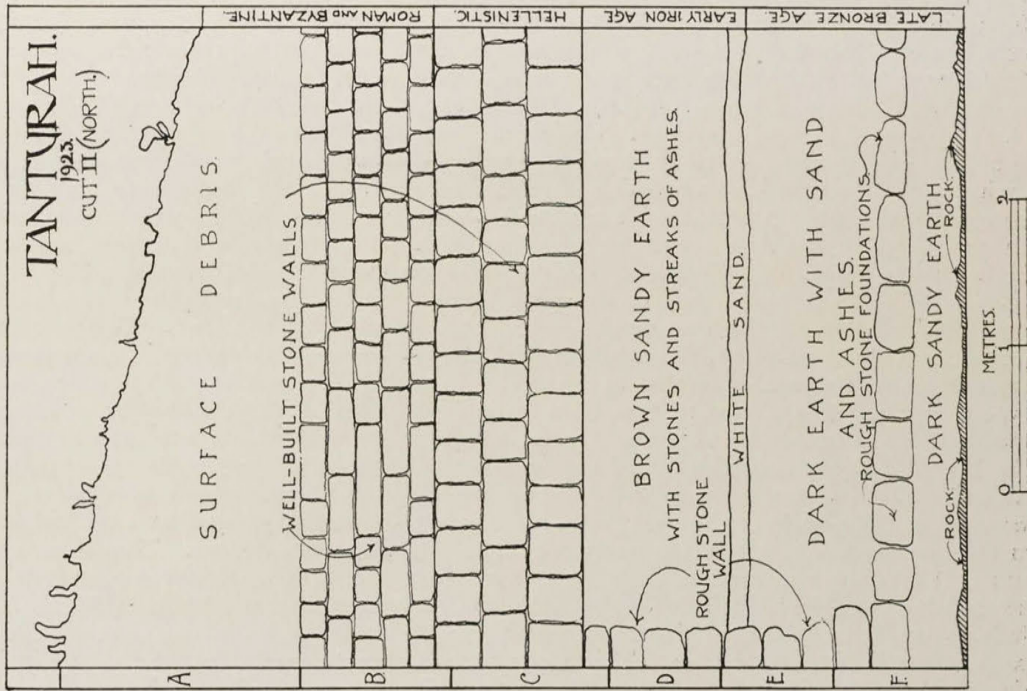
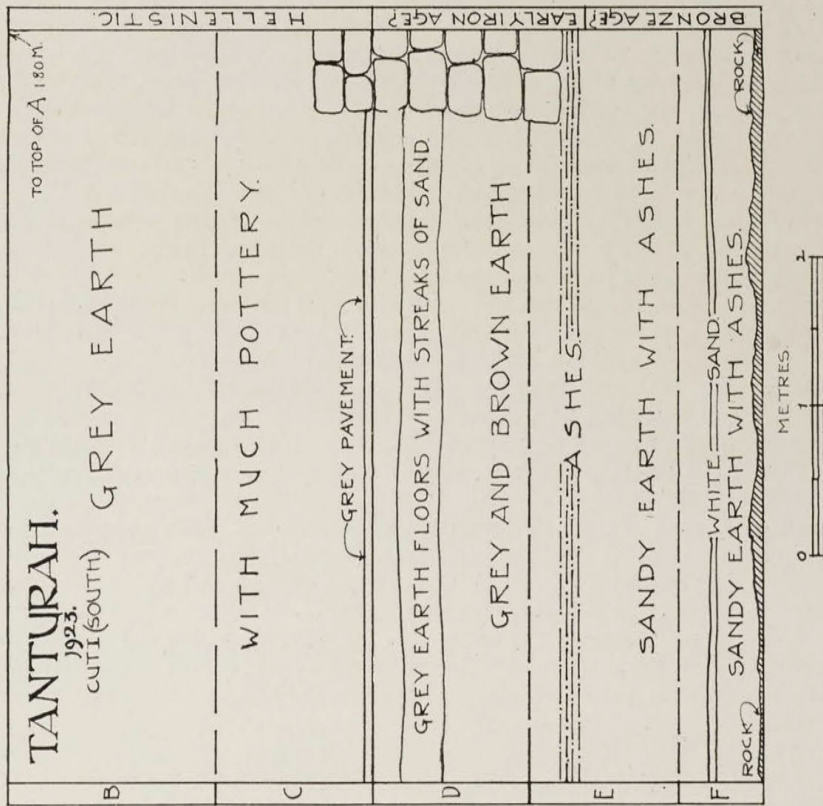


FIG. 1



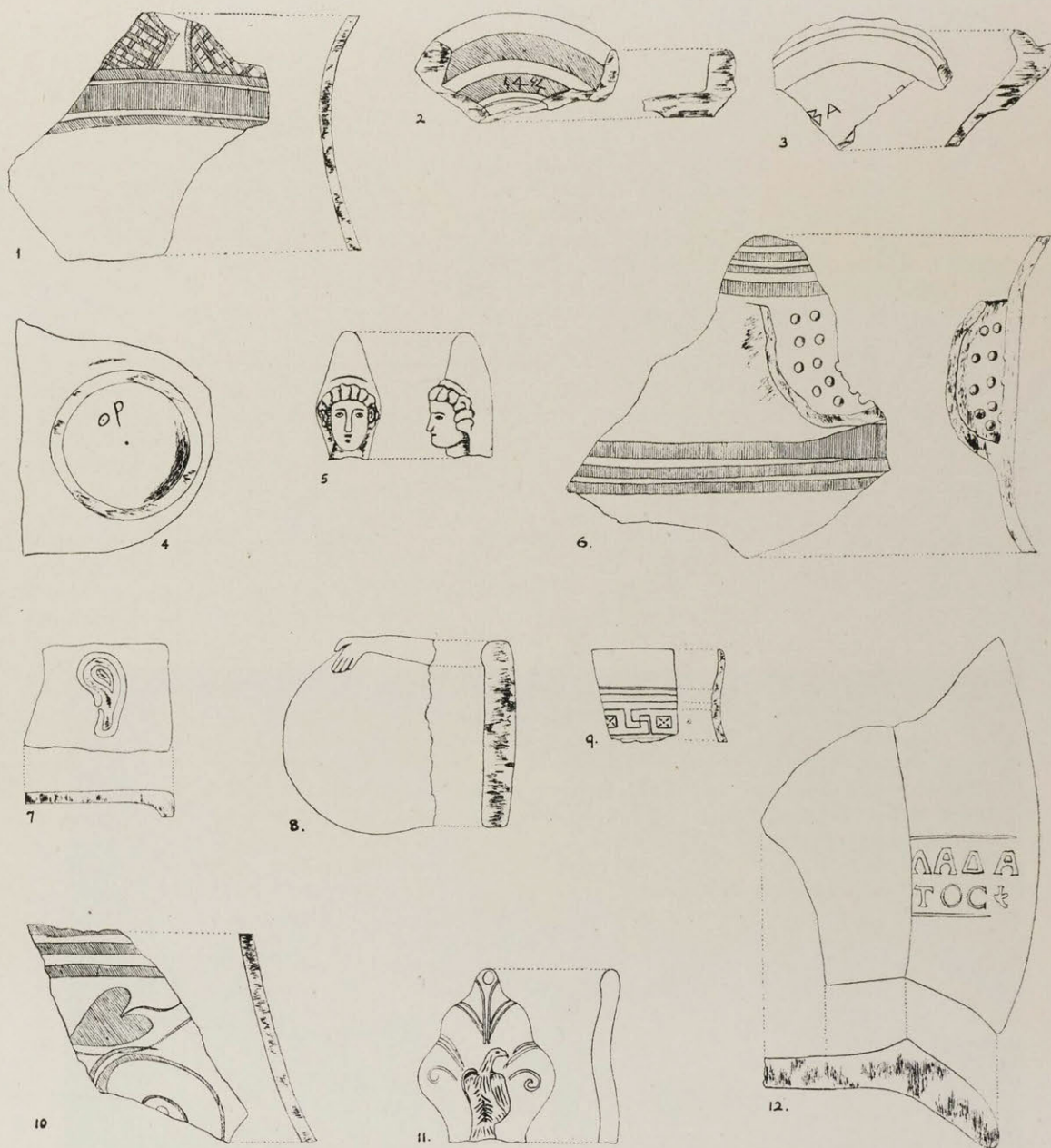
TANTURAH

Figs. 1, 2. Sections cut in El Burj, 1923

same Cut showed a mixture of Bronze and Iron Age wares and cannot, therefore, be relied upon for either period. The reason for this mixture will be easily discovered from our diagram (Fig. 1) which was prepared quite independently of the ceramic evidence. At a point about 20 cm. from the top of the step a layer of ashes was found to underlie the well-built stone (outer) wall of a house. This wall belonged, as the pottery found beside it showed clearly, to the Early Iron Age period of the city's history, the fragments found in the layer of ashes belonged to the same date, while those below still include the wishbone and base ring wares and the old monochrome types of painted ornament. One such painted fragment in E is of doubtful date. It is well-baked grey clay covered on the outside with a brown pigment and decorated on the inside with alternate belts and cross-hatching of the same colour. To the Bronze Age must probably be attributed a grey fragment with herring-bone incisions, since similar pieces were found in an undeniable Bronze Age context at Ascalon. With the entry of the Iron Age, however, we begin to find fragments of pebble-burnished vases displaying the fine over-all polish which is characteristic of the earlier part of this period and (with less certainty) the pointed piriform juglet of local clay, of which no specimens had been found at a lower level. The most characteristic Iron Age vase of all, the amphora with flat sloping shoulder ending in a sharp metallic angle, appeared also for the first time in this step. In step D above it it becomes far the commonest type of pot and would seem to have been made (and broken) in large quantities. Perhaps the most striking difference between the Bronze and Iron Age wares lies in the superior baking of the latter. Fragments of this period can be detected without fail merely by the metallic clink which is emitted when they are rubbed or rapped together. It is true that certain of the commoner vases are still suggestive of the Bronze Age pottery but the vast majority show a marked advance in manufacture. The art of the painter exhibits a similar improvement. Two colours (black and red) are now employed, notably on a vessel furnished with a strainer-spout where cross-hatched lozenges of black are spaced between parallel belts of red and black. (Pl. III, No. 1.) It is important in this connection to notice that so far no fragments of characteristic Philistine pottery have been found at Dora. This may, of course, be accidental but it is certainly significant that the fragment alluded to above while forming part of a vase which further south would be recognised at once as typically Philistine should exhibit a style of decoration which has never so far been found (at this date) within the limits of Philistia. It is certainly very tempting to see in this fact a close connection with the historical advent of the Zakkara. These invaders were probably of the same northern origin as the Philistines who accompanied them and might be expected therefore to make use of the same types of jar. This would be especially true of the vase with the strainer-spout for whatever the liquid was which required this strainer it was clearly introduced by the Philistine confederacy. Beyond the question of form, however, we need not expect to find an absolute identity between the art of the two peoples. The pattern on the Dora vase is as different from the Philistines as are those on the Cypriot wares of this period, yet few would deny the close family resemblance between all three when contrasted with the Bronze Age culture which in each case was annihilated by their arrival.

It is satisfactory to be able to record this discovery of a Zakkara vase—single though it be—for in other respects there is nothing to distinguish the culture of Dora at this date from that of any other Iron Age site in Palestine. The 'pinched spout' lamp continues; the typical amphorae are very numerous; and with these we pass almost imperceptibly into the Hellenistic Age (from 400 B.C.). Dora at this time was, as we have seen, in the hands of the Sidonians and an interesting illustration of the fact is given by the discovery of a fragment of black varnished Greek ware with the name of its Phoenician owner roughly scratched on the base. The inscription appears to read (Pl. III, No. 2) 'Belonging to Yabin,' but it is difficult to be sure how far the sharp point of the instrument slipped in the formation of the letters. The presence of Greeks in the town is similarly shown by an inscribed fragment (Pl. III, No. 3), and the number of 'Rhodian' amphorae found at this level (C and B) seem to tell the same story. Two terra-cotta plaques also discovered in these steps deserve a passing mention. On one (Pl. III, No. 7) is a human ear moulded in low-relief; and on the other (Pl. III, No. 8), which is broken, a human fore-arm is represented attached to, and presumably holding, a rounded object, possibly a tombstone. It is possible that both are votive offerings, either to supplicate, or to render thanks for, a cure.

The Hellenistic period is represented largely by black varnished vases with palmettes and other designs stamped mechanically in the wet clay. They may be dated as posterior to 350 B.C. and seem to survive to Roman times. To an uncertain point in this period belongs the fragment of a large red jar-rim stamped in two lines ΑΑΔΑΤΟC (Pl. III, No. 12). The great colonnade

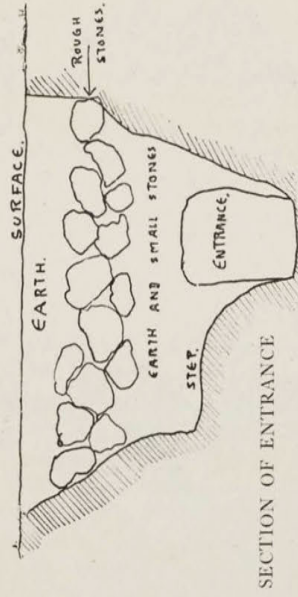
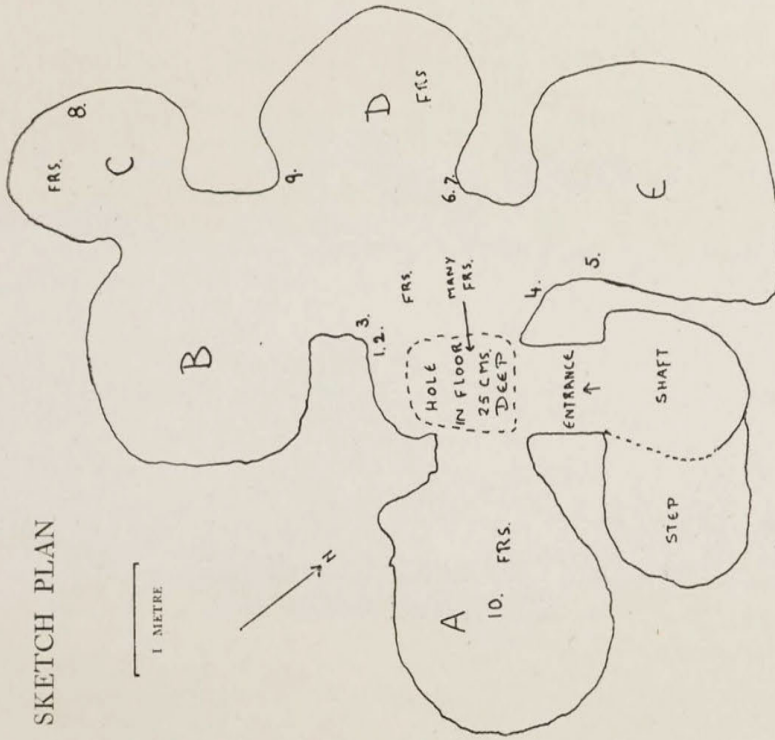


TANTURAH (DORA) 1923: FRAGMENTS OF POTTERY CHIEFLY FROM CUT I.

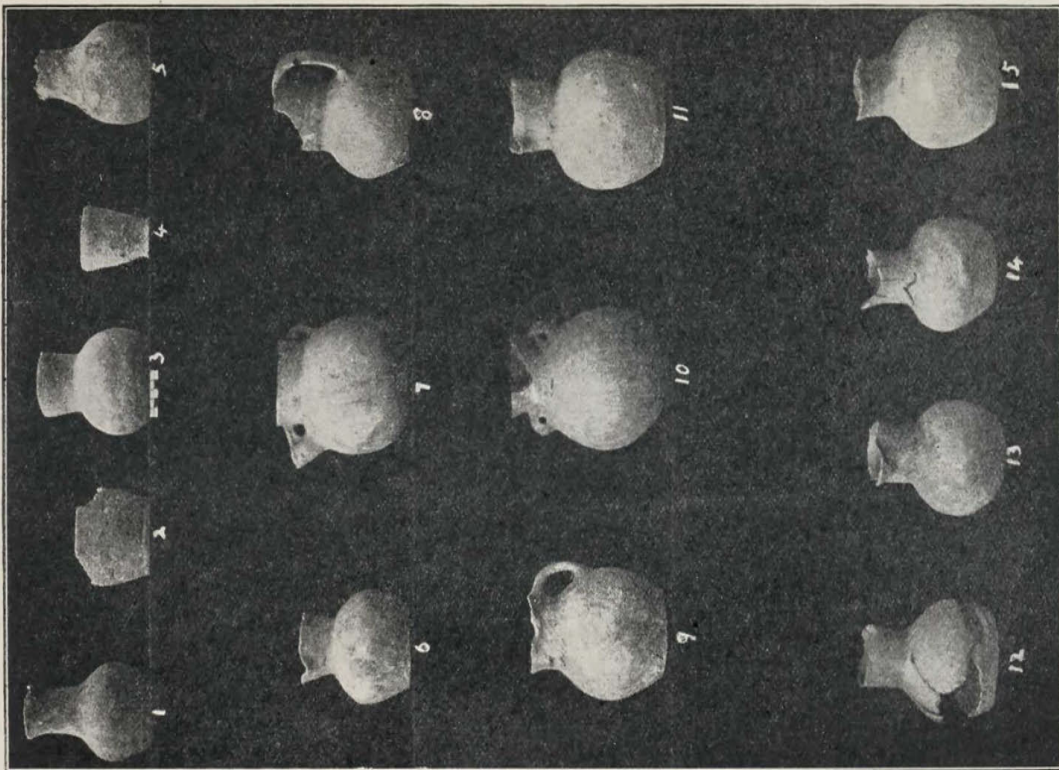
SCALE ABOUT 2:5

No. 1: D.1. No. 2: II, B.2. No. 3: C.2. No. 4: B.2. No. 5: B.2. No. 6: D.1. No. 7: I, B.2. No. 8: C.2.  
 No. 9 (Stamped, Hellenistic), Surface. No. 10 (Br. on light creamy clay): I, C.2. No. 11. Hellenistic Lamp handle (red): Sea-Gate.  
 No. 12. Propylaea.

SKETCH PLAN



HARBAJ. Sketch plan of cave-tomb No. 1.



HARBAJ. Tomb-group of early pottery.

HARBAJ, 1923. GROUP OF PRIMITIVE POTTERY FROM CAVE-TOMB No. 1, EXCAVATED 1923.

on the west front of the city and the well-built stone walls found in Cut II may also be ascribed to Hellenistic times and it may not be rash to conjecture that the former of these owes its construction to the tyrant Zoilus.

Curiously, few traces of the Roman occupation have so far been found, though Byzantine wares are well represented in the surface deposits. It is too early as yet to say why this should be so but it is undoubtedly odd in view of the evidence given by Pliny and Strabo (see Part I, above) and may indicate that there was some foundation for the apparent error into which these writers fell. This, however, is a point which can only be cleared up by further excavation, and speculation at this stage would be useless.

Briefly summarised, the archaeological evidence entirely confirms the historical. The earlier periods of the city's life can only be conjectured but as it is probable that her purple fisheries were of considerable antiquity we may suppose that in the Bronze Age she was already trading with Tyre and Sidon. The arrival (in 1190 B.C.) of newcomers from overseas seems to be corroborated and their connection with the Philistines is certainly suggested by the finds. From the archaeological point of view this is, of course, the most interesting period of all and it is to be hoped that future explorations will release a flood of fresh and important material. Commercially, on the other hand, the Hellenistic era which followed marked clearly the zenith of the town's prosperity. It was then that the great propylaea with its Ionic columns must have been built and the large and deep deposits of black-varnished wares show how long and thoroughly Dora must have imbibed the influence of Greek civilisation. The liberation of the city by Pompey in 63 B.C. brought it once more into prominence but there again, as we have observed, our information is far from complete and we must be content to wait for new disclosures.

Perhaps the thing which strikes us most in considering the history of this place is the astonishing contrast between its site and its fortunes. For Dora can have little attraction for the sailor and its tiny haven and the half-sheltered coves which lie to the north of it are hardly deserving of the name of harbours. Moreover, it serves no apparent purpose of commerce apart from the purple-fishery which we have already mentioned. Shut off from Esdraelon by some twelve miles of barren and almost uninhabited hills, distant by many more miles from the nearest important ancient city in the Plains either of Acre or of Sharon, separated from Carmel even in the days of the Crusaders by a jungle of thick copses which gave little pleasure to the traveller, its position must have been that of a secluded back-water in the busy life of Canaan. No great highroad passed beneath its gates; and if no ancient conqueror molested its peace, no caravan of merchants increased its profits. It is, indeed, hard to conceive how a town so situated could endure for a century, yet not only did it endure but it flourished, not for one but for many centuries; there was a day when it ranked with Ascalon, Caesarea and Acre and the opulent Greek cities of Transjordan, when it issued its own coins and boasted that it was Holy and Autonomous, that it possessed the rights of sanctuary and had been accorded special privileges on the sea. In that last word lies the clue to the mystery, but even thus the secret is not fully explained. It lies as much in the nature of the Palestine coastline and in the unusual scarcity of sheltered havens along it. Compared with the inhospitality of Ascalon or Gaza the port of Dora is a paradise for small vessels, and it was to this fact that it largely owed its ancient greatness.

## EL HARBAJ

### NOTES ON POTTERY FOUND AT EL HARBAJ, SUMMER, 1923

With Plate IV

While suspending a general account of our further excavations on Tell Harbaj, certain archaeological details are of immediate interest, and are described in the following notes.

I. ? **STONE AGE.** An important group of very early vases was found in Tomb I, of the cemetery which lies on the hill slopes east of the city. This Tomb was entered by a vertical shaft having a step or landing about half-way down it and at the bottom a horizontal doorway giving access to a vestibule and five chambers (marked A-E on the Plan, Pl. IV). The rock throughout was roughly cut, no trace of tool-marks being visible anywhere, and it is possible when we take into account the curious distribution of the vases (as numbered on the Plan), that we have to do here with an early Troglodyte dwelling rather than with a place of burial. Certainly

the vases themselves (Fig. 6) are of a much coarser type than the ledge-handle pots and finely-baked red 'trays' which were found last year in the lowest strata of Tell Harbaj, and among the only traces of settlement on Tell El Kussis. The clay is in most cases of a soapy yellow type, only Nos. 9 and 10 having received a really thorough baking. All are hand-made and some are carelessly shaped. As regards form, the handleless jug with pinched spout (Nos. 1, 3, 6, 11, 12, 13) is so far unique in Palestine and the same can be said of the curious jar (No. 7) which has a spout projecting from the outside of one of its lug-handles. This jar, it may be added, was not only of a finer clay than the rest, but it was also the only vessel possessing a semi-rounded bottom, instead of the usual flat one.

Chamber C. also produced two strangely anomalous fragments of fine yellow ware decorated with thin bands of orange paint. Both clay and paint are semi-lustrous. These fragments would normally be assigned without hesitation to the culture-period, Late Minoan III; but, if this is so, it is at present impossible to explain its presence in such company. It should, however, be said that there are some indications that the cave lay open, or, at any rate, was opened in antiquity, and this may account for the intrusion. We may compare the troglodyte caves of Gezer which were used as burial places for the later inhabitants of the site.

II. LATE BRONZE. The excavations on the Tell itself produced large quantities of Late Bronze and Early Iron Age fragments, but, unfortunately, the levels were found to have been very much disturbed by ancient buildings. The former period was represented by the familiar bowls with 'wishbone handle,' and flagons having 'ring-bases'; also by fragments of lustrous Mycenaean vases and by the crude monochrome pottery which was described in BULLETIN No. 2. At this level also occurred the early form of pedestalled goblet resembling a 'fruit-dish,' and the curious vase suggestive of a 'candlestick-saucer,' the purpose of which still remains a mystery. A terra-cotta figurine of the Mother Goddess belongs to this milieu.

III. EARLY IRON AGE. With the Early Iron Age was introduced the vessel with a strainer spout. A typical Philistine fragment of one of these was found with pieces of a Philistine cup amongst the strata of the Bronze Age, but as fragments of the same, or of an exactly similar cup were discovered at a much higher level, their presence at such a depth must be ascribed to disturbance of the strata. Pilgrim bottles with painted concentric circles were another sign of the new era and the late form of the pedestalled goblet seems also to have become popular at this time.

IV. SUMMARY. It will be seen from the above that the archaeological evidence of the site conforms to the usual Palestinian conditions. We appear to have four distinct periods of culture:

- (i) Neolithic culture of the Troglodytes of 'Tomb I.'
- (ii) Early Bronze Age culture of the lowest stratum of the Tell.
- (iii) Late Bronze Age (Level 4 of the Tell).
- (iv) Early Iron Age (Levels 3 and 2 of the Tell).

The culture of the Middle Bronze Age as distinguished at Beisan by the white slip wares, and elsewhere in Palestine by black punctured 'Hyksos' vases, bowls with red burnished crosses, red polished wares, etc., is, so far, completely lacking at Harbaj, but it remains to be seen whether this absence is not more apparent than real.

## NOTES AND NEWS

Mr. P. L. O. Guy, Chief Inspector in the Department of Antiquities for Palestine, reports the discovery in Galilee of a number of 'dolmen-tombs,' apparently unopened.

BULLETIN No. 5 will contain an account by Mr. P. L. O. Guy, of tombs on the northern slope of Carmel; an illustration of a Graeco-Roman sarcophagus recently acquired by the Department of Antiquities for Palestine, and a report by Dr. Mayer on the discovery of a number of ossuaries in a cave-tomb in the Valley of Hinom, with facsimile copies of the Hebrew graffiti names.

The first Special Publication of the School, being a philological and geographical Index to all the Hittite Geographical Names then published and transcribed, was issued as a *Supplement to BULLETIN*, No. 3, 1923. It is available to members at a special price, under the terms of Ordinance 15.

# BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM

## BULLETIN No. 5

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1924

INTRODUCTION.—This Bulletin contains an account of certain notable discoveries made during 1923 which have resulted in valuable accessions to the Palestine Museum in Jerusalem. A few personal details as to this branch of the Administration may be deemed appropriate. Mr. P. L. O. Guy, who describes the tombs of the Early Iron Age opened by himself on Carmel, is chief Inspector of Antiquities, responsible primarily for the protection of the ancient sites and monuments of Palestine. Dr. Mayer, who describes the discovery of inscribed ossuaries in the Kedron valley, ranks as Assistant Inspector of Antiquities. Being an Arab scholar, *par excellence*, his more immediate duties are concerned with the care of the local antiquities and the maintenance of the historic buildings in the old city of Jerusalem. The very beautiful and interesting sarcophagus described in this Bulletin was safely removed from Tell Barak by collaboration of the Public Works Department and the Palestine railways. The delicate and difficult task of transferring it to the Museum was accomplished under the direct superintendence of Mr. Ory, also Assistant Inspector of the Department. The Junior Inspector, Mr. Makhoully, cleared a number of tombs of the Roman age in the neighbourhood of Acre (at Shefr Amr and El Zib), of which we hope to give an account in a later Bulletin. He has been occupied principally with special inspections in Trans-Jordania.

The Museum in Jerusalem, and the local museums of Acre, Ascalon, Caesarea, etc., are the creation of the Department, and until now have been under the direct control of Mr. W. J. Phythian-Adams, M.A. Unfortunately it has been found necessary, for the time being, to suspend the post of Keeper of Museums; the duties will be distributed among the personnel.

The organization and direction of the Department of Antiquities was entrusted at the outset, in July, 1920, to the Director of the British School of Archaeology in Jerusalem (Professor J. Garstang, M.A., D.Sc., F.S.A.), an arrangement which has worked happily enough for both sides ever since the initial difficulties were overcome.

### MT. CARMEL

#### AN EARLY IRON AGE CEMETERY NEAR HAIFA, EXCAVATED SEPTEMBER, 1922

[P.E.F. 1" Map Sheet V. Kh.]

With Plates I, II, III

P. L. O. GUY

SITE. The cemetery lies about 100 metres above sea-level on the N.E. slope of Mount Carmel (Photo. I): Modern Haifa, to the N.W., is close enough for people at the station there to be plainly seen with the naked eye, and the town will probably extend within the next few years so as to include the site. A new road up the hill has already been made which passes only

a few metres above the tombs and it is, therefore, most opportune that Mr. Aziz Khayat, who owns the property, was good enough to provide the funds which enabled Mr. G. M. FitzGerald and myself to undertake the work which is here described.

CONNEXIONS. From the site one has a fine view to the North and East, across the Bay and Plain of Acre, to the hills beyond, with the Kishon running into the sea at the near end of the bay. About a kilometre distant and just this side of the Kishon lies Tell Abu Huwam with which one is inclined to connect the tombs. It must originally have been situated on the coast at the point where the mouth of the Kishon would form a small harbour, and have commanded the road along the shore towards Acre as well as that which still leads inland to the Plain of Esdraelon. To-day, however, the sand, and the alluvium from the river, have silted up the bay (in 1922-23 the coast-line advanced some 15 metres seaward), and the Acre road now runs along the beach nearly two kilometres north of the Tell.

Pottery fragments from the Tell itself range from Cypriote wish-bone-handle milk-bowls to terra sigillata, while Mycenaean and Early Iron Age Cypriote specimens give evidence of intermediate foreign relations.

GROUND. The hillside where the tombs are cut is steep and irregular. It is composed of a white limestone of very varying hardness: in some places it is hard enough to be worth quarrying to-day; in others it is virtually a marl. The soil is red and, where there is enough of it, allows olives and carob to be grown, but the vegetation which is most luxuriant is a thorny scrub.

DISPOSITION. The tombs have their entrances at such points as the rock offers a more or less vertical surface about a metre in height. No special orientation is noticeable in the tombs, in the graves which they contain, or in the disposition of the bodies in those graves; a marked instance of the two latter points being found in tomb I. The distance between the tombs seems to have been governed merely by the suitability of the rock. Generally, once the face of this has been pierced, it is soft and easily worked, all the tombs except No. V being roughly hacked out and having no tool-marks visible. In some cases large lumps of stone have fallen or are ready to fall from the roof. Because of this, and also because they seemed unproductive, Tombs III and VI were abandoned before their excavation was completed.

CONDITION. Tombs I and VII could easily be entered, and presented the appearance of small caves with an earth floor. They did not look as if they contained anything in particular, but it is worth noting that it was in these two tombs, and probably for this very reason, that the best groups of pottery were found.

The other tombs were filled almost to the roof with debris and presented a more hopeful appearance than those which actually proved to be the most productive.

All tombs had been disturbed, probably at an early date, but the looters, whether men after gold or beasts after a meal, had not concerned themselves with pottery—at least in the cases of Tombs I and VII—except to break it.

TOMB I. Photo 2 (Pl. I). Plan 1 (Pl. II).

Floor to roof before excavation *circa* 1.20 m.; after excavation *circa* 1.55 m.

Excavated floor *circa* 0.90 m. below outside ground level at entrance.

GRAVE A. *Circa* 0.55 m. deep. Two full-length burials, feet towards the entrance. They had been disturbed in antiquity and only a fragment of the skull of one person and part of the feet and legs of the other showed their position. They appear to have been covered with rough stones of about 20 centimetres in diameter.

The lamps were found about the middle of the bodies; the small jugs near the heads. A number of pottery fragments were found in the filling but no shapes could be completed.

POTTERY. Pot 1 (Pl. II). Buff paste with white particles and brown. Exterior and top centimetre of interior have a good pinkish wash with traces of burnishing. Below the handle is an incised mark.

Pot 2 (Pl. II). Lamp. Pinkish-brown paste, rather coarse. Finish good inside but rough outside.

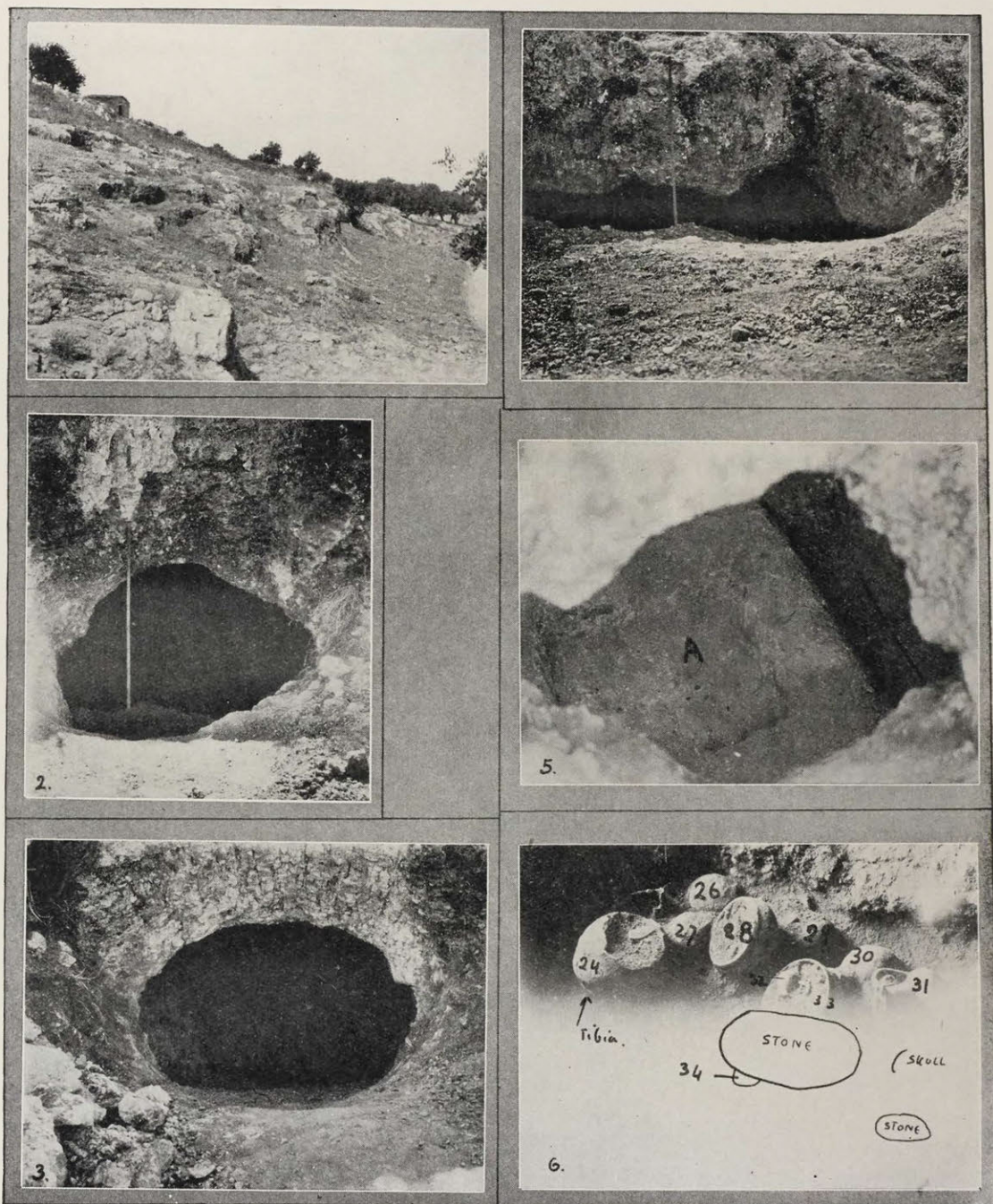
Pot 3 (Pl. II). Lamp. Similar to Pot 2 but slightly larger.

Pot 4 (Pl. II). Yellowish-buff paste, finely levigated. Outside plain, inside a dark red wash. Well made.

Pot 5 (Pl. II). Similar to Pot 1 but has three bands of brownish-black paint as shown.

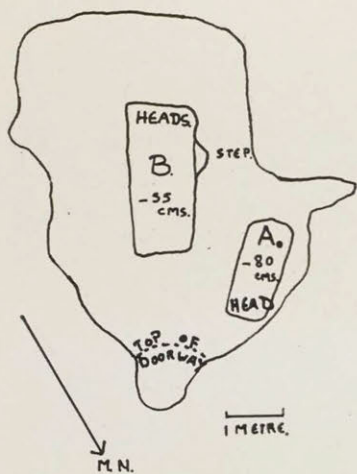
Pot 6 (Pl. II). Reddish-buff paste, rather coarse, with slip of the same. Roughly hand-made.

Pot 7. Similar to Pot 6, but slightly larger. No slip.



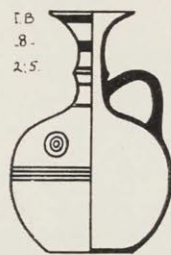
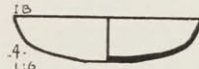
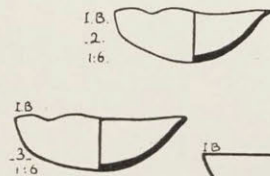
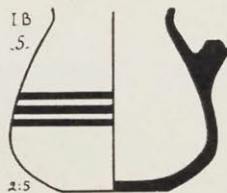
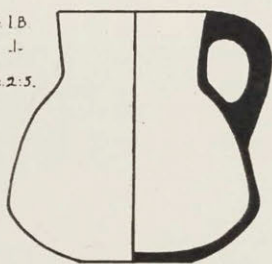
MT. CARMEL: TOMBS EXCAVATED ON THE N.E. SLOPES NEAR HAIFA, 1923

1. GENERAL VIEW OF HILLSIDE FROM S.E.
2. TOMB NO. I. ENTRANCE FROM N.
3. TOMB NO. II. ENTRANCE FROM N.E.
4. TOMB NO. IV. ENTRANCE FROM E., SHOWING ROCK BROKEN AWAY.
5. IBID. GRAVES A AND B.
6. TOMB NO. VII. DISPOSITION OF POTTERY AND OTHER REMAINS.

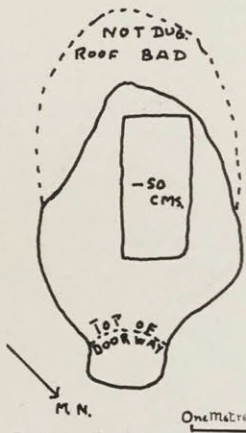


TOMB N° I. SKETCH PLAN

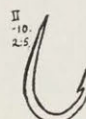
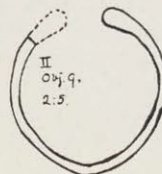
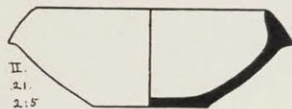
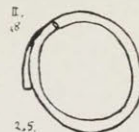
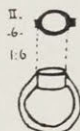
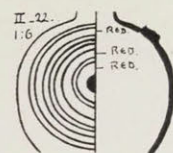
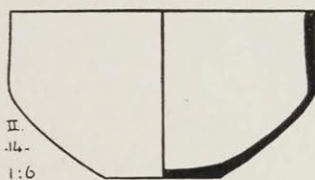
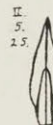
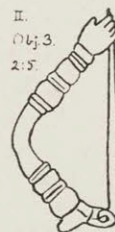
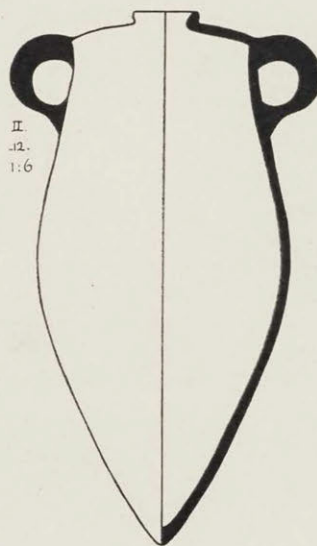
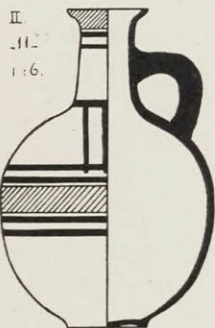
Tomb I B.  
Pot. J.  
Scale 2:5.



TOMB N° II



SKETCH PLAN



MT. CARMEL, TOMBS I AND II: SKETCH PLANS, POTTERY VASES AND VARIOUS METAL OBJECTS.

(THE REFERENCE NUMBERS ARE TAKEN FROM THE FIELD-BOOKS AND ARE RETAINED IN THE LETTERPRESS.)

Pot 8 (Pl. II). Finely levigated salmon-pink paste, burnished. Decoration in blackish-brown. The group of three concentric circles shown on the side are actually opposite to the handle which is also blackish-brown. Very well made.

Pot 9. Similar in shape to Pot 8 but slightly larger, and lighter in colour: the paste is more porous. Instead of a group of three concentric circles there is a group of four in the same position as in Pot 8.

Pot 10. Similar in shape and fabric to Pot 8, but larger than Pot 9. There are two groups of three concentric circles opposite to the handle.

*Small Finds.* Object 1. A much worn fragment of a blue glaze bead with incised criss-cross pattern.

Object 2 (Pl. II). A much worn blue glaze cylindrical bead, ribbed.

GRAVE B. A single full-length burial, head towards the entrance. Much disturbed: few bones and pottery fragments. Body originally covered with rough stones rather smaller than those in grave A.

TOMB II. Photo 3 (Pl. I). Plan (Pl. II).

Floor to roof after excavation *circa* 1.90 m.

Excavated floor *circa* 1 m. below outside ground level at entrance.

GRAVE. *Circa* 0.50 m. deep. One full-length burial, feet towards entrance. Few bones remaining. Pottery and other objects found indiscriminately throughout filling.

POTTERY. Pot 11 (Pl. II). Reddish-buff paste, blackish-grey inside, fairly coarse. Rough slip of the same. Decoration, black and red bands; black shown solid, and red by single hatching. A well-turned pot.

Pot 12 (Pl. II). Reddish-buff paste, fairly coarse. Handles rough, but workmanship otherwise good. Contained few fragments of bones.

Pot 13. Similar in all respects to Pot 12.

Pot 14 (Pl. II). Rather coarse buff paste with many white particles. Much decayed at base because of being lightly fired. Reddish wash inside and out with traces of rough ring-burnishing on upright part of exterior. Distorted during firing.

Pot 15. Fragments only. Similar to Pot 11, but has two sets of three black rings each round body.

Pot 16. Fragments only. Similar to Pot 4.

Pot 17. Similar to Pot 10, but has no group of concentric circles opposite to handle.

Pot 18. Fragment only. Similar to Pot 9.

Pot 19 (Pl. II). Similar to Pot 2, but paste coarser, redder and with many white particles.

Pot 19a. Lamp. Similar to Pot 19, but rim slightly more pronounced.

Pot 19b. Lamp. Similar to Pot 19, but paste rather finer.

Pot 20. Shallower than Pot 2, but similar. Paste buff and very porous.

Pot 21 (Pl. II). Fairly fine buff paste. Red wash round rim. Fair workmanship.

Pot 22 (Pl. II). Fragments only. Apparently similar in shape and paste to Pot 11. Decoration in black and red as shown.

*Small Finds.* Object 3 (Pl. II). Bronze fibula. Heavy single wire with thicker rings round either end. Spring formed of a triple twist of wire which continues as the pin. Clasp in shape of a right hand half-closed.

Object 4 (Pl. II). Bronze finger-ring. Wire twist round wire core.

Object 5 (Pl. II). Bronze arrowhead. Triangular, with remains of socket. Cf. similar arrowheads found at Carchemish and dated to reign of Pharaoh Necho. (Carchemish, Part II, Plate 22b)

Object 6 (Pl. II). Bronze finger-ring with plain blue paste bezel, probably pivoted.

Object 7 (Pl. II). Bronze ring. Plain. Ends overlap for .009 m. but are not welded.

Object 8 (Pl. II). Bronze bangle. Plain. Ends overlap for .029 m. but are not welded.

Object 9 (Pl. II). Bronze bangle with knob at each end.

Object 10 (Pl. II). Bronze fish-hook.

TOMB III. Entrance *circa* 1.50 m. wide and 1.05 high.

When this tomb had been excavated for a distance of some 2.5 m. from the entrance the roof became dangerous and as nothing of importance was being found work was stopped.

*Small Finds.* A boar's tusk. The bones and skulls of two small animals which had probably died in the tomb after having used it as a lair. A few indeterminate sherds of pottery. The neck of a Roman glass bottle (near entrance and probably intrusive).

TOMB IV. Photos 4 and 5 (Pl. I). Plan (Pl. III).

Floor to roof after excavation *circa* 1.50 m.

Excavated floor *circa* 1.30 m. below outside ground level at entrance. To the N.W. of the entrance a smooth face had been cut in the rock outside the tomb: this was almost certainly later than the tomb itself. To the S.E. of the entrance the rock had been broken away.

Both graves had been thoroughly looted in antiquity, and only a very few Iron Age sherds were found in and near them. Outside the graves themselves and near the entrance were found:

Object 11. Bronze bangle, plain, the ends of which overlap for .009 m., but are not welded.

Object 12. Fragments of iron, apparently part of a horse or donkey shoe.

Grave A can only have contained a contracted burial or perhaps one or two small children.

TOMB V. Plan and Elevation (Pl. III).

This was an isolated tomb about a hundred metres to the N.W. of the others. It had its shaft cut through hard limestone, and in the shaft were footholds on the N.W. and S.E. sides. Below the shaft the chamber is partly artificial and partly a natural fault.

A few animal bones were found but no human remains, and the only pottery was three or four small ribbed Byzantine sherds. The rock cutting was very good, the sides of the shaft being quite smooth, with no signs of tool-marks.

TOMB VI.

A large fall of rock shortly after digging had been begun made further excavation impossible with the tools available. This tomb was, therefore, abandoned.

TOMB VII. Photo 6 (Pl. I). Plan and Elevation (Pl. III).

Floor to roof before excavation *circa* 1.10 m.

Floor to roof after excavation 1.25 m.

Excavated floor *circa* 0.60 m, below outside ground level at entrance.

GRAVE. Though there was little earth over the pots it was rammed pretty hard and excavation of the objects was not easy. From the general appearance of things it would seem as if this was an example of a contracted burial unless, indeed, the body had originally been laid at full length along the N.W. side of the grave, feet towards the entrance, and been covered with stones. If this had been so it would appear that looters had moved all the stones except two, taken all jewellery and metal objects—for of these no trace was found—and left the body at the mercy of beasts which afterwards came in and ate all of it except the fragment of skull sketched in photo. 7, and a fragment of tibia found below Pot 24.

It is even possible that there were two burials, one of the Bronze Age as indicated by the fragments of bil-bil (Pot 43), and the other of the early Iron Age, the former having been only summarily cleared out before the tomb was used for the latter. Perhaps, however, we have here a single burial of the transition period, between Iron and Bronze. The copying of foreign models by local potters in local clay is a point worthy of note.

POTTERY. Pot 23 (Pl. III). Brownish paste, fairly fine, with fine red wash turning in places to brown. Surface polished.

Pot 24 (Pl. III). Medium pinkish-buff paste. Slightly warped in firing.

Pot 25 (Pl. III). Paste very similar to that of Pot 24.

Pot 26. Very porous and friable pinkish-buff paste. Similar in form to Pot 19, but rim rather more developed and lamp altogether somewhat larger.

Pot 27 (Pl. III). Finely levigated buff paste with slip of the same. Burnished. Decoration, rim red (single hatching), black rings round neck.

Pot 28 (Pl. III). Medium yellowish-buff paste. Slightly warped in firing; cf. Pot 24.

Pot 29. Similar to Pot 23 but larger. Diameter 18 cms.

Pot 30 (Pl. III). Medium yellowish-buff paste. Decoration, three bands of black faintly visible round body. Slightly pinched lip.

Pot 31 (Pl. III). Fairly fine brownish paste with fine red wash. Surface polished, cf. Pot 23. Lip pinched.

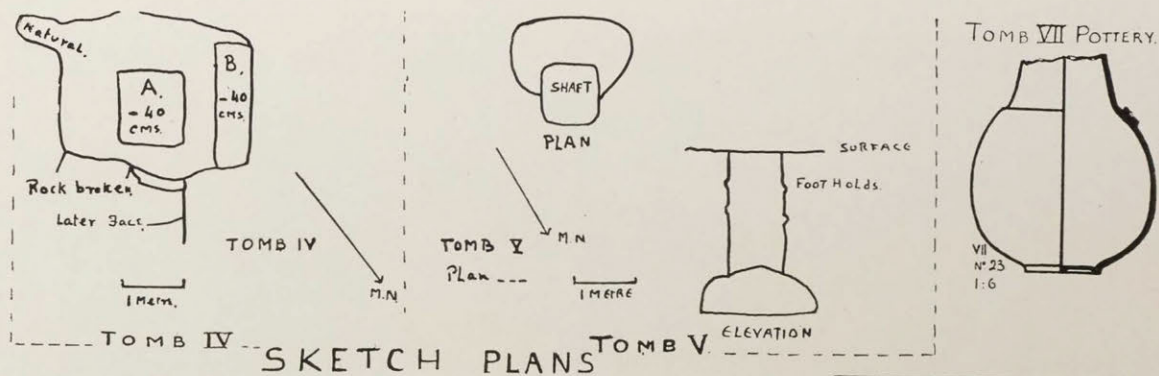
Pot 32 (Pl. III). Ware and finish similar to those of Pot 8. Slightly pinched lip.

Pot 33 (Pl. III). Ware and finish similar to those of Pot 8. A very fine pot.

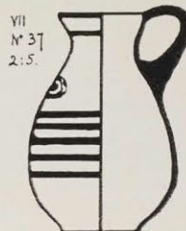
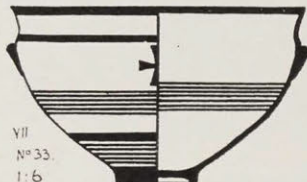
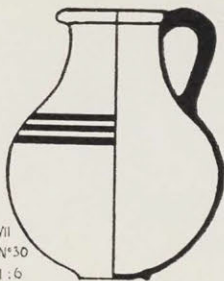
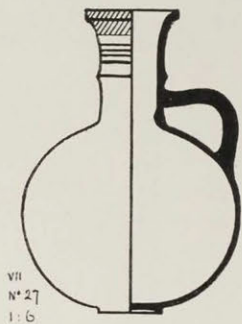
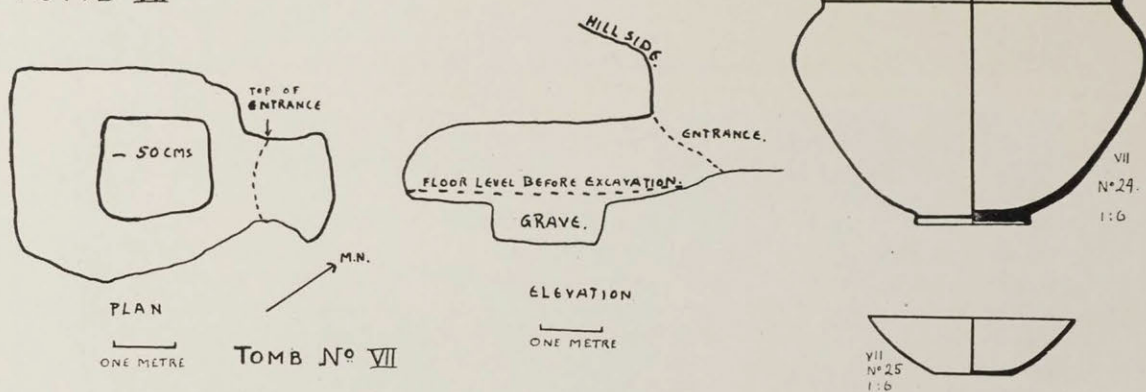
Pot 34. Similar in form to Pot 25, but ware somewhat coarser.

Pot 35. Similar in form to Pot 25, but rim slightly incurved. Ware more like that of Pot 34.

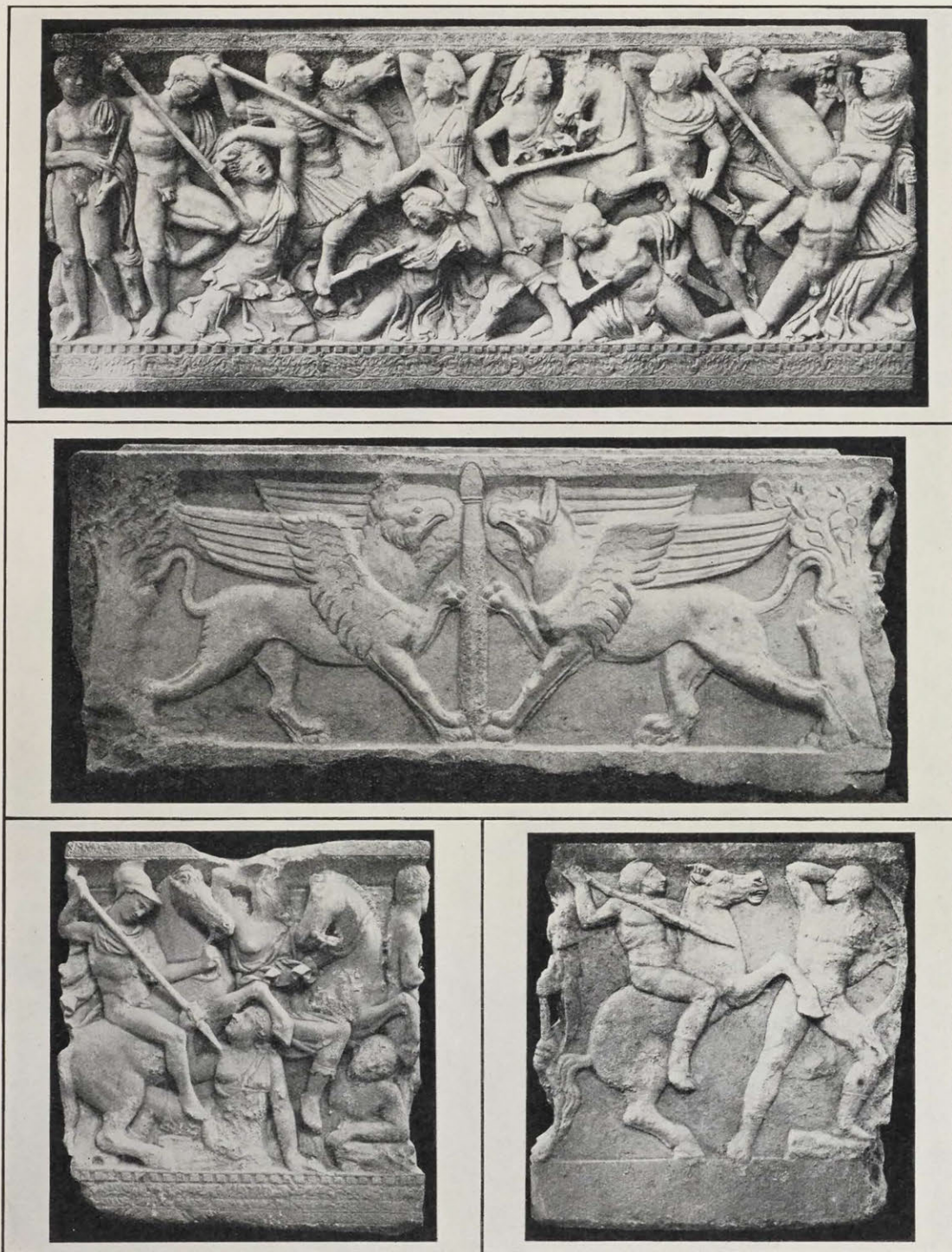
Pot 36. Similar in form and ware to Pot 27, but slightly smaller.



TOMB VII



MT. CARMEL, N.E. : TOMBS IV, V, VII : SKETCH PLANS. TOMB VII : POTTERY



TELL BARAK, NEAR CAESAREA : RELIEFS DECORATING MARBLE SARCOPHAGUS OF THE ROMAN AGE

Pot 37 (Pl. III). Ware not unlike that of pot 32, but more porous and without polish. Decoration coarser. Probably local imitation of Cypriote model.

Pot 38 (Pl. III). Ware and technique similar to those of Pot 37.

Pot 39. Similar in ware and technique to Pot 37; in shape, size and decoration similar to Pot 8, but the neck is thicker and the Pot less elegant.

Pot 40. Identical with Pot 39.

Pot 41. Similar in all respects to Pot 8.

Pot 42. Similar to Pot 8, but is larger (height 9.6 cms.), and has two groups of three concentric circles opposite to handle.

Pot 43. Fragments of black Cypriote bil-bil.

P.L.O.G.

## NOTE ON A SCULPTURED MARBLE SARCOPHAGUS FROM CAESAREA

With Plate IV

Tell Barak, the site of this discovery, is a small mound rising above the marshes of the Zerka about six miles inland from the harbour of Caesarea, in a direction just N. of E. It is in fact almost at the foot of the southern end of the bluff on which stands the prosperous colony of Zimmarin, and about one mile only from the old Roman theatre at Shuni-Mamas (? old Maiumas). The sarcophagus, when first seen by an Inspector of Antiquities, was protruding from the debris of a masoned chamber, which on excavation proved to have suffered so much damage from illicit stone digging, that no adequate reproduction of its appearance can be attempted. The few courses of masonry preserved were quite plain; the floor space was about twice that taken up by the sarcophagus, which fitted closely to the wall on the side of the Griffon-decoration (No. 2 in Plate IV, called hereafter the Reverse side). Fortunately the sarcophagus itself had only been damaged at the exposed end, the rest being tightly embedded in marl and debris, in the relatively narrow space between its sides and the walls.

The most conspicuous and most attractive feature of the decoration is that of the front side (Pl. IV, i) whereon is depicted in spirited high relief the traditional theme of combat between Greeks and Amazons. Comparison with other examples, especially those from Sidon and from Xanthus in the British Museum and that from Salonica in Louvre, leaves little doubt as to the date of this sarcophagus, which must be attributed to the age of the Antonines or just later, in the second century of our era. It may thus indicate the burial place of the Roman procurators or other high functionaries of the period, whose residence and centre of administration was in Caesarea. Mr. Arthur Smith points out that the subsidiary decoration (as seen in the upper and lower borders) is of a style that was fully developed during the Antonine period.

In regard to the treatment of the main subject, which owing to its unique preservation may be studied in detail, the fulness in design and certain conventions corroborate the relatively late date; while the movement and life of the whole, and the individual treatment of each head and face, every one a masterpiece of sculpture, reveal the survival of Greek spirit and probably indicate Greek craftsmanship. On the other hand, conventionalism is traceable in certain details, while certain groups or motives were already standardized, appearing in other and different contexts. Thus the composition of the warrior figure (first from the left hand) who is about to transfix a kneeling Amazon whose hair also he grasps, includes a forced and almost impossible position of the left foreleg, which is pressed up hard against the thigh and buttock, as in an action of supreme effort or strain not called for by the circumstances. This is explained, as M. Dussaud points out, by examination of the parallel scene from Salonica, where the leg is naturally so drawn in the case of a warrior fallen on his left knee. From this figure is clearly derived the effective but erroneous treatment of the left leg in this case. In the same scene is found the *motif* of horse with returned head and neck, which forms a conspicuous feature of the present design.

The pair of gryphons in 'heraldic' attitude on the Reverse of the sarcophagus (Pl. IV, ii) has doubtless a very ancient origin, which in Asia Minor may prove to have its prototype in Hittite art, and to have had a mythological significance which in the age in question had long disappeared. The same theme, with difference of treatment, occurs on both the Lycian and the Salonica sarcophagi.

The subjects treated on the ends of the coffin are further illustration of the standardized patterns of these decorations, especially that (IV, iii) in which the Amazon theme is resumed by a regrouping of the now familiar attitudes. The opposite end, which was in the obscurity of the burial chamber, has never been completed with the same detail, and the drawing is bad, though the composition is perhaps easier and less conventional. Noticeably no Amazons appear in this scene, which has, however, its prototypes in other cases.

Doubtless much that is of interest will transpire in the course of further discussion of these sculptures by students of Graeco-Roman Art. Already Mr. Arthur Smith, keeper of the Greek and Roman Antiquities in the British Museum, has made a special communication to the British School at Rome on the subject; to him and to M. Dussaud (Conservateur in the Louvre Museum) we are indebted for illuminative memoranda. M. Theodore Reinach also communicated a note on the discovery to '*Beaux-Arts*' No. 2 (Jan. 1924).

## A TOMB IN THE KEDRON VALLEY CONTAINING OSSUARIES WITH HEBREW GRAFFITI NAMES

With Plates V, VI.

L. A. MAYER, PH.D.

The tomb is situated in the lower Kedron Valley, on the right slope of the mountain, about fifteen minutes' walk from 'En Rogel. It consists of a central vestibule and two small chambers, one of which contained ossuaries, the other one—scattered bones. Two entrances lead apparently to this vestibule. No objects, other than ossuaries, have been found in this cave.

The entrance door of this cave was originally approached through a small porch, the traces of which are still visible in the rock. The door (55 cm. high  $\times$  47 cm. broad) has as its only ornamentation a grooving 10 cm. high and 8 cm. deep. The door slants slightly towards the main room, called in contemporary Hebrew *ḥāṣēr*, the courtyard. This vestibule is almost square (315 cm.  $\times$  330  $\times$  309  $\times$  345), entirely cut out of the rock, with a ceiling rising from a height of 160 cm. at the entrance-wall to 210 cm. on the opposite side. The N.W. wall is interrupted by a door (65 cm. high  $\times$  40 cm. broad) with a grooving (12 cm. high and 18 cm. deep) leading outside. At the end of the same wall is a niche (181 cm. high  $\times$  120 cm. broad  $\times$  70 cm. deep), partly cut in the rock and partly constructed of masonry in a typical false vault. The niche is closed towards the room by a slab of stone forming a receptacle 53 cm. deep.

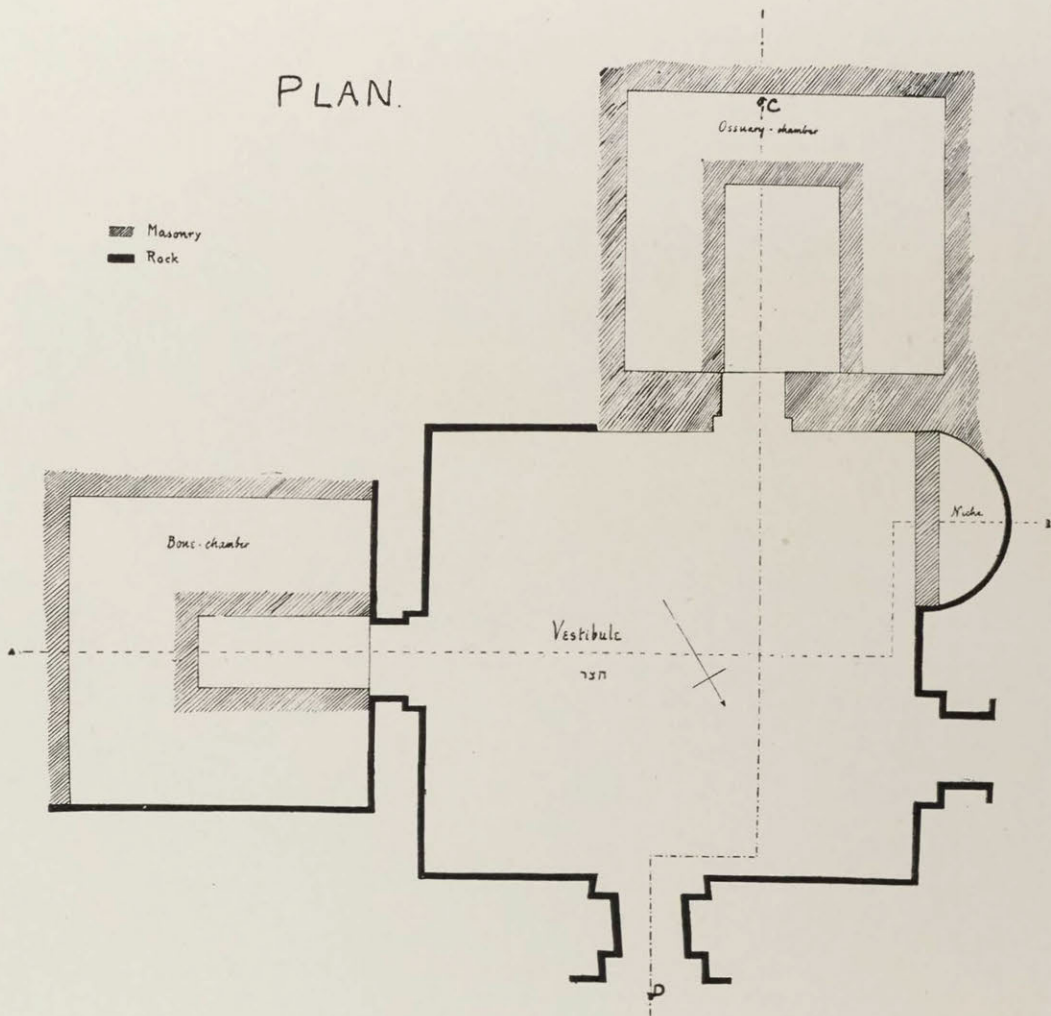
The rock of the S.W. wall, opposite the main entrance-door, has been cut away at a length of 215 cm. and replaced by a wall built of stones, rusticated in Herodian style, with rough centres and irregular, almost smooth margins. Through a small door (51 cm. high  $\times$  42 cm. broad  $\times$  32.5 cm. deep) cut through two layers of stones, one descends to a rectangular ossuary-chamber, cut in the rock, but entirely lined with masonry. A bench (55 cm. high  $\times$  71 cm. broad) runs along three walls of this chamber leaving a narrow space for the men bringing in the ossuaries. The benches were filled with earth and lined with cut stones. In a few places I found remains of cement over the masonry of the benches. The ossuaries were arranged on the benches one above the other, with the greatest possible economy of space.

The second chamber shows a very similar arrangement. It consists also of a U-shaped bench, and its walls are likewise partly lined with masonry. The complete absence of ossuaries and the various groups of bones found on the benches prove that one used to deposit the dead in this room until the flesh decayed and the bones could be collected and put into the ossuaries.

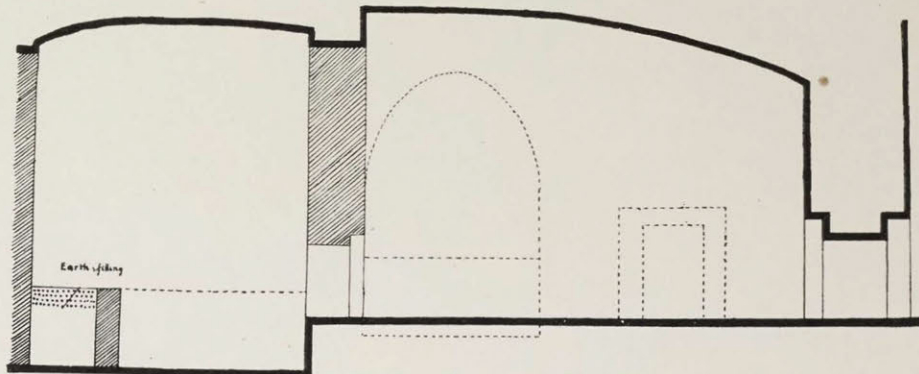
Lining with masonry and built walls occur only in one of the hitherto published tomb-caves of Palestine. (Clermont-Ganneau, *Archaeological Researches*, II, p. 341 ff.)

INSCRIPTIONS. Thirteen of these nineteen ossuaries are inscribed. The inscriptions contain generally the names of the buried ones only, sometimes the name of the father is added (Nos. 3, 4, 5, 6, 7, 9) or in the case of married women (Nos. 8, 13) the name of their husbands. The

PLAN.



SECTION C-D.



JERUSALEM : PLAN AND SECTION OF TOMB CHAMBERS, KEDRON VALLEY

[SCALE 1 : 50 NEARLY]

n° 1-  
אבנא  
אנעו ונסכא  
וחרו ספר רח

n° 7-  
והוקנה אידו

n° 8-  
שלום וחסד  
אדוק

n° 2-  
ואין סך

n° 9-  
אלון בתל עזר

n° 3-  
אלכסיון  
אכעון

n° 10-  
אלוף

n° 4-  
חן וועוד

n° 12-  
אלעזר

n° 11-  
מחמ

n° 5-  
אלאן רמא

n° 13-  
אלום אתאלעזר

n° 6-  
אסעו ונסכא

n° 14  
אבא

JERUSALEM : GRAFFITI NAMES ON OSSUARIES FROM A TOMB IN THE KEDRON VALLEY

[FACSIMILE COPIES, SCALE 1 : 3 NEARLY]

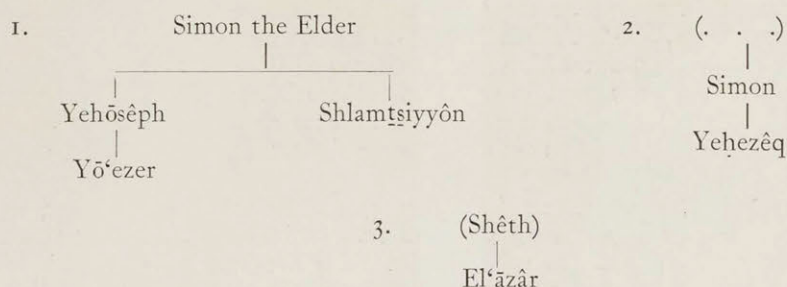
inscriptions are in Hebrew (Nos. 2, 5, 8, 9, 10, 12, 13) or Aramaic (Nos. 1, 3, 4, 6, 7, 14), only one female name is given in Greek also (No. 11). The texts are as follows:—

- 1 אבונה שמעון סבא יהוסף ברה
- 2 יהוסף
- 3 שלמצייון ברת שמעון
- 4 יועזר בר [?] יהוסף
- 5 אלעזר בן שת
- 6 שמעון בר
- 7 יחזק בר שמעון
- 8 שלום אשת יהודה
- 9 שלון בת ליעזר
- 10 שלום
- 11 CAΛΩMH
- 12 אלעזר
- 13 שלום אשת אלעזר
- 14 אמא

1. 'Our father Simon the Elder (or: the Scholar), Yehōsêph his son.' This text could be taken as a funerary inscription for both, father and son, but an examination of the bones proved that they belong to one person only. The whole inscription being incised by one person at one time, it is inadmissible also to assume that the bones of Simon have been removed in order to make place for Yehōsêph. Cf. for an analogous case Lidzbarski, *Ephemeris*, II, p. 196 f., for two names on one ossuary cf. (among others) *ib.*, p. 197; *Revue Biblique*, 1904, p. 262 f.; Clermont-Ganneau, *Archaeological Researches*, I, p. 441; Thomsen, *Zeitschrift des Deutschen Palästina-Vereines*, XLIV, pp. 115-120.
2. 'Yehōsêph.' Probably the same as the one mentioned in No. 1.
3. 'Shelamtziyyôn the daughter of Simon.' Although it is impossible to state exactly which Simon is meant, palaeographical evidence is in favour of No. 1.
4. 'Yō'ezer the son of Yehōsêph,' and, therefore, the grandson of No. 1.
5. 'El'āzâr the son of Shêth.' This very rare name occurs only in Josephus, *Antiquities*, XVIII. 26 (ed. Niese IV, p. 144).
6. 'Simon the son of . . .'
7. 'Yehezêq the son of Simon,' on palaeographical reasons rather the son of No. 6 than of No. 1. Yehezêq as a short form for Yehezqêl occurs a few times on ossuaries, e.g., in the Qallôn-family.
8. 'Shālôm the wife of Yehūdâ.' This inscription is twice repeated on this ossuary. In the second inscription Yehūdâ is written very distinctly with a 'waw.'
9. 'Shallûn the daughter of Li'ezer.' Shallûn occurs in the Bible only as a masculine name (Nehem. 3, 1).
10. 'Shālôm.' The Greek transcription (No. 11) proves that Clermont-Ganneau was right identifying 'Salome' with 'Shālôm,' instead of Shelômith or the like.
12. 'El'āzâr.'
13. 'Shālôm the wife of El'āzâr.' Probably of the foregoing and not of No. 5.

14. Either 'Ammā' or 'Immā.' The first reading is suggested by the Judaeo-Greek name *Αμμη*. The second one can be compared with 'Immā Shālôm,' the famous wife of Rabbi Eli'ezer, although 'Immā' can mean simply 'mother' like 'Μητερα' on an ossuary found near Jerusalem (Thomsen, *ZDPV.*, XLIV, p. 111).

With the exception of Shēth, Shallûn and Ammā which appear here for the first time in Hebrew epigraphy, all the names are very common and known as names of High Priests of the Second Temple. We can trace three branches of the genealogical tree of this family, equal at least to five generations:—



### CATALOGUE OF THE OSSUARIES.

1. Limestone ossuary with semi-circular lid, 75 cm. long × 35 cm. broad × 38.5 high (58 cm. with the lid). Two rosettes in relief on the longside, one on each broad side. Inscription No. 1.
2. Limestone ossuary with gable lid, 72.5 × 35.5 × 41 (58). Two rosettes in relief on the long side, one on each broad side, two paterae on the lid. Inscription No. 13.
3. Limestone ossuary, with gable lid, 80 × 39.5 × 42 (71). One wreath on each broad side of the ossuary, palmettes on the broad sides of the lid.
4. Chalk ossuary, with semi-circular lid, 65 × 28.5 × 37 (52). Two rosettes of 21 points. Traces of red paint. Inscription No. 2.
5. Chalk ossuary, with flat lid, 72 × 31.5 × 40 (42). Two incised rosettes of 21 points, traces of red paint. Inscription No. 7.
6. Chalk ossuary, with gable lid, 56 × 28 × 31 (43). Inscription No. 3.
7. Chalk ossuary, with flat lid, 85 × 27 × 38 (41). Two big rosettes with small ones inside, between them an incised rosette of 6 points. Traces of yellow paint. Inscription No. 4.
8. Chalk ossuary, with flat lid painted red, 62 × 28.5 × 36. Pattern of incised lozenges (unique). Inscription No. 5.
9. Chalk ossuary, with semi-circular lid, 60 × 23 × 30 (41).
10. Chalk ossuary, with gable lid, 59 × 25 × 33 (45).
11. Chalk ossuary, with semi-circular lid, 75 × 29.5 × 41 (53.5). Small rosettes of 6 points inside big ones of 18 points. Inscription No. 6.
12. Chalk ossuary, with flat lid, 53 × 21.5 × 36 (37). Two rosettes of 6 points and two of 3 points each.
13. Chalk ossuary, with flat lid, 56 × 25.5 × 36 (37). Two rosettes. Inscription No. 8.
14. Chalk ossuary, with semi-circular lid, 64 × 28 × 32 (45). Two rosettes of 6 points.
15. Chalk ossuary, with semi-circular lid, 61 × 26 × 31 (40.5). Two rosettes of 6 points. Traces of red paint. Inscription No. 9.
16. Chalk ossuary, with flat lid, 43 × 24.5 × 30. Inscriptions Nos. 10 and 11.
17. Chalk ossuary, with gable lid, 68 × 27.5 × 36 (49). Inscription No. 12.
18. Chalk ossuary, with flat lid, 52 × 23 × 31. Inscription No. 14.
19. Chalk ossuary, with flat lid, 60 × 26 × 30.5.



MERCURY. ROMAN SCULPTURE PROBABLY FROM ASCALON. 2ND CENTURY. HEIGHT 84 CMS.



PORTRAIT OF A SYRIAN PRINCESS. 4TH CENTURY : FROM GAZA OR ASCALON. HEIGHT 76 CMS.

#### CLASSICAL SCULPTURES IN THE PALESTINE MUSEUM : JERUSALEM

The Palestine Museum is organized and administered by the Department of Antiquities ; in it are the more perishable moveable antiquities of the country. It is open daily to the public without charge. There are special catalogues.

The objects exhibited are derived partly from an older Turkish collection of antiquities, and partly from the important excavations at Beisan, Ascalon and elsewhere which have been carried out during recent years by permit of the Department. Some few objects (including the two sculptures here illustrated) have been acquired by purchase on account of their special local interest. The very complete series of Palestinian coins, including the whole collection of the late Dr. Raffaeli, has been acquired in this way. The Roman and Byzantine jewellery was presented by a lady resident in Haifa.

## NOTES AND NEWS :

### CONSERVATION AND RESEARCH

The Department of Antiquities for Palestine is preoccupied with repairs essential to the South Tower and West Gallery in the Citadel of Jerusalem, in which serious structural defects have been developing over a number of years and are now critical. Meanwhile it is expected that the repairs already commenced in co-operation with the Waqf authority to the tower of the white mosque at Ramleh will be continued. Should funds permit, further work of conservation will be undertaken in the Crusaders buildings of Acre and Athlit, while special attention is being given to the Phoenician tombs and other points of interest at Beit Jibrin, with a view to making these places more interesting and accessible to visitors.

By invitation of the Department excavations have commenced on the site of Mt. Ophel. From October, 1923, to April, 1924, M. R. Weill (directing the expedition organised by the Baron E. de Rothschild), explored the southern point of the hill. In spite of the destruction caused by the Roman quarries in the second century A.D., he has been able to find (i) traces of sub-structures dating from before the Exile ; (ii) further water channels through the living rock ; (iii) some remains of the successive ramparts from the Jebusite period down to the Byzantine restoration (c.450). Higher up the slope the work conducted by Professor MacAlister for the Palestine Exploration Fund has determined the original limits and later developments of the acropolis, disclosing, (iv) a rampart running East and West, protected by an artificial fosse, of a period between the Neolithic and the end of the early Bronze Age ; (v) Partial extensions in the north-west angle, of the middle Bronze Age ; (vi) considerable extensions during the later Bronze Age, including a stout rampart with glacis on the brink of the Kidron valley ; (vii) a small grotto on the edge of the original fosse, known to contain remains of the early Bronze Age. (L.H.V.)

The American School of Archaeology, in March and April, organised an expedition to Moab and the Dead Sea Valley. A number of archaeological, epigraphic and topographical discoveries were made, and considerable material was brought back for study. The most remarkable find was a large fortress and open-air shrine of the early Bronze Age at Bab ed-Dra, near Mezra'ah. New light on the vexed subject of the Cities of the Plain is to be anticipated. During the first half of April the School made a rapid archaeological survey of the southern Shepelah and the eastern Negeb, which also resulted in new archaeological and epigraphical discoveries. It is probable that the topography of this region will require revision in consequence. The School is also about to resume its investigation of some tumuli near Malhah, interrupted last Spring. The potsherds found in the course of the work show that these mounds are not older than the tenth century B.C., though not necessarily any later.

The British School of Archaeology, following a class on the methods of excavation, is proceeding to Tantara (Dora) to conduct an instruction course, in accordance with a recent decision of the Council, arising from the present dearth of trained excavators. Four members of the American School attended the preliminary class which proved highly instructive and useful.

The French School of Archaeology is proceeding to Beit Jibrin with a view to clearing and preserving the splendid decorative mosaic pavement discovered there two years ago and excavating the surroundings. In collaboration with the Department of Antiquities a search will be made for other Phoenician tombs the presence of which is to be suspected.

BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM

BULLETIN No. 6

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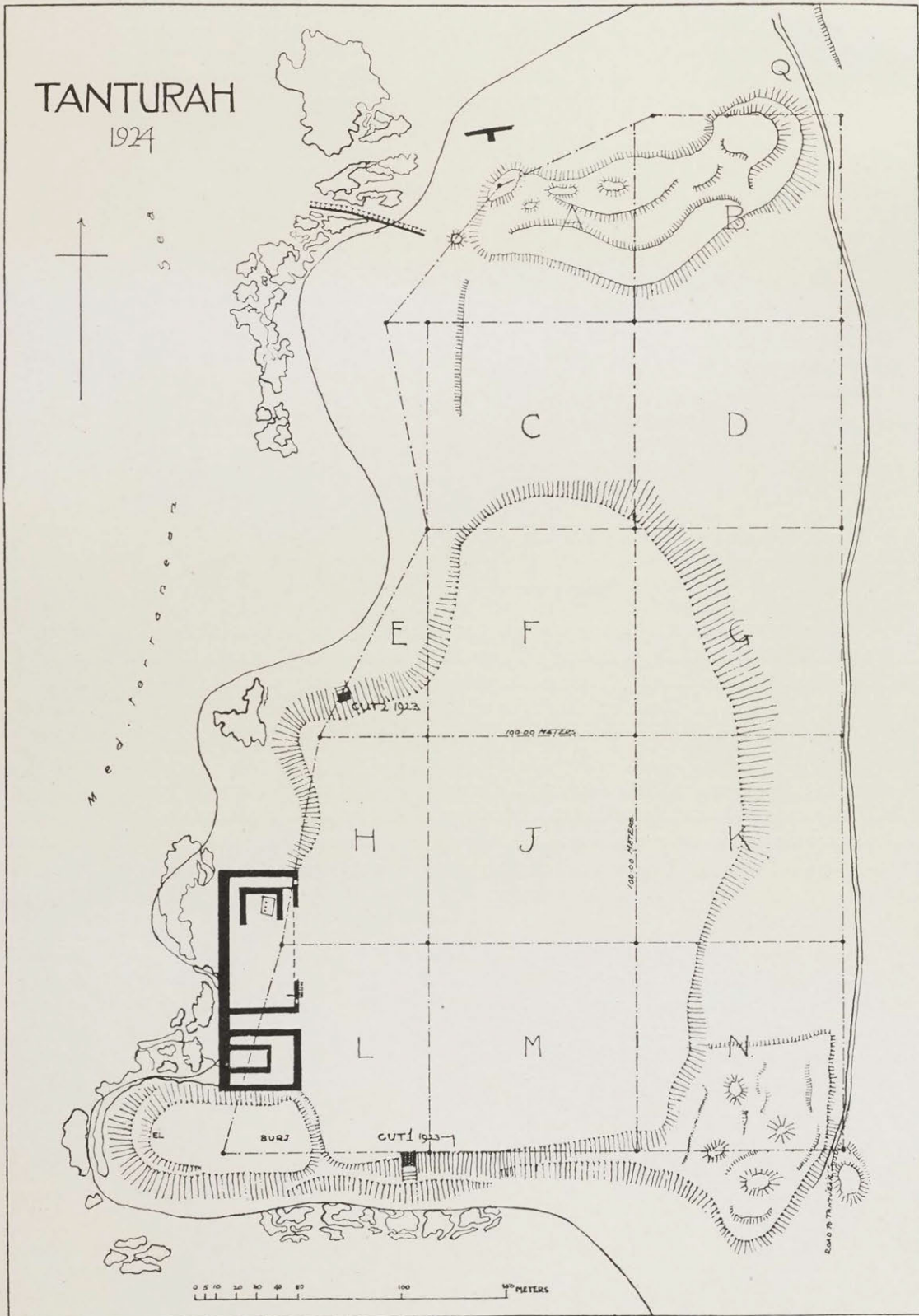
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1924

INTRODUCTION.—In the Spring of the year excavations on a restricted scale were begun at Tanturah, the main object being to give instruction in field methods. Mr. Fitzgerald, Mr. Horsfield, Mr. Phythian Adams, and the Director all took a part in the work, of which a preliminary description is given in this Bulletin. This practical course was preceded, in accordance with the Council's announcement in the Annual Report, by a discussion class, which was attended also by members of the American and French Schools, and by the Inspector's Staff of the Department of Antiquities. Dr. Albright, Director of the American School, and Mr. P. L. O. Guy, Chief Inspector, assisted. The Director, Professor Garstang, led the discussions by introducing selected aspects of an excavator's duties. Six meetings of two hours each were held; methods were explained, examined and criticised; views were exchanged, and every one benefited by this attempt to systematize archaeological methods. It was agreed, by general desire, to renew the course next Spring.

Students and Director have been enabled to visit and study this year the Roman remains at Amman and Jerash, the remains at Mashetta, Madeba, and other sites in Trans-Jordan. The inclusion of the Huleh basin within the political boundaries of Palestine has added to our field of study several prehistoric and megalithic areas as well as Tells dating from the Bronze Age. At the same time we visited Tell Hum (Capernaum) and Kerasi (Chorazin), and we have made also several tentative expeditions into the Philistine Plain, visiting amongst other sites Tell el Safi and Araq El Menshiyeh.

The library, greatly improved by the parting gift of Mr. Phythian Adams' archaeological library and by legacy of the late Mr. James Smith, has now been re-organized in special quarters, and has been open to readers since August 1. A new edition of the *Encyclopaedia Britannica* has been presented by the Viscount Astor, in souvenir of a visit he paid in the Spring.

Among the visitors have been the Rev. Professor A. H. Sayce, M. Lacau, Mr. Leonard Woolley, Mr. J. E. Quibell, Mr. Crowfoot, and S.E. le Gèneral Weygand, as well as the Treasurer and Founder of the School Mr. Robert Mond.



TANTURAH (DORA): PLAN OF THE SITE AND KEY TO PLOTS

## TANTURAH (DORA). PART III.—THE SITE

(Continued from *Bulletin No. 4*)

With Plate I

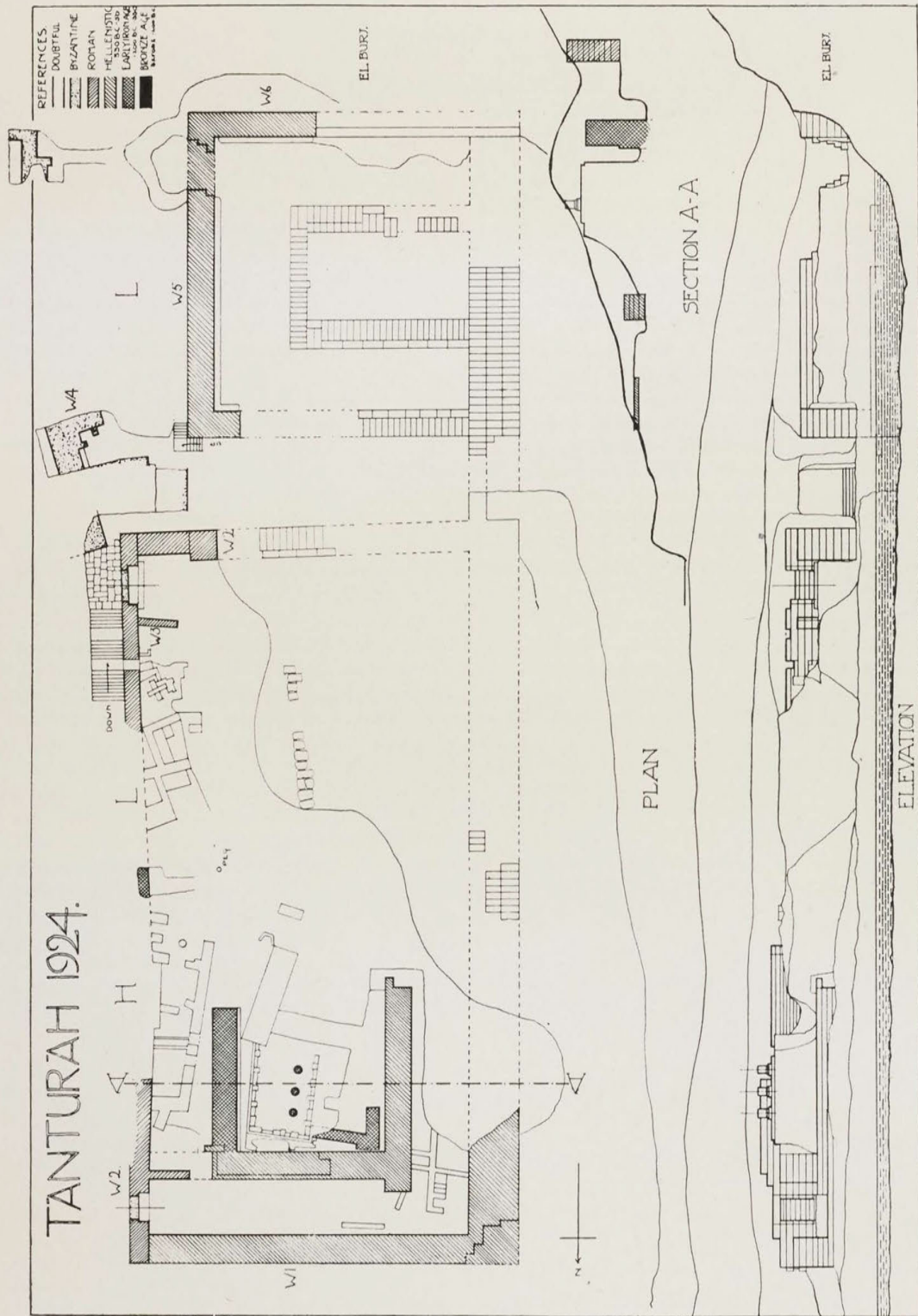
We are now able to give a plan of the historical site of Dora, which has been selected as the School's training ground for practical work. Survey and plan have been done by Mr. Horsfield. The whole area is about 500 m. from N. to S., and about 300 m. from E. to W.; but there are considerable traces of antiquity outside this area that remain to be examined. For convenience of reference and registration the area has been divided into Plots of 100 m. square, as shown upon the Plan, each marked with a sequence letter A, B, C . . . N. With the help of these, several special features may be readily indicated. The main track of modern times, by the side of which are several columns, passes N. and S. by the east side of the area, skirting the edges of the plots B, D, G, K, N. It now links Tanturah, which is beyond the bay to the south, with Kefr Lam and other villages to the north. In the north-western corner, Plot A, are traces of harbour works, which have, however, been so damaged by inroads of the sea that it is doubtful whether we shall be able to ascertain their origin and character. The whole of the western face (E, H, L) has suffered to a considerable extent from the same cause. It is partly for this reason that we decided to commence our excavation in Plots H and L; for the sea had already disclosed traces of massive buildings which it continually threatens to destroy, while at the same time offering an admirable place for dumps upon the shore. In the extreme S.W. of this site (Plot L) a small promontory juts out into the sea, protected by its rocky foundations. This seems to have been a sort of keep in mediaeval times. At any rate, some stout crusading masonry is still to be seen and a tall Turkish signalling tower, which has fallen within the memory of the oldest inhabitants, long formed a prominent feature on the spot, and to this fact it owes the name *El Burj*.

A smaller Tell, only about three hundred metres from N. to S., detaches itself readily in the plan as a separate feature, occupying as a central line Plots F, J, M, and half of the adjoining Plots on either hand. This may prove to indicate the area of the late Phoenician or Hellenistic city, the massive walls of which have been laid bare on the coast by the sea and by our clearances this year. Apart from that, there is little superficial indication of the antiquity or history of the site. A few drums of columns rising in the fields, some capitals (Ionic character) and bases ranged as a wall near the coast, innumerable potsherds in the soil (as on all the Tells of Palestine) are all the obvious traces: these are supplemented by small objects found occasionally by the cultivators and by local stories of uncertain accuracy. The visible masonry upon the shore (mentioned in *BULLETIN 4*) is the most tangible witness. We have also confirmed the result of our first examination, by a widening of *Cut 1*, that there is evidence in the stratification of occupation and development more or less continuous from the Late Bronze Age till Byzantine times, with particularly instructive fragments of the Early Iron Age to be studied. The greatest depth of deposit pertains, however, to the Hellenistic occupation, and our work this season has been largely among the remains of this Period. The main lines of the buildings examined are shown in black on the coasts of Plots H and L, while the details are faithfully reproduced in Mr. Horsfield's Plans and Elevations, Plates II and IV.

## PART IV.—EXCAVATIONS, 1924

The primary object of our digging having been instruction, and our resources having been strictly limited, a rapid development of the ancient city is not to be anticipated. Nor can an answer be given as yet to numerous questions arising from our work. Nevertheless, the chief buildings in Plot H and some of the main features in Plot L did disclose themselves in a satisfactory and instructive manner, as a result of following up methodically a predetermined plan of operations.

With so small a party it was not practicable to divide up the various duties of camp and field separately and in rotation among the several members of the expedition, as would clearly



TANTURAH (DORA) : BLOCK PLAN OF THE EXCAVATIONS. 1924

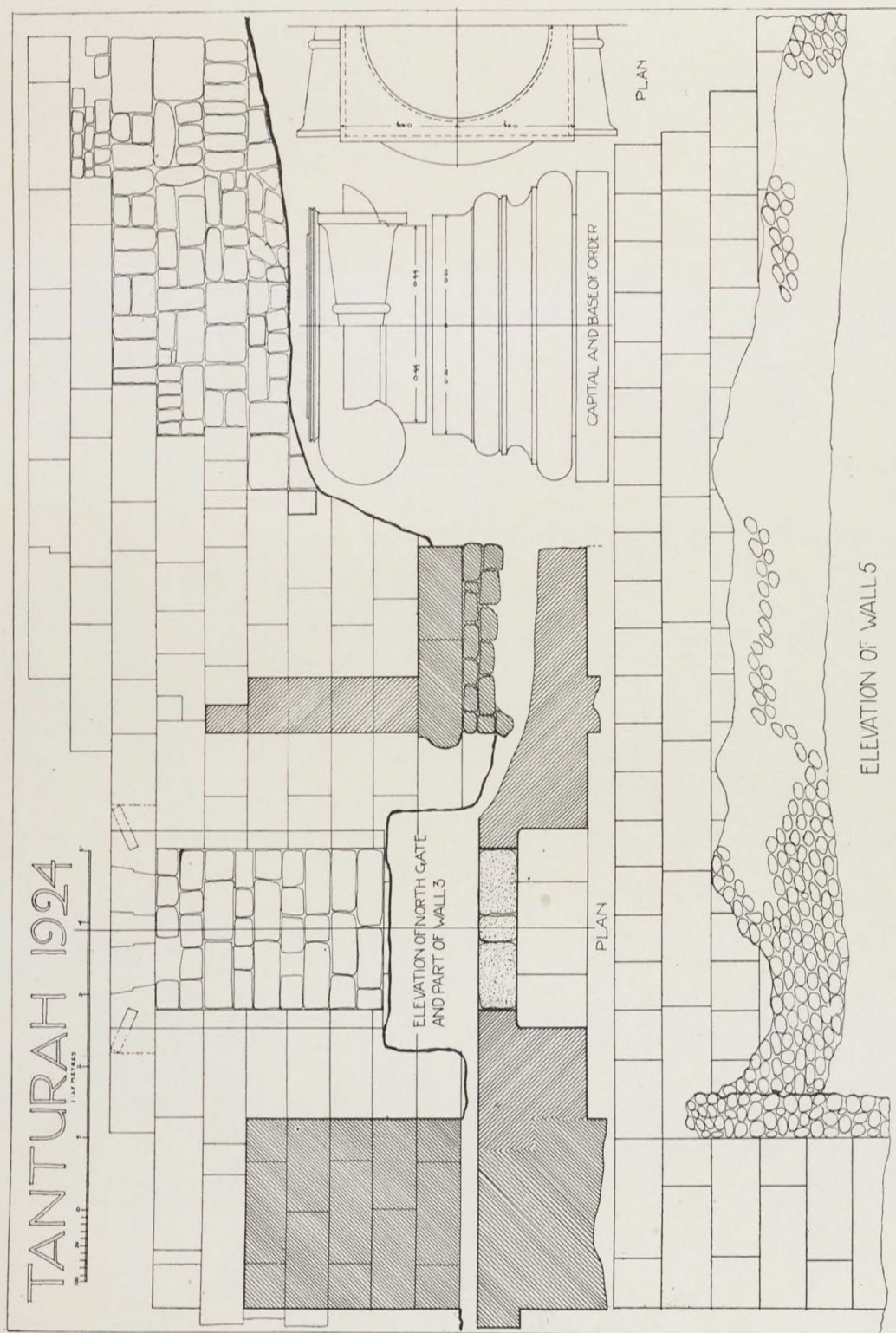
be the best way of gaining experience in each branch of work. As it was, Mr. Fitzgerald chiefly supervised the workmen, including the pay rolls, and registered the pottery fragments; Mr. Horsfield ran the mess and kept the camp accounts, and in the field kept the record of all architectural remains and the stratification-levels; Mr. Phythian Adams classified the pottery and gave demonstrations in section cutting; the Director controlled the plan of work, kept the photographic records, and paid the workmen.

The main attack was on Plot H, which from the W. rose like a knoll somewhat abruptly from the shore, and on the land side was separated from the rest of the Tell by a marked depression. In accordance with theory, two parallel cross trenches 1 m. wide (T1 and T2) were first cut through the shoulders of the knoll to test its formation. The first hit, at the depth of 1 m., a stout masoned platform in keeping with the outer retaining wall (BULLETIN No. 4, Pl. I, no. 4) with which indeed it proved to be generally parallel. The second trench was worked down to a depth of 3 m., through debris of varying character without definite striations. A third trench (T3) was run accordingly parallel to T1 and T2 along a convenient furrow between them. This disclosed (a) by accident, the southern limit of the main structure; (b) by cross section, the western and eastern limits of the masonry; (c) the traces of a superimposed platform, which proved to be the floor of a later building just below the surface; and (d) by deep cutting, the fact that the main structure probably overlay the remains of an earlier building of similar position and dimensions but lighter fabric. Mr. Horsfield's Plan and Elevation (Pl. II) illustrate these results. The most northerly (outer) wall (W1) is that which was examined last year. That parallel to it (within the enclosure determined by W1, W2) was disclosed by the first trench (T1). The second cutting (T2) descended beyond the preserved limits of the building to the S., as may be seen from the section below. The third cutting (T3) fell just S. of the section line A A and gave at once an indication of the growth and nature of the mound (H).

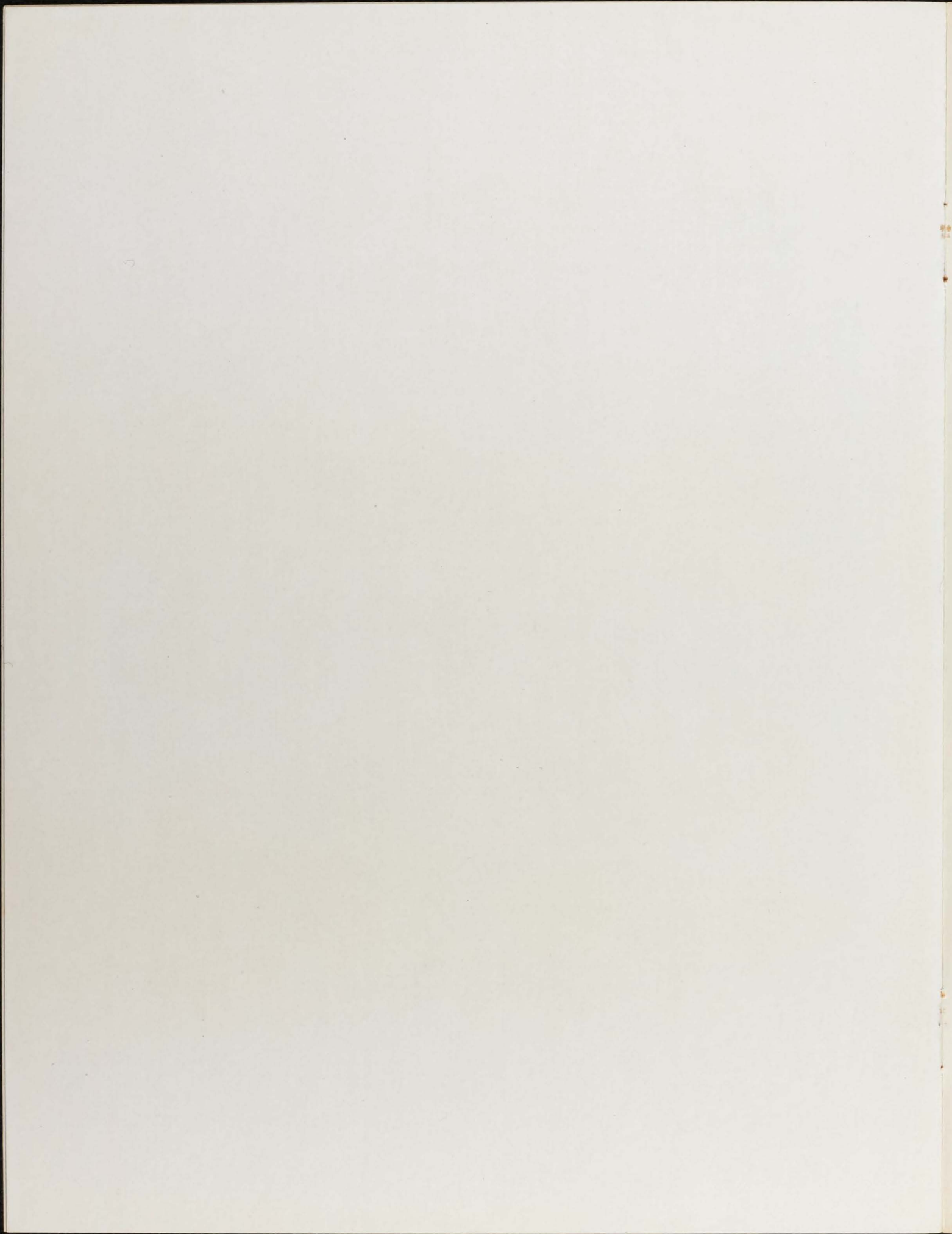
The nature of the problem, from the excavator's point of view, being now determined, the next theoretical step was to remove the ground between the trenches layer by layer. At this stage our object lesson, hitherto so successful, partly broke down. The uppermost platform (seen in the section A A), with its three small columns broken off flush with the surface, did indeed give us a definite stratification at that spot. In the absence of definite evidence we infer that this secondary feature belonged to the middle Roman period. The main structure, however, descended very deeply, and between its eastern wall and the outer wall W2, the stratification proved to be almost homogeneous to a depth of several metres, appertaining so far as there was indication of date at all, to a late Hellenistic or earliest Roman period of occupation. The structure itself then was built earlier in Hellenistic times, presumably in the third century B.C. Section A A shows that we have not yet succeeded in probing to its foundations on the land side.

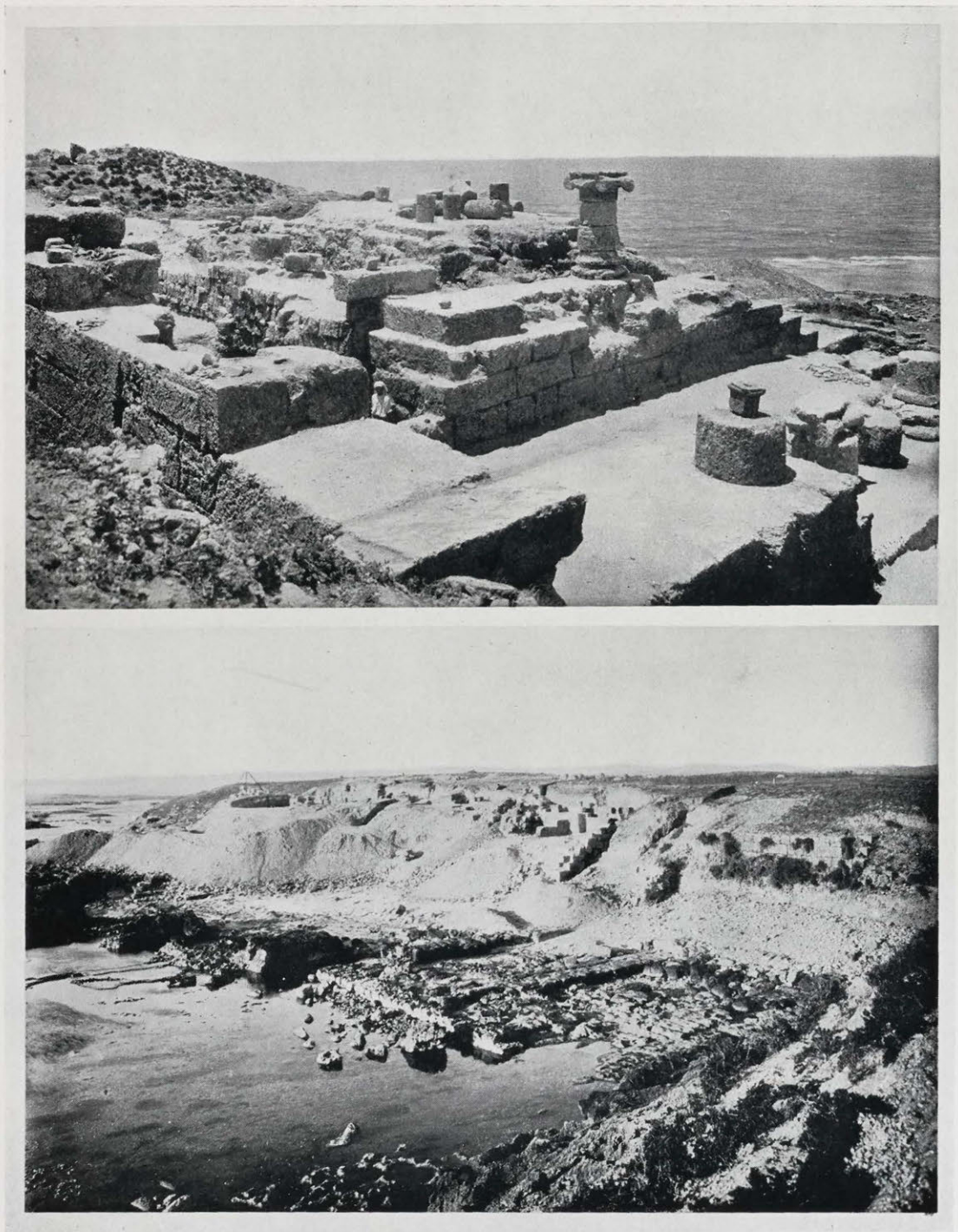
Without dwelling unduly upon features requiring further investigation, or on the method by which the excavation gradually extended, a brief description of the building as it appears at this stage of the clearance may still be of interest. It consists of a made platform of earth enclosed by masonry. On the north face this masonry consists of massive stones regular in form laid in bonded courses. The general character is well seen in the photograph on Pl. III. In the same view the western wall may be seen to be constructed of much smaller stones laid commonly on their 'sides.' This style of masonry we have found at Ascalon to be of Hellenistic date. The southern wall had largely disappeared and its foundations are still to be found. The western wall had also greatly suffered, but the indications were that it resembled the adjoining northern wall. Referring now to the Plan, Pl. II, it may be seen that the building was once enclosed on all sides by a stout outer wall (W1, W2, W3) through which two doorways gave direct access to the city. Between the northern walls there lay, thrown down, numerous drums and bases of columns and several capitals of Ionic design, detail of which is shown in Pl. IV. A specimen has also been set up by the Department, and is well seen in our photograph.

There seems to be no doubt that the inner platform supported columns, certainly on its northern side; and the suggestion is that it was a temple, poised on a high platform in the Syrian style, surrounded by a great stone temenos wall which fronted to the sea. A deep deposit of fish scales and sea-shells on the western side further suggests that the temple, so appropriately placed, may have been dedicated to Poseidon, or to that Poseidon-like deity familiar on coins of the site attributable to Doros himself, the eponymous founder of the city. One such coin shows a temple with six columns, central arch, within which is a robed figure standing and holding a sceptre in the right hand.



TANTURAH (DORA) : DETAILS AND ARCHITECTURAL FEATURES, 1924





TANTURAH (DORA): VIEWS OF THE EXCAVATIONS, 1924

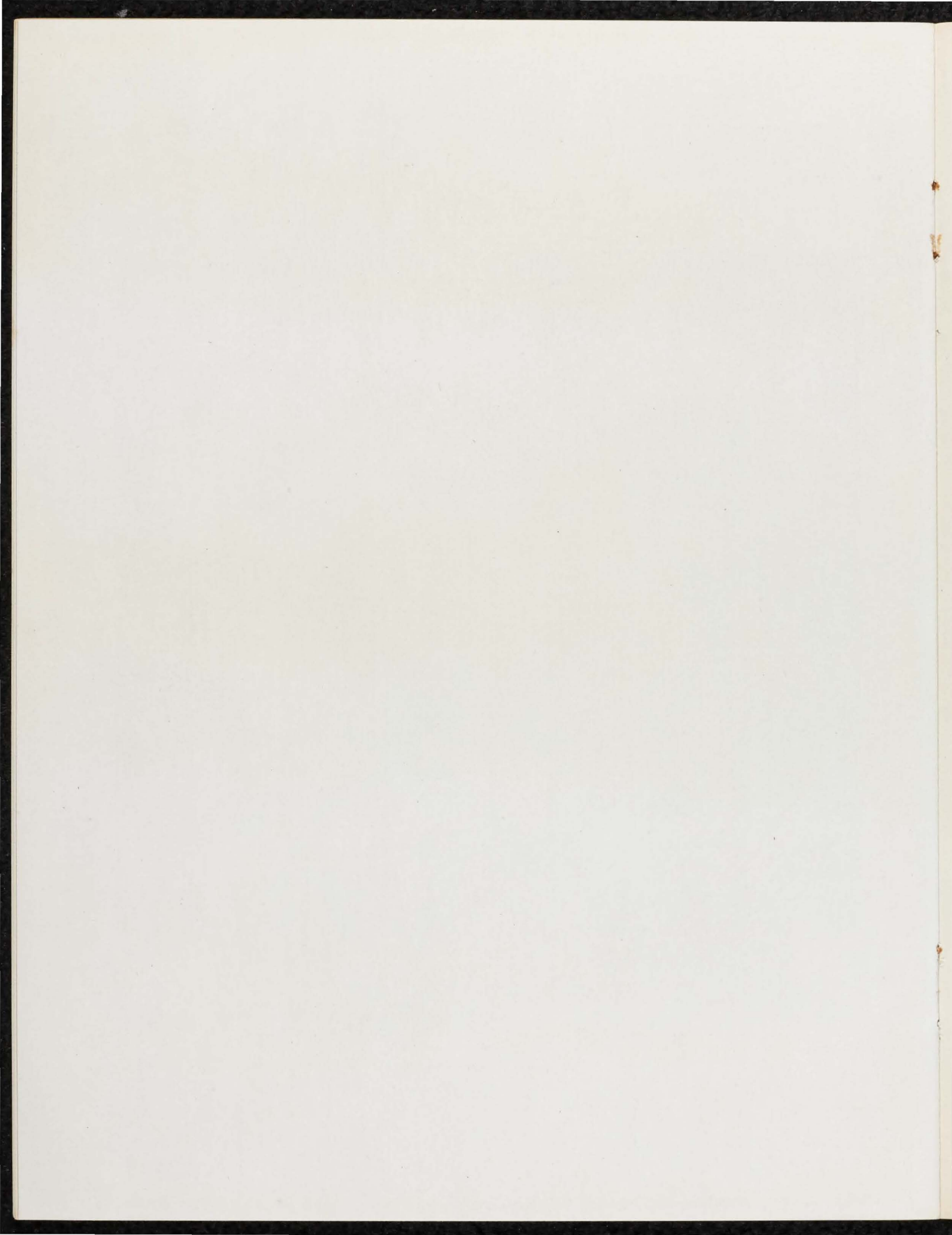
(a) IONIC TEMPLE OVERLOOKING THE SEA

(b) GENERAL VIEW FROM EL BURJ



TELL BARAK NEAR CAESAREA : RELIEFS DECORATING THE SIDES OF A SECOND  
MARBLE SARCOPHAGUS DISCOVERED 1924

(Cf. *Bulletin V*, p. 55, and Pl. IV)



The coins found in the course of the work, unfortunately, do not throw new light upon the origin or nature of the cult; but by their dates and positions they do contribute to determine the phases of local development. It has been mentioned that a gateway (near the mark W2 in the plan) led from the city to the north front of the temple. The causeway at the depth of the threshold was easy to trace, and just over its surface (belonging, therefore, to a subsequent epoch) was found a hoard of bronze coins. Though thickly patinated, these may be recognized as of third century character; thus the reverse type, 'S.P.Q.R. within a wreath supported by an eagle' occurs only on coins of Caesarea Samariae under Severus Alexander (A.D. 222-235). This hoard then gives one limit to the period of the causeway, but not a date that can be approximated. The isolated dated coins found at various depths are more helpful. The earliest was a coin of Dor, Year 1 (B.C. 64-63) found at the level of Course 4 of the eastern wall, where, as has been said, the filling was apparently homogeneous. On the side of the causeway opposite the main door a coin of Septimius Severus (A.D. 193-211) was found as low as the eighth course; but here, as the plan shows, the causeway seems to have been kept open long after the space between the eastern wall and the temenos abutting on the city had been filled: the retaining wall protecting the causeway from debris and the hoard of later date found so near the road-level are confirmatory.

The great difference of levels containing similar deposits was, indeed, one of the most obstinate perplexities which the daily progress of work presented. It was solved finally by the discovery of a great stairway leading from the original level of the causeway, but from the southern doorway, up over the town rubbish to the higher level of the temple platform. It then became clear that the temple had remained in use and without much alteration from the time when originally it stood high above the road level, while the prosperous city rose little by little to the east of the temenos enclosure, until finally it was level with the platform. About this date the doorways, no longer useful and almost dangerous, were filled up with masonry, and a new level of occupation was created. The filling, where it was not gradual accumulation, was homogeneous and contemporary.

There is another detail of the temenos doorway of considerable interest, shown clearly in Mr. Horsfield's Elevation of the North Gate in Pl. III. This is the 'joggled' flat arch which covered the gate. Hitherto, one of the earliest examples known of this type of construction seems to be that over the Golden Gate of Diocletian in his palace at Spalato (A.D. 284-305). In Trans-Jordan at Amman there are flat arches with disguised joggles in the theatre which looks like first century work, and the same comment applies to several occurrences at Jerash, which may, however, be even earlier. It is more reasonable then to suppose that the gateway represents a reconstruction or rebuilding of early Roman times, rather than original work of Hellenistic days corresponding to the construction of the temple itself. This and numerous other problems can only be solved by further excavation on the site.

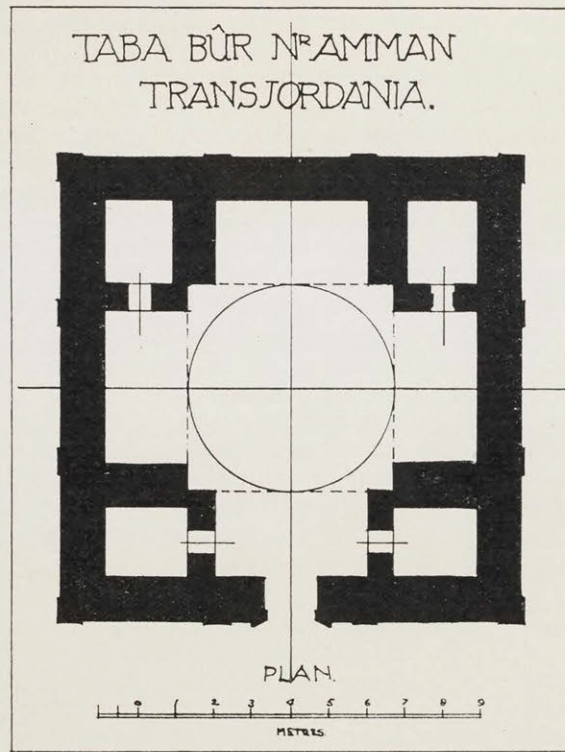
## NOTE ON THE ROMAN TOMB CALLED TABA BÛR, NEAR AMMAN

With a Plan

Three miles from Amman, lying alongside a track running from the new road leading to the Amir's palace, stands a square stone building of fine workmanship, now used by the Bedawen as a stable. In plan, the exterior is a square with sides measuring twelve metres: the inside is a Greek cross, with a small tomb chamber in each angle. The outside walls are divided into three panels by four pilasters of slight protection with Ionic caps: the bases are invisible owing to the accumulation of soil. An architrave with a grooved frieze and a cornice of small projection with a moulded parapet in two courses crowns the exterior. The cornice to the East or entrance front has all its members carved, and the frieze is ornamented with figures amid intertwining foliage. The door has an architrave and a straight entablature which has been hacked away.

The arms of the cross are covered by barrel vaults, their interior face being finished with a moulding. The central space is covered by a dome struck from the same level as the barrel vault.

The design is similar to a Tomb at Samaria discovered by Dr. Reisner and recently reopened, and to the triforium at the crossing of two main roads at Jarash. The apex of the exterior of the dome is ornamented by an elongated vase, which shows above the parapet though the dome is not visible.



The condition of this Tomb is deplorable. The North side is ruinous and has largely disappeared. The East side has been roughly repaired. The Tomb chamber in the N.E. angle has fallen in and a large part of the angle itself has gone. The interior is heaped with manure and rubbish. On the Eastern front is a rough enclosure, composed of stones collected from the ruinous parts, amongst which are three square stone altars with moulded caps and decorated with wreaths. In the neighbourhood are many cisterns, and a quarter of a mile to the N.E. are the ruins of villages.

G.F.H.

## PREHISTORIC AND OTHER REMAINS IN THE HULEH BASIN. PRELIMINARY SURVEY

By P. L. O. GUY

Now that the boundary between Syria and Palestine has been moved further North, there has been added to the latter a very beautiful tract of country which includes some thirty archaeological sites. I was able to visit these during the summer with Mr. Ory, our object being to obtain a complete list of them for registration, and to instruct the inhabitants of the villages in the Law by which antiquities of the area are now administered. It was gratifying to find that there seems to have been little or no destruction of antiquities since the war, though at Qades the whole of the upper part of the well-known 'masonry tomb' of Roman date had been already demolished, and the monument no longer resembles the photographs published in the memoirs of the Survey of Western Palestine.

The more important sites are Qades, itself, the ancient Kadesh Naphtali, with its extensive Roman remains on the lower ground to the East. To the West lies the fine Tell which goes back to the Bronze Age. The Roman ruins are almost entirely free from modern buildings and while a modern village occupies a part of the Tell it leaves a large space available for excavation.

Possibly the finest and most impressive mound is that of 'Abl, which presumably represents the 'Abel Beth Maachah of the Bible and is of vast extent and great height. Here, as at Kadesh, there is a small village which occupies part of the Tell, but leaves the greater part clear. Early Bronze Age fragments were found in a section at the upper or northern end of the mound. To the East there are a number of rock tombs, some of which are to-day used for burial, a custom which I have also remarked in the case of certain tombs near the Akropolis at Amman.

Tell el Qadi (Dan) is now once again included within the political boundary of Palestine. The wonderful spring of ice-cold water to which the city owes its origin is one of the main sources of the Jordan, and is said to be the largest of the world. The Tell itself is large but low and is covered with ruins of basalt rubble; the part near the spring would be difficult to excavate as it is covered with trees and other vegetation; the eastern part, however, is clear. On the surface I could find no sherds of an earlier date than the Iron Age.

Special mention should be made of two more sites: Banias (Caesarea Philippi) where a considerable area of Roman ruins, now planted with numerous fine trees, falls to Palestine, though the main part of the site, including the spring, the crusading buildings and the modern village, is in Syria; and Hunin, where the still dignified but much ruined remains of a crusading castle remind us that the road between Banias and the coast was one which needed armed protection.

Some three kilometres South-east of 'Abl on both sides of the path which now forms the frontier I was struck by a large number of low cairns of basalt which appeared to be early in date though I could see among the heaped-up stones no traces of dolmens or *allées couvertes* such as one finds between Roshpinah and Tabgha.

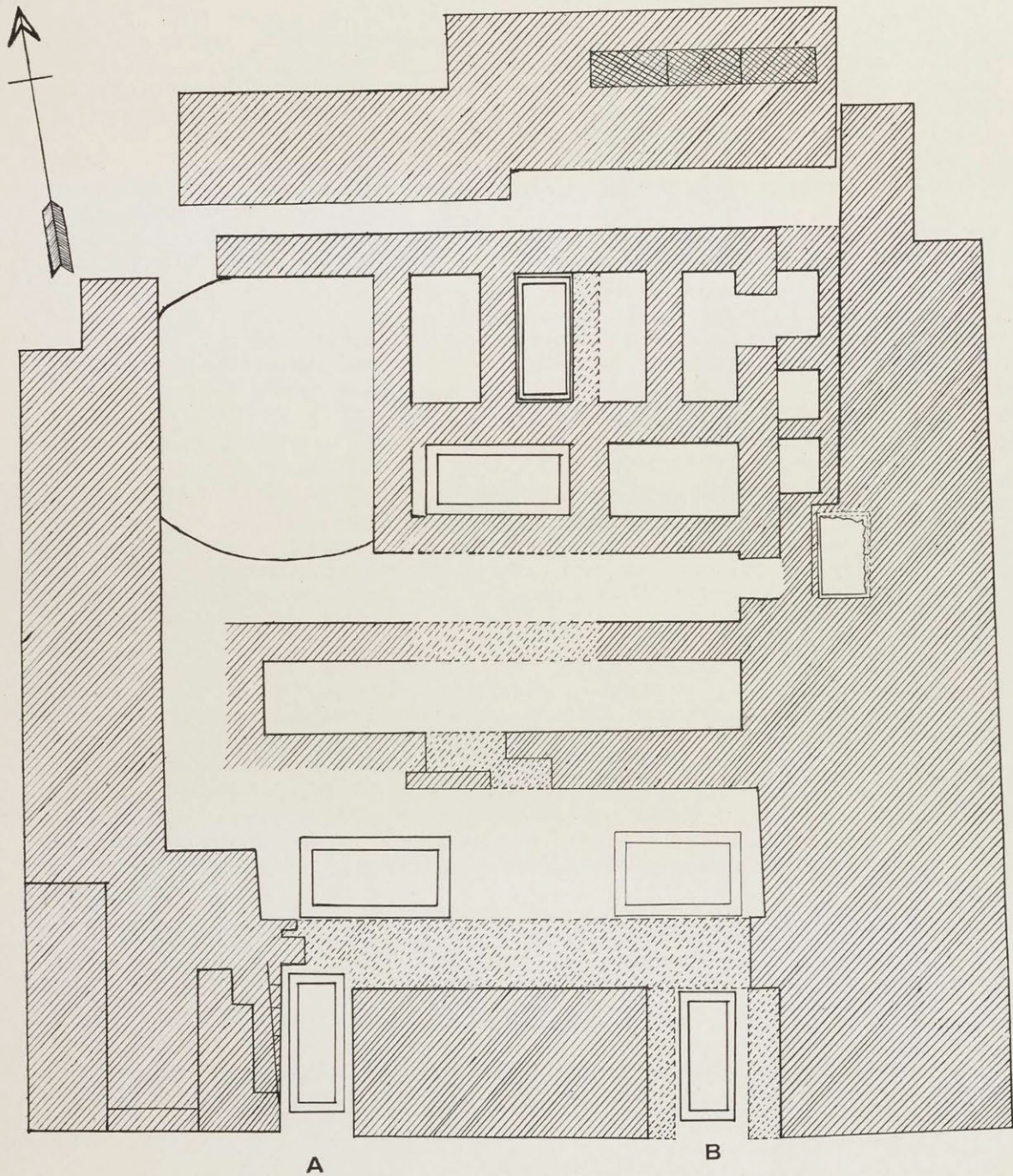
Major Raynor, of the Palestine Gendarmerie, who at the time commanded at Metulla and with whom we were riding at the time, was good enough to offer me some labour for a couple of days in order that one of these might be investigated. Accordingly, on the following day, four gentlemen who were unwilling guests of the Mandatory Power marched out to the site in the company of two gendarmes. We selected a cairn of average size and of circular plan with a diameter of about 4 m. and a height of about 1 m. The stones were all of basalt and from 20 to 60 cm. in length; one stone, 30/20/20 cm., which lay half-way up on the South-west side, had a cup-mark 9 cm. wide and 3.5 deep. There was no trace of any stone circle either in the cairn or round it. When the upper half of the cairn had been removed it was found that the stones of the lower half were embedded in earth. It is probable that this was a natural deposit.

Excavation was carried out to a depth of 1.35 m. below the surface of the surrounding soil, which is volcanic. No pottery was found which could give any definite shapes, and in the first 50 cm. excavated the fragments that occurred were for the most part indeterminate, but included types so divergent as ribbed Roman ware, and a fragment of a flat-bottomed vessel of coarse buff ware with particles of hard greyish grit protruding all over the surface to a height of at least 1 mm., which could hardly be later than First Bronze. There were also a few rough flint flakes. Below the 50 cm. level, which was marked by the upper surface of two rough stones each some 60 cm. across and 20 cm. thick, no late pottery was found. Below the level of these stones there were the following objects:—

(a) Three lumps of red earthenware, lightly fired, one of which measured approximately 6.5/4.5/5 cm.

(b) A number of fragments of coarse, lightly fired pottery, brown in colour and apparently having once had an admixture of tbn, a few small fragments of human bones much decayed, several flint flakes, part of a small flint core, one flint point measuring 3.4/1.6/5 cm., and part of a flint scraper measuring 3.2/2/2.5/4 cm. These scrapers were dressed on one side of the flake only. In addition to these, there were a nodule of iron-stone and a few fragments of quartz.

The whole contents of the tomb, including the fragments of pottery, were extremely meagre and would go comfortably into a single small basket, but I am persuaded on account of the extremely primitive ware found at the lowest level in conjunction with the flint point, and in spite of the two Roman fragments from the first 50 cm. which may well have been due to infiltration, that



TELL BARAK, NEAR CAESAREA. PLAN OF ROMAN MAUSOLEUM

Two building periods are evident. The later one entirely obliterated with a layer of concrete the positions of the two earlier sarcophagi, seen in the southern (bottom) face of the stout outer walls, A, B. The sarcophagi of later periods were found to have been broken and mostly destroyed; the limekiln indicated by the curving lines in the N.W. corner suggests the explanation.

the tomb dates at least from aeneolithic period. The digging of this tomb must be regarded only in the nature of a preliminary sounding. Other tombs of similar kind exist near by, and further to the South there are, as I have said, graves of a much more interesting character, for the most part undisturbed. I have examined superficially a large number of these graves, as well as other monuments of apparently the same period, but reserve any statement about them until time and funds permit of their closer investigation.

It is worthy of note that the civilisation in the neighbourhood of the tomb of which I have given this brief description appears to go back to a date infinitely earlier than the tomb itself. Major Hope, of the Palestine Gendarmerie, handed me an extremely fine Acheulean limande which he picked up within a few 100 m. of the site, and I myself found a couple of oval Bouchers which I should assign to the same period and a fine point almost identical with a Getulian example found by Pallory in the snail-shell heaps of Tunis and equated by Boule with Aurignacian examples of France. All these artifacts have a heavy yellow patina.

The quaternary deposits in the Wadi Baraghit (where the point was found) would seem to offer interesting prospects to the Palaeontologist, and a series of large caves at the source of one of its short tributaries is well worthy of investigation.

P. L. O. G.

21 November, 1924.

## NOTES AND NEWS

AMMAN.—The attention of the High Commissioner having been called to the damage and rapid deterioration of various historic monuments in Trans-Jordan, His Excellency placed the services of the technical staff of the Antiquities Department at the Emir's disposal, to take urgent steps and make proposals for the future. The theatre has been cleaned, weeds and shrubs rooted out, and a guardian appointed to prevent further abuse. On the Acropolis, the well-known Sassanian building was found to be in imminent danger of collapse, having been systematically undermined for building-stone from the inside during the last twelve months. Provisional piers and props of masonry and concrete were cautiously introduced at the danger points and the whole temporarily consolidated. This work was done under the personal supervision of Mr. Horsfield, Student-Architect of the School, who is to be congratulated on this difficult and indeed perilous achievement. It is understood that H.M. Government are considering measures to ensure the permanent protection of the antiquities of Trans-Jordan in accordance with the obligations of the mandate, and have consulted the Joint Archaeological Committee on the subject.

BEISAN.—Excavations on this site have been suspended for nearly twelve months owing to Dr. Fisher's absence in Philadelphia.

BEIT-JIBRIN.—The very perfect and decorative mosaic pavement (with designs of the Seasons, etc.) recently uncovered by the French Archaeological School at the invitation of the Department of Antiquities, is being enclosed and roofed by a permanent structure, and it is expected to be open to visitors next Spring. The discovery of another mosaic pavement is just announced, but owing to the approach of winter, it will remain covered until next season. The roads to Beit-Jibrin from Hebron and from Artuf are being relaid, so that it will be possible to visit this interesting site (which includes the Phoenician tombs, subterranean granaries, columbarium, etc.), with greater ease in the future.

CAESAREA.—The Mausoleum at Tell Barak, wherein was discovered the sarcophagus decorated with the battle scene of Greeks and Amazons (BULLETIN No. 5) has now been completely excavated, and a second sculptured sarcophagus has been recovered. We are privileged to publish a plan of the building and photographs of the two sides of the sarcophagus (Pls. V, VI). The style recalls certain Alexandrine coffins of the second and third centuries A.D. The work of excavation was accomplished by MM. Ory and Makhoul, Inspectors of the Department of Antiquities for Palestine.

JERASH.—Visitors report the precarious condition of a number of the famous monuments of this site, in particular the wing pilasters of the very beautiful Temple of the Sun, of which a measured drawing and photographs were reproduced in BULLETIN No. 3. It would appear that there must have been a recurrence of earth tremors in the locality, such as are presumably responsible for the piles of noble ruins that already cover the site. It is understood that the government contemplates taking early steps to arrest the process of destruction; but the problem is a big one, and extensive material apparatus will be required to meet the situation. A guardian has been appointed who will be of help to visitors. A roadway has been cut which is passable under favourable conditions by motor-car. It leaves the main road from El Salt to Amman at the Circassian village near the latter.

NABLUS.—A rock-hewn tomb containing two broken sarcophagi has been found in the upper part of the town (near the Municipal Buildings). Its special feature is a complete stone door on swivel hinges *in situ*, carved in imitation of a panelled door of wood. It is being preserved and made accessible to visitors.

OPHEL.—Excavations of the Palestine Exploration Fund, conducted by the Rev. Garrow Duncan, have uncovered on the Eastern face, overlooking the Kedron Valley, a very impressive ancient wall, with revetment or glacis of the Late Bronze Age (Jebusite epoch) and a massive tower attributable to the Early Iron Age (*temp.* David and Solomon). The Department of Antiquities has taken prompt steps to open up, drain and protect this unique feature of the Old City, which has been declared meanwhile to be a national monument of historic interest. This sector of the wall follows apparently the same scarp as the foundation carefully traced by M. Weill near to the Pools of Siloam, whose excavations have been suspended, however, since the Spring of the year. Little by little, the outline of the ancient city is being brought to light; it is to be sincerely hoped that the work will go forward, with care, method and deliberation.

SAMARIA.—The underground tomb covered by a vault on pendentives, and the two sarcophagi just without, originally uncovered and published by Dr. Reisner, have now again been uncovered by the Department of Antiquities, which is taking steps to leave these monuments visible for the future, involving a roof and tunnelled approach.

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On November 20, the British School entertained the Très Rev. Père Dhorme, Director of the French Archaeological School (Ecole Biblique de St. Etienne) to congratulate him on the completion of 25 years work in Jerusalem. His colleagues of the Dominican Order were present, as well as the Director and members of the American School and the leading members of all the educational communities in Jerusalem. In honouring the Prior of the Order everyone desired to pay a tribute to the work and position of the *Ecole Biblique*, which was founded in Jerusalem 36 years ago and has long been a centre of liberal education and research, 'thanks to the initiative and unflinching courage of its founder, the Très. Rev. Père Lagrange, who is still the soul of the institution,' and was present at this gathering.

His Excellency The High Commissioner, Sir Herbert Samuel, delivered a congratulatory address, and was supported by Sir Ronald Storrs, Governor of Jerusalem. Père Dhorme made an inspiring reply, from which we quote one of the concluding passages:

'Tant de cités, tant de royaumes, tant d'empires ont successivement jeté leur éclat sur cette terre pour disparaître ensuite et attendre des érudits un semblant de survie dans la mémoire des hommes. Mais ce n'est pas une leçon de découragement, ni de pessimisme. Au fond si les générations se chassent les unes les autres, il reste du passé un peu d'idéal réalisé, malgré les défaillances ou les reculs. Et l'on ne peut contester que du fond de la caverne primitive jusqu'au sommet de l'Acropole, l'humanité se soit élevée vers plus de lumière et plus de beauté. Ici, ce que nous cherchons, c'est le choc des peuples, des races, des civilisations qui a abouti à faire de Jérusalem plus qu'un nom illustre, un nom aimé et vénéré. Cette tâche est de celles auxquelles ne peuvent manquer les ouvriers. Si à côté de l'Ecole Biblique Française se sont juxtaposées d'abord l'Ecole Archéologique Américaine, ensuite l'Ecole Archéologique Anglaise, c'est pour prouver que les esprits venus des coins les plus divers de la planète peuvent coopérer à une oeuvre commune dans la concorde et la sérénité.'

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The Second Special Publication of the School, being a Study of the Architecture of the Dome of The Rock, by K. A. C. Creswell, has been issued as a Supplementary Paper and may be obtained by members at the office of the School, 2 Hinde Street, W. 1.

BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM

BULLETIN No. 7

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1925

INTRODUCTION.—Excavations at Tanturah proving to be impossible this Spring, certain caves of Galilee were selected for the practical work of the School. Mr. F. Turville-Petre was placed in charge, with the collaboration of Mr. FitzGerald. When the latter left (to visit sites of excavation in Tripoli), Mrs. Baynes, who joined the School this Spring, assisted zealously in the daily routine, and the party was joined towards the end by Mr. Crouther-Gordon, from the University of Glasgow. The whole cost of the work was borne by the Hon. Treasurer, Mr. Robert Mond. Two caves were excavated systematically, and they proved to have been occupied by stone-using man at different times. This result in itself enables a useful comparative study to be made, for the first time, of two well-defined Palaeolithic culture phases in Palestine. A crowning interest was added by the recovery of recognisable remains of primitive man in the second cave. A preliminary account of the excavation is given by Mr. Turville-Petre in this Bulletin, but owing to the exceptional importance of these discoveries, the Director proposes the issue of a Special Publication, in which Sir Arthur Keith has kindly promised his collaboration.

Meanwhile, Mr. Horsfield has been at work among the classical buildings of Jerash (Geraza), in Trans-Jordania, where he has been entrusted with the conservation of these monuments. His preparations are now completed, notwithstanding the difficulties of the situation, and the first results of his work have added striking features to the interest of the site. Mr. A. St. B. Harrison has kindly prepared a plan of the Southern Theatre, as now disclosed, which we publish in this Bulletin, together with his Notes.

Mr. FitzGerald, our senior student, who contributes to this Bulletin the concluding section of the Report on our excavations at Tanturah, 1924, has now accepted an invitation to be Assistant Director in the excavations at Beisan.

A special course of lectures on 'Muhammadan Architecture' has been delivered by Mr. A. Creswell.

The School has been visited this Spring, amongst others, by Mr. Robert Mond, Mr. Amery, M. Dussaud, M. Benedite, Mr. Green, Lord Balfour, Professor Roxby and Professor Fleure.

# EXCAVATIONS AT TANTURAH, 1924

(Continued from Bulletin No. 6 with references to Plates I, II, III)

## V.—THE POTTERY

It is to be regretted that no site yet excavated in Palestine has provided much information with regard to the Hellenistic period. The principal excavations, Lachish, Gezer, Ain Shems, Tell Sandahannah, Samaria, even where they yield abundance of Hellenistic pottery (as in the case of the two last named), do not reveal a system of undisturbed strata such as would enable us to follow the developments which took place between the fourth century B.C. and Roman times. Tanturah is, unfortunately, no exception to this rule, as far as concerns the areas 'H' and 'L,' excavated in 1924. The pottery is fragmentary in the extreme, unbroken pieces being almost unknown, and only in a few instances can any stratification be perceived. These may be summarised as follows:

A. In H, at course 2 down the main wall W<sub>2</sub>, floor level of a room. Immediately above this floor-level the pottery was mainly ribbed (though not all of the late Roman or Byzantine type) and included some cooking-pot wares and a rough drab ware bowl with flat base and inturned rim (diameter 8 cm.), a fragment of opaque glass and a piece of wall plaster with the exposed side coloured red. Under the floor were large quantities of plain red and buff fragments, mainly from large jars, some of which were of the elongated form, imitating the Rhodian, which (though not unknown even in the fifth century, see *Bull. Corr. Hell.* XXXIX, p. 181), 'did not come into fashion until about 300 B.C.' (Walters, *Hist. Anc. Pottery*, I, p. 155). With these were three fragments of black varnished ware, ring-bases, of which two are of light red ware (one showing traces of stamped palmette ornament, the other having the underside left in the natural colour of the clay) and the third is of grey ware; also two ribbed fragments, of which one may well be an early specimen, having six shallow ridges to 5 cm., and inclining to the saw-tooth form, (cf. Macalister, *Gezer*, II, p. 207) and the other merely shows two or three ridges, on the surface, subtending a plain jar-handle. A piece of wall-plaster (yellow) was also found.

From these data there is no more precise conclusion to be drawn than that this floor was laid down at some time after 300 B.C., and remained uncovered until a period when plain pottery had been succeeded in common use by the ribbed variety, i.e., probably not before the beginning of our era. In this connexion it may be worth pointing out that this floor lies at about the level of the aedicule, between it and the main wall W<sub>2</sub>.

B. In H, the level of the North Gate threshold, at course 8, and the subjacent strata afford some indications of date:—

(i) This threshold level, westward of the gate, consists of a very distinct layer of reddish sandstone gravel, a few inches deep, which apparently formed the surface of a way between the wall 'W<sub>1</sub>' and the peristyle wall. At about ten metres from the gate the capital and drums of a fallen Ionic column were only separated from this level by a foot or so of debris, in which were fragments of ribbed pottery of the sharply serrated (Roman?) variety and a hoard of coins,<sup>1</sup> together with fragments of glass. The remainder of the surface was littered with sherds of various periods, and fragments of roof tiles which were especially numerous immediately S.W. of the gateway. In the gravel itself was imbedded the top of a Rhodian jar handle, measuring 8 cm. from the exterior angle to the junction with the neck, and bearing a stamp (33 mm. by 17 mm.) but no visible legend.

(ii) In the 'Gateway pit North,' immediately N.W. of the gateway and adjoining 'W<sub>1</sub>,' a level of black earth mixed with yellow sand and shells was found. In the intervening space were numerous fragments of pottery, including some decorated pieces, all of which appear to be of the Early Iron Age, 'Middle Palestinian' type. One of these is from a small bowl characteristic of the Philistine pottery of Ascalon (*P.E.F.Q.S.*, April, 1923, Plate II (12) and p. 71), of drab clay

1. This hoard includes coins of Alexander Severus (222-235 A.D.), which suggests the third century of our Era as the period of destruction. (See *BULLETIN* No. 6, p. 73.)

with cream slip, two purple bands round the rim and a wavy line below. Another fragment of a carinated bowl with a minute groove at the shoulder is of greyish ware, with a plain red (wash) surface.

(iii) Below the last-mentioned layer (courses 9 and 10, to the bottom of W1) are more plain pieces of the same period, a fragment of drab ware with light red surface decorated with a band of three lines of darker red, and a piece of red ware with slight signs of pebble-burnishing. With these were two markedly different fragments, one the inturned rim of a bowl or plate covered with lustrous black varnish, the other of undulating ribbed ware of a presumably early type (seven ridges to 5 cm.).

(iv) Below the foundation level of W1 (course 10) the sherds in the soil immediately above the rock were all plain, and of a ware differing materially from that in the level above, being coarser, more full of white grits and generally black or brown in the middle of the section, and fired red only at the extreme surface.

## WARES REPRESENTED

I. EARLY IRON AGE WARES, i.e., those characteristic of the Early Palestinian or Middle Palestinian (pre-Hellenistic) periods.

(a) *Decorated.* Mention has already been made of the 'Philistine' bowl and the lentoid flask fragments found in H (courses<sup>1</sup> 9 and 10). Another fragment of Philistine character was an open jar-spout with a strainer, of light red ware with dark red bands along the top rim of the spout—(*P.E.F.Q.S.*, April, 1923, p. 72 and Pl. II, 15) found outside (East of) the North Gate (course 3).

Two other lentoid flasks were found in H (course 9 and third metre below platform level, respectively), and another in L, T5 (sub-wall course 1-3). The first is undecorated, of drab clay burning red; the second, of greyish ware with buff surface, has six concentric circles, orange, on one side; the third, of red ware with buff surface, has six circles in red paint. It has been noted that this form is rarely found in the Hellenistic period (*Gezer*, II, p. 216, cf. p. 199, and see Bliss and Dickie, *Exc. in Jerusalem*, 1894-7, p. 263).

In L, about 5 metres down, a fragment has its inner side red burnished, the exterior covered with white slip, a red band round the rim, and a red line below. At the same level a fragment of buff ware shows traces of a red band and black lines. At a slightly higher level a jar-rim (12 cm. diameter) of red ware with burnished surface has bands of black round the rim and neck.

In H (course 9) was the neck and upper part of a bottle of yellowish buff ware, of a common Cypriote Iron Age form, with black line decoration, concentric circles on the shoulder and a wavy band round the neck (*Vincent, Canaan*, p. 349, fig. 247).

(b) *Burnished.* Besides the burnished fragments above-mentioned, examples of ordinary Palestinian pebble-burnishing occur in the lower strata of L. In H (course 4) fragments of a flat-bottomed bowl or dish (diameter 30 cm.), of dark red ware showing white grits, has the interior covered with red wash, burnished at the sides. In H (course 5-7) a fragment of buff ware with brown and black wash shows irregular burnishing. With these may be compared a dish or baking-tray from Cut I (B1 upper), 30 cm. diameter, of brown ware pebble-burnished in horizontal lines both inside and out. Pattern-burnishing was the common method of decorating such vessels in the Early Iron Age, but is rarely found in the Hellenistic period. (Bliss and Macalister, *Exc. Pal.*, pp. 81 f., 105).

(c) *Plain* pieces of this period perhaps include two trefoil-mouthed, single-handled jugs with base-rings, of gritty grey ware burning red on the surface, one plain, the other having a buff slip on the exterior surface. One, unbroken, stands 25 cm. high, with base diameter 7.5 cm. These, and fragments of another like them, occur in the lowest strata of L, about 6 metres down.

1. The expression 'course,' used to define a particular level, signifies the level of a course of masonry in the main wall, W2, reckoning from the topmost course standing in H, downwards. The threshold of the North Gate, is at the bottom of course 8. Note that owing to the slope of the ground westward the reckoning by courses does not by itself indicate the distance of objects below the ground-level.

Other plain fragments in L are :

(a) Two attachments broken off jars, in the form of Y-shaped fillers, but without any orifice at the bottom. One of these was attached to the jar at the rim, the other is free-standing. These attachments, without the orifice, are found at Gezer in the 'Late Fourth Semitic' strata (*Gezer*, II, p. 186), i.e., in strata of the period immediately preceding the Hellenistic, which we now call Early Iron Age II.

(b) The neck of a single-handled water-decanter (brown ware, dark red wash), resembling, except for a groove round the rim, those found in the tombs (other than tomb I) at Ain Shems (*P.E.F. Ann.*, 1912-13, p. 66), and

(c) The neck of a bulging bottle of light red ware with roughish surface, having one handle attached below the rim (cf. *Samaria*, I, p. 291, fig. 167, 7 and 8).

A few sherds of coarse, gritty ware are found in H, immediately under the west of the summit platform, among remains of mud brick; and (at course 10), in the angle of W2 and the small retaining wall, immediately below a layer of much later wares, which include a large number of ribbed fragments.

In areas H and L about twelve 'Canaanite' lamps were found of the flat-bottomed form with pinched-in spout and (except in two instances) a sharp angle at the junction of the rim with the body (*P.E.F. Ann.*, 1912-13, Pls. XXV, 7, 8, XXXIII, 1; *Samaria*, I, p. 293, fig. 171, p. 317). One, without a rim (from the lowest stratum of L) is of roughish red ware; the remainder are of good drab ware, and may belong to the Hellenistic period, as lamps of this form are found in the Chatby cemetery and other Hellenistic cemeteries of Alexandria (*Breccia, Necr. di Sciabbi*, p. 76, Pl. LVII, 128-9, and cf. *Gezer*, III, Pl. CLXXXVII, 12).

In these areas no examples have yet occurred of the Jewish form on a high base (*P.E.F. Ann.*, 1912-13, pp. 58-65, Pl. XXXIII, 4), though one was found in Cut 1 (B1 lower—C1 upper).

## II. BLACK VARNISHED AND GLAZED WARES :

(a) Attic red-figure ware is represented in H and L only by seven fragments. The majority seem to belong to the end of the fifth century. From L (second metre) comes the neck of a crater of brownish varnish with the common laurel leaf decoration (cf. *Fouilles de Delphes*, V (Perdrizet), pp. 168 ff., fig. 710, 710b; *Brit. Mus. Vase Cat.*, IV, pp. 27 ff.; Tillyard, *The Hope Vases*, Pl. 23 to 27). Many vases of this type have accessory decoration in white, and this is found on a small fragment from H (course 2). These, with a fragment of careless style from H (courses 5-6) bring us down to the beginning of the fourth century. In this category ought, perhaps, to be included a fragment (from L, course 4) of a jug varnished black to brownish-red below, having the upper part painted with red criss-cross lines on the natural (pink) colour of the clay. For examples of reticulated ornament see Furtwängler, *Aegina*, p. 463, fig. 392, *Breccia*, op. cit., p. 62, no. 158 and Pl. LII (100), Watzinger, *Holzarkophage*, p. 9, fig. 19, and Pagenstecher, *Sieglin Expedn.*, II, Part 3, pp. 185-6, Pl. XI (3).

(b) Fragments of small vases entirely covered with black varnish are exceedingly common. Of these a considerable number are doubtless imported from Attica and must be dated to the fifth century or the first half of the fourth. They can be recognised by the pink clay and lustrous varnish; a characteristic of many of the earlier specimens is the careful treatment of the underside of the foot, left in the natural colour of the clay and often decorated with one or more concentric circles in black or red (see Wiegand-Schrader, *Priene*, p. 395, *Bull. Corr. Hell.*, XXXIX, p. 181). In some cases reserved bands of light red mark the transition from the R.F. technique to the undecorated varnished ware, which is characterised by forms imitating metal and which (carrying on an older tradition) held sway throughout the fourth century, first in Athens and later in other centres of manufacture. (F. Courby, *Vases grecs à reliefs*, pp. 174, 178.) In the form of the handles, the horse-shoe horizontal handle of the earlier period seems gradually to be superseded by the 'spurred' handle, set on vertically and having the thumb piece flush with the rim of the vase. This form occurs in Boeotia, perhaps before 350 B.C. (Ure, *Black Glaze Pottery from Rhitsona*, Pl. XII), and appears to become common in the second half of the fourth century (*ibid.*, p. 23, Pl. XVII, cf. Pls. XV, XVI). It is found frequently in the Chatby cemetery (*Breccia*, op. cit., Pl. LIV) and elsewhere, in the late fourth and third centuries (see *Fouilles de Delphes*, V, p. 172, figs. 716, 717, 722; Watzinger, *Ath. Mitt.*, XXVI, p. 77). At Tanturah the spurred handles are represented by three specimens of inferior black glaze and two of red glaze or wash.

(c) Black varnished ware with stamped ornament is of common occurrence, intersecting circles and palmettes forming the principal elements of decoration. Specimens thus ornamented are not unknown in the fifth and even sixth century B.C. (Courby, *op. cit.*, p. 176), and at Tanturah the stamped decoration is sometimes combined with the reserved bands and other characteristics of the Attic imports of c. 400 B.C. (so also at Pergamum, Conze, *Kleinfunde*, p. 16, and in Thrace, Necropole d'Eleonte, *Bull. Corr. Hell.*, XXXIX, pp. 135 ff.). In at least one case (boundary of H and L, under surface) the Attic technique in the treatment of the foot is found upon a black-varnished fragment of *drab* clay. The vogue of this stamped pottery, rising in Greece with the decline of the R.F. technique (Orsi, *Mon. Ant.*, XIV (1904), col. 912 ff. and cf., Ure, *op. cit.*, p. 33, and *Fouilles de Delphes*, V, p. 165), continues, at any rate, in Asia Minor through the fourth and third centuries (*Priene*, pp. 395 ff. (Zahn); Conze, *Pergamon*, I, p. 269). It is common in the Abusir cemetery (Watzinger, *Holz Sark*, p. 10) and at Alexandria (Breccia, *op. cit.*, pp. 68 f., nos. 183-188, pp. 71 ff., nos. 196-200 and 207, Pagenstecher-Sieglin, *op. cit.*, pp. 20, 29 (fig. 35) and 240). Before the end of the fourth century Attica had been superseded by other centres of manufacture and the lustrous black stamped ware is not necessarily Attic (Courby, *op. cit.*, p. 178). As far as concerns the areas excavated at Tanturah, the stamped pottery does not reach the same degree of degeneration as the undecorated ware, upon which an inferior black glaze, or wash, takes the place of the Greek varnish.

(d) Of black ware with Painted Decoration only a few fragments were found :

(i) In H (W. slope, course 9), a vase of pink clay, the interior covered with red wash, the exterior with dull black glaze; a band of ivy running round the shoulder has the leaves painted yellowish pink, the stalk indicated by incised lines showing the pink clay. Above (at the angle of the neck) and below run two small grooves. This arrangement is precisely paralleled in a cantharus from Athens (Watz., *Ath. Mitt.*, XXVI, p. 69 (no. 4), Pl. IV), dating from about 300 B.C., one of the series from the Western slope of the Acropolis, the majority of which are of inferior glaze (Watz., *op. cit.*, p. 84). Vases of this type have been found in many widely distant places, including Alexandria (cf. *Arch. Anz.*, 1902, coll. 157-8, and Pagenstecher-Sieglin, *op. cit.*, p. 27 (fig. 34, 24), and p. 54, for examples of incised lines used to represent the stalks of wreaths); the evidence, however, seems on the whole to indicate an Attic origin (Courby, *op. cit.*, pp. 186 ff.).

(ii) In L, a plate, diameter 21 cm., of pink clay, plain on the under-side, the interior of dull black glaze, with a conventional wreath in thin white paint.

(iii) A fragment of a bowl or plate of *drab* ware, with lustreless black glaze (like the preceding) inside and out, has traces of painted decoration (a row of white dots joined by an incised line).<sup>1</sup>

With these may be grouped :—

(iv) From Cut 1 (B1 upper), the neck and shoulder of an oenochoe or cantharus of light red ware, the interior covered with reddish-brown glaze, the exterior with lustrous black varnish (not of the best quality); the body fluted, the neck decorated with a conventional wreath in opaque light red paint.

Vases with this form of decoration are common in the Chatby cemetery (Breccia, *op. cit.*, pp. 50 f. and 64 f., Pls. XLIX, L and LIII), the majority of them retaining traces of the gilding which covered the paint of the wreath. They are probably imported from Athens (Courby, *op. cit.*, pp. 187, 194). Two more fragments in Cut 1 (B2 upper) show traces of pink and white paint respectively.

(e) *Later Black-glaze Wares.* From the evidence of the painted vases dating from the beginning of the third century, it appears that the lustrous varnish of the previous centuries was giving way to an inferior glaze. The continuance of this process is very noticeable in the undecorated fragments. As at Samaria, so here, the pink clay of the imported vases gives way to *drab* or grey wares and the lustrous varnish to a dull glaze or wash. Many of the later pieces are mottled reddish or brown, some are uniformly of a dirty brown colour. In a number of instances the black wash does not cover the whole vase, sometimes the whole, more often a part of the exterior of a bowl or plate is left plain (cf. *Samaria*, I, p. 299, fig. 174, 48-50, and Breccia, *op. cit.*, p. 61, no. 152). Occasionally the part so left has a smooth, almost soapy, surface, due apparently to the use of a thin colourless glaze.

1. Pottery decorated with white paint on black has been found at Sparta in Hellenistic burials dated by Wace and Dickins to the second century B.C. or even later (*B.S.A.*, XIII, pp. 167 f.), but in view of the reburials in the tombs in question, conclusions as to the absolute dating of the objects found seem somewhat precarious.

To sum up, the formula 'importation, imitation, degeneration' fairly describes the history of those wares in Palestine for the two or three centuries following 400 B.C.

III. RED GLAZED WARES. These have a more complicated history in the Hellenistic period than the black, nor is it easy, in the absence of stratified sites, to distinguish the characteristics of various periods or places of origin, until we come to the imported Arretine pottery of the first century B.C. In our areas H and L, two varieties are very commonly found, especially (but not exclusively) in the higher levels: (i) fine buff clay with a good red glaze, lighter and less coralline than the Arretine and inferior to it, in that the red surface shows a marked tendency to become detached from the ware, peeling off in small patches or flakes and exposing the natural colour of the clay. This is, doubtless, the same pottery as that which at Samaria was 'in use during the second century, B.C. if not earlier' (*Sam.*, I, p. 304). The common forms are much the same in both sites, platters (one of 26 cm. diameter) predominating. Of these some have stamped patterns like the above-mentioned black glazed ware, II(c). Exceptional forms are the rim of a trefoil mouthed jug (oenochoe?) with a flat handle, and the neck and shoulder of a jug or bottle with a double handle (cf. Pagenstecher-Sieglin, op. cit., fig. 161, 42); (ii) a duller glaze or wash resembling in everything but colour the surface of the late black wares, II(e). In one instance (H, course 4-5) a large platter with black interior has the under-side of brownish red, and the same is found on the interior of some black-glazed bowls, perhaps denoting the period of transition from black to red (Pagenstecher-Sieglin, op. cit., p. 143, and fig. 150). Less common is (iii) a darker red slip or glaze, not inclined to peel off, through which, in several instances, appear traces of the wheel in the form of fine parallel lines, bearing a deceptive resemblance to the burnished patterns of the Early Iron Age. (iv) Three or four fragments of imported Arretine ware (of the first century B.C.) were also noted.

As the presence of red ware is too frequently regarded as an indication of late date, it is worth while pointing out that in the Chatby cemetery (late fourth and early third century B.C.) are found examples of stamped and other vases resembling the black varnished ware in clay, form and fabric, but having a more or less lustrous red surface (sometimes of orange or yellowish shade) (Breccia, op. cit., p. 68, nos. 185, 186, and pp. 74 ff., nos. 210-221). Examples of red ware of about the same date are also found in Greece (Watz., *Ath. Mitt.*, XXVI, pp. 73, 81, 85; and cf. *Fouilles de Delphes*, V, p. 172, fig. 716). Note also the red-surfaced fluted cantharus from Samaria (*Sam.*, I, p. 14, fig. 29). Red and black stamped wares are found together at Pergamum, which may be imported Attic but are more probably local pottery carrying on the same technique (Conze, *Perg.*, I, p. 269, and Beiblatt 35). The example of red ware there illustrated bears a striking resemblance to the pieces from Tanturah of our class (i), with red glaze flaking off. At Pergamum these can hardly be later than the early Attalid period, well before the close of the third century, though the evidence perhaps scarcely warrants the statement that by the middle of that century the black varnish had been entirely superseded by red glaze (Courby, op. cit., p. 177), as the inferior black-surface wares can hardly have disappeared so early. At Sparta, indeed, if the dating suggested in *B.S.A.*, XIII, p. 167, be accepted, the black-glazed ware continues far into the first century B.C. The evidence, however, is not conclusive, and there appears to be no solid reason to doubt the received opinion that, in Asia Minor and elsewhere, the change in fashion from black surface to red took place not later than the second half of the third century (Watz., *Ath. Mitt.*, XXVI, p. 2; Dragendorff, *Bonner Jahrb.*, XCVI, pp. 34 ff.; CI, p. 143). This seems to be in full accord with the evidence from Pergamum (*Perg.*, I, p. 266; *Ath. Mitt.*, XXXVII, 1912, pp. 328 ff., and p. 245) with which that from Priene is in agreement (*Priene*, p. 397), as is also that from Alexandria (Pagenstecher-Sieglin, op. cit., p. 144). Nor does the evidence from Samaria, though inconclusive, seem to demand a later period for this movement (*Sam.*, I, p. 304).<sup>1</sup>

Asia Minor was, undoubtedly, a centre of manufacture of the various red glaze wares which preceded the Arretine (Courby, op. cit., p. 261; G. and A. Korte, *Gordion*, in *Jahrb. Ergänzungsheft*, V, p. 195; Dragendorff, *Bonner Jahrb.*, CI, pp. 140 ff.), and in the neighbourhood of Pergamum *terra sigillata* was still manufactured in the first and second centuries of the Christian era (Loeschke, *Ath. Mitt.*, XXXVII, 1912, pp. 344 ff.), but further investigation is required to decide whether the Palestinian wares are imported thence or from some other centre (such as

1. In the 'Report on the Excavation of the Eastern Hill of Jerusalem' in *P.E.F.Q.S.* January, 1925, p. 21, the inferior black and brown wares (a specimen of the latter decorated with white paint, Plate VII, fig. 20) are attributed to the 'Maccabaean' period (? latter half of second century). The evidence for this late dating is not stated. For the style of decoration, cf. the Hadra Vases of 267-244 B.C. (Pagenstecher, *Amer. Journ. Arch.* XIII, 1909, Plates IX, X).

Alexandria, as to which see Pagenstecher-Sieglin, *op. cit.*, pp. 100 ff., 143 ff.) or are mainly of local manufacture. In any case it seems not improbable that, whereas the black ware degenerates from brilliant varnish to inferior glaze, the tendency of red-surface wares is in the opposite sense.

IV. DÉCORATION IN RELIEF. Bowls decorated with patterns or figures in relief, so common on some other Hellenistic sites, are represented in our areas only by small fragments. None of them is of the lustrous glazed ware characteristic of the so-called Megarian bowls.

(i) From the west of H (course 9) come two fragments of a bowl of grey ware thinly covered inside and out with dull black glaze or slip, closing inwards slightly at the rim. This is the common shape of bowls from Delos (Courby, *op. cit.*, p. 365 and fig. 47 (2)). Under the plain rim (18 mm. deep) runs a band of meander pattern (10 mm.) (Courby, p. 379, fig. 76 (4)). Below this the exterior of the bowl is covered with a pattern of imbricated leaves, a common motive in this series of bowls (Courby, p. 375, Pl. XIII, 24). The interior is, of course, undecorated. This combination of motives is found on a fragment from Egypt in the Herold collection (Pagenstecher-Sieglin, *op. cit.*, p. 68, fig. 80 (a)).

(ii) From I, comes a bowl of the same form, 12 cm. diameter, of drab ware with dark red glaze. Under the lip (17 mm. deep) is a band of leaf pattern.

The difference in colour between these two fragments is not inconsistent with their being imported from Delos, nor is it any indication as to their relative dates (Courby, pp. 368 f.). This widely-exported class of bowls began to be manufactured about 250 B.C. and may have continued in use as late as 30 B.C. (Courby, p. 397).

(iii) From H (course 9), a fragment of a bowl (13 cm. diameter) of yellow ware, with brick-red lustreless glaze or slip, inside and out, showing faint parallel striations like the marks of the wheel. The lip is slightly everted, a form which characterises the Pergamene as well as the Megarian bowls (Courby, p. 404). Below the plain rim, 18 cm. deep, is a band or frieze of the flower pattern seen on the bowls from Samaria (*Sam.*, II, Pl. 72*b*). On the side of the bowl part of a dolphin can be distinguished.

This piece, akin to Pergamene or Arretine ware, is of doubtful origin, a number of local fabrics of relief bowls being known to have existed (Courby, pp. 413 ff.). Its date is not earlier than the second century.

(iv) From the surface of H, fragment of a bowl of grey ware covered with lustrous black glaze inside and out, having on the exterior a moulded figure of Eros (*c.* 45 mm. high) within a sort of niche, below which appears the top of an acanthus leaf. A few pieces of such ware are already known, which may come from Asia Minor or possibly from Alexandria (Courby, pp. 489 ff., Pl. IX, *g, h, i*).

(v) From west of H (course 12), fragment of a straight-sided bowl or dish (diameter *c.* 26 cm.) of imported Arretine ware. The side (31 mm. high) has mouldings at top and bottom, and between them a figure of Eros. Another fragment, of approximately the same dimensions, from near by, shows no figure.

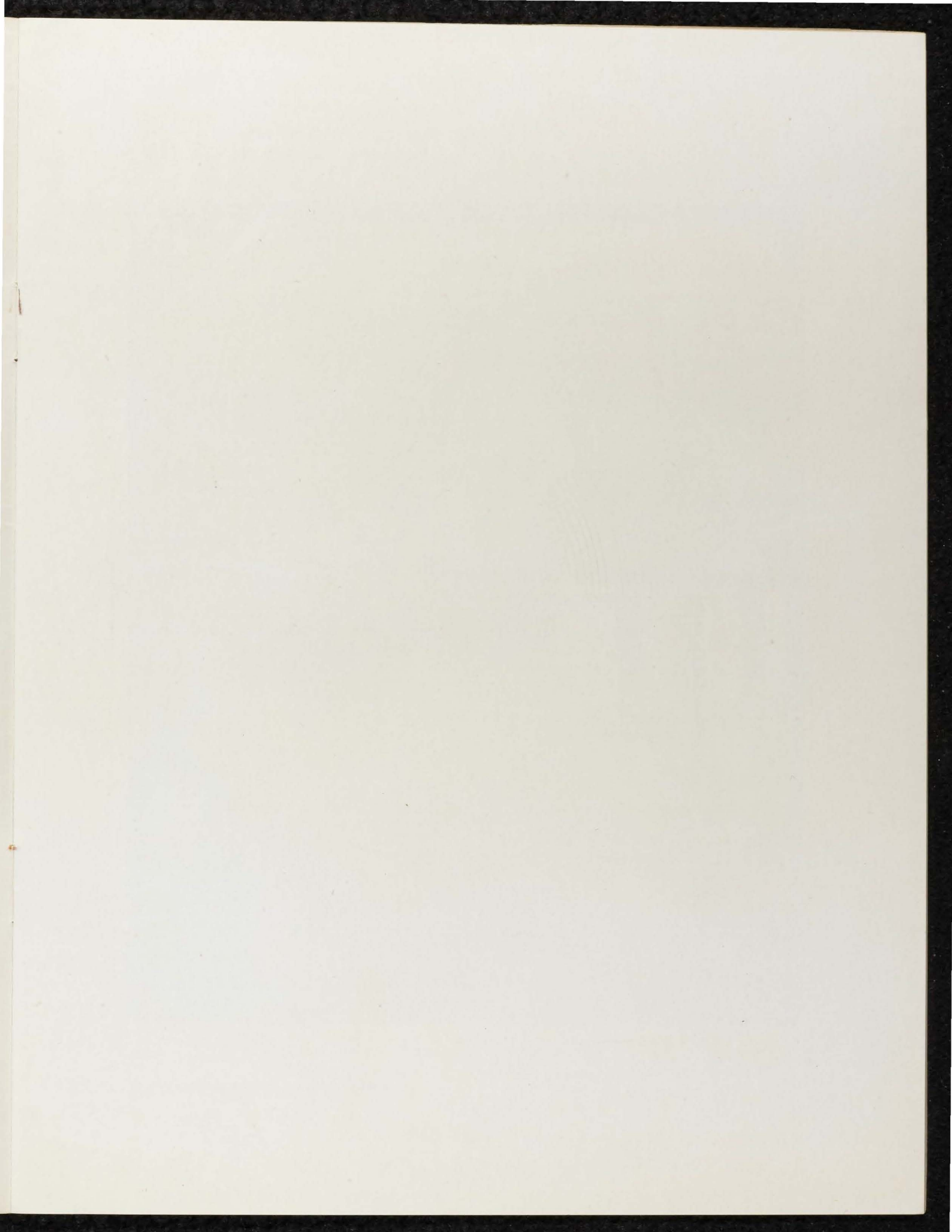
V. PAINTED DECORATION ON LIGHT GROUND. Owing to the absence of stratification we have no means of dating the score or so of fragments of the Hellenistic period decorated with bands of colour on a light ground. Bottles with painted band decoration occur at Delphi, in a tomb dated to about 400 B.C. (*Fouilles de Delphes*, V, p. 166, fig. 698), and, in the more elongated form (lacrymatoria) at Rhitsona, in the third century (Ure, *op. cit.*, p. 22); they are found in Egypt in a late Ptolemaic or early Roman tomb (Grenfell, Hunt and Hogarth, *Fayûm Towns*, pp. 57, 59), at Priene (Wiegand-Schrader, *Priene*, p. 426, no. 102), and at Samaria, where it would seem that this form of decoration may have continued into the second century B.C. (*v. Sam.*, I, pp. 301 ff.).

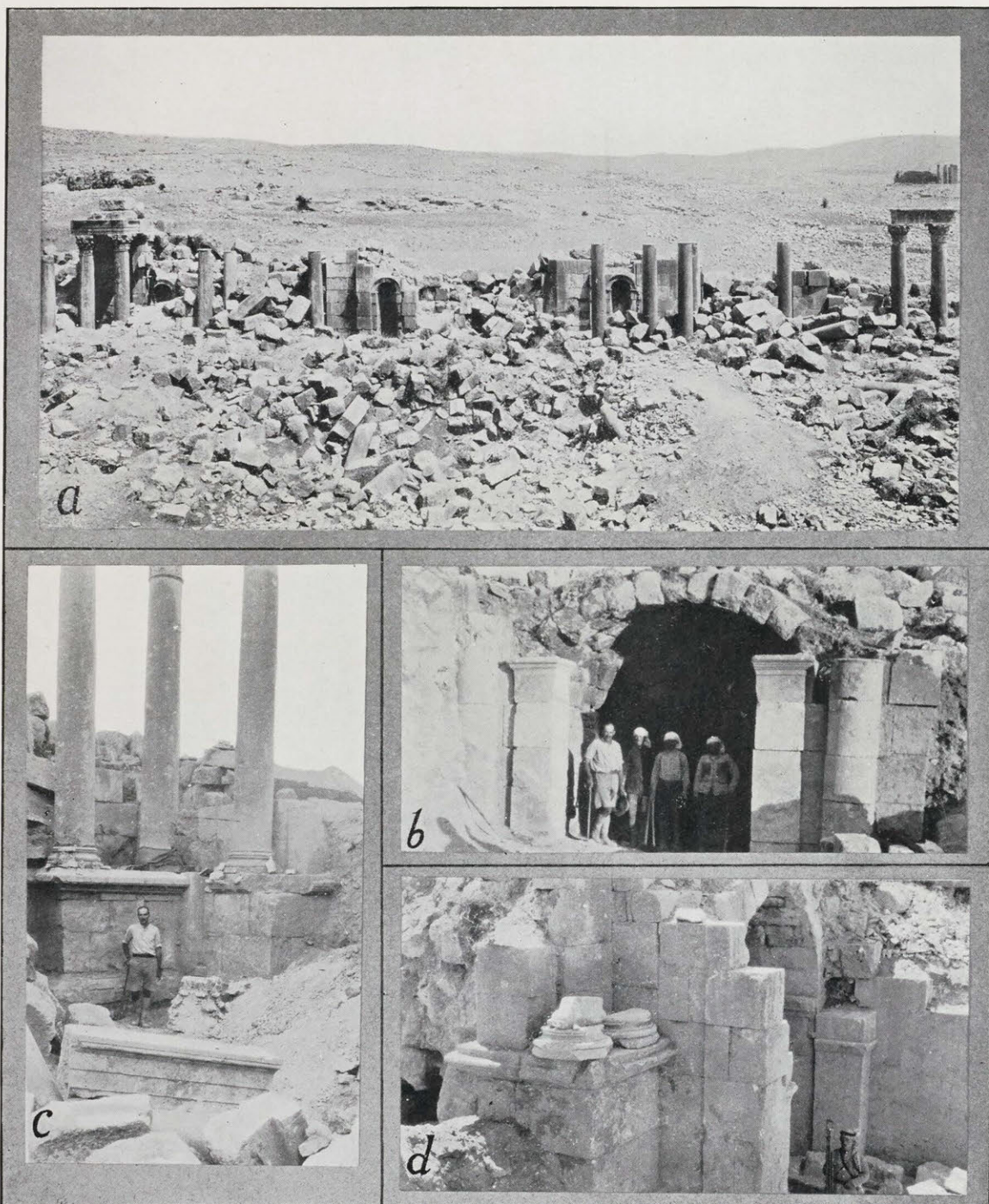
At Tanturah we find only two fragments of this type of vase thus decorated: (i) drab ware, smooth cream surface, round the shoulder a red band between two brown.

(ii) Drab ware with red bands round the neck (the rest missing).

To these we might add (iii) (from H, course 7) a bottle neck of good buff ware with poor brownish red glaze, round the rim, and trickling down the neck (*cf.* late third-century pieces from Pergamum, *Ath. Mitt.*, XXXVII, 1912, p. 329), and (iv) (from H, course 8) a funnel-shaped neck of thick red ware with traces of a handle below which run dark red and black lines.



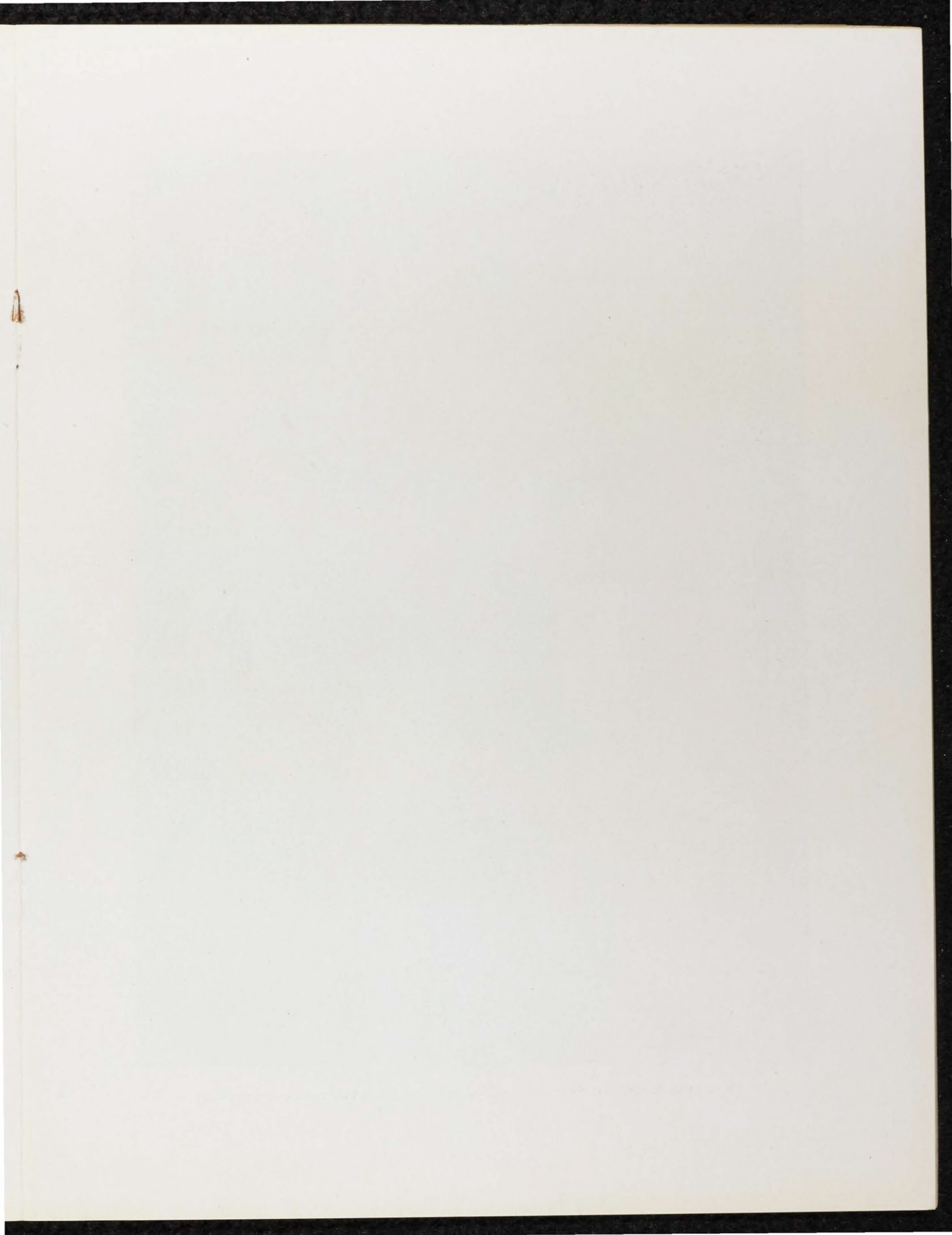


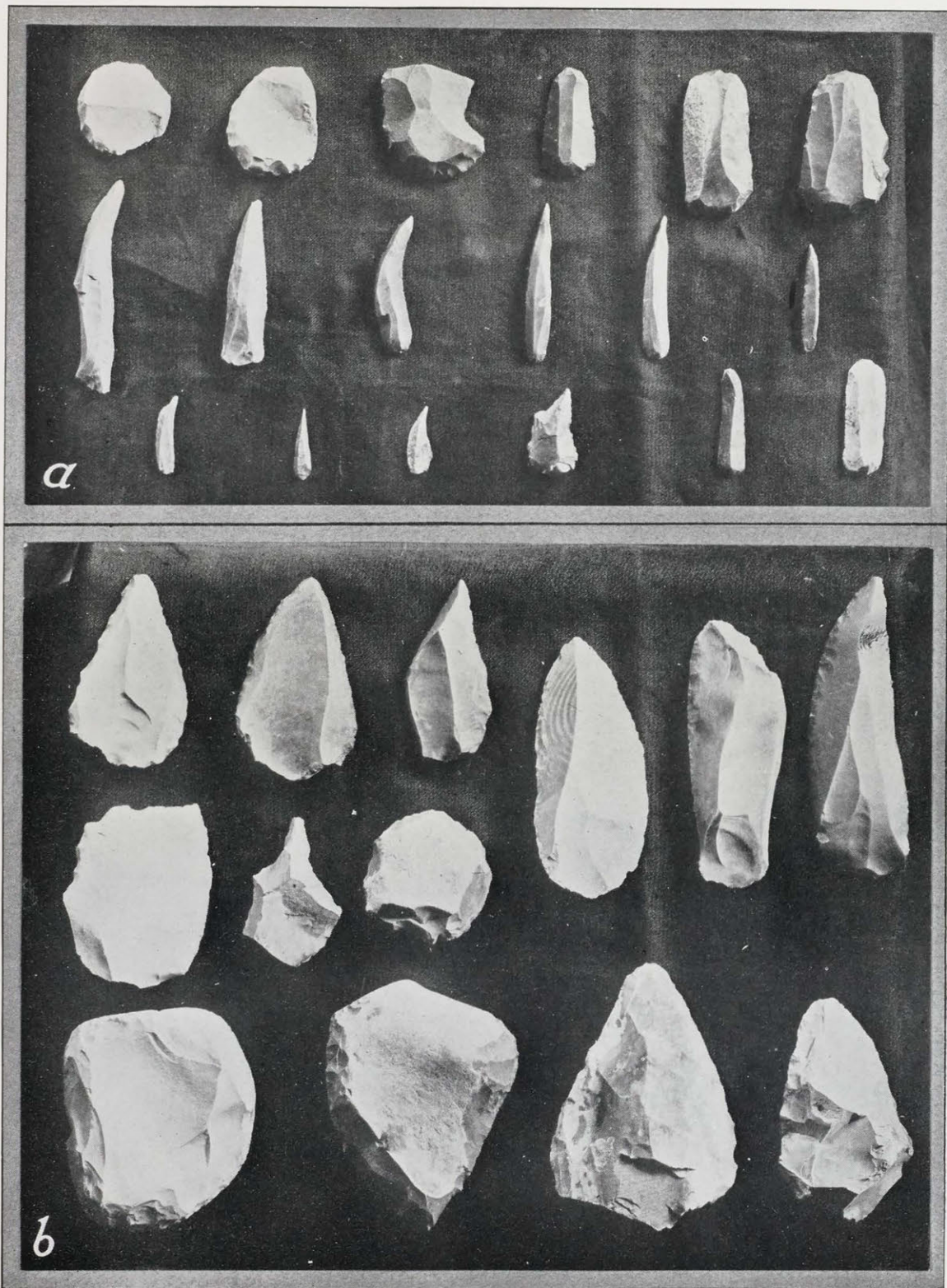


JERASH (GERAZA) : SOUTHERN THEATRE.

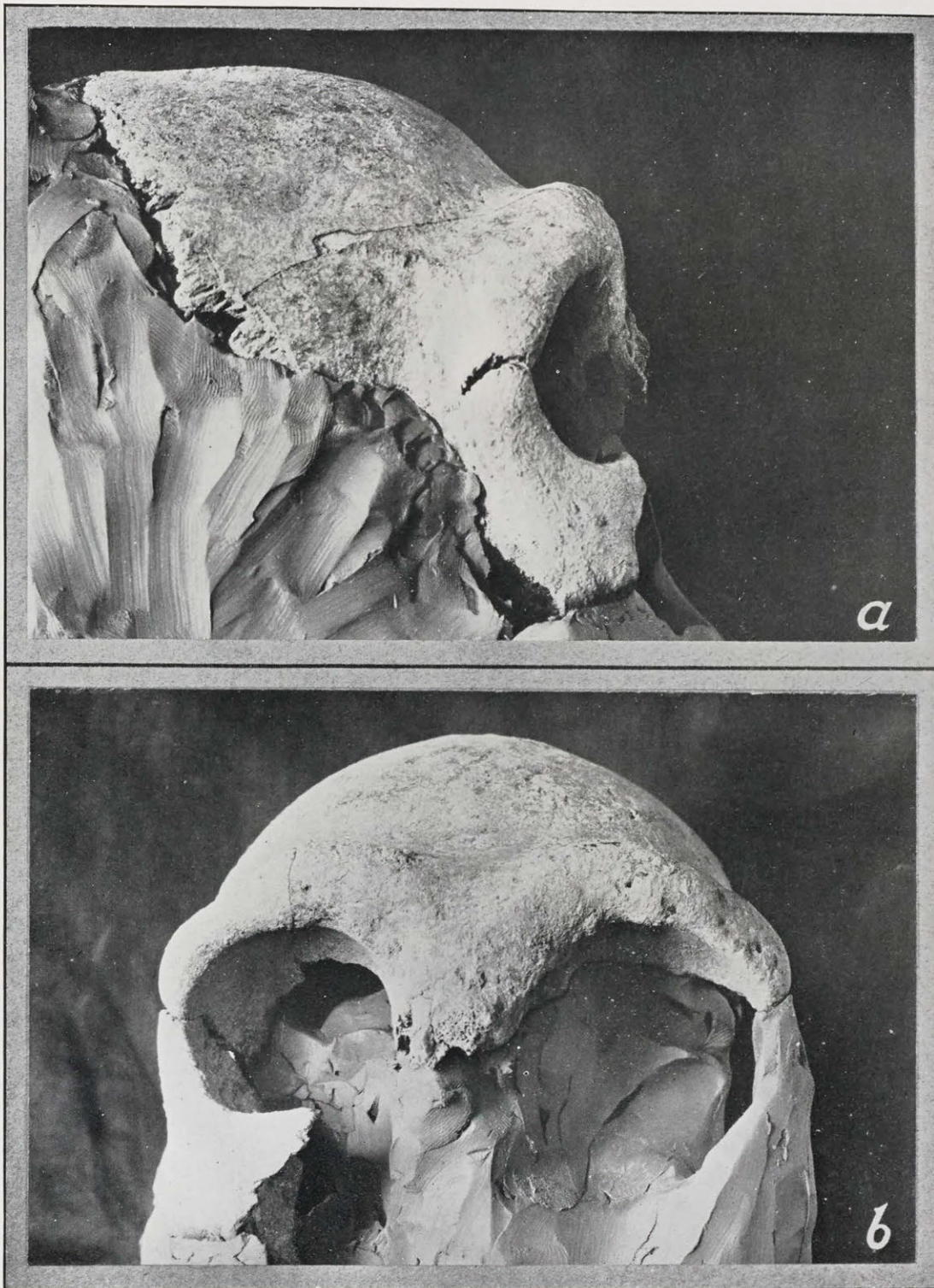
(a) INTERIOR TOWARDS THE STAGE BEFORE CLEARANCE.  
(b) WESTERN VOMITORIUM FROM OUTSIDE.

(c) STAGE, N.E. CORNER  
(d) EASTERN VOMITORIUM AND STAGE ENTRANCE



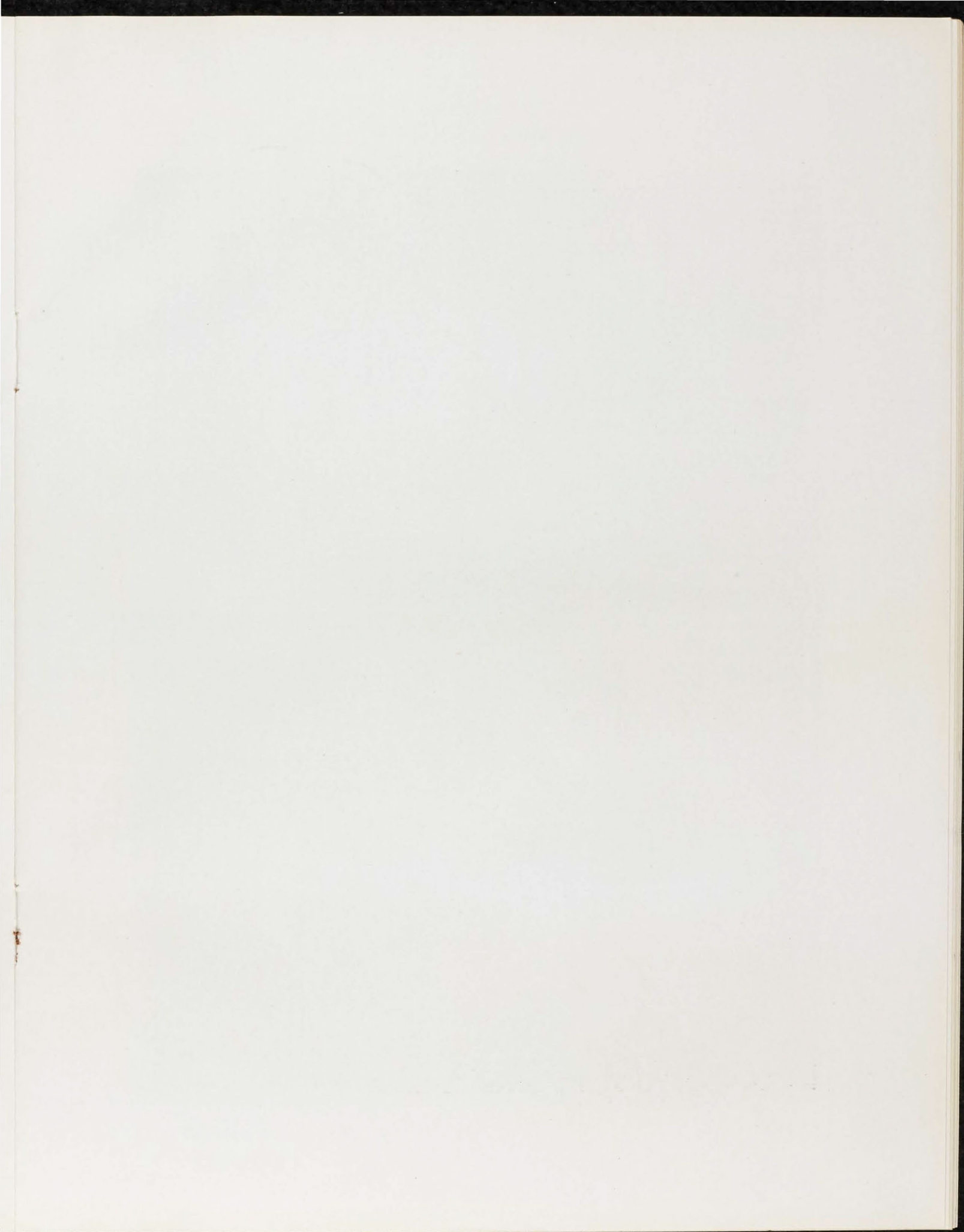


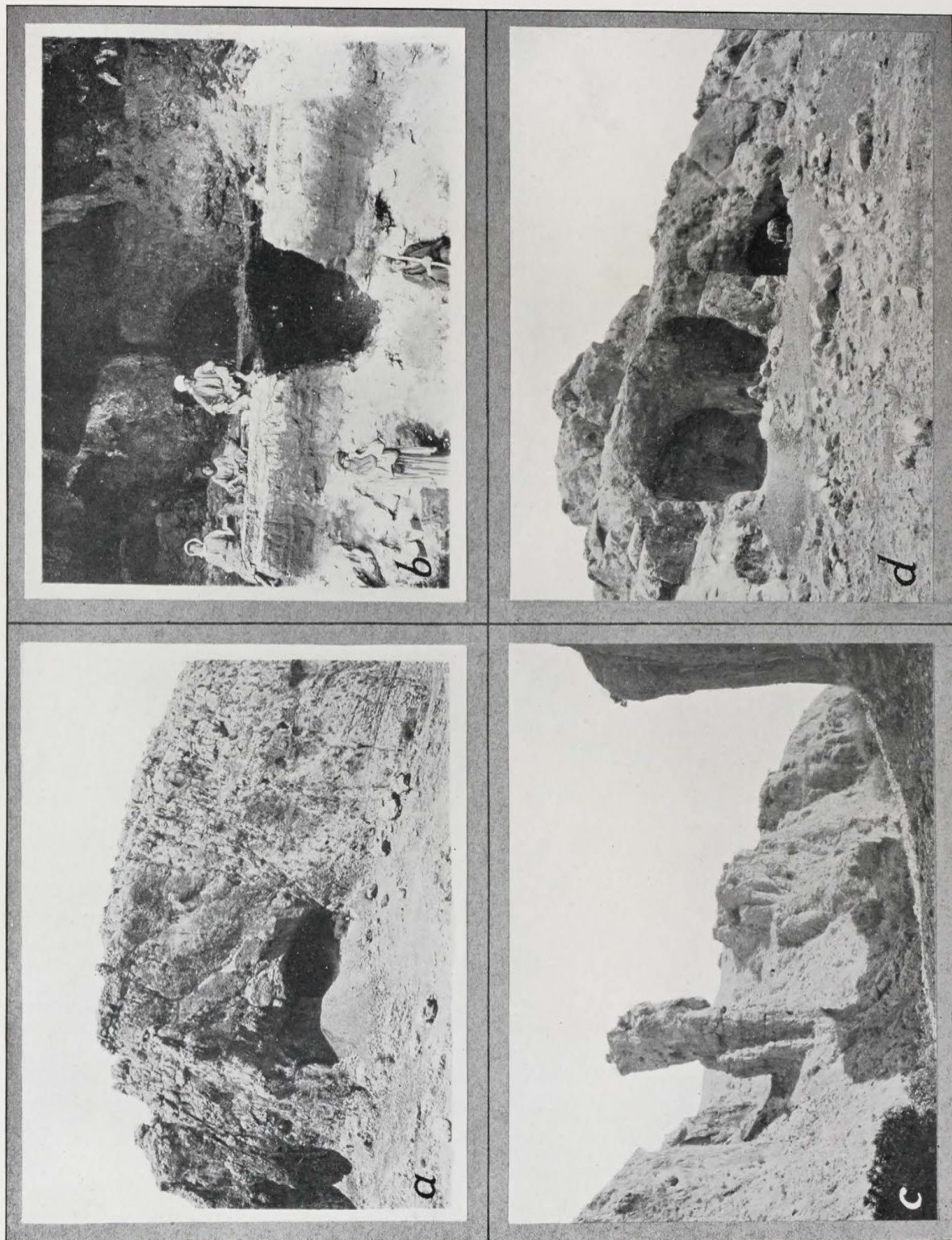
WADY EL AMUD (GALILEE): TYPES OF FLINT IMPLEMENTS FROM TWO PALAEO-LITHIC CAVES.  
(a) EL EMIREH. (b) EL ZUTTIYEH  
(Scale: one half, nearly)



WADY EL AMUD (GALILEE) : PRIMITIVE HUMAN SKULL FRAGMENTS

(a) SIDE VIEW. (b) FRONT VIEW

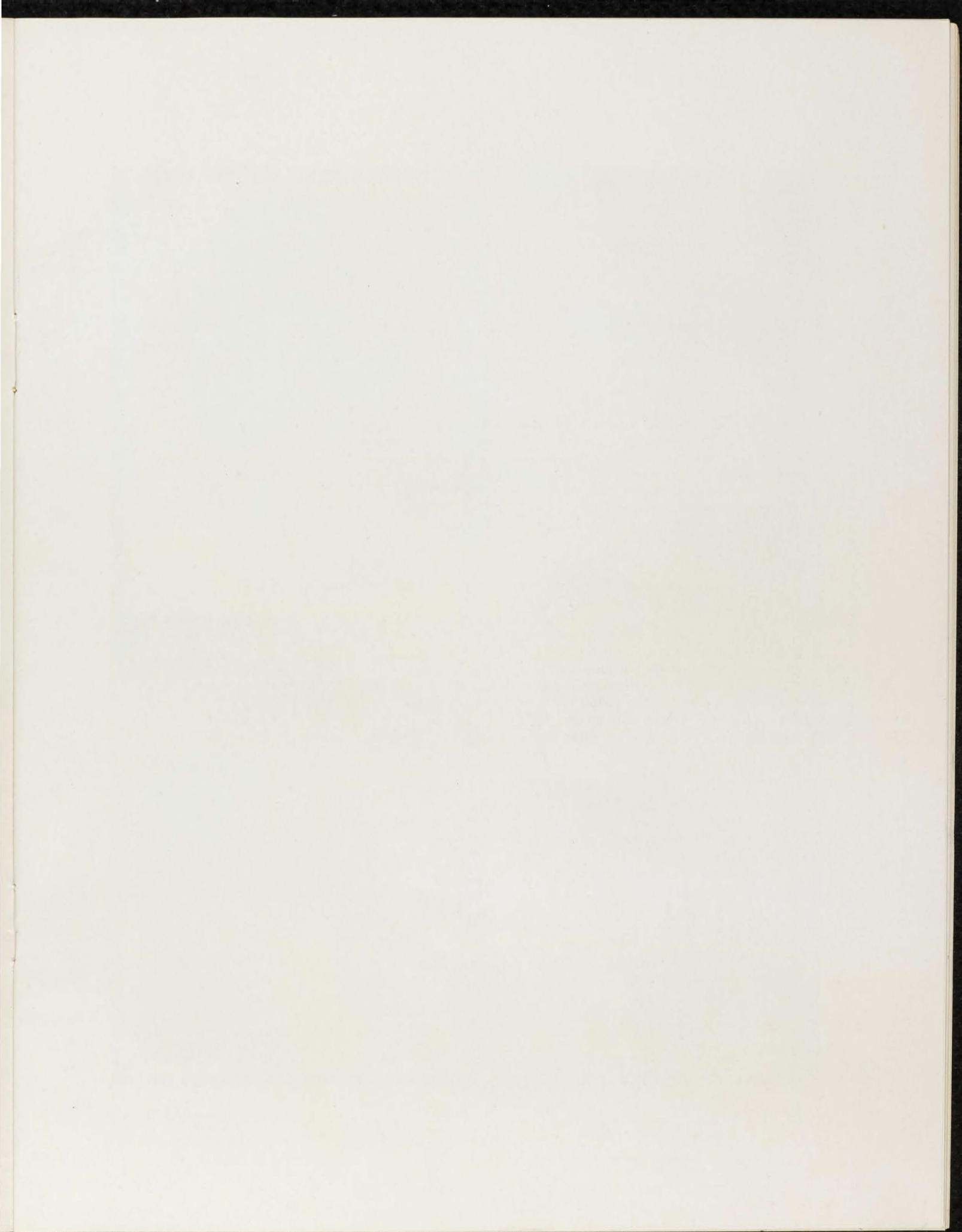




VIEWS OF TWO PALAEO-LITHIC CAVES NEAR TABGHA

- (a) LE ZUTTIYEH, EXTERIOR  
(CAVE OF THE ROBBER CHIEF)
- (c) THE WADY EL AMUD.  
(VALLEY OF THE COLUMN)

- (b) *Ibid.*, INTERIOR DURING EXCAVATION
- (d) EL EMIREH  
(CAVE OF THE PRINCESS AND ADJOINING SHELTERS)



A fragment with base-ring of grey ware burning red, with a light surface, has a purple band running round the upper part of the base. This may be akin to the stamnos decorated with dark red bands, from the Chatby cemetery (Breccia, *op. cit.*, p. 83, no. 242, Pl. LVIII (130)). Another base of coarser red ware (possibly not Hellenistic) has bands of thin black wash, producing a brownish purple effect.

More noteworthy is a number of fragments (from Trench 3, courses 5 and 6) belonging to a jug or oenochoe of compact creamy ware with a smooth surface resembling glaze (but no slip), of ovoid form with a ring base. The neck and handle are missing, but the former was doubtless long and narrow. The decoration is in lustreless black pigment, turning brown, and consists of three bands round the body, a rudely indicated wreath round the base of the neck and, probably, a black streak up the outer side of the handle. The rounded outline and absence of slip distinguish this piece from the usual type of 'lagyni' (see G. Leroux, *Lagynus*). In form it resembles the jug from Panticapaeum, decorated in white paint (wreath) on a red surface, illustrated in *Bonner Jahrb.*, CI, p. 146 (fig. 12), and the examples from Alexandria, Melos and South Italy, illustrated in Pagenstecher-Sieglin, *op. cit.*, figs. 36-39 (cf. pp. 30 ff., 52).

The remaining fragments in these areas are from vases or bowls of which the shape remains uncertain. The decoration, in the form of horizontal bands or rings, carries on in the Hellenistic period the tradition of late Palestinian ornament (see *Gezer*, II, pp. 208 f.), and at present it is only by a comparison of wares that the two periods can be distinguished. It seems, therefore, not unreasonable to assume that in Palestine this simple form of decoration continues uninterruptedly from one period to the other, and perhaps on into Roman Imperial times, as in Egypt (Grenfell, *Fayûm Towns*, pp. 59, 61, Pls. XIa, XIVa). On the subject generally, see Pottier, *Mon. Piot.*, XX, 1912, p. 163, pp. 178 f. The smooth surface, perhaps covered with colourless glaze, is fairly common in the Hellenistic fragments. The schemes of decoration are as follows: (a) creamy drab ware with red bands alternating with bands of black lines on the natural clay, (b) bowl of buff ware with broad red bands at rim and interior, the latter edged with a black line, (c) drab wares, red lines or bands (several examples), (d) buff and drab wares with black, brown or orange bands, (e) red ware with brownish bands, (f) light red common ware with darker exterior surface and black and white bands, (g) white surface with purple band and black lines (the last two examples possibly Palestinian), (h) light brown fragments with red or orange bands. Reticulated ornament is represented by a small fragment of very thin grey ware with a smooth red surface having on one side (the interior) a criss-cross pattern of darker red lines forming squares of about 2 mm., and a fragment of reddish ware with smooth exterior surface on which black and red lines cross.

VI. THE UNDECORATED WARES which, of course, form the bulk of the pottery in our areas, call for little remark, owing to their extremely fragmentary condition and to the absence of stratification in this part of the site. Something must, however, be said of the principal forms and wares.

(i) *Jars* fall into two groups: (a) those which carry on the Palestinian tradition and have a hollow below the shoulder and the greatest diameter low down (cf. *Gezer*, II, p. 213). These are of red, brown or drab clay, often with white grits. (b) Elongated jars with more or less pointed bottoms, including examples of Rhodian amphorae of smooth buff ware, and other jars of good red ware with the same sort of prolongation at the bottom (said to be later than 300 B.C., Walters, *Hist. Anc. Pot.*, I, p. 155). Others of similar wares, though pointed, have not this prolongation; examples are found which terminate in a button-foot (cf. Breccia, *op. cit.*, pp. 90 f.; Orsi, *Mon. Ant. Linc.*, XIV, col. 796, fig. 15; col. 861, fig. 69), and in one fragment of light red ware, the pointed jar bottom projects through a ring. The rims of such jars as have not merely plain necks are as a rule solid, and triangular in section. Of three stamped Rhodian handles, one (in H, course 8, already mentioned) is illegible, the others bear (each in two lines) the legends ΕΠΙ ΚΑΛΛΙ[ΑΝΑ]ΚΤΟΣ ΔΑΛΙ[ΟΥ] and ΕΠΙΡΑΤΟΦΑΝΕΥΣ ΠΑ[Ν]ΑΜΟΥ. The name of Aratophanes is known from Tell Sandahannah and elsewhere (*Exc. Pal.*, p. 132), but here the initial A seems to be omitted. Both names have been found in Alexandria (Pagenstecher-Sieglin, *op. cit.*, p. 158 (74), and p. 164 (213)). An exceptional form of handle is set stirrup-wise on the shoulder of a jar, near the small turned-back rim (which is 9 cm. in diameter). Towards the rim the handle stands 11 cm. above the shoulder. The ware is light red, with white grits and a light smooth surface. A large jar in the Brit. Mus., from Egypt, has handles of the same shape. A large double handle of ware resembling Rhodian, or somewhat rougher, is from H (course 5-6).

(ii) *Cooking-pots* are, next to various forms of jars, the commonest form of undecorated pottery. For the form see *Samaria*, I, fig. 176, and cf. Grenfell . . ., *Fayûm Towns*,

Pl. XIa, XII (Ptolemaic period). There is some variety in the shape of the necks, some being more upright and others approaching the horizontal. The dark red, somewhat rough, and very brittle ware is characteristic; it is sometimes used for other forms (e.g., the neck and handle of a jug from the staircase in L). Cooking-pots are, of course, often ribbed. A pot or bowl of ordinary plain red ware with a horizontal rim recalls the shape of the square-shouldered cooking-pot, shown in *Samaria*, I, fig. 176 (3a).

(iii) Fragments of *amphorae* and single handled *jugs* were found, among which may be mentioned an amphora of red ware, drab surface, with grooved handles, like that in *Samaria*, I, p. 300, fig. 177 (9a), and a jug, of grey ware with dark red surface somewhat stouter but more refined than cooking-pot ware, with the handle attached to the rim (cf. *Gezer*, III, Pl. CLXXXI, 1(a)). A number of fragmentary base-rings were found on the site, from vessels of considerable size, jars, amphorae, etc.

(iv) Slender long-necked *bottles* (*lacrymatoria*), already mentioned in connexion with painted ware, are also found of plain ware, sometimes with a highly polished or glazed surface. For the form see *Samaria*, I, p. 301, fig. 178. At Jerusalem this shape is said to occur in association with 'Jewish' lamps, cooking-pots and lentoid flasks (Bliss and Dickie, *Exc. Jer.*, p. 261 f., Pl. XXV, 11). One fragment of good buff ware has a shorter stem and more pronounced base-ring.

Another form of small long-necked bottle has no base-ring, and increases in size towards the bottom. Bottles of this sort, somewhat resembling glass vessels, are found in a Roman grave at Priene and may date to about the beginning of our era (*Priene*, pp. 279, and 427, figs. 290 and 545).

(v) Among other small forms we may note a globular jug of very thin brittle grey ware with dark red surface, and with straight neck (6 cm. diameter) and one strap handle. Also a cup of rough drab ware with flat base and inturned rim (8 cm. diameter), saucers of plain open form, and one of buff ware 23 mm. high on a ring base (30 mm. diameter), with rim diameter of 73 mm. Another, with a double or flanged rim of 73 mm. diameter and a flat base (27 mm.), of drab ware burning red, may be a lid or stopper, as may a miniature pot 38 mm. high with rim diameter 33 mm. Among other fragments to be noted are lids with button handles (cf. Breccia, op. cit., Pl. LVIII, 131), examples of the double handle and twisted handle (cf. *Samaria*, I, p. 303, fig. 183, 21a, and *Gezer*, III, Pl. CLXXVIII, 3); as also the trefoil-mouth (7 cm. across) from a jug of thin red ware with drab surface.

(vi) A fragment which is unusual both in shape and fabric is the out-turned rim of a bowl (?) (diameter 23 cm.), having an upright flange with incised hatchings on its outer edge; the handle is broken off from the rim. The ware is grey, with a smooth black surface (slip) like bucchero.

(vii) The principal wares have already been noted in describing the forms. They range from compact creamy buff and light red, with smooth or glazed surface, to rough grey, brown, red or drab wares containing black or white grits. Intermediate are the common red and buff jars, etc., with clay which gives a metallic chink when struck, and the brittle cooking-pot ware already mentioned. These wares are, as might be expected, uniformly hard-baked and resistant to the action of water. The few fragments of very thin ware like that of the little globular jug above-mentioned, form a class apart. With regard to undecorated pottery generally, it may be well to bear in mind that the change from Hellenistic to typically 'Roman' forms does not occur, in Egypt, till the first century of our era (Grenfell . . ., *Fayûm Towns*, p. 58).

VII. RIBBED POTTERY, together with fragments of roof-tiles, covered practically the whole surface of our areas, as is so commonly the case in Palestinian sites. Its occasional appearance at even the lowest levels has already been noted. The bulk of the surface layer must, no doubt, be assigned to the Roman and Byzantine periods, and no materials exist for an exact dating or classification. It must, however, not be forgotten that ribbed ware appears in Palestine in the Persian period, the types having a saw-tooth or gently undulating section being, as a rule, earlier than the sharp-edged, close-ribbed forms (see *Gezer*, II, p. 207). So also in Egypt ribbing is found in the Ptolemaic period (Grenfell . . ., *Fayûm Towns*, p. 58). The widest interval from ridge to ridge (apart from exceptional pieces) appears to be about one centimetre. We may note a roughly-made jug (15.5 cm. high, rim diameter 3.5 cm.) of drab ware with traces of red wash, having a single handle and button-foot. The ribbing shows 14 ridges to 10 centimetres.

VIII. FAIENCE. A few fragments of green and yellow glazed ware occur in H and L. They are possibly Arab, but since they do not occur only near the surface (one is from H, course 5-6) it is as well to observe that the light green glaze, carrying on the Egyptian tradition, was in use in

Alexandria in the third century B.C. (Courby, *op. cit.*, pp. 523, 527; Breccia, *op. cit.*, p. 80, and cf. *Samaria*, I, p. 326 ff., *B.M. Cat. Roman Pottery*, Pagenstecher-Sieglin, *op. cit.*, pp. 118 ff.).

Perhaps, also, of Egyptian origin are one or two fragments of frit which appear to have been covered with blue glaze. A piece of similar material is white, speckled with light green.

IX. LAMPS. The presence of lamps of Canaanite (or 'Phoenician') form has already been alluded to. These are only a few of the lamps which, in a more or less fragmentary condition, are found all over areas H and L. The greater number represent the common forms of Greek, Hellenistic and Roman lamps found on other sites of the same period, such as Samaria and Delos. Finds from the latter site have been analysed by W. Deonna in *Bull. Corr. Hell.*, XXXII, pp. 133 ff.

(i) The earliest form is the deep, wheel-made, 'Greek' lamp of which a specimen covered with black glaze with angular shoulder, of the type illustrated in *Samaria*, I, p. 318 (B.I. 1a) comes from H, course 2-3. One of drab ware with red wash or glaze from East of the North Gate is of the type illustrated in *Samaria*, I, p. 319, fig. 189, II, 2a; another of the same fabric is from H (course 5-6). A black varnished fragment occurs near the surface of L. This deep form with black glaze or varnish is found at Delphi, c. 400 B.C. (*Fouilles de Delphes*, V, pp. 163, 184 f.) and at Alexandria, c. 300 B.C., together with red-glazed examples (Breccia, *op. cit.*, pp. 76 ff., Pl. LVII). In one instance in the Chatby cemetery the nozzle widens out and has a bow-shaped end.

(ii) Circular wheel-made lamps of similar or somewhat flatter shape which have the nozzle ending in a bow (*Brit. Mus. Cat. Lamps*, Pl. XL, form 43) are fairly common. They are of good drab or reddish ware without glaze or varnish. One nozzle has a rough branch pattern incised upon it. These may be dated to the third century B.C. and the first half of the second. The contemporary wheel-made lamp with a long spout terminating in a circular nozzle (see *Bull. Corr. Hell.*, XXXII, pp. 143 ff.) has not been noted in our areas. Both these forms, however, are developed in the moulded lamps, which supersede the turned lamps about the middle of the second century B.C.

(iii) Moulded lamps with bowed nozzles persist into Roman times (*B.M. Cat.*, no. 506; and see Pl. XL, form 49). Specimens with incised decoration, resembling that of the later wheel-made sort, are presumably early (*Bull. Corr. Hell.*, XXXII, p. 146). One such, of grey ware with black slip with a lotus (?) leaf on the nozzle is from the W. of H (lowest level).

(iv) More common are the long-spouted lamps often with a palmette or other moulded pattern on the nozzle, and sometimes with an ear-shaped attachment at the side (*B.M. Cat.*, Pl. XL, 44, and no. 309; *Bull. Corr. Hell.*, XXXII, p. 146, fig. 10). One long-spouted fragment of grey ware with dark grey smooth surface, bearing traces of decoration on the body, resembles types illustrated in *Samaria*, I, p. 321, fig. 194, II, 1a, and in *Gezer*, III, Pl. CLXXXIII, 16.

(v) In the first century B.C. Hellenistic lamps are superseded by the Roman form with a volute on either side of the nozzle (Walters, *Hist. Anc. Pot.*, II, p. 400), which continue into the following century (*Bull. Corr. Hell.*, XXXII, p. 169, fig. 34). We may, therefore, attribute to about the beginning of our era the lamps of this form found at Tanturah. Among them is one from the upper level of H, with two volute nozzles, decoration of figures on the body and a triangular handle with palmette ornament (Walters, *op. cit.*, Pl. LXIII). A similar handle with tree palmette and volute ornament was found near by. Both these examples are of reddish-drab ware with traces of brown glaze. From H (top metre) is a red ware handle of like shape, moulded in a manner which suggests crumpled linen. This may be somewhat earlier than the preceding (see *Samaria*, I, p. 320, fig. 191, I, 1a; see p. 76; *Gezer*, Pl. CLXXXIII, 9, 21; *Exc. Pal.*, Pl. 63, 5).

A lamp of dark grey ware, with a decoration of radiating lines on the body and a stamp  $\Delta$  on the base, appears to have had volutes on the (broken) nozzle.

To the first century A.D. may also, perhaps, be attributed a multiple-spouted circular lamp of grey ware with black surface, the nozzles projecting outwards (*Bull. Corr. Hell.*, XXXII, p. 173, fig. 42).

(vi) The later Roman period is only represented by one lamp, though it is possible that some of the unrecognisable fragments found are contemporary with it. Of drab ware with red slip, it is of round form with a short nozzle, having an egg pattern running round the top and a sunk centre (broken). It may be of the second century A.D. No lamps of the Byzantine or later periods were observed.

## X. VARIOUS SMALL FINDS.

(a) Some thirteen small fragments of painted wall plaster or stucco were found scattered over these areas at various levels. The colours used are as follows: dark red; yellow; purple; brown; red and grey; red and light green; a band of red between dark blue and yellow stripes; brownish yellow with a blue stripe; yellow with dark blue and red bands; yellow, white and green bands with pattern (?) in red; green with grey and cream bands; red and green on white.

(b) Fragments of terra-cotta figures occur in H, course 5 (feet of seated figure), East of the North Gate, about course 5 (bust of female figure with low head-dress, and rough modelled figure of a man on a horse, both of drab clay with red surface), and in L, course 4 (lower part of seated (?) figure, perhaps Egyptian in character).

(c) Of bronze are (from H, course 5) fragments of a bowl (?) with horizontal loop-handle; a small ring or cylinder of 19 mm. diameter and 13 mm. in height (from S6, near surface), and an arrow-head (from L, second metre).

(d) Glass was found in every part of the area, and at various levels, but all in a completely fragmentary condition.

In conclusion, the writer would gratefully express his obligations to the authorities of the Greco-Roman department of the British Museum, for their kindness in identifying a number of pottery fragments submitted to them.

G. M. F.G.

## NOTE ON SOUTHERN THEATRE, JERASH

With a Plan (Plate I) and Plate II

While the observations of more recent travellers in the Near East have rendered it impossible for us to share Mr. Bankes' opinion<sup>1</sup> that this theatre was, on the whole, the most perfect Roman theatre then remaining in the world, there is sufficient of it extant for us to appreciate the enthusiasm of his fellow-traveller, John Silk Buckingham, who thought it would have been 'an interesting task had he possessed the means and time to effect it, to have cleared away the whole of the rubbish down to the very pavement of the stage.'

This task is in part achieved. Three columns, the bases of which were hidden from Bankes and Buckingham now stand fully exposed together with that portion of the podium on which they rest (see Pl. IIc). Moreover the vomitoria are cleared to their full height and a small portion of the circumscribing wall of the orchestra is exposed to floor-level.

The amphitheatre is divided by a single *diazoma*. That portion below the *diazoma* is divided into four *cunei* served by five staircases; that above into eight *cunei* served by nine staircases. Above the *diazoma* there are now sixteen (Schumacher<sup>2</sup>, in 1905, counted seventeen) rows of seats and below the *diazoma* fourteen. The floor of the *diazoma* throughout is missing. Direct access to the *diazoma* from without was effected by four passageways now choked by the debris of fallen seats. Whether the amphitheatre at the top was surrounded by a colonnade cannot at the moment be ascertained, but the finding of a fallen monolithic shaft suggests the possibility.

The *Scena* was originally ornamented in the usual manner by superimposed orders. There were certainly two, possibly three, such orders, the debris of which now covers the stage. Of the twenty-six columns of the lowest order fourteen are *in situ* and the position of the remainder has been positively fixed. All that remains in position of the entablature are two pieces of architrave. Between each of the five doors giving access to the stage is a niche which appears to have been crowned by a curious form of pediment sustained presumably by colonnettes.

The capacity of this theatre, not counting the seats on the orchestra floor, must have been approximately five thousand.

1. J. S. Buckingham: *Travels in Palestine*, chap. xxi, p. 365.

2. Z.D.P.V., Vol. XXV, p. 143.

# EXCAVATIONS OF TWO PALAEOOLITHIC CAVES IN GALILEE

With Plates III, IV, V

1. In a work published in 1917,<sup>1</sup> Dr. Paul Karge, of Munster University, gathered together all the material then available for the study of the Stone Age in Palestine, adding the results of his own researches during the years 1909-1911. From this work it is clear that while Palestine is exceptionally rich in remains, both of the Palaeolithic and Neolithic Ages, but little had been done towards the investigation of these early cultures. A number of competent observers had examined surface deposits of worked flints, diligently collected flint implements scattered about the valleys, plains and plateaux, and minutely compared them with type series from other parts of the world. But no single cave or rock shelter had been systematically excavated. It would be unfair, however, to belittle the work done by these pioneer investigators. In view of the circumstances under which their researches were carried out, excavations were for them entirely out of the question; their services were inestimable in calling attention to the importance of the Palaeolithic remains in this country, and they were able to establish the fact that primitive man in Palestine had passed through phases of culture analogous in their broad outlines to those of Western Europe, the only area in the world where the Palaeolithic Age has been exhaustively studied. At the same time, it is clear that, without excavation, no entirely satisfactory material for comparison could be obtained. Flint implements found on the surface may be of almost any date from early Palaeolithic to Bronze Age and, indeed, remains of most diverse periods are often found together in a bewildering medley. Patination is so uncertain and variable a quality that little reliance can be placed upon it as evidence of relative age. Hence a surface implement can only be ascribed to a given culture phase on grounds of its analogy to European types. This method, however, involves the assumption that, down to the minutest details of flint working, the development of culture in Palestine has passed through the stages established for Western Europe.

Furthermore, by excavation alone can evidence be obtained of the fauna associated with a given culture from which its geological horizon, and the climatic conditions of the period can be established. Lastly and most important of all, it is only in deposits deeply buried and protected from the disintegrating effects of the atmosphere that there is any likelihood of finding remains of primitive man himself, remains which are incomparably rarer and more important than the products of his handicraft.

It would even seem that this system of investigation without excavation has produced a definitely distorted view of Palestinian prehistory. Since the open-air stations alone were sought for and investigated, remains of the Early Palaeolithic and Neolithic Ages were found in abundance, for in the first of these periods man roamed the countryside with no fixed abode, in the second he lived in fortified villages in the open plain. During the intervening period of the middle and late Palaeolithic however, he lived almost exclusively in caves and rock shelters, where since they are protected from winds and rain the rate of accumulation of debris is rapid; hence remains of these cultures were very rarely found and it was imagined that in those days Palestine was but sparsely populated.

Karge found and investigated a late Palaeolithic cave site, the Mugharet-el-Abed, near Dibl in Northern Galilee, but through lack of time was unable to do more than collect a number of implements from the surface layer and could undertake no excavations. This was the only authentic Late Palaeolithic site which he was able to record from Palestine. To remedy these defects in our knowledge and to establish a firm basis for the study of the earliest human period in Palestine, the School has this summer carried out the first of a series of excavations by means of which it is hoped eventually to reconstruct the succession of Palaeolithic cultures in Palestine in as much detail as has now been done in Western Europe. The results would seem to be sufficiently important to necessitate a special publication which it is hoped will appear next spring; the present account is, therefore, intended merely as a preliminary notice and summary.

It was decided to confine the investigations of the first season to the hills and valleys which border the plain of Genesareth on the North and West. This small but fertile plain situated on the Western shores of the Lake of Galilee, some six miles N.W. of Tiberias, is exceptionally well suited to the requirements of primitive man. The Lake and streams offer, even to-day, an

1. 'Rephaim. Die vorgeschichtliche Kultur Palestinas und Phöniziens,' Paderborn, 1917.

unlimited supply of fish; the hills, no doubt, provided animals of the chase, and caves abound in the limestone cliffs of the Wadis.<sup>1</sup> Again, at this point, two important migration routes intersect, the road from the high plateaux of Asia Minor to Egypt, following the valleys of the Orontes and the Jordan, and the route from Central Asia, by way of the Syrian Desert to the Mediterranean. Tribes migrating westwards from the valleys of the Tigris and Euphrates would first find habitable land around the shores of the Sea of Galilee. It is at least certain that the region was well populated at an early period, as is shown by the exceptionally large number of Megalithic constructions to be found in the vicinity, of which the fortified hill, Kurin Hattin, the prehistoric village at Shegerat el Mubarakat, and the necropolis of Kerazeh, which contains more than 300 dolmens, are typical examples.

Of the valleys which abutt on the plain of Genesareth, perhaps the most important is the Wadi el Amud (Pl. Vc). This deep gorge has been cut out of the limestone hills by a stream which arises some miles to the north, in the vicinity of Safed, and eventually empties itself into the Lake of Galilee. Even in this age of comparative desiccation this stream seldom dries up, and in earlier times, to judge from the depth of the ravine, it must have formed a river of a considerable importance. At all events it is clear that any prehistoric community settling in this Wadi would never have experienced a shortage of water.

The Wadi el Amud is further of importance as a trade and migration route between the Mediterranean coast and Trans-Jordania. Formerly the regular caravan road from Acre to Damascus passed along the plateau flanking the gorge and descended into the plain at the entrance to the Wadi, and there is no reason why it should not have been one of the principal routes followed by wandering tribes from the very earliest times. In fact everything seemed to indicate that this region was one of the most promising fields for prehistoric research which Palestine could offer.

2. A short distance beyond the point where the gorge of the Wadi Amud comes to an abrupt end there is a massive limestone bluff among the hills which form the northern boundary of the plain of Genesareth. This cliff lies some 100 m. distance from the East bank of the stream. In its face there is a group of three small caves or rock shelters facing southward and well sheltered from the prevailing winds and rain (Pl. Vd). These caves are known locally as the Mugharet el Emireh. Taking them in order, West to East, the dimensions are as follows:  $8 \times 5.70$  m.,  $5.70 \times 3$  m., and  $2.70 \times 2.70$  m. Of these the last is too small to have been at any time inhabited, and the deposits on the floor were but 10 cm. thick and entirely barren. A well-worked cup-mark to the east of the entrance shows that the caves were frequented in the Neolithic or Early Bronze Age. The whole group is approached by a short but steep slope forming a terrace, at the foot of which are traces of what may once have been a rough encircling wall.

The middle cave of the three, though smaller than that to the West is better protected from the weather and more suited to permanent habitation. A preliminary investigation in 1923 showed that a natural corridor opened out of the back of this cave. Though this corridor was filled nearly to the roof with debris it was possible to penetrate a distance of some 5 metres, where a number of worked flints, hammer stones and nuclei were found lying on the surface.

Excavations were begun at the end of April, 1925, by digging a trench across the floor of the cave and continuing it out on to the terrace. This trench showed that the area inside the cave had been much disturbed and Arab and Roman Potsherds were found in considerable quantities down to the original rock floor. This, and the fact that flint implements of Palaeolithic type were found in the surface soil, on the terrace outside the cave, would seem to indicate that the early deposits had at some time been cleared out to make room for later occupants.

The area of disturbance, however, did not extend beyond the entrance to the cave. Outside the entrance, for a distance of some 6 m. down the slope of the terrace, was a homogeneous layer of dry clayey soil resting on the original bedrock. Resting on this clayey layer were large blocks of fallen rock, and above these again a crust deposit containing potsherds of all periods from Neolithic to Mediaeval Arab.

The excavation of this clayey deposit showed it to be an undisturbed Palaeolithic level. Pottery was here entirely absent, but flint implements, cores, waste chips and hammer stones were abundant. A selection of implements is shown in Pl. IIIa; the main types represented are end scrapers, blades frequently showing marks of use, and in some cases retouched along one edge, small circular scrapers, and carefully worked points on a narrow flake. Particularly characteristic are a number of extremely small points, blades and end scrapers. These are not the geometric pigmy points of the typical Tardenoisian culture of Europe; indeed, they differ little from the larger implements found with them except in their minute size and the consequent delicacy of workmanship. In general the culture of Mugharet el Emireh is clearly ascribable to a late phase

1. Valleys.

of the Palaeolithic, corresponding apparently to the Aurignacian and Magdalenian cultures of Europe. It would be rash to make more exact comparisons without reference to actual specimens of European types which are not here available. In addition the layer contained a number of pieces of pointed and rounded bone, and a large quantity of fragments of unworked bone from which it will be possible to determine the associated fauna.

The rock corridor, when cleared, was found to contain flint and bone work in every way similar to the implements described above, and obviously formed part of the area of Palaeolithic occupation. The deposits on the floor of the larger shelter, to the West, were much shallower than those in the main cave, but here again, below the crust deposits, a clayey layer was found containing implements of a late Palaeolithic type. Three trenches dug on the lower slope of the terrace showed that the occupation area did not extend as far as this, though a certain number of worked flints and discarded implements were found, consequently it did not seem necessary to clear this area completely.

3. Some 150 yards from the entrance to the gorge of the Wadi, high up in the cliffs to the North of the stream is the Mugharet el Zuttiyeh; this is the largest and most regular cave in the neighbourhood; it is 26 m. in depth, 20 m. broad and its vaulted roof reaches a height of over 60 feet above the level of the modern floor deposits (Pl. Va, b).

A preliminary trench revealed, at a depth of 1.20 m., a layer of large blocks of fallen rock; this layer averaged about 15 cm. in thickness and covered a layer containing flints of an early type, including *coups-de-poing*. This flint layer which extended down to bed-rock was about 90 cm. thick towards the front of the cave. Towards the back the layer ended abruptly at 12 m. from the entrance where the rock sloped steeply upwards. Outside the entrance the flint layer and the superposed deposits diminished rapidly and finally disappeared. As a result of this preliminary examination a complete excavation was decided upon.

The deposits above the layer of fallen rock proved to contain clearly defined traces of occupation at various levels, associated with potsherds ranging in date from Neolithic to Mediaeval Arab times. The earth which composed these layers was uniformly dark brown to blackish in colour, and fragments of bone which it contained were for the most part extremely soft and in a decomposing state (cf. Pl. Vb).

Below the layer of fallen rock the deposits showed an entirely different character, and had obviously been formed under entirely different conditions. They were composed of a reddish alluvial soil among which were a number of large blocks of fallen rock and small stones. This layer contained a very large number of well-worked flint implements, as well as a considerable quantity of bone; this was all extremely hard, gave out a metallic sound when tapped and was mostly of a dull reddish colour. There were also masses of a hard conglomerate composed of burnt organic matter. These masses had every appearance of being the refuse of prehistoric hearths, hardened subsequently by some atmospheric change which may well have occasioned also the fall of rock from the roof and led to the abandonment of the cave as a place of habitation.

Towards the centre of the cave, not very far from the entrance, fragments of a human skull were found beneath two large blocks of fallen rock which must have protected them in some way and thus preserved them from disintegration. The fragments consist of practically the whole of the frontal bone, the right zygomatic bone and the right half of the sphenoid bone. The frontal bone, which has not been forcibly broken off from the rest of the skull, but separated along the line of the suture, is extremely thick, and shows the enormous development of the supra-orbital ridges characteristic of the Neanderthal skulls of Europe. The bone is in the same hard state, and of the same reddish colour as the rest of the bone found in this layer. The front view and profile are illustrated on Pl. IV. The interest and importance of this first specimen of primitive man to come to light in Palestine is considerably enhanced by the fact that it was found in a well-defined level of Palaeolithic occupation containing flints closely corresponding to those of the Mousterian culture invariably associated with Neanderthal man in Europe. A selection of implements from the cave is shown in Pl. IIIb, the predominant types are *coups-de-poing* for the most part, of small size and carefully worked, large side scrapers, very finely retouched Mousterian points, long blades and trimmed flakes retouched on the upper face along one edge. The presence of *coups-de-poing* in considerable numbers would seem to indicate that the culture is to be ascribed to an early phase of the Mousterian, or should even perhaps be regarded as a transition stage from Early to Middle Palaeolithic. Too little is yet known of the succession of Palaeolithic cultures in Palestine to form definite conclusions as yet, but careful comparison with European types will, doubtless, throw light on the subject.

F. T-P.

## ADDENDUM: NOTE ON THE GALILEE SKULL

BY SIR ARTHUR KEITH

I have just finished an examination of the fossil cranial fragments found by Mr. Turville-Petre and they are, as he has already concluded, parts of an individual of the Neanderthal species. The frontal bone is almost entire, the right malar bone is intact and has adherent to it part of the upper jaw; the middle part of the floor of the skull is represented by almost the entire right half of the sphenoid bone. All of these bones are deeply mineralized; they are as old as the stratum in which they were found. The sutural edges are clearly marked and fit perfectly together so that it is possible to build up a large part of the skull. All of these bones—frontal, malar and sphenoid—show the markings which distinguish Neanderthal man from all other species. The skull in question is that of a young man, probably not more than 25 years of age and shows certain traces of healed injuries (or disease). This is the first time the remains of Neanderthal man have been found outside Europe. The Galilee skull represents a new variety of the Neanderthal species—one with a narrow lofty head. The brain volume is estimated at 1400 c.c. or a little over, being smaller than is usually the case in the specimens of Neanderthal man found in Europe. The skull bones are not thick—being in this respect like the skull bones of modern man. The eyebrow ridges have the massive torus-form, see in 'Typical Neanderthal Skulls.'

## NOTES AND NEWS

**EXCAVATIONS. JERUSALEM.**—The work of the Palestine Exploration Fund on the site of the City of David has been closed down for the summer. The rampart of the Jebusite period and the adjoining tower attributable to the time of David and Solomon, on the eastern scarp, disclosed in the course of their work, are the most interesting and striking remains of the early Iron Age in Palestine. The Jewish Palestine Exploration Society has been occupied in clearing sections of the north wall formerly described by Robinson and others. The pre-Byzantine date of this wall is attested, and in some respects it conforms with the descriptions of the wall of Agrippa given by Josephus. Light is still required, however, upon several technical points before its precise character and origin can be asserted with confidence.

**BEISAN.**—The Philadelphia Expedition, organized by Dr. Gordon, will resume work this autumn under the direction of Mr. Alan Rowe, who has worked there already under Dr. Clarence Fisher, and subsequently at Gizeh under Dr. Reisner, and will now have Mr. G. FitzGerald as his second in command.

**MEGIDDO.**—An expedition organized by Professor Breasted, on behalf of the Oriental Institute of Chicago, will commence work this autumn under the field direction of Dr. Clarence Fisher. This famous site is practically intact, and in the light of modern archaeological information very notable results may be anticipated.

**TANTURAH (DORA).**—The medical authorities have been supervising the anti-malarial measures adopted by local concessionaires, and report that this site will be available for excavation in the spring of 1926.

The preliminary investigations of the School have shown the historical importance of the site, but its excavation on anything but a small scale is at present beyond the School's resources, notwithstanding a further donation of £100 by the Baron Edmond de Rothschild.

**CONSERVATION.**—Measures have been taken by the Department of Antiquities for the protection of the monuments of Jerash, the Citadel of Jerusalem and the 'Tower of David' on the site of Ophel. In addition, authority has been given for the experimental resetting of fallen members in the N.E. corner of the synagogue of Tell Hum (Capernaum); and it is understood that measures are to be taken to protect the remains at Kerazi (Chorazim) and other synagogues in Galilee.

The School entertained Sir Herbert Samuel, Vice-President, and Lady Samuel, previous to their leaving Palestine at the close of his term of office as First High Commissioner. About 200 guests attended the Reception in his honour. The Director presented his Excellency with a souvenir album of photographs of the monuments and antiquities of Palestine which they had visited together during their five years of office.

BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM

SUPPLEMENTARY PAPERS. 2

1924

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THE ORIGIN OF THE PLAN  
OF THE  
DOME OF THE ROCK

BY

K. A. C. CRESWELL



ISSUED BY THE COUNCIL AT 2 HINDE STREET  
LONDON, W.1



# THE ORIGIN OF THE PLAN OF THE DOME OF THE ROCK

By K. A. C. CRESWELL

HISTORICAL INTRODUCTION. The historical circumstances which led to the Rock at Jerusalem becoming a place of pilgrimage are as follows: Mu'âwiya, during his Khalifate, had succeeded, with some difficulty, in getting the principle of nomination, instead of election, recognized; and accordingly nominated his son Yazid as his successor. After a long and able reign he died Rajab 60 (April 680) at the age of seventy-five. Before dying he warned his son against Husayn, the brother of Hasan, and 'Abdallah ibn Zubayr, a warning that turned out to be fully justified, for a few months later, the former having received promises of support, started for Kūfa with a small following, intending to set himself up as Hasan's successor. He was stopped at Karbala by Umar, son of Sa'd, and a few days later met his death, together with most of his followers, under very tragic circumstances, 10 October 680. This produced a reaction in favour of the House of 'Ali, a reaction which, growing rapidly, was destined ultimately to bring about the fall of the Umayyad Dynasty. Its immediate consequence was that Ibn az-Zubayr set himself up at Mekka as a rival Khalif, 61 (680), whereupon Yazid despatched a force which took and sacked Medīna on 25 Dhu l-hijja 63 (26 August 683), and then marched on Mekka. After a siege of two months the Ka'aba caught fire, it is not clear how, and was destroyed. The death of Yazid a month later (11 November 683) led to the raising of the siege, and Ibn az-Zubayr was left in possession as rival Khalif.<sup>1</sup>

<sup>1</sup> Muir, *Caliphate*, pp. 305-319.

REIGN OF 'ABD AL-MALIK. Two short Khalifates, that of Mu'âwiya II (three months) and Marwan I (d. 27 Ramaḍān 65—7 May 685), were followed by the accession of 'Abd al-Malik (65-86 = 685-705), a strong ruler, who ultimately recovered Irâq from the partizans of the House of 'Ali. Ibn az-Zubayr, however, still remained as rival Khalif at Mekka, and 'Abd al-Malik wishing to prevent his influence from being disseminated throughout Syria by the crowds of returning pilgrims, decided to prevent further pilgrimages from Syria and to substitute the Sakhra or Rock for the Ka'ba. This Rock was already held sacred by the Muslims, not only as the ancient *qibla* of Moses and the first in Islam,<sup>1</sup> but also as the very spot whence Muhammad had made his famous night journey to Heaven. The history of this political move, which was doomed to failure, is told by Ya'qûbi, one of the earliest Arabic historians (A.D. 874) as follows:

“Then 'Abd al Malik forbade the people of Syria to make the pilgrimage [to Makkah]; and this by reason that 'Abd Allah ibn az Zubayr was wont to seize on them during the time of the pilgrimage, and force them to pay him allegiance—which, 'Abd al Malik having knowledge of, forbade the people to journey forth to Makkah. But the people murmured thereat, saying, 'How dost thou forbid us to make the pilgrimage to Allah's house, seeing that the same is a commandment of Allah upon us?' But the Khalif answered them, 'Hath not Ibn Shihâb az Zuhri [a celebrated Traditionist] told you how the Apostle of Allah did say: *Men shall journey to but three Masjids, Al Masjid Haram [at Makkah], my Masjid [at Madina], and the Masjid of the Holy City (which is Jerusalem)?* So this last is now appointed for you in lieu of the Masjid al-Haram. And this Rock, of which it is reported that upon it the Apostle of Allah set his foot when he ascended into Heaven, shall be unto you in

<sup>1</sup> Until Mekka was substituted in the second year of the Hijra.

the place of the Ka'abah.' Then Abd al Malik built above the Sakhra a Dome, and hung it around with curtains of brocade, and he instituted doorkeepers for the same, and the people took the custom of circumambulating the Rock, even as they had paced round the Ka'abah, and the usage continued thus all the days of the dynasty of the Omayyads."<sup>1</sup>

Muqaddasi, who wrote in 985, or nearly a century later, gives another reason, which may have been a factor in the case, although Ya'qûbi's reason must have been the principal one, as it so perfectly fits the political situation at the time.<sup>2</sup> Muqaddasi says :

"Now one day I said, speaking to my father's brother, 'O my uncle, verily it was not well of the Khalif al Walid to expend so much of the wealth of the Muslims on the Mosque at Damascus. Had he expended the same on making roads, or for caravanserais, or in the restoration of the Frontier Fortresses, it would have been more fitting and more excellent of him.' But my uncle said to me in answer, 'O my little son, thou hast not understanding! Verily Al Walid was right, and he was prompted to a worthy work. For he beheld Syria to be a country that had long been occupied by the Christians, and he noted herein the beautiful churches still belonging to them, so enchantingly fair, and so renowned for their splendour, even as are the Kumâmah<sup>3</sup>

<sup>1</sup> Ya'qûbi, *History* (260 H = 874), ii, p. 11, translated by G. Le Strange, *Palestine under the Moslems*, p. 116.

<sup>2</sup> In this action history has once more repeated itself. Jeroboam set up the golden calves at Dan and Bethel, in order to divert the Israelitish pilgrims from Jerusalem, and over two thousand years later the Shâhs Ismail, Tahmasp, and 'Abbâs, having established the Shiah faith as the State religion, loaded the Shrine of Imâm Rîza at Meshed with costly gifts and rich endowments, in order to divert the stream of pilgrims from Mekka to Khûrasân, and keep the immense sum total of their offerings in the country. See Curzon, *Persia*, i, p. 150.

<sup>3</sup> The Eastern Christians called this church the Kanîsat al-Qayâmah, Qayâmah being the Arabic equivalent of Anastasis or Resurrection. The

[the Church of the Holy Sepulchre at Jerusalem], and the churches of Lydda and Edessa. So he sought to build for the Muslims a Mosque that should prevent their regarding these, and that should be unique and a wonder to the world. And in like manner is it not evident how the Khalif 'Abd al Malik, noting the greatness of the Dome of Al Kumâmah and its magnificence, was moved lest it should dazzle the minds of the Muslims, and hence erected above the Rock, the Dome which is now seen there?'"<sup>1</sup>

THE DATING INSCRIPTION. In the mosaics at the summit of the outer faces of the intermediate octagon is an inscription in gold on a blue background. This inscription, which makes a complete circuit of the octagon, contains verses from the Quran written in very primitive Kufic, but a sentence containing the date of the building has been intercalated at the east end of the south face,<sup>2</sup> as follows :

"HATH BUILT THIS DOME THE SERVANT OF ALLAH  
'ABD ALLAH THE IMÂM AL MÂMÛN C OMMANDER OF THE FAITHFUL  
DAL MALIK C  
IN THE YEAR TWO AND SEVENTY—ALLAH ACCEPT OF HIM!"<sup>3</sup>

Muhammadans from the earliest times intentionally corrupted Qayâmah into Quyâmah = Dunghill. See Le Strange, *op. cit.*, p. 202; and H. Vincent and P. Abel, *Jerusalem*, ii, p. 218.

<sup>1</sup> Muqaddasi, p. 159; translated by Le Strange, *op. cit.*, pp. 117-118.

<sup>2</sup> For this inscription see de Vogüé, *Le Temple de Jérusalem*, pp. 85-86 and Plate XXI (chromo-lithograph facsimile); *Journal Asiatique*, VIIIe série, tome ix, pp. 483-485; *Survey of Western Palestine—Jerusalem*, p. 38, and Le Strange, *op. cit.*, pp. 118-119.

<sup>3</sup> In this translation the words are given as the corresponding words stand to-day. The letters placed close together represent the forged part of the inscription in the Arabic, much crowded; this part is a substitution of al-Ma'mûn. The letters added below the second line indicate what must have been the original wording, the letter of 'Abd al-Malik's name being spaced in keeping with the rest of the inscription.

It will be observed that the date, 72H (691), falls in the reign of 'Abd al-Malik, and therefore agrees with the texts, but that the name of al-Ma'mûn has been fraudulently substituted. That there has been a clumsy forgery is evident owing (a) to the omission of the forger to alter the date, and (b) to the crowding together of the letters of the Abbâsid Khalif's name and title. In addition to this the tint of the newer mosaic, being darker, does not match that of the rest of the band. This forgery probably took place in 216 (831), as bronze plates, fixed to the lintels of the four entrances, bear inscriptions in the name of al-Ma'mûn with the date Rabi' II of that year.

The inscription on the octagon, together with the early accounts of Ya'qûbi and Muqaddasi, completely dispose of the wild and now quite obsolete theories of Fergusson,<sup>1</sup> Tobler,<sup>2</sup> Lewin,<sup>3</sup> Sepp,<sup>4</sup> Simpson,<sup>5</sup> and Becker,<sup>6</sup> which it is no longer necessary to discuss.<sup>7</sup>

#### THE QUBBAT AS-SAKHRA, the earliest existing monument of

<sup>1</sup> *An Essay on the Ancient Topography of Jerusalem with plans, sections, and details of the church built by Constantine the Great over the Holy Sepulchre, now known as the Mosque of Omar*, London, 1847; *The Temple at Jerusalem*, London, 1865, and his article *Jerusalem*, in Dr. Smith's *Dictionary of the Bible*, i, p. 1030.

<sup>2</sup> *Zwei Bücher Topographie von Jerusalem*, 1853, i, pp. 581-582.

<sup>3</sup> *The Mosque of Omar*, *Archaeologia*, xli (1867), pp. 135-150. He compares it with the Temple of Jupiter at Spalato, and comes to the conclusion that the present building is in fact the Temple of Jupiter Capitolinus restored or rebuilt by Maximin Daza, the successor of Diocletian!!

<sup>4</sup> *Neue architektonische Studien*, Würzburg, 1867 (see chap. ii, *Die Hagia Sophia oder Felsenkuppel ein Werk Justinianus*); *Die Felsenkuppel eine Justinianische Sophienkirche*, München, 1882; and *Die Felsenkuppel in Jerusalem*, *Z.D.P.V.* (1889), xii, pp. 167-192.

<sup>5</sup> *Transference of Sites*, *P.E.F., Q.St.*, 1879, pp. 18-32.

<sup>6</sup> *Die Tempel zu Jerusalem*, *Allgemeine Bauzeitung*, lviii (1893), pp. 5-7, 14-18, and 30-31. A revival of the Constantinian theory, see pp. 16-18.

<sup>7</sup> For an admirable study of the subject see Hartmann, *Der Felsendom in Jerusalem und seine Geschichte* (1909), pp. 18-31.

Muslim architecture, is an annular building, and consists in its ultimate analysis of a wooden dome on a high drum, pierced with sixteen windows and resting on four piers and twelve columns, placed in a circle and so arranged that three columns come between each pier (Fig. 1). This circle of supports is placed

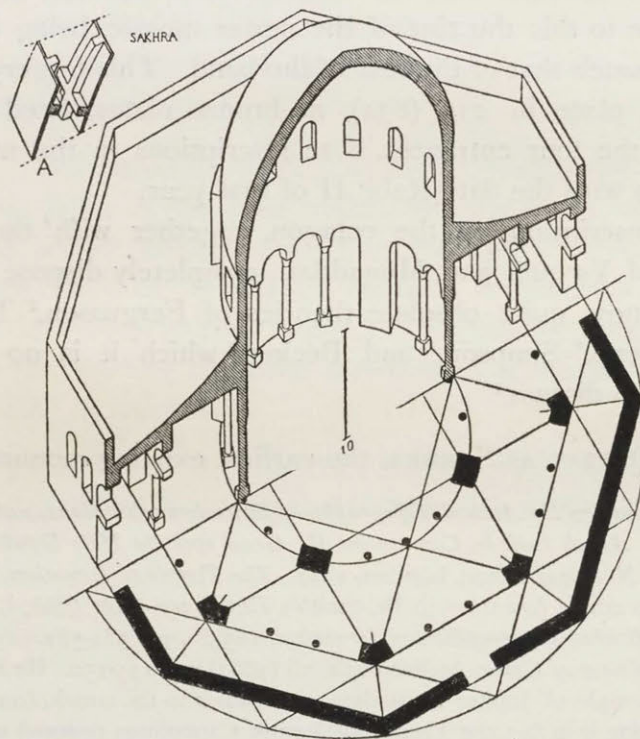


FIG. 1.

in the centre of a large octagon measuring about 21 m. a side, formed by eight walls, each pierced with five windows in their upper half. The space between the circle and the octagon being too great to be conveniently spanned by single beams, an intermediate octagon, consisting of arches borne by eight piers and sixteen columns, so arranged that two columns come between

each pier, has been placed between the two to provide the necessary support for the roof. The two concentric ambulatories thus formed are covered by a slightly sloping roof of wood covered

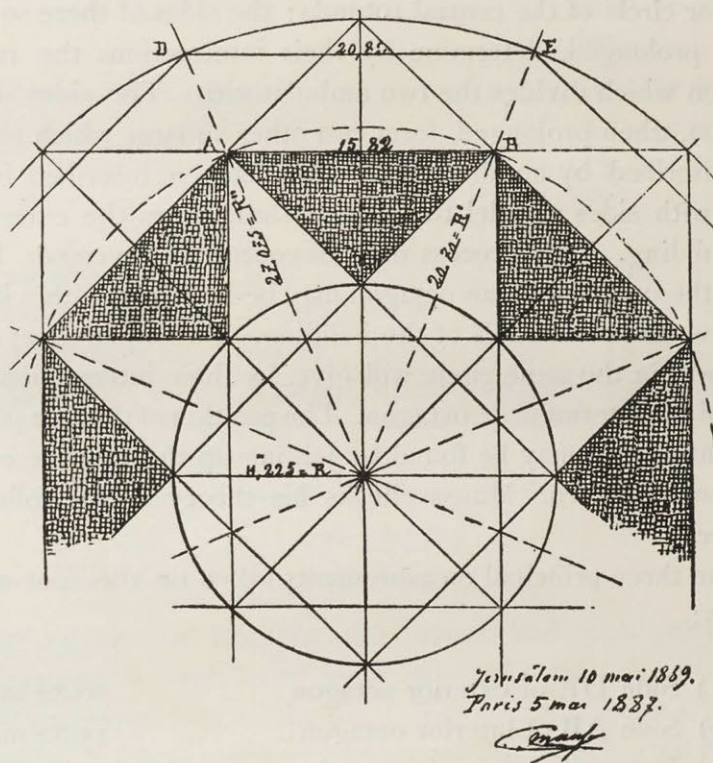


FIG. 2. DIAGRAM OF PLAN OF THE QUBBAT AS-SAKHRA  
(From Mauss, *op. cit.*)

with lead. There is a door in each of the four alternate sides of the octagon which face the four cardinal points.

SETTING OUT OF PLAN. It will be noted that there is a striking difference in the width of the two ambulatories, whereas we should have expected the intermediate support to have been



From DE = 20.82 we get	R'' = 27.17 m.
"      "      "	AB = 15.92 "
From AB = 15.82 we get	R = 11.18 "
"      "      "	R' = 20.64 "
"      "      "	R'' = 26.99 "
"      "      "	DE = 20.67 "
From R = 11.225 we get	R' = 20.68 "
"      "      "	R'' = 27.075 "
"      "      "	AB = 15.85 "
"      "      "	DE = 20.73 "

Actual measurements	R	R'	R''	AB	DE
R = 11.225 m.	11.225	20.68	27.075	15.85	20.73
AB = 15.82 m.	11.17	20.64	26.99	15.82	20.67
DE = 20.82 m.	11.229	20.79	27.17	15.92	20.82
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Totals	33.624	62.11	81.235	47.59	62.22
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Averages	11.208	20.70	27.078	15.86	20.74
Difference	.017			.04	.08

The agreement between the actual and the calculated measurements is such as to leave no doubt that this was the method employed to trace the plan. Fig. 3 shows the final result, from which it follows that every part of this building is related to every other part in some definite proportion, and the extraordinary harmony of its interior is the first thing to strike the observer. Hartmann speaks of it as "ein Werk von vollendeter Harmonie."<sup>2</sup> I quote Professor Hayter Lewis:<sup>3</sup>

"It is undoubtedly one of the most beautiful buildings existing

<sup>1</sup> R is the radius of the outer circle of the central rotunda, and R' and R'' the radius of the circles circumscribing the inner and outer octagons respectively.

<sup>2</sup> *Der Felsendom*, p. 20.      <sup>3</sup> *The Holy Places of Jerusalem*, pp. 26-27.

and I cordially agree with these eloquent words of Mr. Fergusson: The one thing I was least prepared for was the extreme beauty of the interior of the building. I remember perfectly the effect

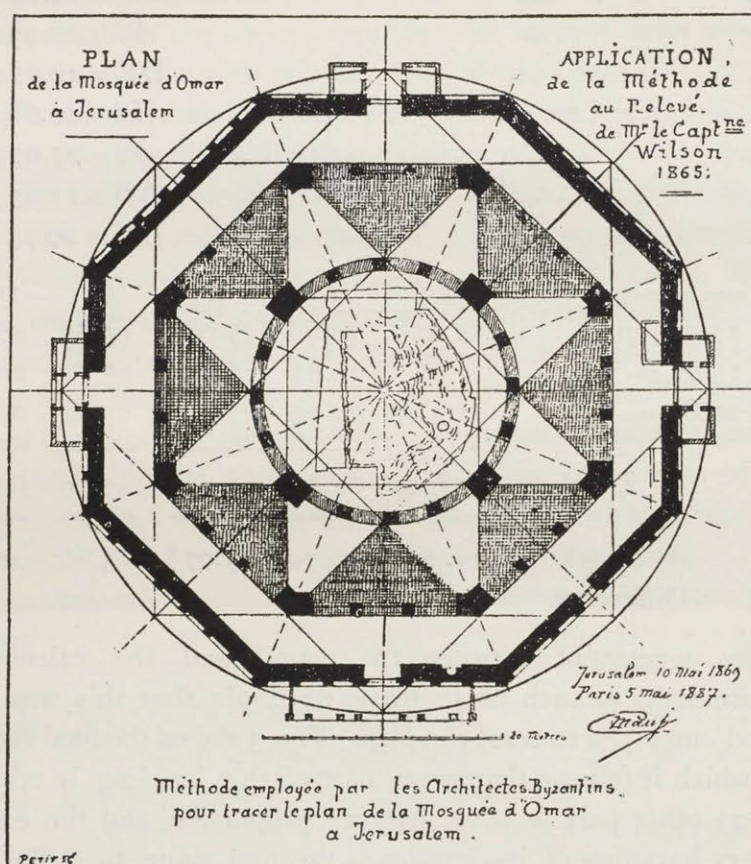


FIG. 3. PLAN OF THE QUBBAT AS-SAKHRA  
(From Mauss, *op. cit.*)

of the Taj Mahal and other great imperial tombs at Agra and Delhi. . . . But so far as my knowledge extends, the Dome of the Rock surpasses them all. There is an elegance of proportion . . . which does not exist in any other building I am acquainted with."

Dieulafoy has shown that similar geometrical methods of setting out were employed in the Mausoleum of Muhammad Khudabunda, built at Sultanieh in 1307,<sup>1</sup> and in the Great Mosque, built at Rabât between 585 (1189) and 595 (1199).<sup>2</sup> It might well be found in many other Muhammadan buildings, were it looked for, since the idea itself, although its existence was not dreamt of sixty years ago, is constantly being found over a wider and wider field. Babin<sup>3</sup> has shown by numerous examples that a system of triangulation was used in fixing the proportions of Greek temples, the height of the façade, the depth of the entablature, and the spacing of the columns all conforming to it. He has found the same thing in Persian architecture of the Achaemenian period.<sup>4</sup> The investigation of this problem has since been carried out over a still wider field by Dehio,<sup>5</sup> who has shown that a system of triangulation was employed in Greek, Roman, Byzantine, Gothic,<sup>6</sup> and Renaissance architecture.

That the idea is very ancient cannot be denied, since various

<sup>1</sup> *Mausolée de Chah Khoda-Bendé*, in César Daly's *Revue gén. de l'architecture et des travaux publics*, 1883, pp. 97, 145, 193, and 241.

<sup>2</sup> *La mosquée d'Hassân. Mém. de l'Acad. des Inscr. et Belles Lettres*, t. xlii, pp. 13ff. (or pp. 37ff., of the *tirage à part*).

<sup>3</sup> Babin (C.), *Note sur l'emploi des triangles dans la mise en proportion des monuments grecs. Revue archéologique*, IIIe série, t. xvi, pp. 82-106.

<sup>4</sup> *Note sur la métrologie et les proportions dans les monuments achéménides de la Perse. Revue archéologique*, IIIe série, t. xvii, pp. 347-379.

<sup>5</sup> *Ein Proportionsgesetz der antiken Baukunst, und sein Nachleben im Mittelalter und in der Renaissance*, Strassburg, 1895.

<sup>6</sup> Phené Spiers concurs in this (see *Encyclopaedia Britannica*, 11th ed., art. *Architecture*, ii, p. 370), but Bond (*Gothic Architecture in England*, pp. 50-54) and Lethaby (*Mediaeval Art*, p. 169) dispute it. Bond argues that as the proportion between the height and the span of the nave is not the same for any two cathedrals, the theory is invalid, but this appears to me to miss the point. The theory is not that all buildings have the same proportions, but that when one dimension or *one ratio* has been decided upon, all the rest are derived from it by a system of triangulation.

relationships of this sort are to be found in the Great Pyramid, where, amongst other things, the height bears to the circumference of the base the same relationship as the diameter of a circle bears to its circumference.

That literature contains no reference to this remarkable system goes for nothing, as craft secrets of this sort were no doubt only imparted under vows of secrecy. Under a scheme whereby the size of every part is related to every other part in some definite proportion, as pointed out above, a building instead of being a collection of odd notes becomes a harmonious chord in stone, a sort of living crystal; and after all it really is not strange that harmonies of this sort should appeal to us through our sight, just as chords in music appeal to us through our hearing. Some of the ratios involved, such as the square root of two (as in the Dome of the Rock), and especially that which the diameter of a circle bears to its circumference, which enters into the equation of movement of everything in space, nay, further, into the equation of movement of the very electrons of the atom itself, are fundamentals in time and space, they go right down to the very basis of our own nature and of the physical universe in which we live and move, and may very well appeal to us subconsciously.

Curiously enough, in Hindu architecture, for which Havell has recently claimed so much,<sup>1</sup> this system is certainly unknown. Although Ram Raz mentions the rules of proportion in his *Architecture of the Hindus*, which he compiled from the Silpa Shâstras,<sup>2</sup> all the proportions laid down by him are simple arith-

<sup>1</sup> See his *Indian Architecture*, London, 1913, and *The Ancient and Medieval Architecture of India*, London, 1915.

<sup>2</sup> A collection of writings of uncertain age and origin, of which he collected fragments in the Carnatic where he had been born. "It is true that the Hindu Shâstras include a series of treatises, which are professedly devoted to architecture and the other fine arts, but manuscripts are exceedingly scarce, the text is often hopelessly corrupt, and the instructions are almost exclusively of a ritual character,

metrical ratios. Prinsep<sup>1</sup> gives a plan of the Vishveshvar Mandir at Benares, in which he shows that the whole design is governed by the squares ruled on the paper on which the plan is set out. This method of squares is called *ilachee marna*. The internal diameter of the temple is divided into sixteen parts, and is taken as the modulus for all the other measurements, including the complex re-entrant angles at the corners. Here again we have simple arithmetical ratios as in Ram Raz. This was the case also with the Bhavnagar house-front at the Delhi Exhibition of 1903, which was specially made by the head carpenter of the State according to the traditional rules of his craft.<sup>2</sup>

IS THE PRESENT PLAN THE ORIGINAL ONE? It is now necessary to discuss this question, as Rivoira has answered it in the negative.<sup>3</sup> He points out that if we take the first three descriptions, which give the number of columns and piers, we find (1) that the earliest, that of Ibn al-Faqih, 290H (903), says that there were twelve piers and thirty columns (against twenty-eight to-day)<sup>4</sup>; (2) the second, that of Nâsir-i-Khusrau, 438H (1047), says that there were four piers with two columns (instead of three) between each in the inner arcade, and eight piers with three columns (instead of two) between each in the outer arcade;<sup>5</sup> (3) the third, that of 'Ali of Herat, 569H (1173), gives the present arrangement.<sup>6</sup> Rivoira, taking the absolute accuracy of each account as beyond dispute, concludes that the original arrange-

concerning the selection of auspicious sites and days, and the proper location of images and altars" (F. S. Growse in the *Calcutta Review*, lxxix, p. 128).

<sup>1</sup> *Benares illustrated in a Series of Drawings*, Second Series, London, 1832.

<sup>2</sup> See Sir George Watt, *Indian Art at Delhi*, pp. 124-125, and Pl. 28. Also illustrated in the *Technical Art Series*, 1903, Pl. III.

<sup>3</sup> *Moslem Architecture*, pp. 46-48 and 55-56.

<sup>4</sup> *Ibid.*, and Le Strange, *Palestine*, p. 120.

<sup>5</sup> Schefer's transl., p. 90, and Le Strange, *op. cit.*, p. 127.

<sup>6</sup> Le Strange, *op. cit.*, p. 133.

ment was different from the present one, that alterations were made during the repairs necessitated by the fall of the dome after the earthquake of 407 (1016), and that the renovated building, as seen by 'Ali of Herat, had the plan which has come down unchanged to the present day.

Now the thirty columns spoken of by Ibn al-Faqih were satisfactorily explained by Schick over twenty years ago, as follows:<sup>1</sup>

"On reading this work" [*Palestine under the Moslems*] "I found that several things (especially those of Jerusalem) could in various places be more satisfactorily explained. For instance, p. 122, it is said that the total number of the present pillars supporting the dome of the rock is 28 whereas "Ibn al-Fakih says there were 30 in his day. The difference, however, is not very material." In reality there is *no* difference when the two pillars bearing the stair house leading up to the roofs are counted with the other larger ones. They are in all plans omitted; I cannot say why, but I think as they are standing so near the wall, only leaving 2 feet 8 inches space between, and generally the place there is dark, so they are not properly observed or taken notice of, although they are not so small, but with the capitals 12 feet high and having  $13\frac{1}{2}$  inches diameter. So very likely Ibn al-Fakih counted them with the others."

This note must have escaped the notice of Rivoira, as well as the two columns in question, which are not shown on his plan, apparently borrowed (without acknowledgement) from de Vogüé's work. The total number of piers and columns has therefore been constant from the earliest times to the present day.

With regard to the transposition of the number in the inner ring and intermediate octagon this is inherently improbable, as

<sup>1</sup> *Palestine Expl., Fd., Q. St.*, 1898, pp. 84-85.

the segments of a circle between the inner piers being longer than the straight line between the outer, it is natural to have three columns in the former case and only two in the latter. That both arcades can have been rebuilt as suggested by Rivoira, is unthinkable, at least in the case of the outer, as the dating inscription of 'Abd al-Malik runs all round it in the mosaic at the summit of its inner face. In addition to this the mosaics in the spandrels of the arches, which differ in style from that of the drum, have been recognized as belonging to the earlier period. In any case it is incredible that a thin band of such a delicate material could have been preserved on a length of 128 m. while everything below, columns and arches alike, were removed and reconstructed. If it is suggested that this famous dating inscription was not preserved but merely copied after the supposed reconstruction, I would reply: Is it conceivable that the well-known fraud described above, whereby the name of al-Ma'mûn has been substituted for that of 'Abd al-Malik (which incidentally has deceived no Arabic author, since all correctly ascribe the building to 'Abd al-Malik), would have been not merely repeated but even the crowding together of the letters of the latter Khalif's name copied also, together with the darker tint of blue used by the forgers? <sup>1</sup>

To accept Nâsir-i-Khusrau's statement as absolutely final is uncritical to the last degree, in view of the serious errors committed by professional artists and archaeologists in modern times. To recall a few, we have Pococke's preposterous "Plan and upright of the Gate Nasr,"<sup>2</sup> a mixture, and a bad one at that, of the Bâb an-Naşr and the Bâb al-Futûḥ, although he tells us (p. v) that "he took great pains in measuring all the antient

<sup>1</sup> This crowding together was rendered necessary by the insertion of the words *Abd Allah the Imâm al-Mamûn* in the place of *Abd al-Malik*. See above, p. 4.

<sup>2</sup> *Description of the East* (1743), vol. i, Pl. XIII.

buildings"; the drawing of the minaret of the Mosque of an-Nâsir Muhammad in the Citadel of Cairo published by Jomard in the *Description de l'Égypte*,<sup>1</sup> and republished for comparison by Prost<sup>2</sup>; Luigi Mayer's ridiculous drawings of the Nilometer and the Bâb an-Naşr;<sup>3</sup> and Coste, who shows the side arcades of the Mosque of Ibn Tûlûn running right through the sanctuary and ending against the qibla wall.<sup>4</sup> Even David Roberts, a Royal Academician and generally accurate, shows the minaret of the Mosque of Aqsunqur (Blue Mosque) with three galleries instead of two.<sup>5</sup>

Are we therefore to believe that the minarets of an-Nâsir Muhammad and the Emîr Aqsunqur have been rebuilt during the last hundred years, or that fundamental reconstructions have taken place in the Mosque of Ibn Tûlûn still more recently? Certainly not. All these mistakes have been made through rough drawings and notes, made on the spot, being worked up afterwards, perhaps after leaving the country. Similarly I conclude that the transposition of the number of columns in the inner and outer arcades of the Qubbat as-Sakhra took place in Nâsir-i-Khusrau's head, between the time of his visit and the time when he wrote down his notes, and I reject the judgement of Rivoira as both hypercritical and obtuse, since it ignores the teaching of experience in these matters.<sup>6</sup>

<sup>1</sup> *Etat moderne* (1809), i, Pl. 73, Fig. 7.

<sup>2</sup> *Les revêtements céramiques*, *M.I.F.A.O.*, xl, p. 3 and Pl. I.

<sup>3</sup> *Views in Egypt*, London, 1804.

<sup>4</sup> *L'Architecture arabe, ou Monuments du Caire* (1837-1839), Pl. VI. I have already called attention to this error in *Some Newly Discovered Tûlûnide Ornament*, *Burlington Magazine*, vol. xxxv, p. 187.

<sup>5</sup> *Egypt and Nubia*, vol. iii (1842), twelfth plate. He also gives a view of the Citadel, taken from the mounds opposite the Bâb al-Wazir, in which the great circular Burg al-Haddâd is shown as square. See vol. iii, fifth plate from end.

<sup>6</sup> Facts like these enable one to realize the immense value of photography in matters archaeological, as some architects have emphasized, e.g., Phené Spiers in

ORIGIN OF PLAN. Many opinions have been expressed as to the origin of the plan of the Qubbat as-Sakhra. De Vogüé (1864) wrote: "La disposition de l'édifice, prise dans son ensemble, est toute Byzantine," and he connected it with that of the churches at Bosra and Ezra, themselves linked, by the Octagon of Constantine at Antioch and S. Costanza at Rome, with the circular temples of antiquity.<sup>1</sup> Adler (1873) considered that its plan was based on that of the Anastasis.<sup>2</sup> Dehio and von Bezold connected it with the Anastasis and the Church of the Ascension on the Mount of Olives.<sup>3</sup> According to Hartmann (1909), its plan is only a variation of an octagonal central-plan type, with an inner dome-bearing circle of supports, a type widely spread at the end of the Classical period.<sup>4</sup>

Rivoira insists that it is a creation of Roman architecture.<sup>5</sup> He shows that a circular domed structure was the most popular form of Roman mausoleum, whereas types entirely different are found in Syria. Of existing examples in Rome we have Hadrian's mighty Pantheon (A.D. 120-124), the Nymphaeum (253-268) in the Licinian Gardens, known to-day as "Minerva Medica" and the Mausoleum of S. Helena (early IVth century, but after 312). Aisled rotundas are found as early as the IVth century, e.g., the Rotunda of Santa Costanza (326-329) and Santo Stefano

*Architecture East and West*, pp. 68-69, à propos of Dieulafoy's *Art Antique de la Perse*. Photographs in the latter work, illustrating the squinches of Firuzābād and Sarvistan, showed the inaccuracy of the drawings published by Flandin and Coste, in their *Voyage en Perse*, Planches, t. i, Pls. 29, 40, and 41 bis. Yet we find T. G. Jackson, in the preface to his *Byzantine and Romanesque Architecture* (1913), writing: "It has not been possible to avoid photography entirely in the illustrations, but I have employed it as little as possible"!!

<sup>1</sup> *Le Temple de Jérusalem*, p. 82.

<sup>2</sup> *Der Felsendom und die heilige Grabeskirche zu Jerusalem*, p. 22.

<sup>3</sup> *Die kirchliche Baukunst des Abendlandes*, Text, i, pp. 35-39.

<sup>4</sup> *Der Felsendom in Jerusalem*, p. 22.

<sup>5</sup> *Moslem Architecture*, pp. 59ff.

Rotunda on the Celian, which he attributes to the days of Valens (364-378) and Gratian (367-383).

Let us now examine the types of mausoleum found in Syria which date from before the time of Constantine. A number have been preserved of which the following is a representative selection :

(1) The Tomb of Hamrath, at Sueida, square in plan with a stepped pyramidal roof, perhaps 1st century B.C.<sup>1</sup>

(2) Many rock-cut tombs such as the "Tomb of the Judges"; a rock-cut room preceded by a portico, with a pediment carved on the vertical rock face. Perhaps first half of 1st century A.D.<sup>2</sup>

(3) The so-called "Tomb of the Kings" near Jerusalem, similar to last, but the portico appears to have once had two columns. Believed to be the tomb of the Queen of Adiabene (middle of 1st century A.D.).<sup>3</sup>

(4) The well-known "Tomb of Absalom," perhaps 1st century A.D.<sup>4</sup>

(5) The tomb of Aemilius Reginus, at Katura, A.D. 195.<sup>5</sup>

(6) The tower-tombs at Palmyra.<sup>6</sup>

(7) The rock-cut tombs at Petra with their Classical façades.<sup>7</sup>

(8) The later (V-VIIth century) mausoleums of N. Syria,

<sup>1</sup> De Vogüé, *Syrie centrale*, i, pp. 29-31, and Pl. I; Butler, *Ancient Architecture in Syria*, Part II, S. Syria, p. 355; and Brünnow and von Domszewski, *Die Provincia Arabia*, iii, pp. 98-101 and Figs. 992-995.

<sup>2</sup> De Vogüé, *le Temple de Jérusalem*, p. 134; Phené Spiers and Anderson, *Architecture of Greece and Rome*, p. 283; and Rivoira, *Lombardic Architecture*, ii, pp. 23-24 and Fig. 388.

<sup>3</sup> De Vogüé, *op. cit.*, pp. 43-44; Conder, *Syrian Stone Lore* (3rd ed.), pp. 220-221; and Phené Spiers and Anderson, *op. cit.*, p. 283.

<sup>4</sup> Conder, *op. cit.* (3rd ed.), pp. 219-220; Phené Spiers and Anderson, *op. cit.*, pp. 282-283 and Fig. 228; and Rivoira, *op. cit.*, ii, pp. 22-23 and Fig. 389.

<sup>5</sup> Rivoira, *op. cit.*, ii, p. 24.

<sup>6</sup> Rivoira, *op. cit.*, ii, p. 24 and Fig. 391.

<sup>7</sup> Brünnow and von Domszewski, *op. cit.*, iii, pp. 137-408.

which are always square with pyramidal roofs of stone, except in two rare instances where domes were employed.<sup>1</sup>

Rivoira sums up the situation in his usual polemic manner as follows: "Any one who can find earlier examples in this part of Asia, or in Greece or any other Mediterranean country, of structures of the type of the Licinian Nymphaeum, or of the Mausoleum of St. Helena, and of aisled rotundas with solid cupolas resting on isolated supports, like Santa Costanza, will be heartily welcomed. I was never so fortunate."<sup>2</sup>

With the solitary exception of the Marneion at Gaza,<sup>3</sup> there does not appear to be any evidence for the existence, in Syria or Palestine, of a rotunda earlier than Constantine's Church of the Holy Sepulchre, founded by Queen Helena in A.D. 327, the year before her death, and finished by Constantine in 335. It consisted of the "Anastasis" or "Church of the Resurrection," and the "Martyrion." The former, which contained the Holy Sepulchre, was a rotunda, the latter was a basilica, and there was an open court between them.

Rivoira's thesis, therefore, is undoubtedly correct in so far as the evolution of the annular rotunda, with columns or piers, and crowned by a dome, is concerned. This much may be readily admitted, but it does not go far enough, as it ignores the further evolution of the type.

I shall endeavour to show that the final links in the chain of

<sup>1</sup> De Vogüé, *Syrie centrale*, and Butler, *Ancient Architecture in Syria*, Part I, N. Syria.

<sup>2</sup> *Lombardic Architecture*, ii, p. 24.

<sup>3</sup> For this building see Dehio and von Bezold, *op. cit.*, i, p. 36; Stark, *Gaza*, pp. 599-600; Sepp, *Die Felsenkuppel*, p. 46; Strzygowski, *Kleinasien*, p. 101; Miss Bell, *Thousand and One Churches*, p. 429; Hill, *Some Palestinian Cults of the Graeco-Roman Age*, in the *Proc. Br. Acad.*, 1911-12, pp. 424-425, and his *Life of Porphyry, Bishop of Gaza, by Mark the Deacon*, pp. 75-87 and 140; also Rivoira, *Moslem Architecture*, pp. 122-123.

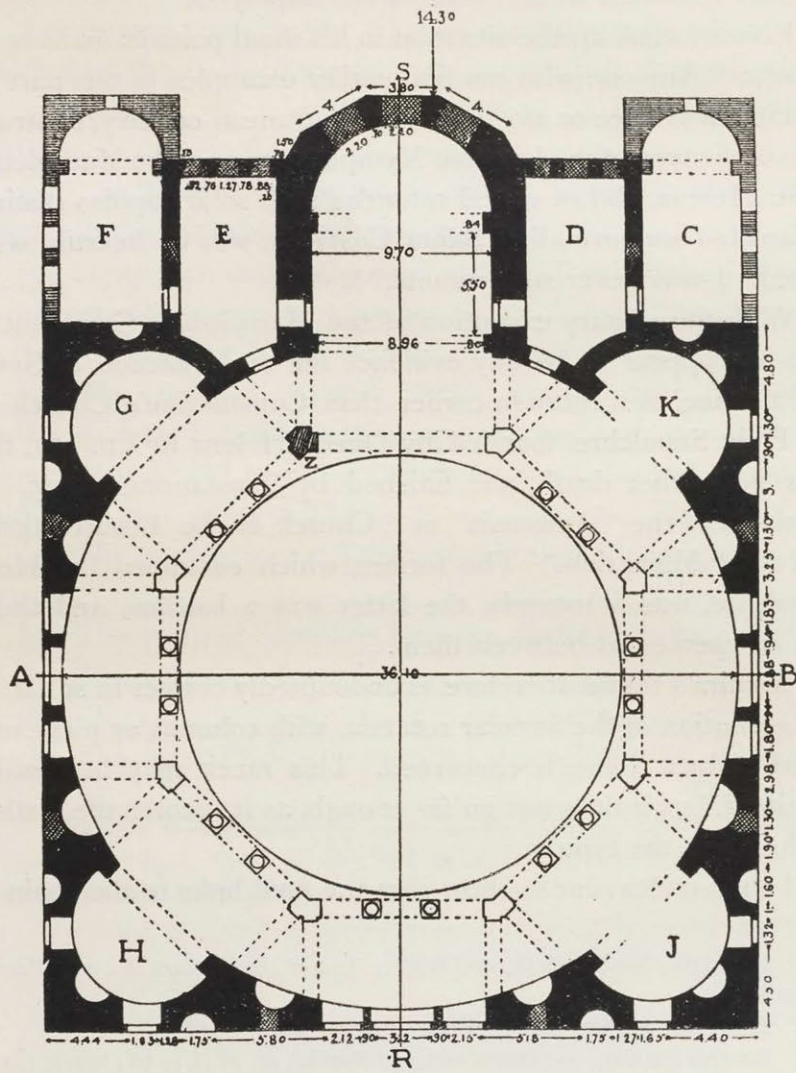


FIG. 4. BOSRA CATHEDRAL  
 (From Butler, *Ancient Architecture in Syria*)

development which culminated in the Dome of the Rock were forged in Syria. This is no new suggestion, as we have already seen, but I return to it as recent discoveries enable us to re-assert it with greatly increased confidence.

Let us return to the theory of de Vogüé,<sup>1</sup> and Choisy,<sup>2</sup> who connected the plan of the Dome of the Rock with the Cathedral of Bosra, built A.D. 512-513.<sup>3</sup> When de Vogüé saw it *circa* 1860 it was much better preserved than it is now. In plan it consisted of a circle slightly over 36 m. in diameter, inscribed in a square just large enough to contain it. The east side was occupied by the apse, with a little chapel to right and left, all projecting boldly from the square, as shown. The central space was absolutely clear, nevertheless de Vogüé, on the analogy of the almost contemporary church at Ezra, assumed an inner octagon, resting on eight arches and supporting a dome. Basing himself on the proportions observed by him in other Syrian monuments which he had measured, he drew the octagon so that its breadth (19 m.) was three times that of the ambulatory left around it, and he assumed a gallery over the latter on the analogy of S. Vitale at Ravenna and S.S. Sergius and Bacchus at Constantinople.<sup>4</sup>

Brünnow<sup>5</sup> objected to this proposed reconstruction on account of the size of the dome involved and the inadequate nature of its supports, and in the reconstruction which he in turn proposed, he reduced the diameter of the dome to 14.3 m., the breadth of the ambulatory being thereby increased to 10 m. It is not necessary to formulate the objections which might be raised

<sup>1</sup> *Syrie centrale*, i, p. 82.

<sup>2</sup> *Histoire de l'Architecture*, ii, p. 97.

<sup>3</sup> Dated 407 (of the era of Bosra), according to a Greek inscription (*Corpus Inscr. Gr.* No. 8625, and Waddington, *Inscr. Syr.*, No. 1915) on the lintel of the principal entrance. See de Vogüé, *Syrie centrale*, pp. 66-67.

<sup>4</sup> *Syrie centrale*, pp. 63-65 and Fig. 18.

<sup>5</sup> Brünnow and von Domaszewski, *Die Provincia Arabia*, iii, p. 30 and Figs. 911 and 912.

against his reconstruction, as the size, position, and style of the octagon has been finally settled, thanks to the discovery by Butler of one of the angle piers *in situ*.<sup>1</sup> (See his plan, Fig. 4.) He also found a piece of a column of cipollino, proving that there must have been intermediate columns, as in the Dome of the Rock.

Since this discovery Prof. Herzfeld, in a recent memoir,<sup>2</sup> has set forth an ingenious theory in which he attempts to show not only that there was a central ring of supports as in the Dome of the Rock, but even to fix the diameter of this ring as follows:

(1) There must have been an inner dome-bearing ring, as it is inconceivable that a dome of about 26 m. diameter could have stood on an octagon of which the angle piers, according to Butler's careful measurements, were only 80 cm. thick. This argument is decisive.

(2) An assumed diameter of 12 m., one-third of the whole, and exactly equal to that of the two ambulatories combined, for an inner ring of four piers with a pair of intermediate columns between each, would give scope for an arch on the east side of the same width as that of the choir. The pair of columns being purposely omitted on this side both from the circle and the octagon, a clear opening would be provided between the dome and the choir which would thereby be brought into real organic relationship with each other. Moreover the four corner piers would stand on the points of a cross latent in the plan, as is shown by the dotted lines drawn from the corners of the octagon. (See Fig. 5.)

I will now offer my objections. In the first place the two

<sup>1</sup> *Ancient Architecture in Syria*, Part II, Southern Syria, pp. 282-284. This ruined building has been used for a long time as the public dung-heap of Bosra. Butler, who arrived after there had been a fire, due to spontaneous combustion, was therefore able to get nearer to the floor level than any previous archaeologist, and was fortunate enough to catch sight of this temporarily exposed pier.

*Mshattâ, Hira und Bâdiya*, *Jahrbuch d. Preussischen Kunstsammlungen*, xlii, pp. 119-121.

columns of the inner ring cannot have been omitted, reasonable as it may appear on liturgical grounds, for the practical reason that no arch curved through 90° of arc in plan could possibly stand; its voussoirs would fall out sideways. Moreover, in a circle of 12 m. diameter the distance apart of the four corners of

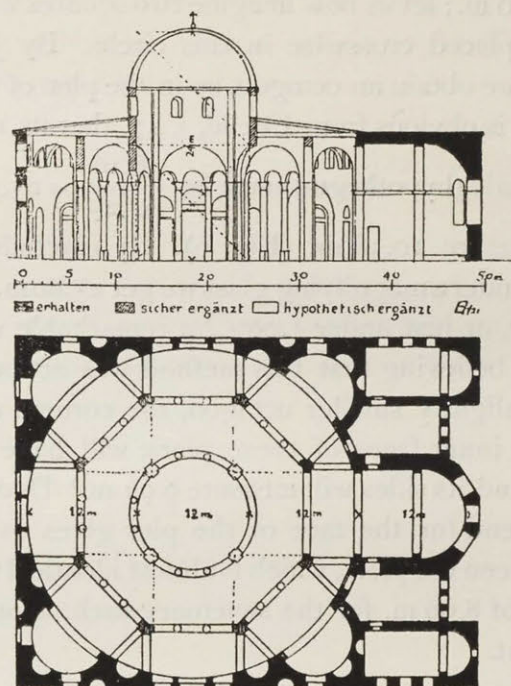


FIG. 5. BOSRA CATHEDRAL  
(From Herzfeld, *op. cit.*)

a square enclosed by it would be  $\frac{12}{\sqrt{2}} = 8.486$  m., so that the arch on the east side, even ignoring the contraction of the space caused by the piers themselves, would be less than the 8.96 m. of the choir arch. However, I believe Herzfeld's reconstruction to be very nearly correct as my proposed amendment will show.

Let us now try to grasp the *principle* adopted for the setting

out. Is it not possible that the method adopted in setting out the plan of the Dome of the Rock was one already in use in Syria, and that it controlled the setting out of the Cathedral of Bosra also? If so, what would the cross measurements of the octagon have been? The diameter of the clear circle, according to Butler, is 36.10 m.; let us now imagine two squares with diagonals of 36.10 m. placed crosswise in this circle. By joining their intersections we obtain an octagon, as in the plan of the Dome of the Rock. It is obvious from Euclid, i, 47, that its measurement from side to side (hypothegm) must be  $\frac{36.10}{\sqrt{2}} = 25.53$  m. and its sides will measure 10.58 m. (Fig. 6). By carefully scaling off Butler's plan under a magnifying glass we get 25.80 m., a difference of 27 cm. only, or just under 1.06%,<sup>1</sup> a remarkable result, which justifies us in believing that this method was actually adopted. Further, the slightly smaller octagon, the corners of which are formed by the inner faces of these piers, will have a diameter of 23.93 m.,<sup>2</sup> and its sides will measure 9.92 m.<sup>3</sup> Deducting half a metre at each end for the face of the pier gives us 8.92 m. for the space between the piers, which is almost identical with Butler's measurement of 8.96 m. for the sanctuary arch, another remarkable agreement.

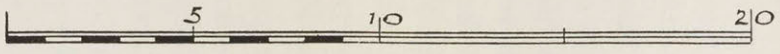
<sup>1</sup> We must not forget the state of this building and the frequent fires, caused by the spontaneous combustion of the dung heap. This must have damaged the wall surfaces, and rendered the true wall face a little uncertain. De Vogüé, for example, made the diameter of the main circle 36.20 m. Taking his measurement, which was made when the building was much better preserved than it was at the time of Butler's visit over twenty years later, we get 25.60 m. as the theoretical cross measurement of the octagon, a difference of 20 cm. The error is now only 1 in 128.

<sup>2</sup> 25.53 m. - (80 cm. + 80 cm.) = 23.93.

<sup>3</sup> The side of an octagon is to its cross measurement as

$$1 : \frac{1}{1 + \sqrt{2}} \text{ hence } \frac{23.93}{1 + \sqrt{2}} = 9.92 \text{ m. nearly.}$$





A. Reswell  
May 1923

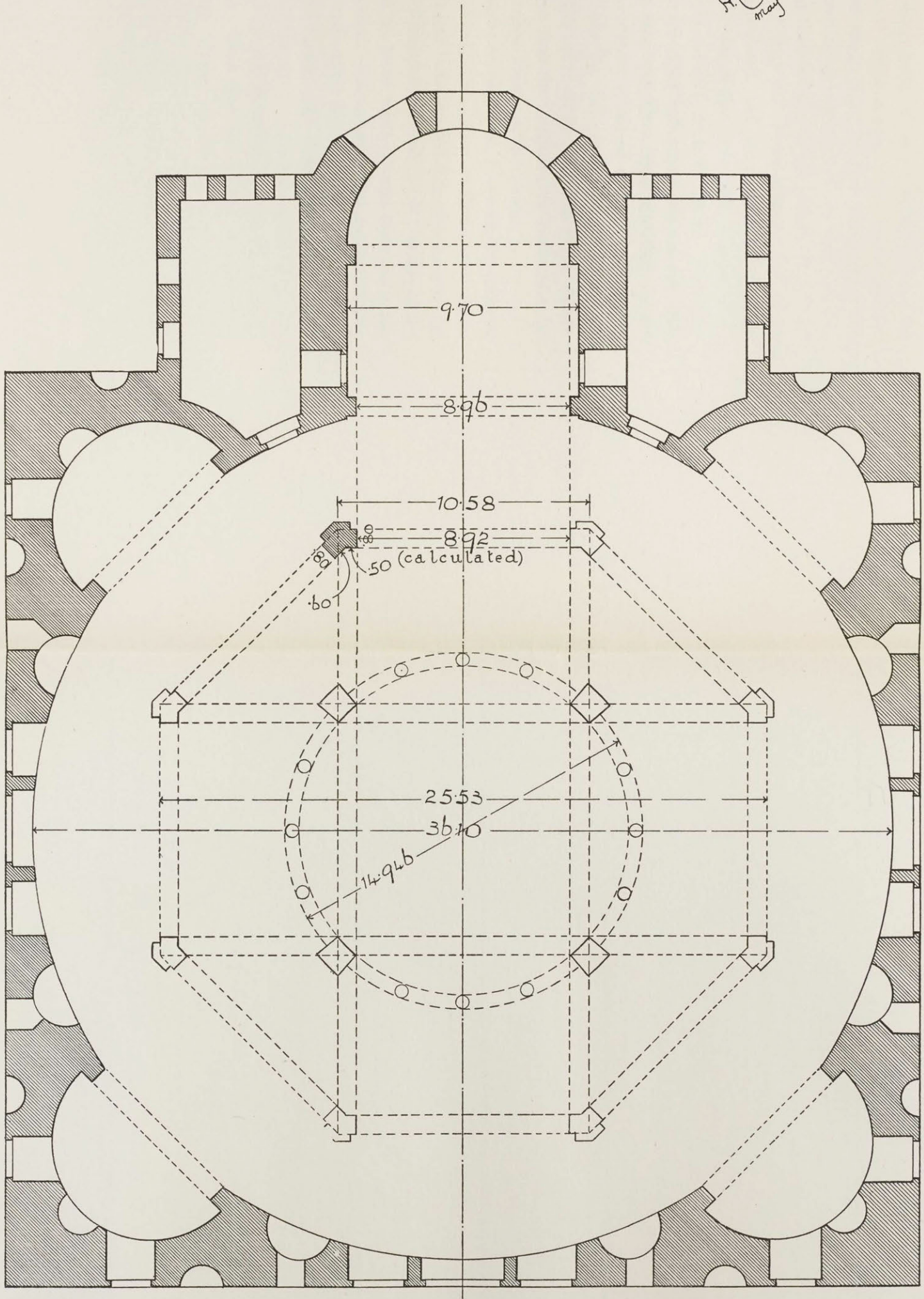


FIG. 6. BOSRA CATHEDRAL



Let us follow up the same method, and join the corners of the larger octagon so as to obtain a cross; the central square, on the corners of which we must place the four inner piers, will measure the same on each side as the sides of the octagon, *i.e.*, 10.58 m. A circle passing through these four points will have a diameter of  $10.58 \times \sqrt{2} = 14.946$  m. Piers about 1.2 m. wide, placed on these four points as shown, will just contract the opening between them to 8.96 m., the size of the choir arch! an agreement which is impossible with Herzfeld's circle of 12 m. Although there must have been intermediate columns even on the east side, this correspondence may well have been intended by the architect, as the same agreement is aimed at in the Dome of the Rock where the space between the piers of the intermediate octagon and the piers of the inner circle are equal (*vide* Mauss' plan). We may now affirm that the Cathedral at Bosra was set out on the same method as the Dome of the Rock.

In our investigation we have, of course, reversed the process, as we were given the diameter of the outer circle to start from. The designers, however, must have started from the inner circle, and then derived the other dimensions from it, as the size of the dome they were prepared to build must always have been the governing factor in the design. The geometrical process, being reversible, works equally well either way.

So much for Bosra. Now the inner diameter of the Dome of the Rock, according to Mauss' measurements, is 20.37 m., almost exactly that of the Church of the Holy Sepulchre, which he found to be 20.90 m. That the size of the dome of the Anastasis should have been chosen as the modulus is quite in keeping with the account of Muqaddasi (see above, p. 3), according to which the Qubbat as-Sakhra was built with the express object of rivalling the Christian shrine. Moreover, a curious feature of the Qubbat as-Sakhra—the four piers inserted be-

tween the columns of the inner ring—is an arrangement which may have been derived from the Anastasis. We cannot be certain that piers existed in the inner ring at Bosra, but it is certain that piers as well as columns supported the dome of the Anas-

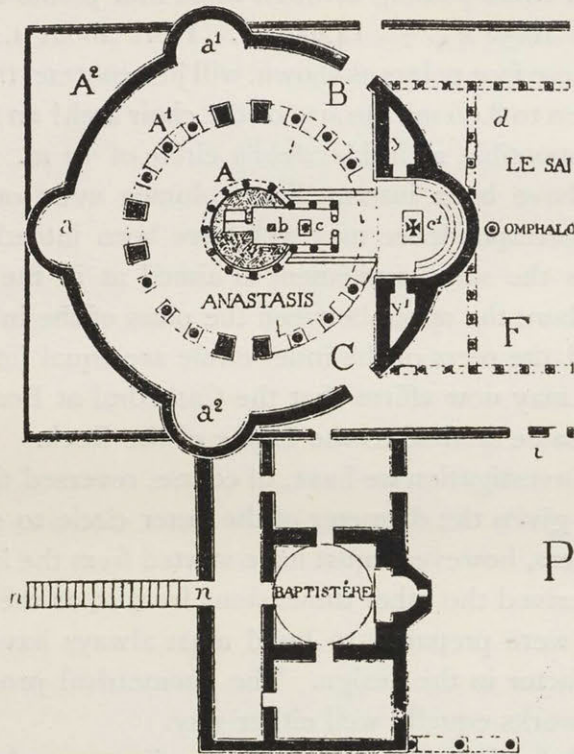


FIG. 7. JERUSALEM: THE ANASTASIS

(Reproduced by the kind permission of Pères Vincent and Abel from their *Book on the Dome of the Rock*)

tasis. They are first mentioned by the Russian Abbot Daniel (early XIIth century), who speaks of six piers and twelve great monolithic columns.<sup>1</sup> These twelve columns, according to XVIth

<sup>1</sup> French translation by Mme. de Khitrovo, *Itinéraires russes en Orient*, p. 12; extract in Vincent and Abel, *op. cit.*, ii, p. 258; and extract, translated, in G. Jeffery, *The Holy Sepulchre*, p. 22. The twelve columns are mentioned in the

century drawings, must have been divided into groups of three, exactly as in the Qubbat as-Sakhra, but by pairs of piers instead of single ones. Although these piers are not mentioned in the descriptions of the first two periods, Père Vincent considers it possible that they may even go back to the time of Constantine. He does not actually venture to restore them in his plan of Constantine's building, but he inserts them in his plans of the subsequent periods from the time of Modestus (616-628) onwards<sup>1</sup> (Fig. 7).

There is another feature of the Qubbat as-Sakhra apparently taken from the Anastasis, viz., the proportions of the drum. In both buildings the height of the top edge of the drum from the ground is equal to its diameter.<sup>2</sup>

There is therefore little doubt that in designing the Dome of the Rock, the diameter and proportions of the dome of the Anastasis were taken as a basis, but that the laying out of the plan was based on that of the Cathedral of Bosra, where it is certain that part and probably the whole of the scheme adopted by the architects of 'Abd al-Malik had been employed a century and a half earlier. The plan of the Dome of the Rock may,

VIIth century Armenian description, translated by Bain, *Pal. Expl. Fd. Q. St.*, 1896, p. 347. The present dome rests entirely on piers. However, three pairs of these piers placed 90° apart are more massive than the rest (*circa* 2.05 m. square instead of *circa* 1.80 m.), and Père Vincent thinks that some at least of the columns may still exist, walled up inside the lesser piers by the Greek Comninos, who was responsible for the atrocious restoration of 1810 (*Jérusalem*, ii, p. 116).

<sup>1</sup> Strzygowski (*Felsendom und Aksamoschee, Der Islam*, ii, p. 82) seeks the prototype of this arrangement at Mekka, and suggests that the four piers are a reminiscence of the four corners of the Ka'aba presented to a pilgrim walking round under its parasol-like external shelter. No evidence exists for this parasol-like shelter; until it is produced there is scarcely any need to discuss this theory further.

<sup>2</sup> Qubbat as-Sakhra: diameter of drum = 20.37 m.; height, 20.48 m.; difference, 11 cm.; Anastasis: diameter of drum = 20.90 m.; height, 21.05 m.; difference, 15 cm. See Mauss, *loc. cit.*, p. 18.

therefore, be regarded as thoroughly Syrian, although the first steps in the evolution of annular rotundas took place at Rome. The *catechumena*, or galleries for women, which are arranged

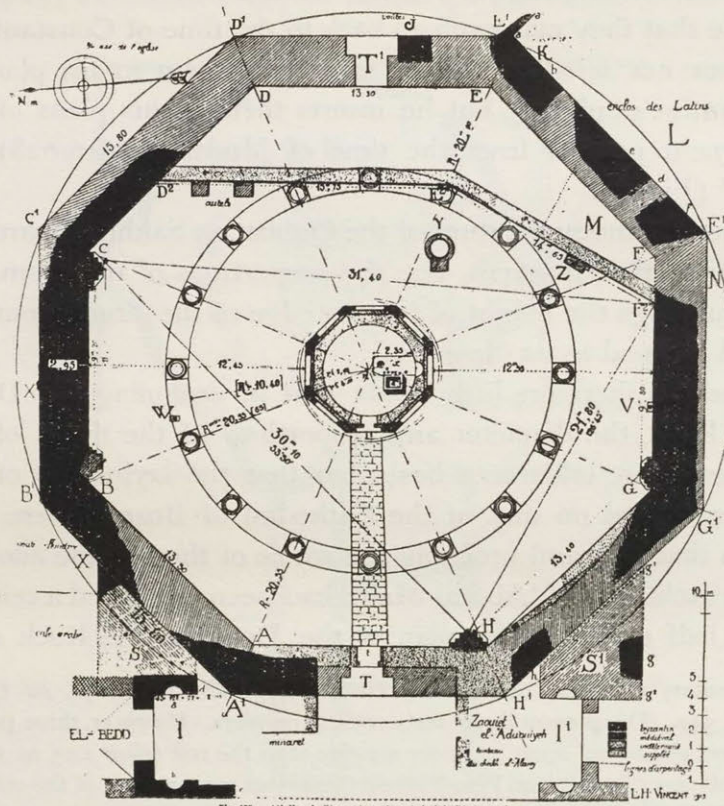


FIG. 8. JERUSALEM: CHURCH OF THE ASCENSION  
 (Reproduced by the kind permission of Pères Vincent and Abel from their  
 Book on the Dome of the Rock)

over the ambulatory of the Anastasis, and which may have existed at Bosra also, were, however, omitted in the Moslem shrine.

There now remains the question of the octagonal exterior. The recent researches of Vincent and Abel have shown that the

Church of the Ascension on the Mount of Olives was octagonal.<sup>1</sup> Vincent's carefully executed plan (Fig. 8) shows that the outer sides of this octagon measured practically the same as the outer sides of the intermediate octagon in the Qubbat as-Sakhra (15.80 m. against 15.82 m.), a very remarkable fact. Moreover, the discovery that this church was an octagon (and not a rotunda, as had been generally supposed on the strength of Arculph's diagram) is of great importance also, as we only have two earlier examples of octagonal buildings, (1) the Tower of the Winds at Athens, built in the IInd century B.C., or the first few years of the Ist,<sup>2</sup> and (2) the Mausoleum of Diocletian at Spalato, but neither of these have an inner circle of supports. The oldest example of an octagonal building on Italian soil would appear to be San Vitale at Ravenna, A.D. 520-547. Strzygowski<sup>3</sup> and Miss Bell<sup>4</sup> maintain the Eastern origin of the octagonal plan, but its combination with an inner concentric circle or octagon appears to have arisen in the western Roman sphere, since a Gallo-Roman octagonal temple with an octagonal cella has been discovered in the excavations at Alise, and another, with a circular cella, at Saint-Révérien (Nièvre).<sup>5</sup>

To sum up, the steps in the evolution of the plan of the Qubbat as-Sakhra would appear to be as follows :

(1) THE ANASTASIS, A.D. 327-335. Inner circle 20.90 m. in diameter with outer circle 36.52 m. in diam. (internal measurement).

<sup>1</sup> *Jérusalem*, ii, pp. 360-373 and Figs. 155 and 159.

<sup>2</sup> Gardner (E. A.), *Ancient Athens*, pp. 488-491. For measured drawings see Stuart and Revett, *Antiquities of Athens*, Pls. VIII-XI.

<sup>3</sup> *Kleinasien ein Neuland der Kunstgeschichte*, pp. 70ff., 90ff., 101ff., and 185.

<sup>4</sup> *Thousand and One Churches*, pp. 428ff.

<sup>5</sup> *Bulletin archéologique du Comité*, 1910, pp. 255ff., Fig. 3 and Pl. XLVII; also *Revue biblique*, 1910, pp. 453ff., quoted by Vincent and Abel, *op. cit.*, ii, p. 368, n. 1.

(2) THE CHURCH OF THE ASCENSION, before A.D. 378.<sup>1</sup> Inner circle, probably of same diameter as last. Outer octagon, measuring 15.80 m. a side, derived from inner circle by same system as in Qubbat as-Sakhra.

(3) THE CATHEDRAL AT BOSRA, A.D. 513. The first example of a double ambulatory. Central circle probably 14.946 m. in diameter, intermediate octagon, 10.58 m. a side; outer circle 36.10 m. (approximately that of the Anastasis), set in a square exterior.

(4) THE QUBBAT AS-SAKHRA, A.D. 688-691. Inner circle 20.37 m. (approximately that of the Anastasis); intermediate octagon, 15.82 m. a side externally, almost exactly the same measurement as that of the Church of the Ascension. Circumscribing circle, which fixes size of outer octagon, derived from intermediate one by same method as at Bosra.

This process may be further epitomized as follows :

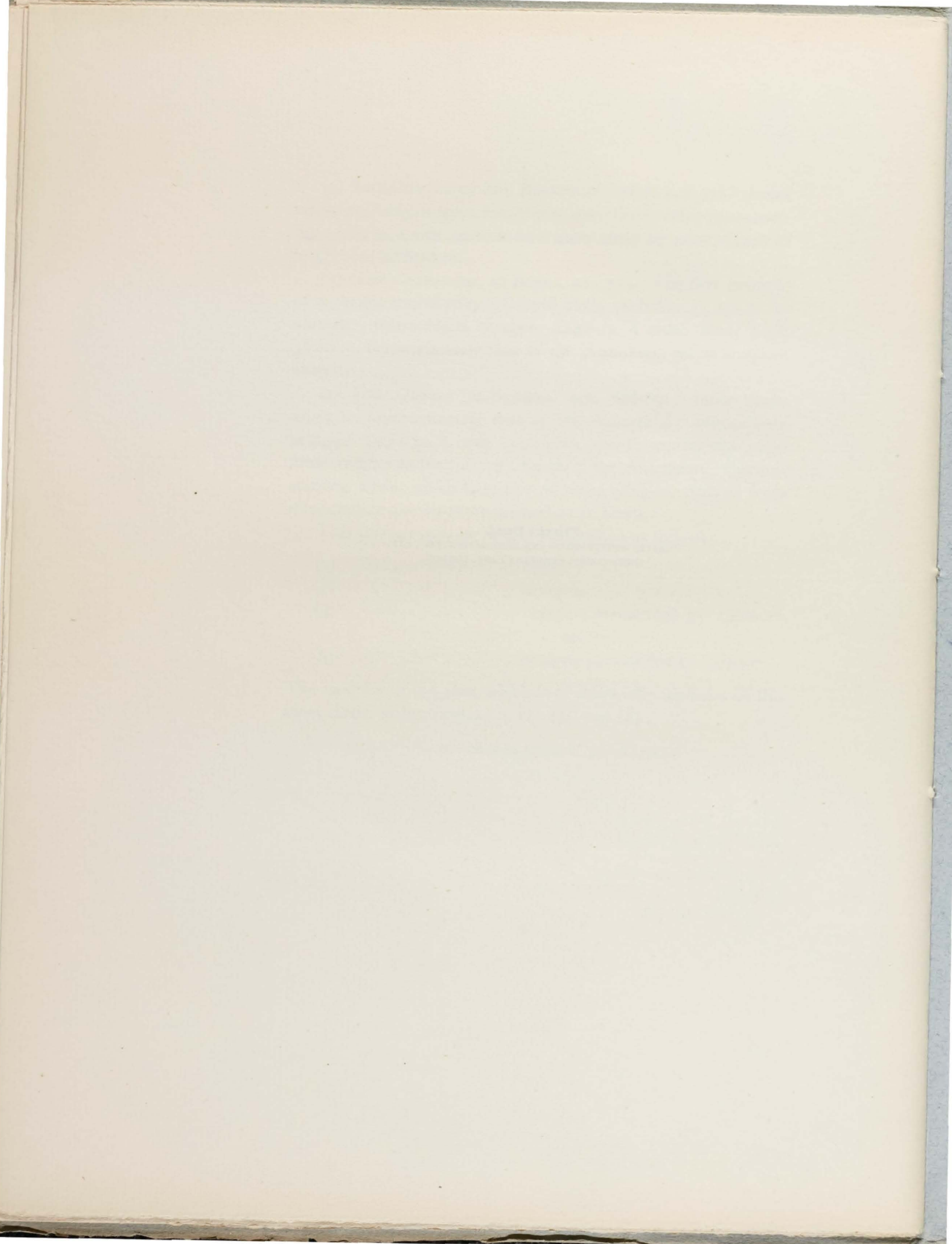
- (1) Circle surrounded by circle.
- (2) " " " octagon.
- (3) " " " octagon surrounded by circle in square.
- (4) " " " octagon surrounded by octagon.

The modulus of the plan, which is of course the diameter of the inner circle, being constant in (1), (2), and (4).

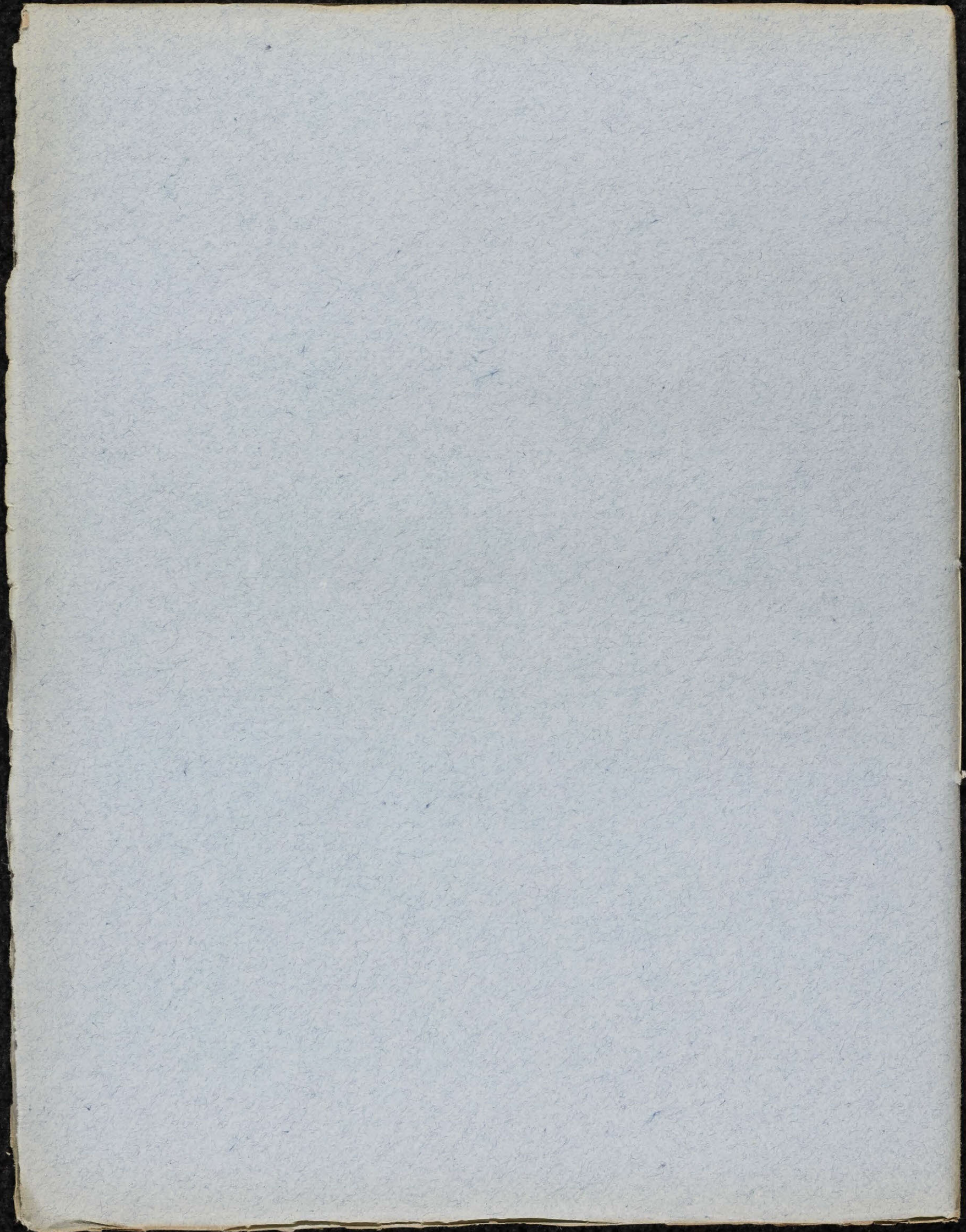
<sup>1</sup> Vincent and Abel, *op. cit.*, ii, pp. 381-382.

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1931

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## CHURCHES AT JERASH

*A Preliminary Report of the Joint  
Yale-British School Expeditions  
to Jerash, 1928-1930*

BY

J. W. CROWFOOT, C.B.E., M.A.

DIRECTOR, BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM, AND  
FIELD DIRECTOR OF THE JOINT EXPEDITIONS TO JERASH



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LONDON, W.1

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[Photo : J. Schweig.]

PLATE I. VIEW OF GREAT STAIRS, FROM E.

*Frontispiece*]

# CHURCHES AT JERASH

## FOREWORD

PROFESSOR BACON of Yale is the real father of the expeditions which have been working for the last three years on the churches at Jerash under the joint auspices of Yale University and the British School of Archaeology in Jerusalem. To his constant encouragement, not less than to the financial support for the work which he has been able to secure in America, our first acknowledgments are due. Secondly, we have to thank the Schweich Fund of the British Academy, the Byzantine Research Fund, the Craven Fund, All Souls College, and Mr. Henry J. Patten, for generous supplementary grants. The Government of H.H. the Amir of Trans-Jordan has laid us under a great obligation by the generous facilities which it accorded the expedition. Lastly, the writer must express his grateful thanks for the able and devoted assistance which he has received from the members of the expeditions: Mrs. Crowfoot has been with him on all the campaigns; in 1928 the other members were Mr. J. B. Robertson of Yale, Mr. A. G. Buchanan, Mr. and Mrs. A. H. M. Jones and Miss Dorothy Crowfoot; in 1929, Dr. Clarence S. Fisher, Mr. Jones, Mr. R. W. Hamilton, Mr. C. C. Roach, and Miss Joan Crowfoot; in 1930, Dr. Fisher and Mr. Hamilton. In 1929, Mr. Reich and Mr. Schweig of Jerusalem also took part as architect and photographer, respectively.

The work on the churches has now been concluded, but as Yale University is continuing work at Jerash on the classical buildings which lie round about the churches, and further light on various points is therefore likely to be soon forthcoming, it has been thought best to delay the final publication of the Christian remains and issue the following preliminary report at once. In compiling this report I have made free use of a chapter on the Christian inscriptions which has been written by Mr. Jones. We have also to thank the Editor of the *Illustrated London News* for permission to use the blocks of three coloured plates which appeared in his issue of the 23rd November 1929, and the Council of the Palestine Exploration Fund for a similar courtesy in respect of illustrations which have already appeared in their *Quarterly Statement*.

December 1930.

J. W. CROWFOOT.

## I. HISTORICAL NOTES

WE learn more about Jerash from the wonderful remains on the spot than from the ancient writers. The town was too remote to cut a figure in general history, and the references to it, about a dozen all told, are not illuminating.

The name, which was written *Gerasa* by the Greeks, is a Semitic word, but no one has yet found any traces of a settlement which is older than the Hellenistic period, though a good supply of running water and the comparatively fertile country round make the early rise of such a settlement likely enough. At the beginning of our era it was one of the cities of the Decapolis, it had a constitution of the usual Greek type, and celebrated the usual musical and athletic contests: in the 3rd century it may have become a Roman colony.<sup>1</sup> The population was mixed: Macedonian, Greek, and Arab names occur on the inscriptions, and there was also a Jewish community which is mentioned by Josephus, and which built in later days a synagogue on one of the highest sites in the town, mindful of the teaching which declares that a city whose roofs overtop the synagogue is given over to destruction.

In the 4th century, about the time when the oldest of our churches was built, Ammian couples *Gerasa* with *Bostra* and *Philadelphia* as three mighty cities fortified with strong walls in a land "full of the most plenteous variety of merchandise." A frequented trade route passed through the middle of Jerash at this time, and the regular Syrian crafts, glass-making, weaving, building, no doubt flourished, so that it had other sources of wealth besides agriculture.

How Christianity first came is not recorded, but soon after the time of Constantine *Gerasa* sent a bishop to the Council at Seleucia in A.D. 351, and, a little later, the town is mentioned by Epiphanius as the scene of an annual miracle: every year on the day of the Epiphany, which was also the anniversary of the miracle in Cana of Galilee, the water of a fountain in the church at *Gerasa* was turned into wine. Naturally an imposing group of buildings rose round the

<sup>1</sup> According to an unpublished inscription, the reading of which, however, is not quite certain.

miraculous fountain which was on a site that may have been once sacred to the Infant Dionysus : already in the 4th century the cathedral church stood east of the fountain, where the temple had been previously, and the place became so popular that before the end of the next century a second great church was built to the west and dedicated to S. Theodore in 494-6. Before this date another magnificent church, dedicated to the Prophets, Apostles, and Martyrs, had been built in 464-5 at the north-east end of the town.

In the 6th century a frenzy of church-building came over Jerash. In 526 a church was built at the south-east corner of the town ; between 529 and 533 a group of three churches was completed due west of S. Theodore's ; in 530-1 one was built above the site of the synagogue, which was destroyed, perhaps, in a pogrom ; all these five being finished while a certain Paul was bishop. The next (?) bishop, Anastasius, built a fine church to SS. Peter and Paul in the south-west quarter of the city, and in one of the forecourts east of the Propylaea which led to the temple of Artemis, the largest basilica in the place was constructed, probably about the middle of the century, after one of the many earthquakes which afflicted this region. The latest church we discovered was one near the west gate, built in 611 when Genesius was bishop, but this does not exhaust the tale of churches in Jerash : there is a large basilica in the Circassian cemetery south-east of the town, which we were unable to examine, and there must certainly be others buried under the modern village and perhaps elsewhere. The whole population was now probably Christian, and there was a church within a few minutes' walk of everybody's door. The inscriptions prove that Greek was the language of the Church, and even in the synagogue the more important inscription is in Greek, showing that this was the language spoken by the Jewish community also. Several inscriptions are in verse, both hexameters and iambics being used ; Mr. Jones considers that the former are the more successful, and concludes that Homer was more popular in the schools than the tragedians ; the spelling he pronounces on the whole good and the versification in general strictly according to quantity.

In 614 the Persians conquered Trans-Jordan ; in 628 it was recovered by the Roman Emperors of Constantinople, but seven years later, in 635, Roman rule was finally extinguished in these parts by the Mohammadans. Under the comparatively mild and

intelligent rule of the Umayyad dynasty the city seems to have prospered more or less for another hundred years. A few Arabic graffiti on the buildings, Arabic inscriptions on some of the lamps, and Arabic coins in the debris, are among the signs of the new order. None of the churches were converted into mosques—indeed, in 1806, Seetzen found Christian families still living in the neighbourhood—and it is to quite the latter part of the Umayyad period that we are disposed to attribute the only interference with Christian worship of which we found a trace. Before they were deserted all the churches except one were mutilated. The work, which was most evident on the mosaic floors, was carried out very thoroughly, but with great discrimination. Subjects which might have been represented in a mosque, inscriptions, decorative designs, pictures of buildings and of manufactured things like baskets and vases, were spared, but representations of living creatures, however little they had to do with religion, were ruthlessly destroyed in the spirit of the strictest Muslim orthodoxy, which regards the imitation of the Creator's handiwork as presumptuous impiety: artists will be condemned to spend the hereafter in vainly trying to breathe the breath of life into their creations.<sup>1</sup> Discriminating mutilations like those at Jerash can be traced elsewhere in the Muslim world,<sup>2</sup> and we are inclined to attribute them to Omar II (717-720), who was a pious man and is known to have been spurred to energetic action against both Christians and Jews by an earthquake in the first year of his reign, which he regarded as a Divine visitation, though Byzantine historians ascribe an iconoclastic decree to his successor Yezid II.<sup>3</sup> In any case, the damage in Jerash and elsewhere was repaired, and all but two of our churches, which had suffered more than the rest perhaps in the recent earthquake, were reconditioned. The patching, however, was very badly done, and the botched condition of the walls suggests that the city was on the down grade. Some of the industries still survived: there were certainly potteries and a glass factory, but trade was moving along different lines and the town was growing poorer.

<sup>1</sup> A full discussion of the attitude of Mohammadans to painting is to be found on pp. 4-40 of *Painting in Islam*, by Sir Thomas Arnold (Oxford, 1928).

<sup>2</sup> *E.g.* the monastery of Apa Jeremia, excavated by J. E. Quibell at Saqqara, the famous map at Madaba, the synagogues at Capernaum and 'Ain Duk.

<sup>3</sup> For a recent discussion, see Cabrol and Leclercq, *Dictionnaire*, s.v. "Images," col. 231.

The end was catastrophic ; all the buildings in the centre of the town were shattered in a great earthquake, which, on the evidence of the coins in the debris, we are disposed tentatively to identify with the earthquake in the afternoon of the 18th January 746, when, according to the chroniclers, unnumbered myriads were killed and monasteries and churches destroyed in Palestine, the Jordan and all Syria.<sup>1</sup> We found vivid signs of the suddenness of the catastrophe, jewellery scattered over the steps, more than a hundredweight of glass "melt" ready for use in the glass factory, stones half sawn through in a mason's yard, his anvil-stand still erect in a blacksmith's shop, and a store of charcoal in a room behind it. To the old centre of the town at least there was no return of life.

In the 9th century Jerash is mentioned by Yaqubi no longer as a town, but as a district (*kūra*)<sup>2</sup> ; in the next century the country estates were still flourishing, but Jerash mountain, as it is now called, belonged to Dira'a according to Muqaddisi, and in the 12th century William of Tyre says that, after having been long deserted, it was occupied for a short time by a garrison of 40 men sent by the Atabeg of Damascus. In the 13th century an eyewitness told Yaqut that it was a great uninhabited city with cisterns and water-mills, and in the first half of the last century it was only the water-mills which brought peasants from the neighbouring villages for a few days during the milling season. This era of desertion was closed in 1878, when some Circassian families were settled here by the Sultan Abd el Hamid ; happily for archaeologists, they elected to build on the east bank of the river, but both banks have suffered considerably since.

Thanks to measures taken by the Government of His Highness the Amir, the destructive activities of the natives have been recently curbed, and the site is now so well policed that archaeologists need feel no compunction in removing the debris which has been the sole protection of the monuments hitherto.

<sup>1</sup> If Jerash escaped the earthquake of 746 there were several others in this region before the close of the 8th century, e.g. in 756, 758-775, 775-795 ; see Bailey Willis, "Earthquakes in the Holy Land," in the Bulletin of the Seismological Society of America, vol. 18, No. 2.

<sup>2</sup> This appears to be an Arabic transliteration of the Greek *χώρα*. The Arabic references have been summarised by G. L'Estrange in Schumacher's *Across the Jordan*.

## II. A DESCRIPTION OF THE CHURCHES

### I. THE CENTRE OF JERASH ; THE FOUNTAIN COMPLEX

(*Plan I, Plates I, II, III, IVa*)

TO-DAY the temple of Artemis dominates the ruins of Jerash as it must have dominated the Pagan city, but from the 4th century to the 7th the temple buildings were used mainly as a quarry, and the courtyard was turned into a potter's field ; the heart of Christian Jerash was a group of buildings running along the south side of the old precinct of Artemis and centred round a court with the miraculous fountain in the middle of it. The ruins of this group lie on the west side of the main street, immediately south of the Nymphaeum (Plate IIa), and they are the first large group of buildings which the visitor reaches after he has passed the south Tetracylon. They stretch for more than 150 metres from east to west and lie on three platforms which are partly natural and partly artificial ; the highest point is more than 50 feet above the level of the street, and the three levels are connected with each other by flights of steps. Together they form a brilliant example of the skill of the native architects "in arranging masses and in accommodating buildings or groups of structures to given sites,"<sup>1</sup> though part of the credit for this belongs not to the Christian designers but to their Pagan predecessors.

Before we began work in 1928 there was much more visible on the highest platform than on the others. The west end of S. Theodore's still rose two or three metres above the surrounding debris, the shoulders of the apse could be recognised, and all but a few words in the inscription which gave the dedication and date of the church had been found and published, though the plan of the church was not at all plain, and even the number of aisles was uncertain. It was because so much was clear that we started operations on this church. On the middle platform the top of one of the columns in the Fountain court was visible and the tops of three in the cathedral, but what they were was unknown ; no

<sup>1</sup> Butler, *Syria*, IIA, "Architecture," p. 279.

one had any idea that the whole area embraced a connected group of buildings, and the lower portions were identified sometimes as a street, sometimes as a tribunal, the only obvious remains appearing to belong to the classical period.

We cannot appreciate the work of the Christians on this site until we have first distinguished the Pagan buildings which they incorporated in their new scheme; the buildings of the classical period are cross-hatched on our plan at end of book.

Before the time of Constantine there was a small temple on the site of the later cathedral; it was much smaller than the church, being shorter by at least one-third. Only the foundations of this and parts of the moulded plinth remain. Connected apparently with this temple were some massive buildings which still rise some three metres above the ground on the north side of the cathedral and the Fountain court; these are built of large blocks of stone which, unlike the stones used in all the buildings of the Christian period, had not been used before in any previous construction. From the street a portico which led to a long flight of steps gave access to the temple precinct; a few of these steps can be seen in front of the east wall of the cathedral, others may still be buried under the existing flight which was erected on a steeper gradient in the Christian period. The great portico has eight Corinthian columns which were put up not later than the year 190, when the Nymphaeum was built. The temple, of course, was destroyed before the cathedral was built, but the portico and the northern group of buildings were incorporated in the Christian complex. It is not known to whom the temple was dedicated, but its position alongside the great temple, which is like the position of the temple of Bacchus at Baalbek,<sup>1</sup> its connection with the Nymphaeum, and the miracle subsequently enacted on the site, suggest that it may have been consecrated to the Infant Dionysus; in this case the buildings on the north side may have been a *Telesterion*.

The great flight of 36 steps (Plate I) which now leads up to the middle level was constructed out of much earlier materials at the same time as the cathedral; this is proved by the character of the masonry on either side of the flight which is like that of the cathedral walls. At the top of the stairs there was a small shrine,

<sup>1</sup> On the identification of this temple, see an article by H. Seyrig in *Syria*, 1929, pp. 316 ff.

botched out of old stones and dedicated to the Virgin and the Archangels Michael and Gabriel, who are the favourite guardians of entrances, both in East and West.<sup>1</sup> The stairs were roofed over, and a bridge across them was constructed above the four Corinthian columns on the lower steps, which enabled people to circulate between the loggias which were probably built above the rooms on either side of the stairway, overlooking the main street. The walls now remaining on the upper level, however, like the four front rooms below, which are dotted on the plan, were probably built after the Mohammadan conquest; just before the final catastrophe which ruined this area one of the lower rooms was occupied by a blacksmith and another by a stonemason.

The Fountain court, which is reached by a passage along the north side of the cathedral, served also as an atrium to the latter. In the middle of the court is the fountain, a work apparently of the 4th century; the special veneration which was attached to it and which distinguishes it from all other fountains in church or mosque courts with which we are acquainted, is shown by the traces of chancel railing which connected it with the church behind, and by the seat against the church wall, which presumably was occupied by the bishop. Originally, before S. Theodore's, the church to the west, was built, the atrium was surrounded by porticoes on four sides, Ionic porticoes on the north, west, and south, and a much loftier Corinthian portico on the east; this was not an unusual arrangement,—it corresponds to the Rhodian peristyle mentioned by Vitruvius, and the loftier eastern portico was adopted not, as some have thought, to serve as a narthex, but, as Choricus tells is,<sup>2</sup> to give added dignity to the walk which was nearest to the church.

The cathedral was a basilica (Plate II*b*); twenty-four Corinthian columns carrying moulded architraves, which came perhaps from the old temple, divided the nave from the two aisles, twelve on each side; at the east end there was an internal apse flanked by two small chambers. From east to west the building measured 42.20 m., but this, though small according to Western scales, is not much less than that of many famous churches in the East; according to Père Vincent, the first Martyrium in front of the Holy Sepulchre

<sup>1</sup> M. de Vogüé, *Syrie centrale*, pp. 90-1.

<sup>2</sup> The quotations in this paper are all from the translation of Choricus' speeches on the Gaza churches by R. W. Hamilton, in P.E.F.Q.S., 1930, p. 178 ff.

was only about 45 m. long and the original Constantinian Church of the Nativity at Bethlehem was even less<sup>1</sup>; the difference in scale between East and West is due, we think, to the fact that in the Eastern churches there is only one altar. The chancel was modified in later days, it now occupies four bays in the nave, one in the north aisle, and rather more than one in the south, but the extensions in the aisles are a subsequent addition. The apse, or *bema*, contained the seats for the bishop and other celebrants, but of these, the so-called *synthronon*, there are hardly any traces; of the altar there is no trace; the large enclosed area in front was called the *solea*, and served as a choir or *schola cantorum*. The *ambo* was on the south, or Epistle, side of the chancel, but of this only the foundation on which it rested has survived; this church, no doubt because it was more splendidly appointed than any other, having suffered more spoliation than the rest. Several fragments of red and dark green veined marble were found at the east end, which was probably revetted with marble, the rest of the church being revetted with limestone.

This is one of the few churches in Jerash which is not dated precisely by a building inscription. There is an inscription on a stone in the east walk of the atrium, just in front of the middle door at the west end of the church; it is badly worn and appears to record a restoration, perhaps of the gable, in the time of a bishop named Paul, who may, or may not, be the bishop who is mentioned on four other inscriptions between A.D. 526 and 533, and in any case it throws no light on the date. The internal evidence, however, is fairly strong. In the first place, the masonry of the walls, 1.20 m. thick, is entirely different from that in the churches of the 5th and 6th centuries; it is wholly composed, it is true like them, of re-used stones, but the stones are carefully built and closely jointed, headers alternate at fairly regular intervals with stretchers, and the lime mortar is of excellent quality. At the west end there was originally a course of enormous blocks measuring about 1 m. square, immediately above the highest surviving course; in the other walls a characteristic feature is the introduction of a narrow course about 9 inches high at intervals of five or six feet; this can be seen at the east end and also in the walls on either side of the stairs which are contemporary. In the second place, the plan and

<sup>1</sup> Vincent and Abel, *Jérusalem*, II, p. 173.

proportions of the apse and the flanking chambers are entirely classical, they are practically identical with those in Pagan buildings at Aere (El Sanamein) and Seleima, the former of which is dated A.D. 191.<sup>1</sup> Thirdly, the late classical style of the mosaics (Plate IVa) in the small court at the north-east corner of the Fountain court points to a date not later than the middle of the 4th century, the workmanship at the same time precluding a much earlier date, and these mosaics were laid when this court, which we called *Glass court* (because so much glass "melt" was found in it on the upper level) was brought into relation with the east walk of the Fountain court by the extension of the *anta* in the south, as shown in the plan. We conclude that the classical stairway and temple were ruined in one of the earthquakes recorded in the middle of the 4th century, and that the site was acquired by the Christians, the stairs rebuilt, and the cathedral built, a few years before the time of Epiphanius (A.D. 375).

It will be observed that we have not referred to a narthex except to exclude the existence of one at the west end, but it is hardly conceivable that in early days, when the number of catechumens was considerable, no provision should have been made for them. Now, Eusebius, in his account of the Constantinian Church at Tyre,<sup>2</sup> says clearly that the places for the catechumens were, not at the west end but, in lateral exedrae, and we suggest, therefore, that the passages north and south of the cathedral, which could be shut off, and one of which at least was provided with seats, were used as narthexes at Jerash. Père Vincent has shown that the narthex at Bethlehem was added by Justinian, M. Millet has commented on the absence of a narthex at Gaza, and Mr. Butler has noted the late date of the western narthex elsewhere in Syria<sup>3</sup>; our suggestion, therefore, may commend itself to others.

A long time after the cathedral was finished a chapel was added at the south-east corner. Chapels of the same type are found in most of the churches which we cleared at Jerash, sometimes

<sup>1</sup> Butler, *op. cit.*, pp. 317, 356. Both these places are in the Hauran.

<sup>2</sup> Eusebius, ed. Migne, *P. G.* XX, cols. 868 and 876 (*Hist. Eccles.* X, c. iv). See also Pal. Pilg. Text. Soc. 1891, "The Churches of Constantine," p. 21. The buildings, baptisteries, consistories, etc., to which the commentators refer, have nothing to do with catechumens.

<sup>3</sup> Vincent and Abel, *Bethléem*, pp. 43, 123. Millet, in *Rev. Arch.* 1905, A. Butler, *American Expedition*, II, p. 181.

on the north side, sometimes, as here, on the south. These chapels contained a nave and a chancel in which an altar stood; they sometimes had a small independent atrium, as in this case, and in all cases one external door as well as one leading into the church. The floor of the nave in this chapel had been paved with fine mosaics which appear to belong to the middle of the 6th century; in the centre of the floor there were once pictures of the twelve months, but all were defaced in the iconoclastic troubles and subsequently repaired with plain white patches, parts of the names of nine months escaping. There is a fragmentary inscription in front of the chancel step which shows that the chapel was a "memorial of the repose of those who have contributed . . . and of Mary"; all these chapels were memorials, like our chantries, and similar ones are known to have existed at Jerusalem and elsewhere.<sup>1</sup> The north wall of the atrium of this chapel rests on the old stylobate of the south portico of the Fountain court, and it is constructed of large blocks laid one stone thick and without mortar, a style of building common elsewhere in Syria, but not otherwise represented at Jerash.

Later still, perhaps in the earthquake of 717, the fabric of the cathedral was gravely damaged, part of the north colonnade fell, and the restorers reduced the length of the nave by five bays and set up three columns in front of the new west wall of the cathedral (*see* Plan 1) above the foundation of the west wall of the early temple.

In the aisles there was a fine heavy stone paving, but in the nave, except where the ambo had stood, there is no trace of paving; in places there is a bed of brown mud and small stones in which mosaics or fine marble may have been set but the original floor whatever it may have been was destroyed or looted after the earthquake.

The Fountain court is now dominated by the east end of a second great church which was built on the upper platform, and by the two flights of steps which led up to it (Plate IIIa and b).

According to a long inscription which once stood inside the church above the central door at the west end, it was dedicated to the popular soldier-saint, Theodore, "the immortal godlike martyr"; it was founded in November 494, and the lintels went

<sup>1</sup> Vincent and Abel, *Jérusalem*, II, p. 386, and Kaufmann, *Christliche Archäologie*, 1922, p. 198.

up in November 496. An inscription in the same style of language and lettering, which stood above the door of the atrium to the west, gives a picture of the site at this time and also the name of the bishop. Mr. Jones translates it thus :—

“ I have been made a wonder and a marvel at once to passers by. For all the cloud of unseemliness is dispelled, and instead of the former eyesore the grace of God surrounds me on every side. And once the baleful stench of fourfooted beasts that toiling died and were here cast forth was spread abroad ; and oft one going by held his nose and checked the passage of breath, shunning the foul odour. But now travellers passing o'er the scented plain bring their right hand to their forehead, making straightway the sign of the precious cross. And if thou wilt learn this also, that thou may know it well, 'twas Aeneas that gave me this lovely beauty, the all wise chief priest, practised in piety.”

It would probably be wrong to conclude from this that the quarter was derelict before Aeneas began to build. Forty years earlier, in 454-5, a bath had been built just north of S. Theodore's, as was the case in other ecclesiastical foundations, and the consequent building rubbish is quite enough to explain the conditions described.

The basilica of S. Theodore is nearly the same size as the cathedral, but in masonry, structure, and plan, it is much more like the churches of the 6th century. The walls are constructed of very large classical blocks, but the stones are laid practically dry and were very badly aligned. The nave in Theodore's is much narrower in proportion to the aisles than in the cathedral ; the apse projects from the east wall and is polygonal externally ; on either side of it there are doors at the east ends of the aisles as in the Prophets' and the Synagogue Churches. S. Theodore's is the earliest church at Jerash where the nave is divided from the aisles by arcades, and the columns, which all came from the same classical building and have an interesting series of masons' marks on them, are consequently more widely spaced, the bays as compared with those in the cathedral being more than half as wide again ; the arches seem to have rested directly on the caps.

The chancel, like the original chancel in the cathedral, is of the

normal early Jerash type. No trace of the seats round the apse remains, they may have been exceptionally large because the altar is a little further west than usual; the sockets of all four legs of the ciborium and of two legs of the altar were found in position. The ambo is in the normal place and the chancel screen was carried out to it; one of the small chancel pillars near the ambo was crushed and broken when the adjacent column was thrown down by an earthquake, the two pieces are still lying under the column and are a proof that no higher screen was ever used in this church. Quantities of gold glass tesserae from the conch of the apse were found in the Fountain court, and a few tesserae were found still adhering to the soffit of one of the arch voussoirs on the south side of the nave. The floor was of different-coloured marble and limestone slabs.

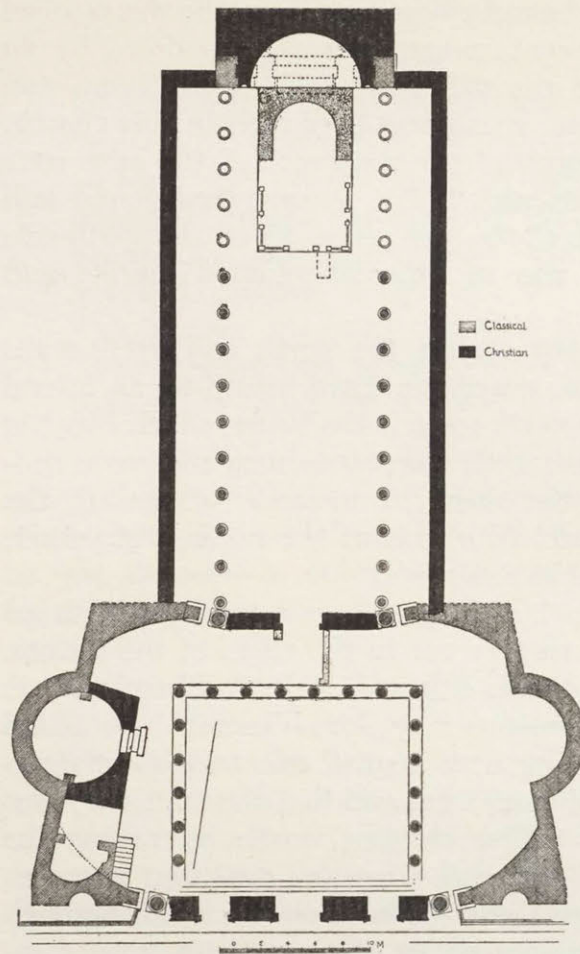
There were passage rooms against the north and south walls like those in the cathedral, which we have identified as lateral narthexes, and here too the north room is the larger, which suggests that the women catechumens were more numerous and more constant in attendance than the men. A memorial chapel of the usual type, with a fine mosaic floor, was at the north-west corner, as in Procopius' Church and in S. Peter's.

On the south of the church and opening on a passage which led from the main church to a smaller one in the south of the atrium, was a baptistery with a room on either side like the baptistery in the Holy Sepulchre as reconstituted by Père Vincent. We found reason to believe that there was once a small *cella trichora* or *sigma* (that is, a chapel on a trefoil plan) here, and that the baptistery was a later adaptation of this earlier building, made by raising the floor all over except at the east end, where an oval font was constructed in the apse and flights of steps built on either side through what had been two tiny side apses or niches; these steps communicated with the two side chambers, which could be also entered from the main body of the baptistery. The side rooms, we imagine, may have been for the use of men and women, respectively.

## 2. THE CENTRE OF JERASH (*contd.*): THE PROPYLAEA CHURCH (*Plan 2, Plate IVb*)

The remains of this church are a prominent feature on the east side of the main street opposite to the Propylaea of the temple of

Artemis, and they have been noted by traveller after traveller. In 1812 Burckhardt noted with his habitual accuracy that there were two groups of columns, three and four, and the same two groups are still standing on the south side of the church; there was also a lintel over the west door which appears on an old photograph



[Planned by C. S. Fisher.]

PLAN 2. THE PROPYLAEA CHURCH AND ATRIUM.

with the longer side to the west, so as to give a widening vision of the great arch to worshippers coming from the east (*see* Plan 2). The Christians converted the oblong hall into a basilica, and built a square atrium in the western court.

The basilica was easily made. At the east end the fine triple gate, the middle opening in which had been arched, was partly

taken by the officers of the Palestine Exploration Fund in the sixties, and has since been removed. Among the churches of Jerash this one is unique, because it is not only constructed entirely of old materials, but is actually built in an old court and preserves much of the old plan. The great Propylaea which were dedicated in A.D. 150 were approached from the east by two courts which led to a bridge across the river: the easternmost of these courts was an oblong hall, perhaps open to the sky, with a colonnade of 15 Corinthian columns on either side and resting partly on vaults; the second court, which led directly to the main street, was in plan an isosceles trapezium

demolished and partly blocked up with stones, carved and plain, which had fallen from the neighbouring buildings, and an apse was made in it. At the west end a cross wall was built between the two courts, and the shell of the basilica was complete. The church is so close to the village that it has been severely stripped, there is hardly anything left of the side walls and practically nothing of the floor. It seems, however, as if it had also suffered heavily before it was finally abandoned; there are traces of a second, inner, apse built on a foundation of pedestals from the east end of the colonnade, part of which must evidently have fallen. This may have happened in the same earthquake which ruined the cathedral and led to a similar reduction there.

More extensive operations were undertaken in the west court, probably because it was more ruinous. The great E.-W. roadway to the temple, on either side of which this court was built, was some 10 m. across at the east end; at the west end where it joined the main street it was about 18 m. wide; on each side, north and south that is, there were apparently raised platforms approached by steps which led to semicircular exedrae in the middle of the two outer walls. In this court the Christians built a wall with three doors in it at the west, they removed the side platforms and constructed three porticoes on the north, east, and south sides to form a regular atrium in front of the basilica, and they converted the semicircular exedrae into circular chambers. It was in the north of these chambers that Mr. Horsfield some few years ago uncovered the fine mosaic floor which is the only Christian relict of real importance on this site (Plate IV*b*).

The mosaic has suffered a little from wear and tear, but, as it was of a non-representational character and contained an inscription to boot, it has escaped wilful mutilation. The mosaic pattern was set out on the axis of the new colonnade in the Christian atrium, but the old line is indicated by the insets in the surround in front of the piers, which were added where the Christian addition joined the classical building. The greater part of the inscription round the mosaic is from Psalm 86, verses 1-3, but it ends with the words, "By the will of God the *diaconia* was built in the month Artemisius in the thirteenth indiction in the year 627," which is equivalent to May A.D. 565. The *diaconia* was probably an office where the deacons distributed charity to the poor of the city, and the verses

quoted are peculiarly appropriate to such a place. The design of the mosaic is of interest because in skeleton it shows the same plan as that which was used for setting out the Dome of the Rock<sup>1</sup>; a variant of it occurs in a circular panel in the north aisle of Procopius' Church. In the Propylaea mosaic the natural beauty of the design is enhanced by the exquisite colours of the limestone tesserae, the dominant hue being pink.

The mosaic is dated 565: is this the date also of the conversion of the two courts to Christian use? The evidence is slight, but it inclines us to answer this question in the affirmative. No scruples would have prevented the adaptation of these buildings at a much earlier date, but it must be remembered that they served a practical purpose, they were the only means of approach to one of the two bridges which united the east bank with the west, and the bridge to which they led was the nearest to the principal group of churches; the construction of a basilica here necessarily blocked access to this bridge, and it is difficult to believe that the inhabitants would have dreamed of doing this so long as the bridge was standing. We conclude that the bridge had fallen before these changes were made. There were two or three earthquakes in the middle of the 6th century, and the coincidence of these with the date of the *diaconia* suggests that it was in these that the bridge and the courts leading to it were ruined. The character of the masonry in the new walls, which were erected by the Christians, has nothing whatever in common with the admirable masonry of the cathedral or the Prophets' Church, but a great deal in common with that of the later churches.

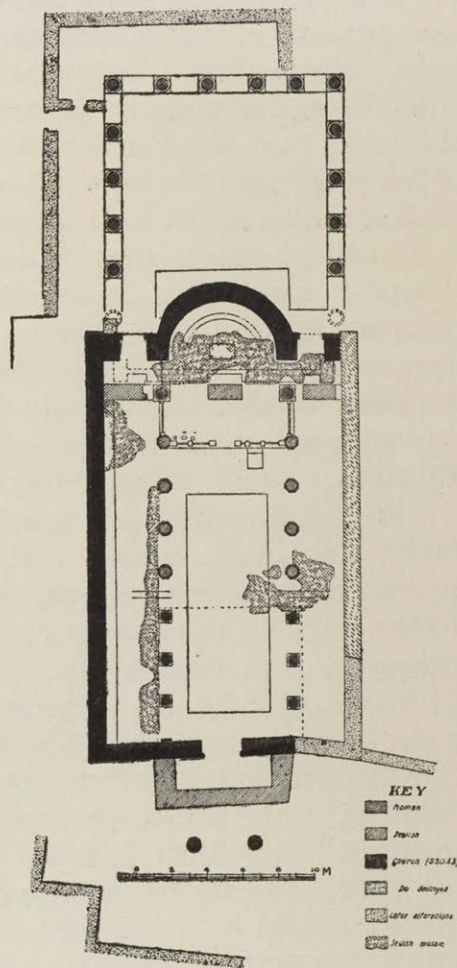
### 3. THE SYNAGOGUE CHURCH (*Plan 3 and Plate V*)

The Synagogue Church stood on very high ground overlooking the temple of Artemis and commanding a magnificent view of the whole city: it is the only church at present found in the north-west quarter of Jerash. One column was still standing erect before we began work, and the site is marked as that of a temple on Schumacher's map: we were chiefly attracted, however, by what we rightly took to be the remains of an ambo.

<sup>1</sup> Creswell, "The Origin of the Plan of the Dome of the Rock," B.S.A.J. Supplementary Paper 2, 1924. Mauss first analysed this plan correctly.

There was very little accumulation on the site, although it has been occupied by a succession of buildings, and the history of its various metamorphoses has not been easy to unravel. The earliest stage of which we have found any remains is represented by the columned atrium at the east end of the main building. The columns round this court stood on square pedestals with pulvinated dies of a type which is not uncommon in Palestine and Trans-Jordan: the type belongs to the 3rd or 4th century, and the column bases are generally, as in this case, cut out of the same block as the pedestals. In the main building there are eight octagonal pedestals with similarly pulvinated dies, and six more square ones—two of them half buried—like those in the forecourt; the six latter we believe to have been moved from the west side of the atrium when the earliest building on the lines of the later church was built, and the eight octagonal pedestals belonged to the original building to which the square atrium led. That there was such a building, and that the atrium was not laid out originally for the synagogue which was built here subsequently, is shown by the point and angle at which the north and south colonnades of the atrium meet the later building. There is, however, nothing to indicate what this building was, and it is quite possible that it too may have been a synagogue.

A second phase in the history of our site was revealed when we



[Planned by C. S. Fisher.]

PLAN 3. PLAN OF THE SYNAGOGUE CHURCH.

See p. 19. The dates of the west wall and the walls projecting from it and the three west columns on the south side are doubtful.

discovered under the apse of the church a series of mosaics belonging to a Jewish synagogue. As our illustration shows (Plate V), the central field of this mosaic contained a picture based on the story of the Flood: at the south end of the picture were figures of Shem and Japheth of whom nothing has survived except parts of the faces; above them was the dove with an olive twig in its beak; beside them, perhaps, were figures of Ham and Noah or, alternatively, these may have stood at the other end of the composition; the rest of the panel was filled with processions of animals from the ark, the fowls of the air in the top register, the four-footed beasts of the field in the middle, and the creeping things after their kind below. Round this field ran a wide border filled on three sides with a row of galloping animals and plants; on the fourth side there was a representation of the seven-branched candlestick with flaming lights and other familiar cult objects, the horn, the *ethrog*, the *lulab*, and a Torah case,<sup>1</sup> and round them an inscription in Greek ending with the words, "Amen, Selah, Peace to the congregation."

This mosaic, which was much damaged when the apse of the church was built, formed the floor of a vestibule which was approached by a flight of steps, the outline of which can be seen east of the apse, and three doors opened from it into the body of the synagogue, as at Beth Alpha. West of this vestibule the remains of the synagogue become progressively vague and disconnected, and to reconstruct the original plan we must supplement our own data from the traditions and from other synagogues. According to the traditions,<sup>2</sup> "the worshipper must face towards Jerusalem and the sanctuary" and "the elders take their places facing the people, and with their backs to the sanctuary"; at Jerash, consequently, the entrance should be at the east end, and the Torah shrine, with a dais in front of it for the seats of the elders, at the west end, because Jerash is east of Jerusalem, and this is how we interpret the fragments before us. The body of the synagogue consisted of a nave and two aisles, and most of the columns dividing the nave from the aisles are still standing on the Jewish level; the colonnades carried stone architraves which are still lying about. The east part of the nave and the south aisle as far as the fifth bay were originally paved with

<sup>1</sup> For this explanation I am indebted to Dr. E. L. Sukenik. The object has been variously explained by others.

<sup>2</sup> See W. Bacher, art. on "Synagogue" in Hastings' *Dictionary of the Bible*.

fine mosaics of the same character as those in the vestibule, but these had mostly perished long before the synagogue was destroyed, and were repaired with coarse tesserae and slabs of stone or marble; there are repairs also in the Flood mosaics. West of this there was probably a dais for the elders, but this was above the level of the later church floor and has consequently disappeared completely, and at the extreme west end possibly an apse, of which there may be traces in the west porch of the church. All along the north aisle the mosaics on the Jewish level were in better condition, but they were of a much coarser type and may belong wholly to the period of the restorers; in the middle of this aisle there is an inscription in Hebrew characters, which, after the usual salutation, ends with the names of three benefactors (?), Phinehas son of Baruch, Jose son of Samuel, and Judan son of Hezekiah. A wide bench seems to have run along the north wall.

There is no evidence to fix the date of the synagogue except what can be gleaned from the mosaics, and these, it is suggested, may belong to the earlier part of the 5th century; the restoration might be tentatively assigned to the beginning of the next century and connected, perhaps, with an earthquake which occurred in A.D. 500.

A church was built above this synagogue in 530-1, this date being all that is intelligible on a mosaic inscription in front of the chancel step, which suffered, perhaps accidentally, when the mosaics in the nave were mutilated by the adherents of a third religion. The church, therefore, was built while Paul was bishop, but the dedication is unknown.

Several synagogues were converted into churches, generally after a violent collision between the two sects, and the two buildings had so much in common that it was an easy matter to make the necessary changes: the orientation had to be reversed, but otherwise the main structure could be left practically intact. At the west end the Christians made a single entrance where the Jewish apse may have stood, but the existing masonry is so poor that we are inclined to regard it as the work of some still later restorer, long after the time of Bishop Paul. Inside, the floor was relevelled and paved with mosaics, but the columns were not moved. The design of the central field in the nave mosaics was exactly like that in S. Cosmas' Church (*q.v.*), all the panels, however, which had contained pictures of living things, were without exception mutilated in the Synagogue

Church, and all were subsequently repaired ; there was a fragment of an inscription in the middle of the south aisle, but elsewhere both aisles were paved only with plain white mosaics, clearly again the work of a restorer, the original pavement, apart from the inscription which the iconoclasts evidently made an effort to spare, having consisted of pictures of living things. The east end was wholly reconstructed. An apse was built, several of the stones apparently coming from a fountain which may have stood in the middle of the atrium, and four of the square pedestals from the east court were moved again, two with the column bases chipped off them being set against the shoulders of the apse, and the other pair being used to form a new first bay in the chancel. Doors were made on either side of the apse to lead into the aisles, as in S. Theodore's and the Prophets'. There was one step between the nave and the chancel, the altar stood as usual on the chord of the apse, and there were sockets for a *prothesis* (?) table at the north-west corner of the screen. The ambo was in the normal position, and fragments of one of the carved marble cheek-pieces belonging to it were found near by. There was an opening in the chancel screen in the first bay on the south side, so it is possible there was once a sacristy at the south-east corner of the church, which has entirely disappeared.

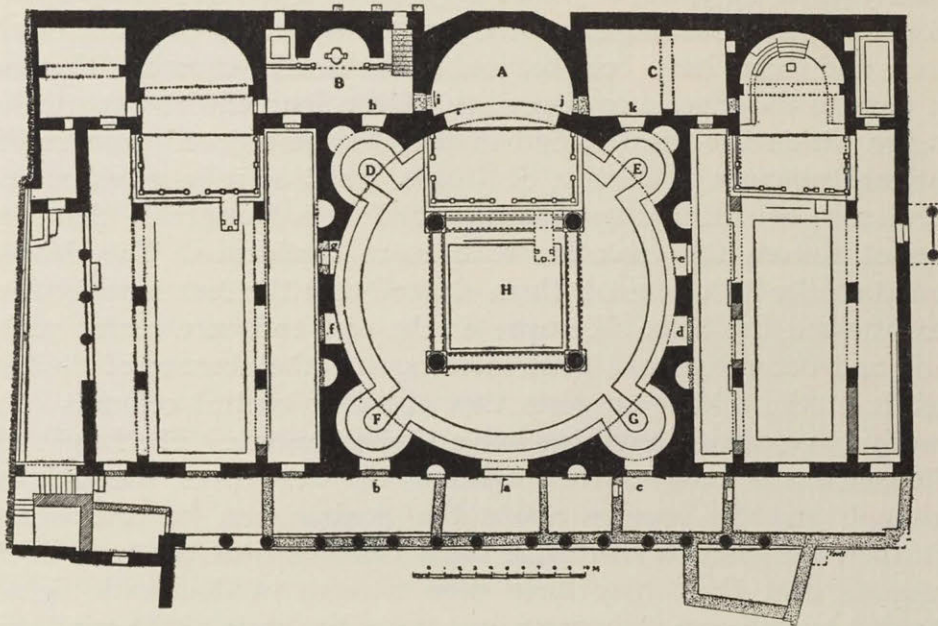
#### 4. FOUR CHURCHES IN THE WEST QUARTER

The low-lying quarter near the west gate seems to have been populous in the Christian period, it contained in all four churches. Three of these, which formed a connected group, lay about 150 m. west of the atrium of S. Theodore's, the fourth lay still further west between this group and the city wall. Remains of the central church in the group have never disappeared completely : two columns in it are still standing, in Burckhardt's time there were three, and on Schumacher's map it is described as a basilica. The church in the far west, on the other hand, has not been noted by any previous traveller : a certain Genesius was bishop when it was built, and we have called it after his name.

##### A. S. John Baptist's Group (Plan 4, Plates VI-X)

This group, as will be seen from the plan, consisted of a central church with a parecclesion on each side, all three opening on a

common atrium (Plate VIa). An inscription about the building is preserved in each church on the mosaics in front of the chancel step, and from these we learn that the central church was dedicated to S. John Baptist, the south to S. George, and the north to SS. Cosmas and Damianus. The whole group was completed between the years 529 and 533, when Paul was bishop, and the founders of the group seem to have been Theodore, the *paramonarius*, and his wife Georgia. The inscriptions are not as explicit as they might have been on the last point, and it will be well to quote the relevant



[Planned by C. S. Fisher.]

PLAN 4. S. JOHN BAPTIST'S GROUP.

passages. S. John's was "paved and roofed" in December 531, and the founder was "Theodore, whom Thomas bred, being as a father to him, who giving gold from his house with zealous heart as an offering to the Forerunner, for he had obtained a name of like meaning to his, endowed the place with all its beauty." SS. Cosmas and Damianus' was paved in February 533, and the principal inscription, which is rather obscure, ends with a reference to the excellent man "whose name thou shalt learn, keeping the name of the Forerunner," and is flanked by portraits of Theodore and Georgia his wife; but to this church there were other contributors, among

them the tribune Dagistheus, who may be identified with a general of this name mentioned in Procopius' *Persian Wars*. S. George's was "roofed and paved and decorated" in 529-530 from the offering of "one whose name the Lord knows," and it is only the dedication which justifies us in connecting it with the family of the *paramonarius* because his wife was named Georgia.

A cursory glance at the plan of S. John's shows that it is simply an abridged edition of the plan of the cathedral at Bosra, which was built some twenty years earlier. Bosra Cathedral measures approximately 50 m. by 38 m., S. John's 29.50 m. by 23.80 m.; the proportions of the two buildings, therefore, are the same, but the number of doors and niches have been reduced in the smaller church. Thanks in part to the ingenious disposition of the four exedrae, the little niches within the greater, and in part to the reduced number of internal supports, four only, S. John's, small as it is, gives one a rare sense of size and spaciousness, and it is lamentable that we cannot restore the elevation with more confidence. The debris found on the floor beneath them showed that the four semicircular exedrae and the horse-shoe apse at the east end were roofed with tufa and decorated with glass mosaics, and the absence of similar debris in the middle suggests that the four central columns can hardly have carried anything but a timber lantern. The height of the columns is known; the heights of the west doors, the arch of triumph and the conches above the exedrae, can be calculated. Further, the discovery of some small columns near the west door suggests that there may have been a large window with lights divided by columns above this door, after the style of the windows in the west façades of the churches on the mosaics, but there still remain a great many features which we cannot re-establish with any certainty.

The two side churches were symmetrical: there was an exedra on the north side of Cosmas' and a porch on the south side of George's, otherwise the two ground plans are practically identical. The substitution of the oblong pier for the column in the nave arcades is the most interesting structural feature in these churches: it occurs nowhere else in Jerash, but is, of course, common enough elsewhere in Syria—Kalb Lozeh is perhaps the best-known example.

The chancels in all three churches are the same in plan and very like those in Theodore's and the Synagogue Church and the first

chancel in the cathedral.<sup>1</sup> In S. George's the seats round the apse with the bishop's throne are well preserved, and the reliquary in front of the throne is still in position: there are, however, also signs of reconstruction, the seat on the north side has been extended considerably and now blocks a door which formerly led into the sacristy on this side, some of the stones in the seats were cut to fit a larger circle than that of George's, a second reliquary was found lying near by and also several fine marble fragments from another screen. The apses in S. John's and S. Cosmas', on the other hand, were absolutely bare, so it is obvious that they were dismantled and their fittings, in part at least, moved into S. George's: to the significance of this we shall return later.

The room between the apses of John's and Cosmas' had also been reconstructed. Originally it may have been a memorial chapel with a screen in front of the central apse and the two side chambers; subsequently the screen was removed, a font was let into the floor, and a flight of steps leading out through what had previously been a window was inserted. The west part of this baptistery had a fine patterned floor, and the room was in use until the 8th century, for a small hoard of some 30 late Umayyad coins was found here.

In all the building inscriptions specific mention is made of the mosaics, and the floor mosaics in all three churches were a legitimate source of pride to the founders.

In S. John's the mosaics in the central square have been almost entirely destroyed: round it ran a broad border of frets in isometrical perspective alternating with panels once filled with heads symbolising the months and, probably, the seasons or winds, but now empty: the magnificent inscription is on the inside of the border near the chancel step (Plate VI*b*). About a quarter of the mosaics in the rest of the church have escaped destruction: a very florid scroll border ran round three sides of the building, following the curves of the exedrae, and in the south-east corner a number of the birds and animals and human figures ensconced in the convolutions of this scroll have survived. The exedrae were probably all filled with the same design, a fantastic candelabrum (Plate VIII*b*), but those in the two west exedrae have perished. The segments of the circle between the border and the central square were filled with

<sup>1</sup> The chancel in Santa Sophia was of the same type, see Ducange, *Gloss. ad script. med. et inf. Graecitatis*, s.v. "Solea."

topographical pictures of places in Egypt. On the north side there were views of Alexandria and the Pharos in the middle, and, on the left (east) of these, views of two other places which we identify with Canopus and the shrine of SS. John and Cyrus at Menuthis (Plate VII *a, b*); right (west) of Alexandria, where the shrine of S. Menas may have figured, nothing remains. In the west segment there is practically nothing left, but in the middle of the south segment there is a view of Memphis in the middle, fragments of a rural scene and a second town, which we cannot identify, to the east, and a Nilotic landscape in the lower register (Plate VIII *a, b*). There is a syncopated version of these pictures in S. Peter's, with views of Alexandria and Memphis only (Plate XII), and it is to this we owe the identification of Memphis in S. John's.

The mosaicist has shown Alexandria as a walled city with ten towers and the two famous gates of the Sun and Moon, through which there is a glimpse of the not less famous colonnades: the only buildings inside which interested him are five churches, and by a curious coincidence Breccia also singles out five only for special mention—S. Mark's, S. Michael's, the patriarchal church in the old Caesarium, S. Athanasius', and S. Mary's, to give the list from east to west.<sup>1</sup> In the open country east of Alexandria we see palms with clusters of the red dates for which this side of Alexandria is still famous, and at the extreme end of the picture is a small shrine with a tower and an arch with a lamp, obviously a famous place of pilgrimage. Such a shrine existed two miles from Canopus, the creation of Cyril, who translated the bones of SS. Cyrus and John to the ancient Menuthis as a counter-attraction to an old Pagan centre of pilgrimage there.<sup>2</sup> The shrine flourished, and an account of 70 miracles wrought by the saints is given by Sophronius, Patriarch of Jerusalem, who was himself cured of ophthalmia there: oil from the lamp was used in some of the cures, and the place was further famous as a beacon to sailors approaching Alexandria, whence the lamp and the tower on the Jerash picture.

On the south side of the church Memphis occupies exactly the same position as Alexandria on the north, and we imagine that on either side of it there were other towns in Upper Egypt corresponding to the coastal places on either side of Alexandria. The Nilotic

<sup>1</sup> Breccia, *Alexandria ad Aegyptum*, 1922, p. 54.

<sup>2</sup> Cabrol and Leclercq, *s.v.* "Alexandria," col. 1113; and Migne, *P.G.* 87, Part III.

landscape is of the usual classical type, and the description which Choricus gives of a painting at Gaza might be applied to our view: the Nile, says Choricus, "is depicted with streams and the appropriate symbols, and with meadows along its banks, and all the various types of birds that oft-times wash in that river's streams and dwell in the meadows."

In S. George's the principal field in the nave mosaics (Plate IX) was divided by a fret pattern into a number of panels—octagons, hexagons, and squares—and all the larger of these were originally filled with pictures of living things, and were accordingly defaced; these panels, however, unlike the empty panels above the inscription in S. John's, were carefully patched, mostly with white tesserae, some with fragments of marble from various church fittings. The inference is obvious, and it is the same which has already been suggested to us by the conditions in the chancels of the two churches: S. John's was not used again as a church after the iconoclastic outbreak, but S. George's was.

The mosaics in S. Cosmas' (Plate X) were not touched by the iconoclasts. On either side of the inscription at the east end of the nave are the portraits of the founders, Theodore and Georgia, each of them standing between two pollarded trees in an oblong panel. Theodore, who has lost his head, is swinging a lighted censer as if officiating perhaps at the service for the dedication of the church,<sup>1</sup> as portable censers were not used at this time in the liturgy: he wears two tunics, one close-fitting, the other with full sleeves, and over them the *planeta* or *phelonion* from which the chasuble is derived. Georgia is portrayed with hands extended in the attitude of prayer common in the 6th century; she wears a tunic ornamented with *clavi* and medallions, like the tunics of which so many have been found in Egypt, and above it a bright red cloak fastened with a brooch and also tied with red strings, on her feet are the red leather shoes always worn by women of the period<sup>2</sup>: she has no veil, but had a red fillet or net twined in her thick, dark hair, large drop-earrings and a necklace.

The rest of the nave was enclosed by a border with a band of frets alternating with geometrical patterns which was continued round the intercolumniations and aisles. The field inside this

<sup>1</sup> See Duchesne, *Christian Worship* (London, 1903), p. 405.

<sup>2</sup> See M. van Berchem and Clouzot, *Mosaiques chrétiennes*, p. lvi.

border was divided, like that in the Synagogue Church, into series of panels, the larger ones set diagonally and the smaller ones on the axis of the building. The four larger panels in the top line contained two more portraits of helpers or benefactors, the inscription of Dagistheus and a conventional vine: the other large panels were all filled with purely decorative designs, no two of them alike, some derived from textile work or wall-paintings, the most original of these being the lily pattern below Dagistheus' inscription, others reproductions in miniature of the plans of floors, others—and this is the largest group—formed out of the interlacing of loops and continuous bands. The smaller panels, set between the corners of the large ones, are filled with representational designs, animals, birds, vases, and so forth; there are seven columns of these small panels, the first, third, fifth, and seventh are filled with animals, the second and sixth with birds, and the fourth or middle column partly with birds and partly with objects like vases and bowls, a conventional arrangement which was followed on a floor at Shellal near Gaza (date 561-2),<sup>1</sup> and probably also in the north aisle of Procopius' Church. Between these two series of panels a series of still smaller squares are filled with figures of boxes seen in perspective, a stock pattern all over the Empire and recurring in Jerash again in the Synagogue Church and S. George's.

The mosaics in this church have suffered from wear and tear; in the north aisle and in the north-west part of the nave they have wholly disappeared, and in one or two places there are signs of rough repairs, but they escaped wholly from the visitation of the iconoclasts who defaced the mosaics in all the other churches. How was this? According to our hypothesis, the visitation of the iconoclasts was made shortly after the earthquake of 717, indeed it was partly the result of the impression made by this earthquake, and we suggest that in this or some earlier earthquake this group of churches suffered severely and large parts of the floors were buried by the fallen debris. Between the earthquake and the visitation the people at Jerash had reconditioned S. George's except at the south-west corner, where the structural damage had been worst, but it is doubtful whether they had started operations on S. John's, which would have been difficult to restore if the roof had fallen: here the only repairs visible seem to be, like those in Cosmas', patches of places which had

<sup>1</sup> *Burlington Magazine*, May 1918, p. 185 f.

worn through at some earlier date, the floors having been indifferently laid in the first place—some of the tesserae are less than 5 millimetres thick—and having been in use for more than 180 years. S. Cosmas' they had probably decided not to recondition at all: in any case, after the visitation neither S. Cosmas' nor S. John's was used again as a church, a new stairway had to be made into the baptistery between them, and a bath was made in the north exedra in Cosmas'. S. George's, on the other hand, was carefully repaired with anything that could be salvaged from the general wreckage, and probably continued to serve as a church until the place was deserted.

*B. The Church of Bishop Genesisius (Plate XIa)*

An inscription in the mosaics at the east end of the north aisle runs as follows (translation by Mr. Jones):—

“The comeliness of the mosaic has been made in the times of Genesisius our most holy bishop from the offering of John the goldsmith and Saola son of Kotessamsies in the year 673 on the 1st of the month September in the fifteenth indiction.”

The date corresponds with the year of our era 611.

The church was a basilica with a nave and two aisles and a memorial chapel at the south-west corner. On the north it abutted on the hillside, and part of the north wall is cut out of the rock. It has been only partially excavated, and in the nave, so far as we have seen at present, the mosaic floor has been completely destroyed and repaired with cement. The structure also suffered, presumably in an earthquake, and, when it was restored, the chancel step in the north aisle was advanced a little so that half the inscription was buried. The most interesting feature in the church is the chancel; as will be seen in our illustration, it runs in a straight line across the nave and both aisles, and therefore approximates in plan to the type of chancel now normal in Orthodox churches. The late Dr. Edwin Freshfield pointed out many years ago<sup>1</sup> that this plan was adopted probably in the time of Justin II (565–578), when the Great Entrance was introduced into the Liturgy, and the date on our mosaic is consistent with this. The half pillar in the entrance to the Prothesis chapel, as we may now call it, may have served to receive the offerings. The remains of the ambo, as usual on the Epistle side, will be observed.

<sup>1</sup> *Archaeologia*, vol. 44, p. 383.

## 5. TWO CHURCHES IN THE SOUTH-WEST (*Plates XIb, XII*)

The precinct which surrounds the church of SS. Peter and Paul lies on high ground in the south-west quarter, and actually abuts on the west wall of the city. The apse of the principal church was visible before we began operations, but it is not mentioned by the earlier travellers.

### *A. SS. Peter and Paul's*

This church is a basilica with a memorial chapel at the north-west corner and an atrium at the west end. It was founded by a bishop named Anastasius, who is mentioned on three mosaic inscriptions: the longest of them runs as follows (in Mr. Jones' translation):—

“ In sooth fair marvels doth every high priest bring to the folk that hold this city and land. Wherefore famed Anastasius, who teacheth sure lore of God, builded a house to the foremost of the Apostles, Peter and Paul, for on them the Saviour bestowed strength, with adornments of silver and stone richly dight.”

On another inscription Anastasius is described as being “ of the four cities,” but which they are is uncertain, and on a third as the “ dauntless.” The mosaics below the chancel steps where the date usually occurs have perished, but the style of the church and the surviving mosaics suggest a date in the first half of Justinian's reign, and the wording of the inscription seems to imply that Anastasius had not fallen below the standard of munificence set by his predecessors: he may have been the immediate successor of Paul.

We may smile at the bombastic phraseology of his inscriptions, but the character of his work justifies the pride which Anastasius took in it, and by a stroke of good fortune his church has suffered less than others in some respects. There were eight columns on either side of the nave, but the miscellaneous character of the caps and bases which were employed and the absence of moulded jambs at the doors show that the supply of good classical material was approaching exhaustion; it was on the decoration, especially on the mosaics, that Anastasius could justly

pride himself. There were three apses at the east end ; the tiers of seats round the central apse were well preserved, and the reliquary under the altar was still in its original place : it had three slots on the top in which the relics had lain, and there was a fragment of marble casing on one side. The chancel extended down two bays in the nave and less than one in each aisle ; three of the screen posts and two of the slabs between them were still in place in the south aisle, and it was clear that there was no door into the chancel from either aisle, neither side chamber could, therefore, have served as the modern *prothesis* chapel serves, and some sockets at the north-west corner of the chancel in the nave suggest that this was the place of the *prothesis* table. The ambo was in the usual position. Several glass tesserae were found at the east end and prove that the conch of the apse at least was covered with glass mosaics.

The mosaics in the nave are second in interest only to those in S. John's Church. The coloured illustration (Plate XII) shows that we have here an abridged version of the topographical pictures in S. John's, containing views of the Pharos, Alexandria, and Memphis only ; the Pharos has disappeared, probably because it had figures on it, the name Memphis is spelt without the final s in the form regularly used by the Arabs and occasionally by Greek and Latin writers.<sup>1</sup> At the east end of the nave there were traces of a fret in perspective with panel pictures of the Seasons, but these, of course, were destroyed ; the purely decorative patterns in the aisles and in the intercolumniations on the south side were in good condition.

#### B. A Mortuary Church

In the same precinct some 30 metres to the S.S.W. is a second church, a small "single hall" building, which is partly excavated from the rock. Owing to this fact more of the fabric has survived than is usual, and part of the stringcourse below the semi-dome of the apse was found in position. The church had a chancel screen of the normal type, seats round the apse with a raised throne for the bishop, the marks where the three pillars of the altar had stood, and fragments of what may have been an ambo. The mortuary character of the building is shown by a cave which opens on the south side of the nave and by an inscription in mosaics in front of

<sup>1</sup> Georgius Cyprius, ed. Teubner, p. 130, and Propertius, *El.* III, xi, 34.

the chancel step, which is rather enigmatical, but appears to mean that the founder built the church, on behalf of his parents' salvation, out of the property he had inherited from them. Unfortunately, the inscription contains neither names nor date.

The mosaics in the nave have been mutilated with the customary thoroughness, and the only other feature of interest is a mosaic border round the west part of the chancel; this border contains a very pretty vine scroll and is one of the few floor mosaics at Jerash in which glass tesserae have been extensively used, the colours of the tesserae being a deep wine red, bright blues and greens. The floor may belong to the latter half of the 6th century.

#### 6. THE EAST BANK (*Plan 5, Plate XIII*).

Only three churches are now visible on the east bank of the river, but there may well be as many more buried under the houses of the modern town. One of the three still visible is in the middle of the Circassian cemetery, which lies just south of the old city wall, and excavation there seemed likely to give so much offence that we decided to confine investigations to the other two.

##### *A. The Church of the Prophets, Apostles, and Martyrs*

This church lies at the north end of the town between the principal spring, 'Ain Karawan, and the city wall. Its ruins were very prominent in former days, and it is mentioned by several old travellers from the time of Burckhardt onwards. Plans of it were published by Buckingham and Schumacher, but, though they preserve details which could not possibly be recovered now, the main building was then so buried in debris that the two plans are hopelessly inaccurate, and both writers have missed the most interesting feature of the church. About ten years ago a Circassian Bey built a house in the south-west corner of the site; the new motor road to Ajlun runs over the east end of the church, and the Bey's garden covers the rest of it, so that now the only visible remains in place are the lower courses of the south and west walls on which the Bey's house stands. House and garden, however, are now let to the Police, the house serving as the local prison, and by the courtesy of Colonel F. G. Peake we were allowed to make soundings all over the garden and arrange a temporary deviation of the road. Thus we were able to recover the

main features of the plan, though all trace of the old atrium or *peribolus* has disappeared, and the portico shown on our plan at the west end of the church is taken from Schumacher's plan.

The dedication and date of the church were given on an inscription which was copied by Wetzstein and has since vanished<sup>1</sup>: it was dedicated to the Holy Prophets, Apostles, and Martyrs, and built in A.D. 464-5 from a gift made by the blessed (*i.e.* late) Marina during the episcopate of Claudius.

The plan of the church is of great interest: it is very simple and set out with rare accuracy, but among existing buildings it is unique, and this is why our predecessors failed to understand it. The main body of the church, as will be seen from our illustration, is cruciform; there were four great columns in the centre, one of which was still standing in the last century, and from this centre four arms radiated, each with a nave and two aisles, divided from one another by colonnades. In the four corners of the cross there were chambers which made the plan externally rectangular. The ground plan which most closely resembles this is that of the church of the Apostles which Justinian built at Constantinople, and our plan throws new light on Procopius' account of this building, which was completely destroyed by Mohammad the Conqueror. Procopius says that the transepts are of equal length, but the part towards the west is built so much longer than the other part as to form the figure of a cross, and Heisenberg<sup>2</sup> assumes that the lengthening was made by the addition of a narthex; there was a narthex at Constantinople just as there was a portico at Jerash, but over and above this in our church, the west arm of the cross is longer by one bay than the other three, and it would be reasonable therefore to restore the plan at Constantinople in the same way.

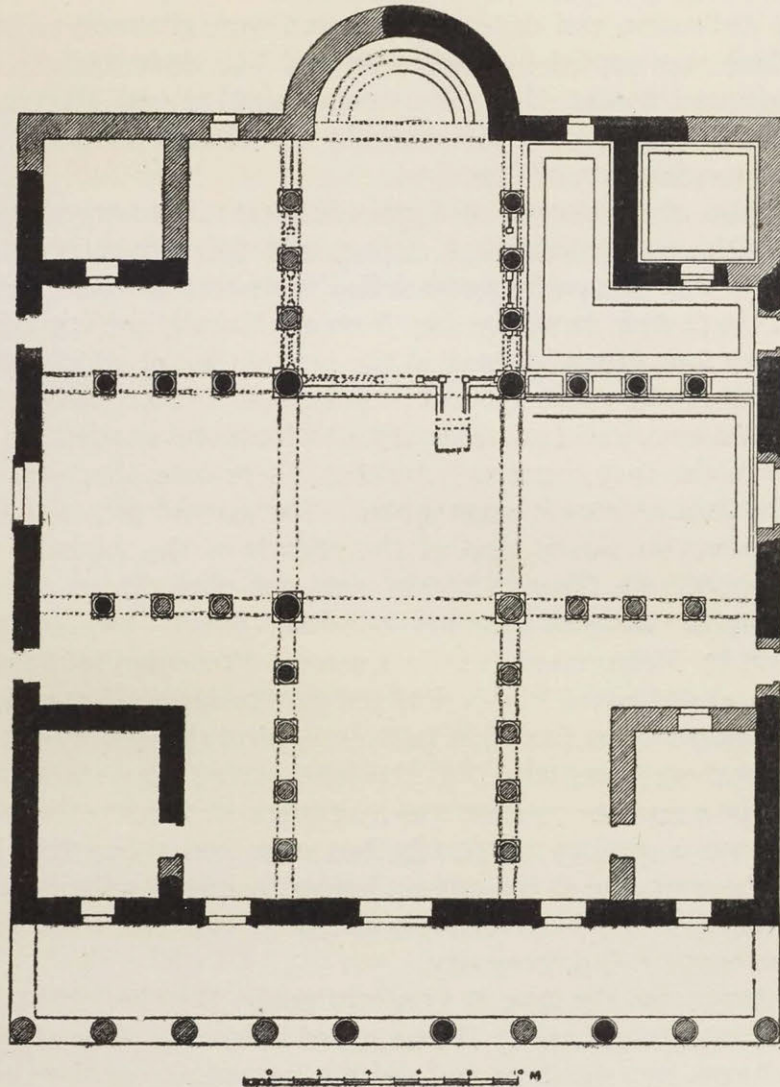
Whatever was the case at Constantinople, the chancel at Jerash ended in an external apse; it was raised above the floor of the rest of the church by two steps and did not extend across the aisles, at the east end of which there were doors leading outside. The ambo was, as usual, against the south side of the chancel.

There is no evidence to show how the church was roofed, but it is difficult to believe that the four central columns can have carried

<sup>1</sup> See Lucas, in M.N.D.P.V. 1901, p. 65.

<sup>2</sup> See Heisenberg, *Grabeskirche und Apostelkirche*, 1908, vol. II, and Procopius in P.P.T.S. 1896, p. 21.

anything heavier than a timber lantern and it probably differed completely in this respect from the church in Constantinople,



[Planned by C. S. Fisher.]

PLAN 5. THE PROPHETS, APOSTLES, AND MARTYRS' CHURCH.

N.B.—The walls and columns which are shown in black have been cleared by us; those which are hatched have been inferred. The colonnade at the west end is taken from Schumacher's plan.

which had five domes like S. Mark's. The columns in the eight colonnades rested on pedestals, most of which are still in position

(see Plate XIIIa), and probably bore stone architraves. The inner walls of the corner chambers, which may have been domed, were constructed as solidly as the outer walls and in the same style, of large blocks, laid in regular courses about 60 cm. high and closely jointed. We found a great many glass tesserae on the north side of the church, which must have come from the walls or roof.

Except in the south-east corner of the church and on the east side of the north transept we found no remains of the original mosaic floor; in the former place it will be seen from the illustration that the plan was carefully designed to fit the architectural features of the building, and that the patterns, if they still have something in common with late Roman mosaics, are much closer to those in the 6th-century churches than those in Glass court; they represent the first step in a new style rather than the last in an old one (see p. 46).

#### B. *The Church of Procopius (Plate XIIIb)*

The church which we have so named lies on very high ground close to the south-east corner of the city walls, and approximately on the axis of the south tetrapylon and bridge. According to an inscription in mosaics in front of the chancel steps, the church was built "under the most godly and holy bishop Paul from the benefactions of himself and Saola, the most discreet deacon and *paramonarius*, under the supervision of Procopius," and completed in October 526. The dedication is not mentioned.

The church was a basilica, with six Corinthian columns resting on pedestals on either side of the nave, and it had three apses at the east end. The chancel occupied two bays in the nave, half the easternmost bay in the north aisle, and the whole of the east bay in the south. The tiers of seats round the central apse are in good condition, and were covered with plaster painted to look like red-veined marble; the wall above them had been revetted, and the floor of the *bema* paved with marble slabs. There was a memorial chapel at the north-west corner.

The chief glory of this church, however, lay in the mosaics which decorated the nave, the aisles, and the memorial chapel, although they have been grievously mutilated. In colour and technique

these mosaics were among the finest in Jerash : all the intercolumnar patterns were different, and the taste shown in the selection of the smaller designs, the deliberate repetitions, and the minute but skilful variations on a single theme, lead one to regret here more than elsewhere the destruction of the main pictures.

### III. THE ARCHITECTURE AND THE MOSAICS

#### A. THE ARCHITECTURE

THE facts about early Christian architecture in Syria which have filtered into our handbooks have been derived almost exclusively from the publications of M. de Vogüé and Mr. Howard Butler, and the generalisations based on them suffer from the limitations which these great pioneers imposed upon themselves. They were concerned to record, and so rescue, what was still visible ; they refrained very properly from clearing buildings which they could not protect ; and the greater part of their material was gathered accordingly from insignificant villages in out-of-the-way country districts, because it was in these that most building was still left above ground. But for these very reasons it would be wrong to expect to find in their books a picture of the real character of early Christian architecture in these parts : one might as well base an account of Christian architecture in Egypt on the Coptic churches of Dr. A. J. Butler and ignore the great monasteries of Sohag and Bawit, of Apa Jeremia and S. Menas. The dreary little basilicas in places like Umm el Jemal do not give an inkling of what was happening in the real centres of civilisation, and the patchy nature of results derived solely from surface exploration may be illustrated by a remark in Mr. H. C. Butler's posthumous book that "there is no evidence that ambos built of stone in the form known in other countries were used in the early churches of Syria,"<sup>1</sup> whereas traces of ten have been noted in our previous section ! The remains at Jerash are those of a city, and it is not an accident that the cathedral of Bosra, one of the few important places studied by both M. de Vogüé and Mr. H. C. Butler, is also one of the few published by them which throws much light on a Jerash church.

In respect of their building material and the architectural detail which they employed, the Christian architects at Jerash were almost entirely parasitic on the past, like indeed many others who have

<sup>1</sup> Butler, *Early Churches in Syria*, p. 216 (Princeton Monographs in Art and Archaeology, 1929).

had a past to live on. It may be doubted whether they brought a single new stone from the quarry, and old capitals and columns are used as freely as in the mosques in Cairo. I cannot recall more than three capitals at Jerash which look as if they had been carved after the end of the 3rd century, and one of these is of marble, and therefore imported. Old material, however, rarely fits as well as new, and the indifferent character of Christian masonry is one of the reasons why there is so much less left of the Christian walls than there is of the walls in the few Pagan buildings which have survived. But though there is little remaining except the ground plans and the mosaics on the floors, this little is more illuminating than the high walls at Umm el Jemal.

The plan of the Fountain court group of buildings can hardly fail to remind any one of the lay-out of the buildings round the Holy Sepulchre in Jerusalem, and except in one point they seem to be a striking confirmation of the accuracy of Père Vincent's reconstruction. In both towns the buildings were on the west side of the main street, and the principal entrance was therefore at the east end; beyond the entrance the principal buildings correspond exactly: the cathedral at Jerash with Constantine's Martyrium, the miraculous Fountain with the Calvary Chapel, and S. Theodore's with the Anastasis; even the two baptisteries are in approximately the same positions. The orientation of the Martyrium in Père Vincent's plan is the only feature which differs from what we find at Jerash: Père Vincent places the apse at the west end and the principal entrance doors at the east. Eusebius seems to be ambiguous on this point, but the *Breviarius de Hierosolyma* to be explicit, "*magna ab oriente est absida, ubi inventae sunt tres cruces,*" and if we accept the latter, the two sites will be exactly parallel (we shall in this case interpret the three doors shown on the Madaba picture as the doors of the Propylaea). This, however, is not the place to discuss such a question, and whether the Martyrium was orientated to the east or west, the parallelism between the two groups of buildings is quite unmistakable.

All the churches we have cleared at Jerash stood, again like those at Jerusalem, in rather crowded precincts, and this fact accounts for some of the characteristics which may surprise, and perhaps disappoint, us most. The buildings were themselves, as we have already noted, rather small, and in the middle of a crowded

precinct there was no room for an edifice with the monumental outlines of either a classical temple or a Gothic cathedral. Immediately in front of the church proper, the *Domus Dei*, there was in all cases, we believe, an atrium, though in one or two instances all trace of it has now disappeared. The walls of the church itself were generally as plain outside as the walls of an ancient temple; sometimes they were decorated, but sparingly, with shell niches like the walls of the south temple at Jerash; the florid ornamentation, which was so characteristic of the later Roman period, was confined, if used at all, to the outer Propylaea which led into the precinct. This comparative severity or baldness may have been in a measure due to the fact that only a small portion of the walls of the main building can have been visible from any single view-point on account of the confined area and the number of dependent buildings erected near or against the church walls. If we picture a building like that of an ancient temple surrounded on all four sides, not by columns but, by a series of low lean-to roofs (covering the lateral passages, the east alley of the atrium and sometimes the apse), we shall have some idea of what the churches were like outside; the description does not sound attractive, but the germ of our later cathedrals is there.

In the upper part of the walls there were windows; the smaller ones at least seem to have been glazed, for we found several fragments of window glass; in the larger ones, to judge from the mosaic pictures, there were hanging curtains which must have added pleasant splashes of colour to the building.

The roofs over the larger spans were of timber as in most regions of the ancient world where timber was procurable, Syria included. In the two parts of our excavation where the accumulation was deepest, at the east end of the great stairway and against the east wall of S. Theodore's, we found long joists of timber still in sound condition; pieces of these were identified by the authorities at Kew as cypress or juniper. The apse of S. Theodore's was vaulted with stone, but, so far as the evidence shows, the other apses and exedrae were roofed with tufa.

It was not, however, on the exterior effect that the architects expended their powers and the wealth of their patrons, but upon the interior. Inside the church at Gaza, writes Choricus, "the curious sightseer may look high and low in search of a spot bare of

either marble or gold ; he will nowhere find one. Any one wearied of gold and marble facings, who would seek relief in stone and masonry, may gaze at these to his heart's content outside." The glittering brilliance of the interior, especially the gleaming marble surfaces and the deep, full-bodied, colours of the glass mosaics, were felt to compensate for the plainness outside.

At Jerash, apart from the floor mosaics which will be discussed in the next section, very little of the interior decoration is left, and in one feature the Jerash churches must have fallen far below the Gaza standard : the place was too far inland for marble to be anything but a rarity ; the apse of the cathedral seems to have been revetted with dark red and green veined marble, and there are a few fragments in other churches from patterned floors or screen rails, but in general the fine pink and yellow limestones from the neighbouring hills took the place of marble. It was with thin slabs of limestone that most of the walls were cased, though in the smaller churches they were plastered and painted ; the only morsels of painting which have survived belong to the latest and poorest period and are without interest, and the limestone slabs, which were fixed with the usual bronze cramps, though they concealed irregularities in the masonry and gave a pattern to the surface, could not, of course, reflect light as marble would have done. In church after church, on the other hand, we found evidence that the upper parts, the conches of the semi-domes in particular, had been covered with glass mosaic, gold tesserae, and pale blue and green ones like those in the mosque at Damascus were especially common ; the only connected fragment large enough to give an idea of a design came from S. Cosmas' and contained part of an acanthus leaf.

We found pieces of a very large number of glass lamps, and the buildings, it is clear, were brilliantly illuminated ; many of the lamps are identical in shape with a type which has been found at Samarra, and which is still used in Jerusalem, both in churches and mosques, in hanging brass or silver containers, being still manufactured at Hebron. Precious metals were probably used freely as at Gaza, but our only authority for this is the inscription in S. Peter's.

The place which these churches occupy in the history of architecture is not difficult to determine. In the Princeton publications Mr. Butler has laid stress on the local peculiarities of architectural

schools in different parts of Syria, and, if we look only at his material, it is not difficult to show that, different as these are from one another, they are still more different from architectural schools in other parts of the Empire. The differences in question, however, are like the local provincialisms we can trace in the country churches in different English counties: it was quite otherwise in the greater centres like Jerash. The references made to the writings of Eusebius and Choricus, one of the 4th century, the other of the 6th, the parallels drawn between Jerash and Jerusalem, show how closely our churches are related with those in other cities. Can we point to anything which is peculiarly Syrian in this group? I personally can see more that is local and peculiar to Syria in the classical buildings at Jerash than in the Christian works between the 4th and the 7th centuries. The latter stand in the main current of architectural development, pointing back to the great centres of Oriental Hellenism and on to masterpieces like the Dome of the Rock or the mosque at Damascus.

#### B. THE MOSAICS

It is difficult to dig anywhere at Jerash without finding mosaics: they were laid in courtyards and alleys, in rooms and churches. They are of all qualities: some are plain white, others have rudimentary criss-cross patterns like the patterns on linoleum strips, and as uninteresting; others have the decorative richness of an Oriental rug. The finer floors were a source of legitimate pride to the people who built these churches, and in six of the buildings there is specific reference to the mosaics on the inscriptions. In Jerash and elsewhere they are the only element in the decoration of the building which has survived, and, both as examples of craftsmanship and as documents, mosaics deserve more than what Strzygowski has called the stepmotherly treatment which has been generally vouchsafed to them.

To speak briefly of the materials and technique: there are a few marble tesserae on one or two floors, and on three of the later ones, the Cathedral Chapel, the Mortuary Church and Genesisius', there are several glass cubes; elsewhere only limestone tesserae are used, the local quarries providing various shades of creamy white, yellow, brown, pink, red, grey, and black. The local tints are very beautiful, and it would be hard to surpass the soft and delicate gradations of

colour which are brought out when the floors are wetted or polished. The beds, so far as they can be seen, vary considerably in quality, but differences in the size, regularity, and setting of the tesserae are more significant. In the earliest floor, the low level in Glass court, there are about 45 cubes on the average to the square decimetre ; in the Flood picture in the Synagogue there are about 100, and about the same figure in Procopius' ; in the Prophets' about 80 ; in the John Baptist group the average is nearer 85, in the Cathedral Chapel it is well over 100. On all the floors, including the earliest, the tesserae are less regular and less closely set than on classical floors, but the effect of the looser spacing and laxer shaping of the tesserae is not unpleasant, it gives a livelier look to the pavement than the pitiless impeccability of, say, the Pompeian craftsman. A feature to which no praise can be given, however, is the shallowness of many cubes ; some were picked up in John Baptist's which were barely 5 millimetres deep, and it is small wonder that they were easily dislodged, especially when they were not set very closely.

The design of the whole floor was always carefully planned to fit the architectural features of the building : the nave was treated usually as a single field with an elaborate composite border round it ; the aisles and intercolumniations as smaller, separate, fields also with borders ; and running round and between these was a surround, which was sometimes quite plain, but in Justinian's time was often sprinkled fairly thickly with crosses or flowers or other small patterns. The rich borders contributed a great deal to the general effect, but the principal interest lies in the subjects and patterns with which the central fields were filled. (Here, as in other parts of Syria and Palestine, the chancels were not paved with mosaics.)

In the central fields the representational element originally far outweighed the purely decorative or abstract element, but of the former the iconoclasts have left comparatively little. The Jews at Jerash, as at Beth Alpha and 'Ain Duk, decorated their synagogue floors with pictures based on stories in the Old Testament ; it is probable that the Christian repertory at Jerash contained nothing of the kind ; the Eastern Christians have the strongest scruples against treading on sacred pictures, and a Christian woman from the village, a Protestant withal, hesitated to enter the Diaconia because she shrank from walking over a quotation from the Psalms. For this reason we disagree with those who give a symbolical inter-

pretation of any of the floor patterns, who think, for example, that the pictures of vines refer to the True Vine of the Gospels, that the peacocks are emblems of immortality, and that the cups are Eucharistic chalices; Eastern Christians would not enter the churches if such were the case. We must regard these representations just as we should similar subjects on a Persian rug. Favourite subjects at Jerash were figures of the months and seasons which were taken over from the classical stock-in-trade; genre scenes depicting seasonal occupations, the harvest, the vintage, the chase; views of famous places, portraits, and endless pictures of animals and birds and fish. The range of motives is much the same as that with which mediaeval craftsmen eked out the supply of subjects to be found in the Bible and the Hagiology. It was a careful selection, however, as we learn from Choricus. "The birds of the poets," he says, "nightingale and cicada, the artist has done well to reject, lest even the memory of those fables intrude upon the sacred place. Instead of them he has enjoyed depicting a host of other birds and a flock of partridges; perhaps he would have rendered the very music of their cries, had not the sound hindered the hearing of God's Word." The decorations obviously must be interesting, they must hold wandering thoughts, but they must keep them along safe paths. The only buildings which were represented in the walled towns on the topographical pictures here and on the picture of Jerusalem at Madaba are ecclesiastical buildings. Theodore and Georgia are both portrayed in religious attitudes.

To turn to the style of these representations: the towns are shown as they would appear from a standpoint on a neighbouring eminence, oblique air photographs give pictures from a similar viewpoint. This convention is not Oriental or Hellenic in origin so far as we know; it may, perhaps, have been started by Demetrius the Alexandrian, a painter who moved to Rome in the 2nd century B.C. and was called the topographer<sup>1</sup>; it was fully developed during the Early Empire, and there are hundreds of examples of it on frescoes, wall mosaics, maps, manuscripts and woodcuts during the next 1500 years. Our pictures are interesting because, though the manner is traditional, the matter is relatively recent, as is shown by the character of the domed buildings, and the view of the shrine

<sup>1</sup> See Overbeck, *Die antiken Schriftquellen*, Nos. 2141-2, and Mrs. Strong, *Art in Ancient Rome*, 1929, I, p. 60.

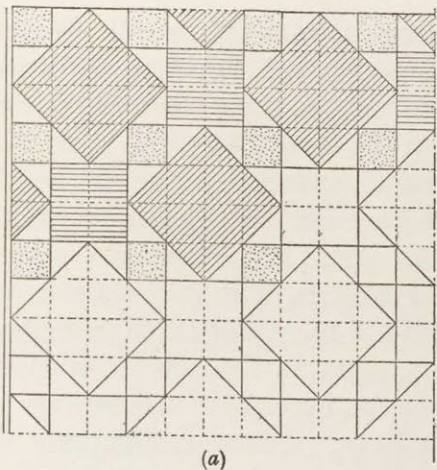
of SS. Cyrus and John which had only been founded in the previous century. The balanced composition of the pictures is also noteworthy.

The human figures are not very successful ; they are treated as patterns like our mediaeval brasses, they have no background and nothing for the feet to rest on, they look as if they were inserted like the trees on either side of Theodore, to fill a space in a decorative way. The squat proportions are classical rather than Byzantine, the slim elongated figures one sees at Ravenna and much earlier at Doura were not in vogue here ; at Gaza, too, it is plain from Choricus that " realistic " classical traditions were still strong.

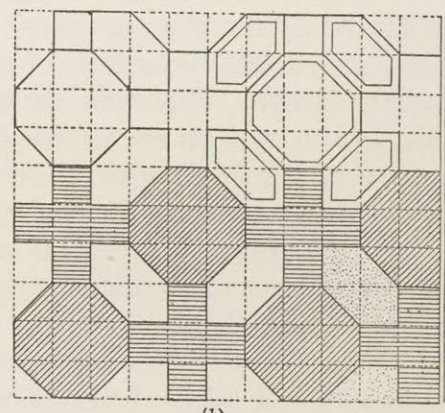
The decorative, non-representational, elements are, by reason of the iconoclastic outbreak, much more in evidence at Jerash ; there are the various geometrical schemes for the division of the fields, the patterns on the panels which were formed by these schemes, and there are the borders. Of these three groups the panel patterns are too numerous to be discussed in detail here ; as a rule no two of the larger panels in a church are alike, and the wealth of motives at the disposal of the mosaist is comparable with that of craftsmen in the richest periods of Mohammadan, Celtic, or Gothic art. But about the geometrical framework and the borders a few brief remarks may be offered.

The characteristic geometrical schemes of the period are very simple ones which can be drawn on squared paper. They are of two kinds, those in which the basic square forms a visible part of the design, and those in which it is hidden in the finished pattern. The nave floor of S. Cosmas' (Diagram 1 (a) and Plate X) is an example of the first class<sup>1</sup> ; here the basic square is the small square which is decorated with the same box pattern throughout, the animal squares are made up of four basic squares, and the large panels are squares on the diagonal of two basic squares. S. George's nave (Diagram 1 (b) and Plate IX) belongs to the same group : here five basic squares are joined together to form a cross, and the hexagons and octagons are made out of the sides and diagonals of the square ; there is another variant of the same group in the south-west corner of Glass court (Plate IVa). Of the second class the best example is the octagon pattern which occurs in the Prophets' and Procopius'

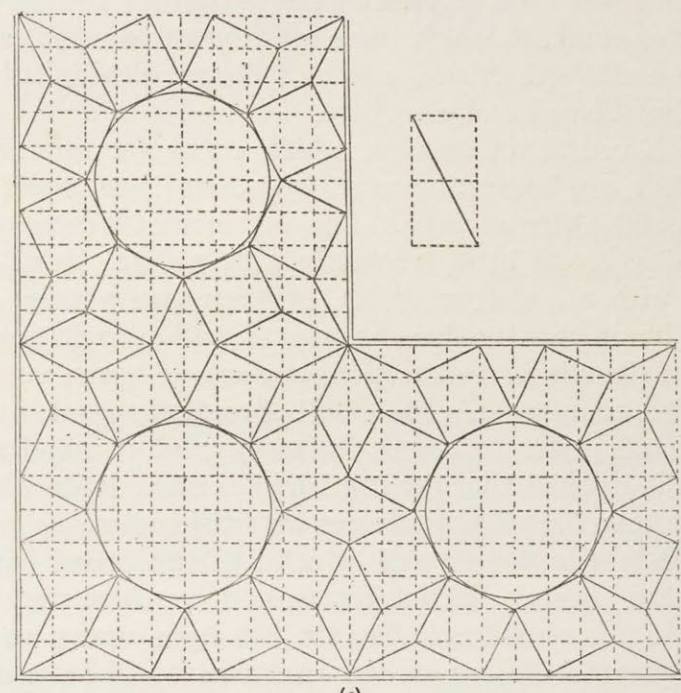
<sup>1</sup> The same frame occurs also at Ravenna on the site of Theodoric's palace, see *Monumenti Antichi*, XXIV, 1916, p. 759, Fig. 6.



(a)



(b)



(c)

[Drawn by C. S. Fisher.]

DIAGRAM I. GEOMETRICAL PATTERNS.

- (a) S. Cosmas', Nave Field.
- S. Cosmas', Nave Panel in Column 3, Line 5.
- Synagogue Church, Nave Field.
- S. George's, North Aisle Field.
- (b) S. George's, Nave Field.
- Procopius', North Aisle Field.
- (c) Prophets', South-East Section (see Plate XIIIa).
- Procopius', South Aisle.
- S. Cosmas', Nave Panel in Column 2, Line 12.
- Synagogue Church, Nave Panel in Column 1, Line 4.

(Plate XIII); the sides of these octagons, on which small squares separated by rhombs are described, are all equal, but the angles are alternately a little greater and a little smaller than the angles of a regular octagon, and from Diagram 1 (c), it will be seen that the sides of the octagon are formed by the diagonals of rectangles equal to two of the basic squares set side by side. A regular octagon, with equal squares and equal rhombs round it, occurs on a silver dish of the 2nd or 3rd century A.D. at Athens,<sup>1</sup> but it could not be set out without more calculations than the mosaicist cared to make, unless, as is possible, he chose his octagon as the more beautiful type; that he was capable of making the necessary calculations is proved by the plan of the Diaconia floor. Other applications of the same method may be seen in the pattern of the northernmost field in Glass court, to which there are Roman parallels as far afield as Britain and North Africa, and in a design with linked hexagons in Procopius' Chapel and elsewhere.

The rich composite borders, which count for so much in the general effect, are interesting as anticipations (?) or copies (?) of the borders round Oriental rugs. The commonest border at Jerash consists of a broad band (generally with a floral scroll or a fret, less often with a guilloche on it), between two narrow strips decorated, often in counter-changed colours, with crenellations, spirals, dogs' teeth, ribands in perspective, or rows of spots, very like the triple borders round rugs. In default of ancient rugs it is impossible to say which is prior, the rug or the mosaic, but it may be urged on behalf of the mosaics that the rug fringe is never imitated on these, as it might have been if the mosaics were the copies.

The continuous floral scroll which fills the broad band in the borders takes several distinct forms, and as these may be useful for dating other mosaics, a diagram has been drawn to illustrate the development. On our earliest examples it will be seen that the acanthus, if so we may call it, is unfolded, the midrib is displayed, and there is leafage on both sides of it; the latest example of this type is in Procopius' (526). In the earliest the midrib is dotted like the acanthus stems on some capitals of this period at Constantinople and Salonica.<sup>2</sup> In the border in S. George's, some three years after Procopius', the acanthus is shown in the commoner

<sup>1</sup> Published by G. Matthies in *Ath. Mittheil.*, 1914, p. 106 f.

<sup>2</sup> See an article by E. Weigand in *Ath. Mittheil.*, 1914, Figs. 4 and 6.

way in profile, the midrib hidden, and nearly all the leafage turned inwards; a year or two later still, in the Synagogue Church, S. John's, and S. Peter's, the scroll becomes much more complicated and restless, the leaves start from four points in the spiral instead of two, they are shaped like fleur-de-lys at the points of bifurcation, and there are six of them. A more graceful version of the last form



[Drawn to scale about 1 : 30, by D. M. Crowfoot.]

DIAGRAM 2. SCROLL BORDERS.

- |   |  |
|---|--|
| 1. Prophets', South Transept, A.D. 464-5. | 5. Synagogue Church, Nave, A.D. 530-I. |
| 2. Glass Court, Upper Level.              | 6. S. John Baptist's, A.D. 531.        |
| 3. Procopius', Memorial Chapel, A.D. 526. | 7. SS. Peter and Paul's, Nave          |
| 4. S. George's, Nave, A.D. 529-530.       | 8. Cathedral, Memorial Chapel.         |

occurs in the cathedral chapel which is undated, but may well be a decade or two later than the last group. The delicate vine scroll in the Mortuary Church, which was largely executed in glass tesserae, may be the latest of all.

Of the frets the most interesting is the so-called plastic fret

which occurs in S. John's and S. Peter's. This tri-dimensional treatment is singularly out of place on a pavement, but no doubt it tickled the designer to be able to represent things in this way, and he could not resist the temptation. This, too, is part of the Hellenistic heritage; it occurs on mosaics signed by Sophilus now at Alexandria, and on others in Pompeii and Rome. It is not surprising to see something of the same sort still surviving on many tiled floors in Italy, but more startling to find it adopted also on Chinese rugs of the 18th century<sup>1</sup>; it shows how even fine craftsmen may be corrupted by a bad example.

As we have seen in the previous paragraphs, some elements in the classical inheritance were taken over without change by our mosaicists: in others, notably in the acanthus scroll borders, changes were made from time to time. In the treatment of the minor panels also differences, which are perhaps more significant, can be traced between the work of the 4th, the 5th, and the 6th centuries. In the 4th century mosaics in Glass court (Plate IVa), the largest field is composed of squares and rhombs; the rhombs are treated as plain, shaded, colour masses, the squares filled with patterns, though the patterns are less varied than those on analogous panels in later floors. On the 5th century floor in the Prophets' Church both squares and rhombs are all filled with different designs (Plate XIIIa); the patterns in the squares are of the usual varied type, but some of those in the rhombs are most remarkable and not very happy, for example, one of two fish head to head, and one in a half-rhomb near it with a pot; in other parts of the floor, in one of the intercolumniations, for example, plain colour masses are still in vogue. In the 6th century on the floor of the south aisle in Procopius' there is a frame identical with that in the Prophets' (Plate XIIIb), but here all the rhombs which are of the same size are filled with the same pattern, and all the rhomb patterns are of a related conventional character; and neither here nor in any other part of the floor are there any plain unpatterned panels. The first of these floors may be regarded as an example of late classical workmanship; in the second the mosaicist is evidently trying, not with complete success, to diversify the classical inheritance; in the third a further stage has been reached, the groping experiments of

<sup>1</sup> See Kendrick and Tattersall, *Handwoven Carpets*, 1922, Plate 70 B, and Münsterberg, *Chinesische Kunstgeschichte*, 1912, II, p. 410.

the 5th century have been left behind, and something like a new canon has been introduced. We have already noted the similarity between the dotted treatment of the midrib of the acanthus on the Prophets' border and that on acanthus leaves on caps elsewhere ; and the differences in taste between the 4th, the 5th, and the 6th centuries, which are suggested by the further details just described, may be accepted as significant distinctions between the three periods in question, if the broad lines laid down by E. Weigand in his account of the Golden Gate at Constantinople are correct.<sup>1</sup>

There are no artists' names on the mosaics at Jerash, and we cannot say where the craftsmen came from. Labour, no doubt, was mobile at this time, and it might be inferred from the very poor repairs on the early synagogue floor and on S. John's that skilled mosaicists were not always to be found on the spot, and that therefore the fine floors were the work of foreigners, but it is obvious that we cannot lay much weight on such an argument. We can, however, say that neither in the mosaics nor in the buildings can we detect any purely local characteristics. The patterns belong to the common stock of the time, and at the present stage it is perhaps enough to note of what elements this stock was composed, and how it was changing from generation to generation.

The study of Christian mosaics is only now beginning. The material difficulties in the way of securing adequate photographic or other records of the floors are considerable. But there is so much to be learned from them that we can but regret the disparaging criticisms which have been passed on Christian pavements in what is perhaps the best work ever written on ancient mosaics, the article on *Musivum* contributed by M. Gauckler to Daremberg and Saglio's Encyclopaedia. His criticisms seem to us fundamentally irrelevant ; he complains that the religious fanaticism of the time had reduced the repertory of the mosaicist to a dull round of banal subjects and designs, largely skeuomorphic in origin, that the artists had no notion of perspective or anatomy, and that the inscriptions are sorry bits of pompous doggerel. But do short-comings in these things matter in what is primarily the covering of a floor ? Do people want realistic pictures, sacred or secular, on their floors, or condemn the design of a rug because it is like that of other rugs which were not made for the same room ? With regard to the inscriptions, the

<sup>1</sup> *Idem*, pp. 30, 63.

first essential is that the lettering should be decorative ; if it is also informative, so much the better, the character of the versification hardly concerns the mosaicist.

Considered not as works of fine art, to be put side by side in a museum, but as the decorations of the pavement in a number of separate churches, these Christian floor mosaics seem to us wholly charming and successful. The designs are carefully adapted to the place they were intended to occupy ; within the limits of a single church there is plenty of variety, and in the general effect the drawing of detail, which is admittedly the drawing of craftsmen rather than artists, counts for much less than the colours which are those of the delicately variegated local limestones. These varied hues are incomparably pleasanter than the gloomy black-and-white tessellations round the floors in Alexandria or Pompeii, and many Christian pavements have just that gay flowerlike look which is so often praised by the writers of the time.

PLATE II.



(a) ENTRANCE TO FOUNTAIN COURT GROUP, FROM E. WITH NYMPHAEUM TO N.

[Photo : J. Schweig.]



(b) FOUNTAIN COURT AND CATHEDRAL, FROM W.

[Photo : O. Lind.]

PLATE III.



[Photo : American Colony. By courtesy of the Palestine Exploration Fund.]

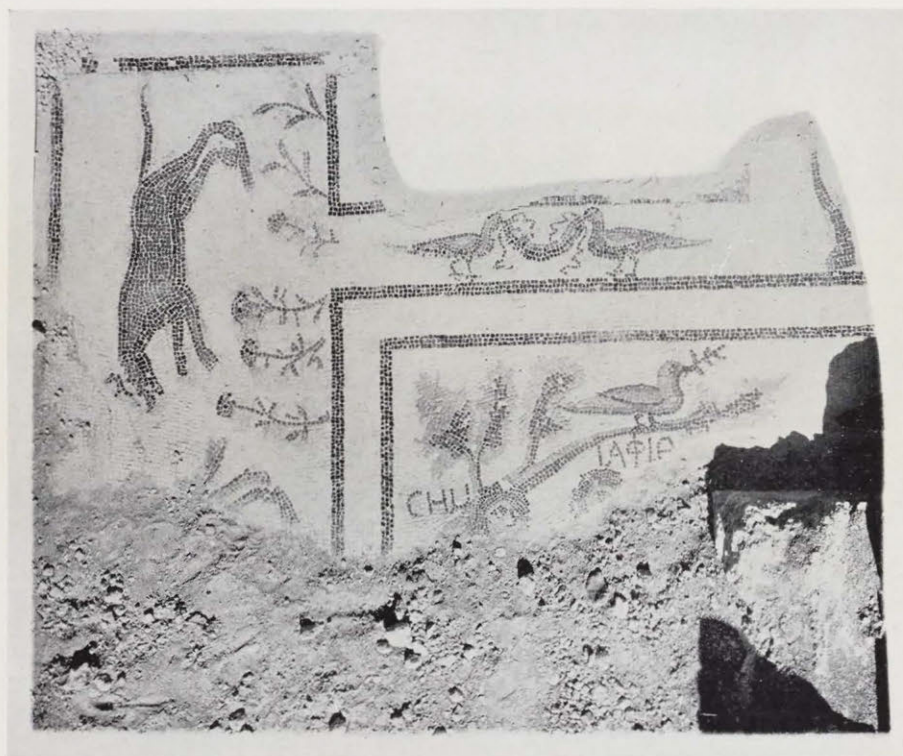
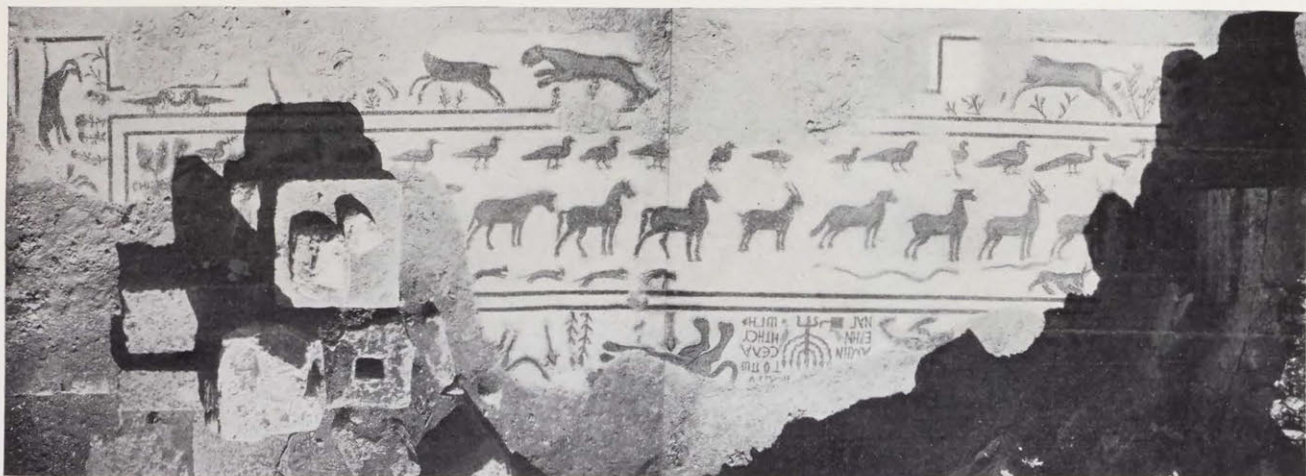
(a) FOUNTAIN COURT, FROM S.E.



[Photo : American Colony. By courtesy of the Palestine Exploration Fund.]

(b) FOUNTAIN COURT, FROM N.E.





[Photo : J. Schweig. By courtesy of the Palestine Exploration Fund.

MOSAICS IN THE VESTIBULE OF THE SYNAGOGUE : see p. 18.

PLATE VI.



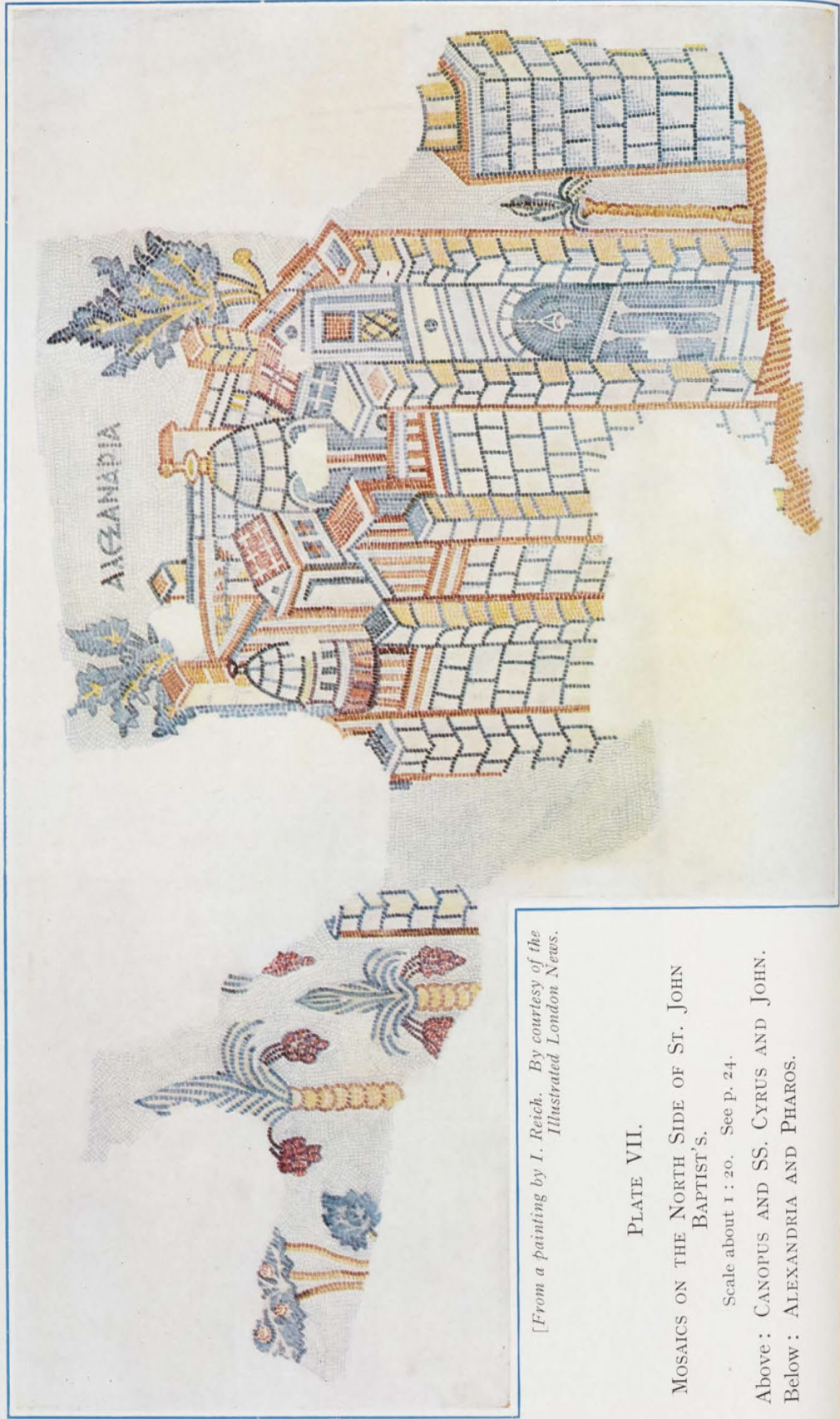
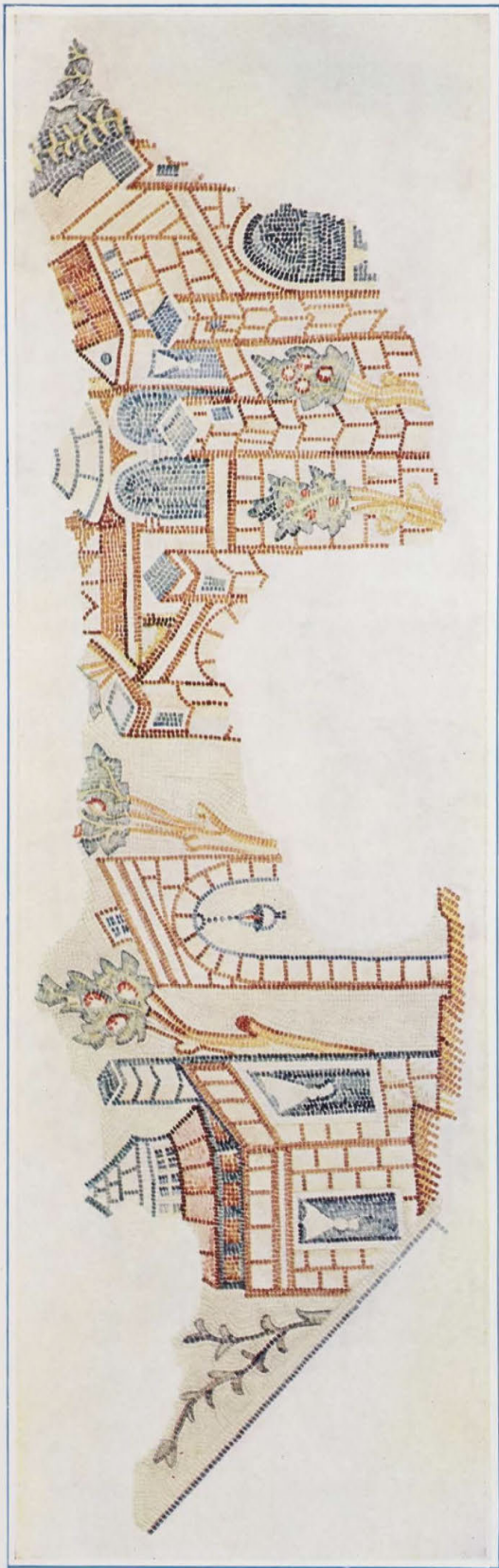
[Photo : J. Schweig.]

(a) S. JOHN BAPTIST'S GROUP, FROM N.W.



[Photo : J. Schweig.]

(b) INSCRIPTION IN MOSAICS, S. JOHN BAPTIST'S.



[From a painting by I. Reich. By courtesy of the Illustrated London News.]

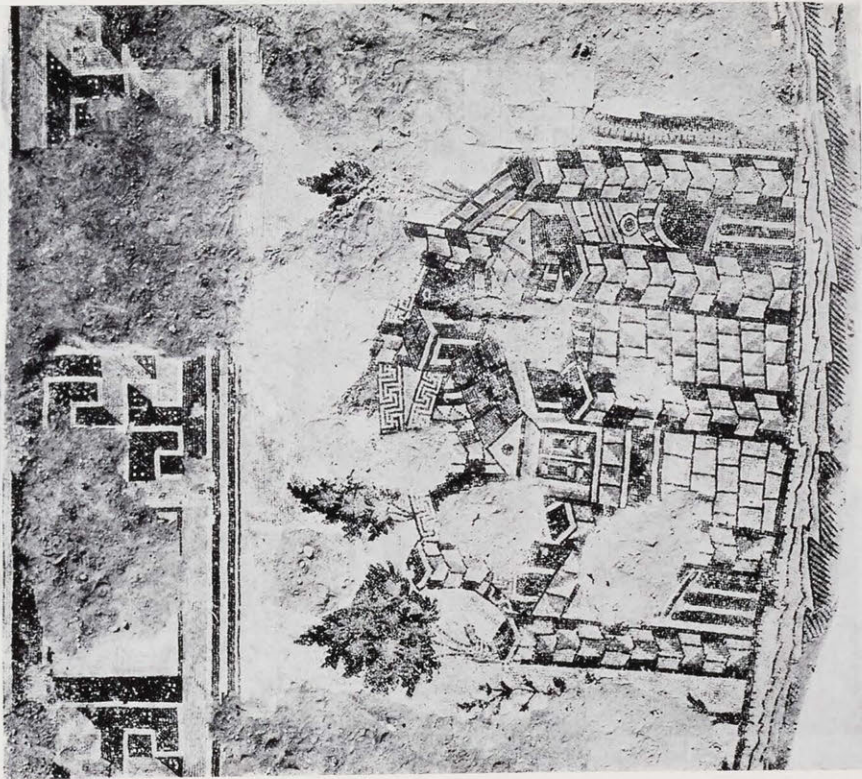
PLATE VII.

MOSAICS ON THE NORTH SIDE OF ST. JOHN BAPTIST'S.

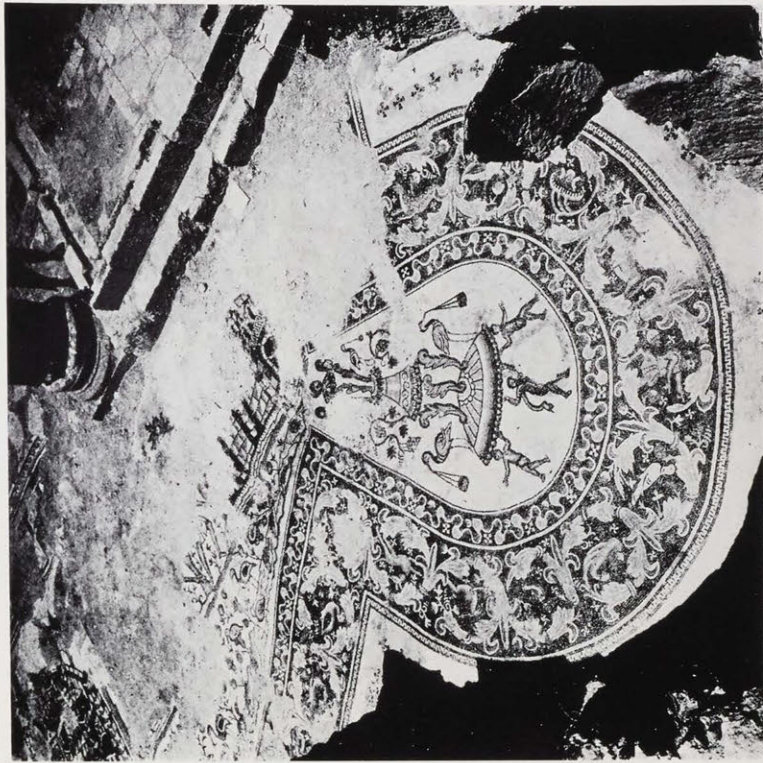
Scale about 1 : 20. See p. 24.

Above: CANOPUS AND SS. CYRUS AND JOHN.  
Below: ALEXANDRIA AND PHAROS.

PLATE VIII.



[Photo : J. Schweig.]  
(a) PICTURE OF MEMPHIS, S. JOHN'S, SOUTH SIDE.



[Photo : J. Schweig.]  
(b) MOSAICS IN S.E. EXEDRA, S. JOHN'S.

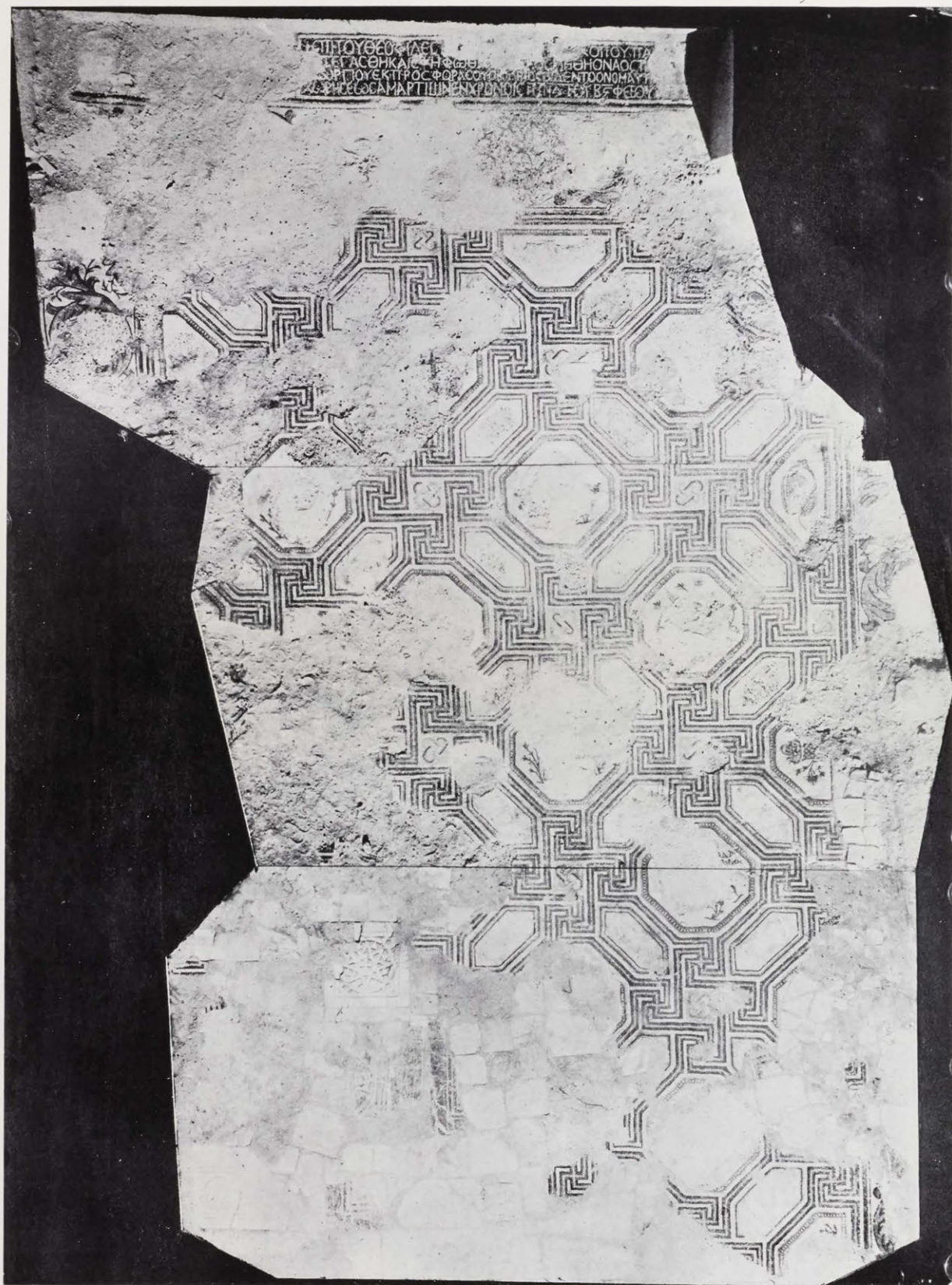
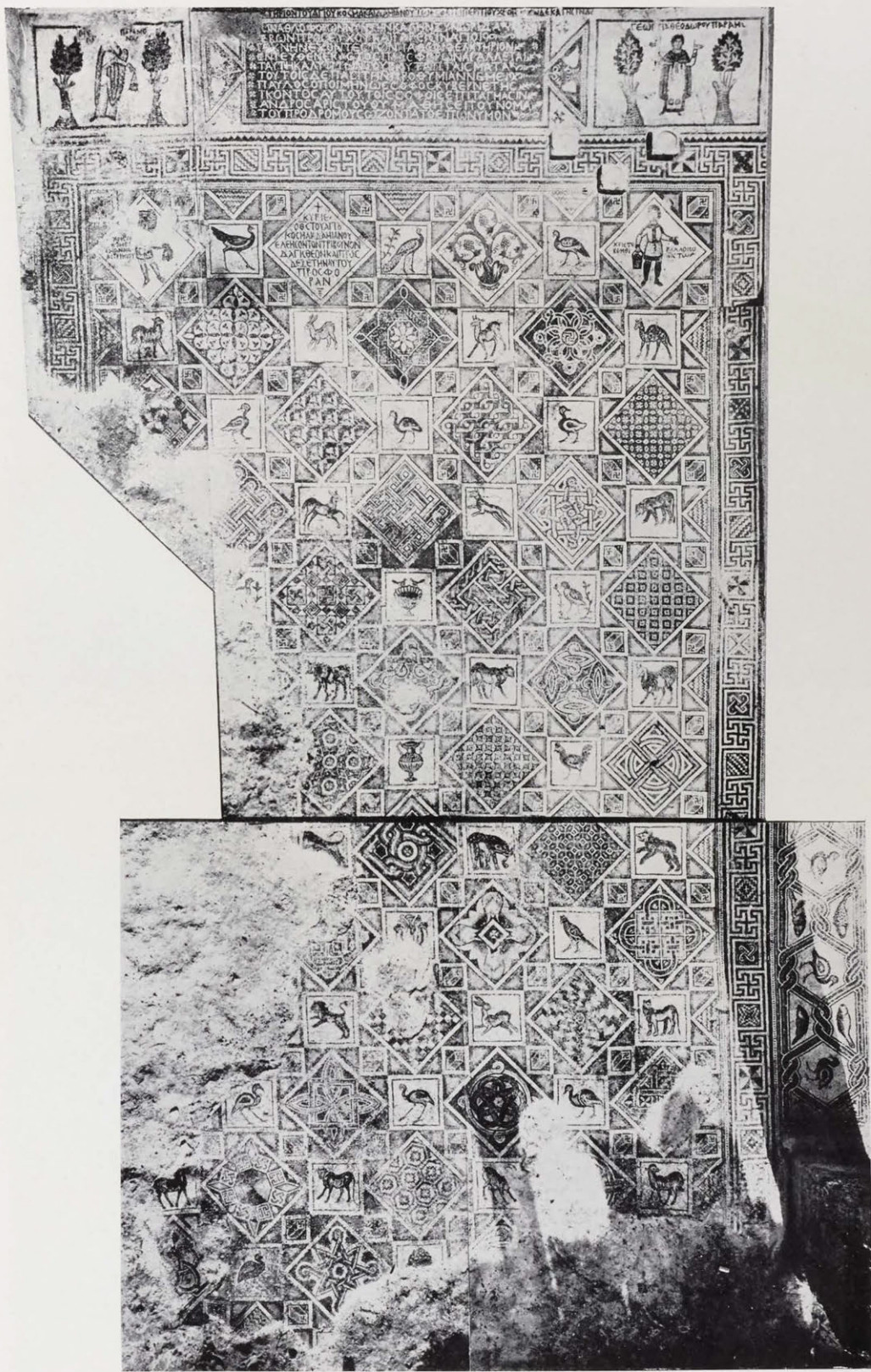


PLATE IX. NAVE OF S. GEORGE'S.

[Photo : J. Schweig.]



[Photo : J. Schweig.]

PLATE X. NAIVE OF SS. COSMAS AND DAMIANUS'.

PLATE XI.



[Photo : J. Schweig.]

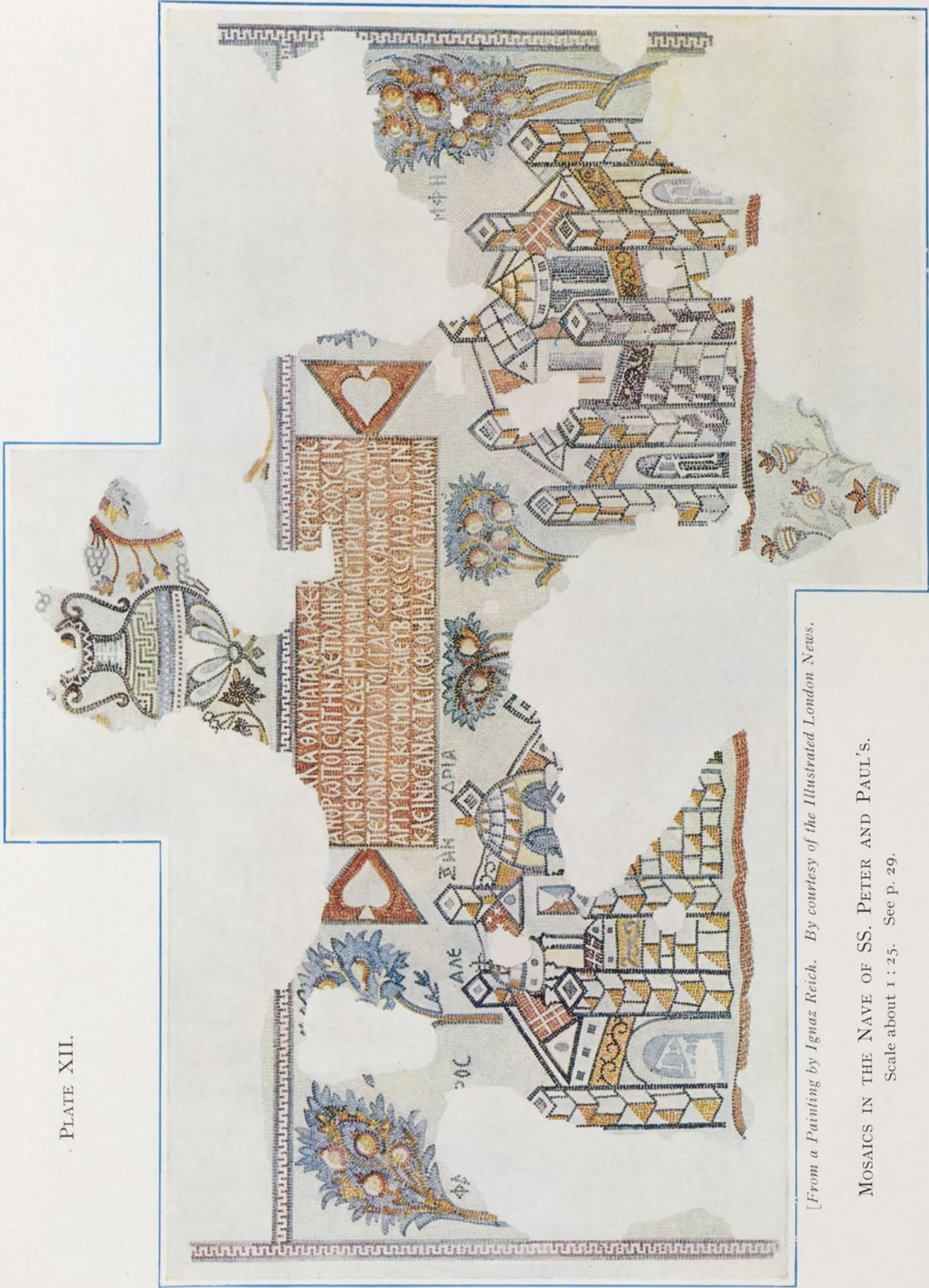
(a) CHANCEL IN BISHOP GENESIUS' CHURCH.



[Photo : J. Schweig.]

(b) VIEW OF SS. PETER AND PAUL'S.

PLATE XII.



[From a Painting by Ignaz Reich. By courtesy of the Illustrated London News.

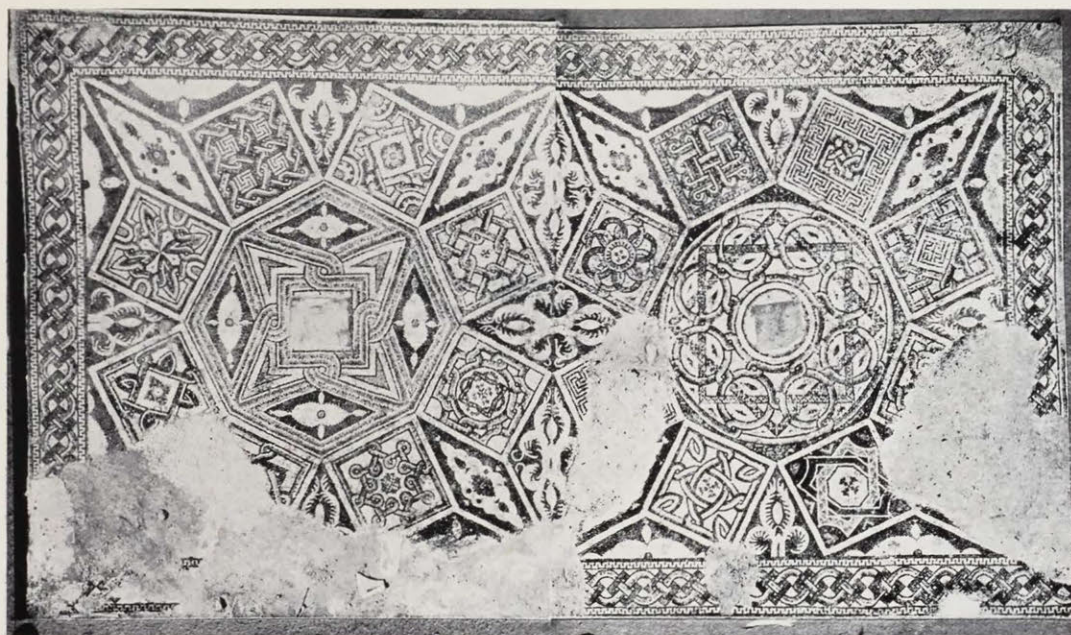
MOSAICS IN THE NAVE OF SS. PETER AND PAUL'S.  
Scale about 1 : 25. See p. 29.

PLATE XIII.



[Photo : O. Lind.]

(a) MOSAICS IN THE PROPHETS, APOSTLES, AND MARTYRS'.



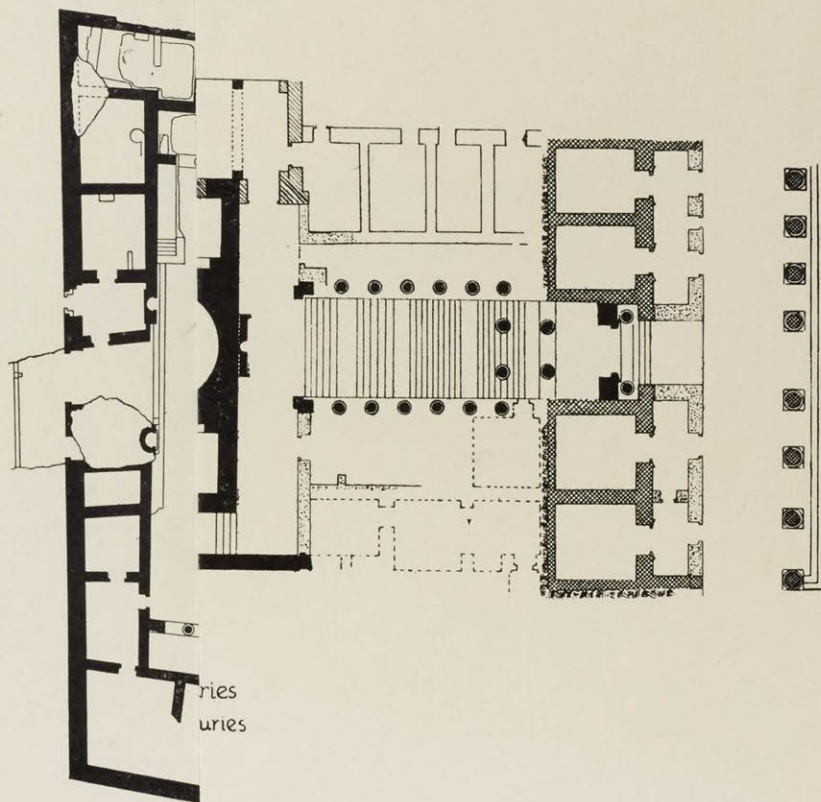
[Photo : J. Schweig.]

(b) MOSAICS IN PROCOPIUS', S. AISLE.

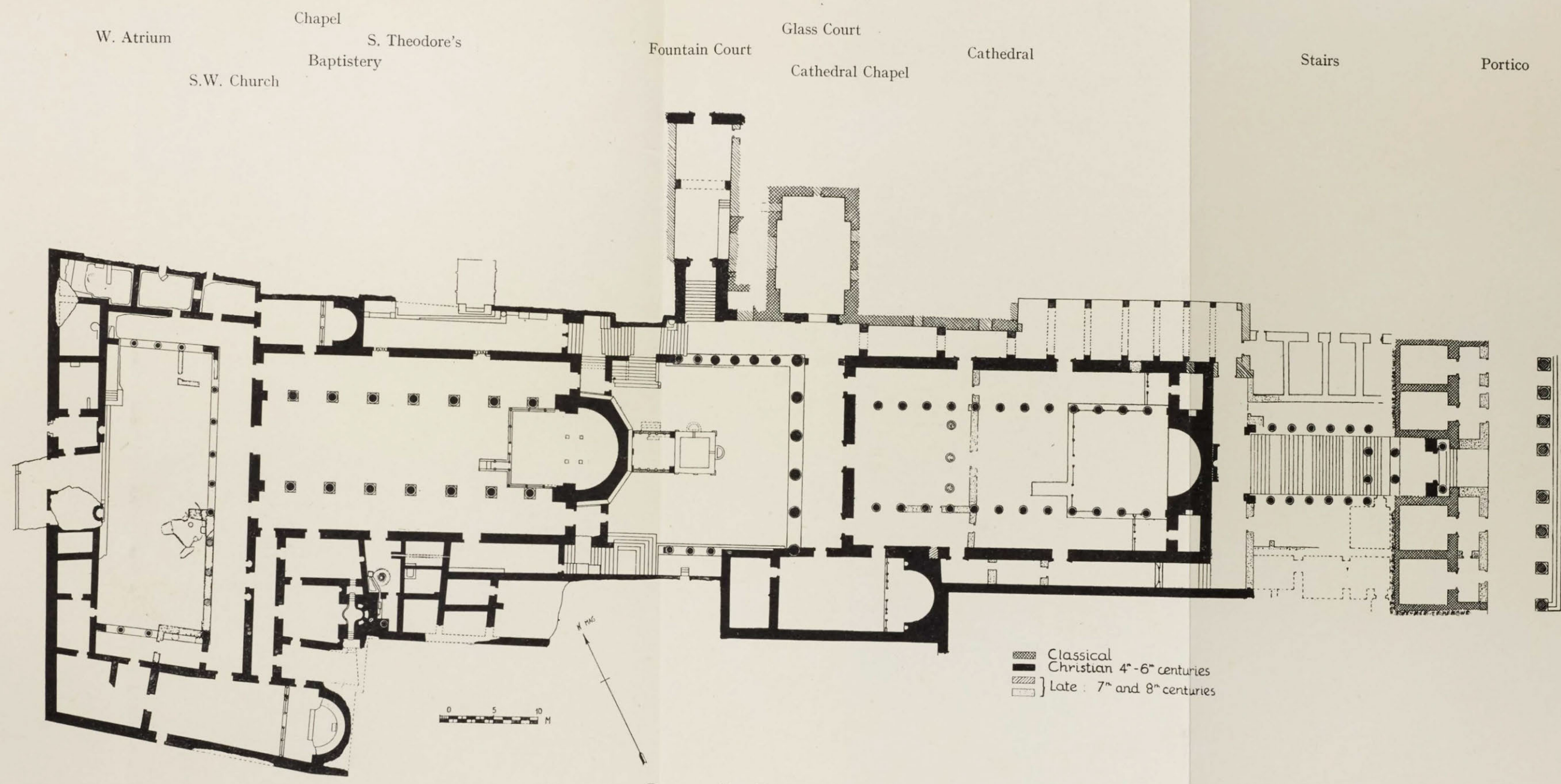
W. At

Stairs

Portico



[East half planned by C. S. Fisher, west half by A. G. Buchanan.]



W. Atrium

Chapel

S. Theodore's

Fountain Court

Glass Court

Cathedral

Stairs

Portico

S.W. Church

Baptistery

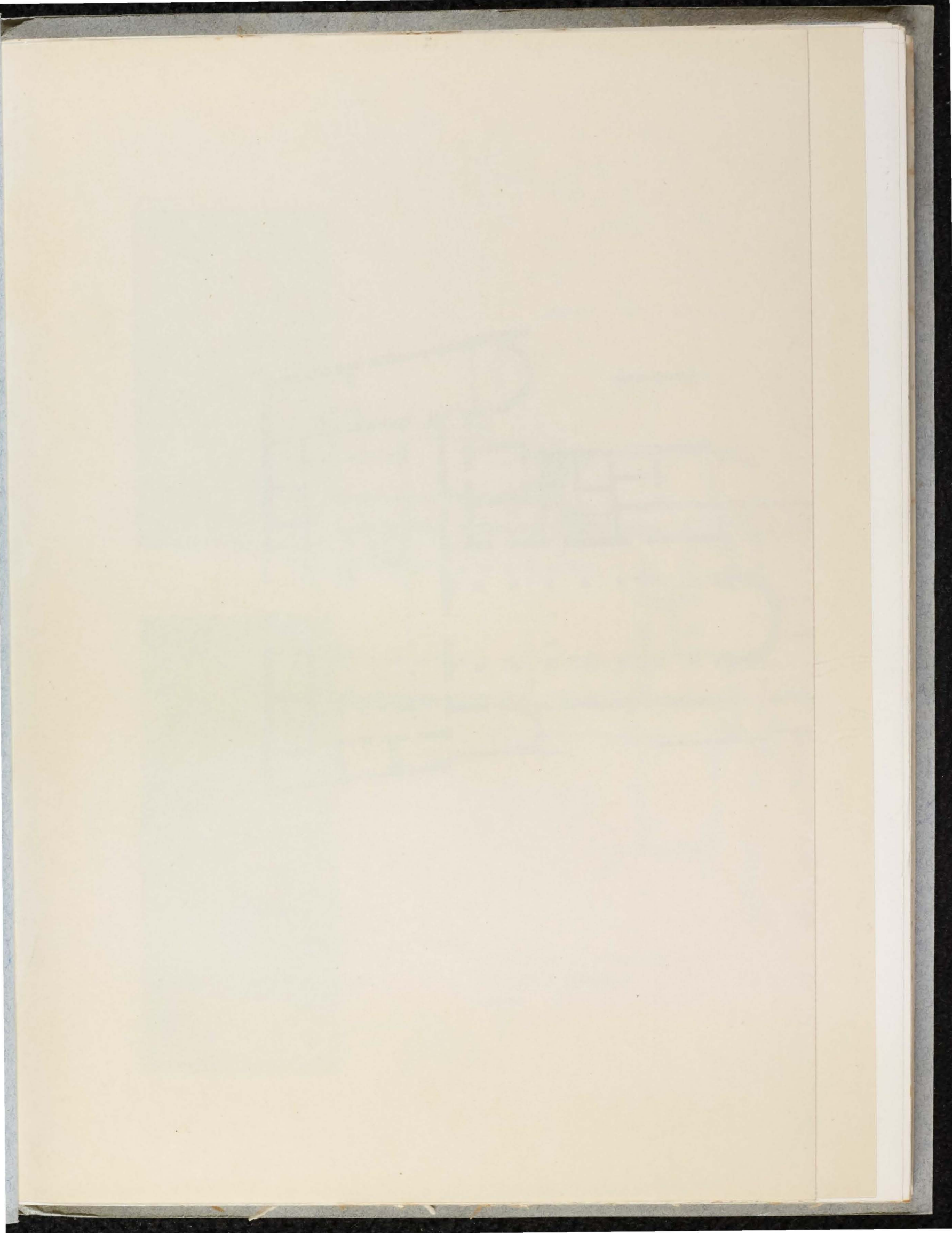
Cathedral Chapel

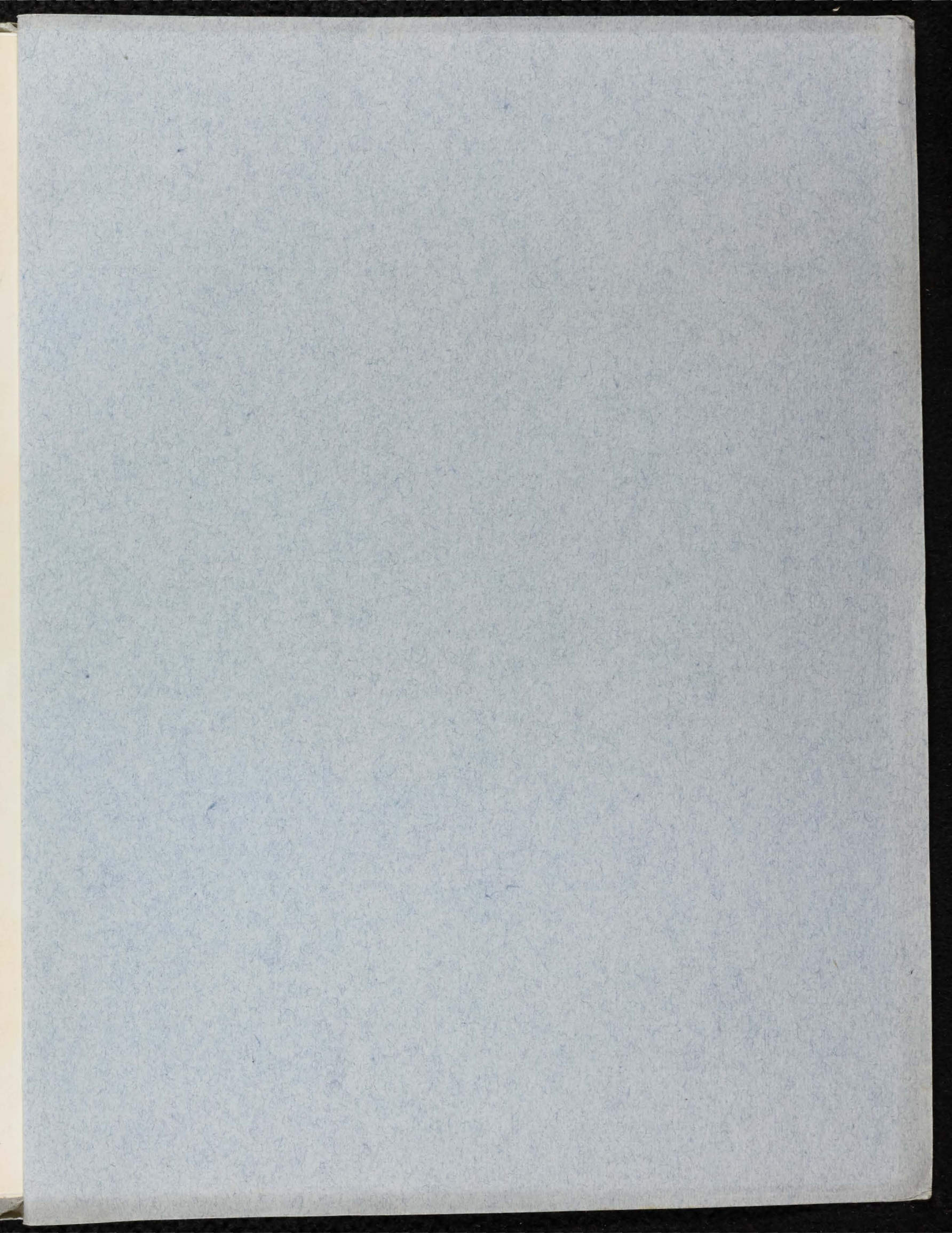
[diagonal hatching] Classical  
 [solid black] Christian 4<sup>th</sup>-6<sup>th</sup> centuries  
 [dotted] } Late: 7<sup>th</sup> and 8<sup>th</sup> centuries

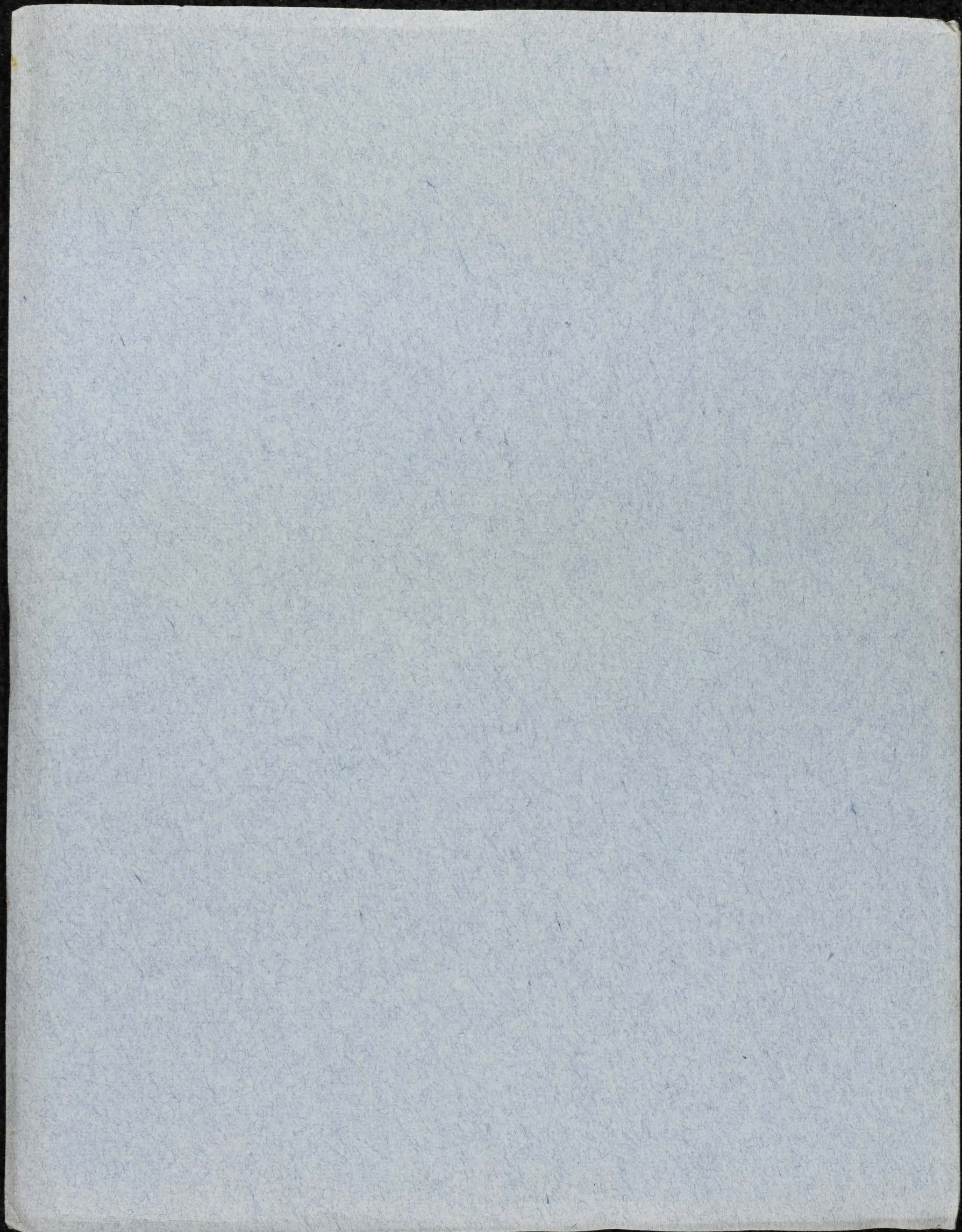


PLAN I. THE FOUNTAIN COURT COMPLEX.

*East half planned by C. S. Fisher, west half by A. G. Buchanan.*







gc  
MAY

Prof. J. L. Myers  
with Compliments J.S.

BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM

SUPPLEMENTARY PAPERS. I

THE BRITISH SCHOOL OF  
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1923

INDEX OF HITTITE NAMES

SECTION A. GEOGRAPHICAL. PART I

COLLATED AND EDITED

*In collaboration with the Director*

BY

L. A. MAYER, Ph.D. (Vindob.)

INSPECTOR IN THE DEPARTMENT OF ANTIQUITIES FOR PALESTINE.

CLASS GC-MAY  
ACCS 6131

WITH NOTES BY

JOHN GARSTANG, M.A., B.Litt., D.Sc. (Oxon.)

DIRECTOR OF THE BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM, AND OF THE DEPARTMENT OF ANTIQUITIES FOR PALESTINE.

PROFESSOR OF THE METHODS AND PRACTICE OF ARCHAEOLOGY IN THE UNIVERSITY OF LIVERPOOL.

WORKS CONSULTED AND ABBREVIATIONS:

IN THE TEXT

ALBRIGHT: MSS notes ... Al KBo  
 CONTENAU: Trente Tablettes Cappadociennes 30 Tabl.  
 DHORME: MSS (KBo I. Nos. 1-4 ) ... Dh. KBo I.  
 FORRER: Boghazköi-Texte in Umschrift ... Fo 1-2 BoTU  
 " Die Inschriften und Sprachen des  
 " Hatti-Reiches ... Fo ZDMG. NF. I  
 FRIEDRICH: Die hethitische Sprache ... Fr. ZDMG. NF. I  
 GARDINER and LANGDON The Treaty of Alliance between  
 " Hattusili and the Pharaoh ... GL. JEA. 6 p.  
 HROZNÝ Die Sprache der Hethiter ... SH  
 " Hethitische Keilschrifttexte aus  
 " Boghazköi ... Hr. 3 BoST  
 " Über die Völker und Sprachen des  
 " alten Chatti-Landes, etc. ... Hr. 5 BoST  
 " Code Hittite ... Code  
 KEILSCHRIFTTEXTE aus Boghazköi, vol. 1-6 ... 1-6 KBo  
 (King): Hittite Texts in the British Museum ... HTBM  
 LANGDON: MSS notes ... La KBo  
 LUCKENBILL: Hittite Treaties and Letters  
 " (AJSL. vol. 37) ... Lu p.  
 " Assyriological Notes VII ... Lu AJSL. 39 p.  
 SAYCE and PINCHES The Tablet from Yuzgat ... YT p.  
 SMITH: Kizzuwadna and Kode ... Sm. JEA. 8 p.

IN THE NOTES

Chantre, Mis. ... Chantre: Mission en Cappadoce, 1898  
 Dh. R.B. ... Dhorme: Revue Biblique, loc. cit.  
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## EXPLANATORY NOTES

1. This Section of the Index comprises the geographical names in the Hittite texts found at Boghaz-Keui by the late Dr. Winckler in 1906-7. A few Hittite names or forms derived from other sources (e.g., The Egypto-Hittite Treaty of Ḫattušil III) are included for the sake of completeness or comparison.

In this part the names are chiefly derived from texts which have been transcribed; occasionally forms of names or new names are introduced for special reasons from texts that have not been transcribed. Three important documents not yet transcribed are IV. KBo No. 10, V. KBo No. 8, and VI. KBo No. 28, from which some evidence is derived as to the identity of names already known: so, too, the schedule of singing women, classified by chief towns and villages, copied by the late Professor King, HTBM, No. 2, throws light upon the organisation and composition of several city-states. But in the main the intention of the Editor is to reserve texts that have not as yet been transcribed independently for Part II; for this reason also Notes discussing the possible identity of many sites are deferred until the evidence is more complete. There will also be included in Part II names derived from such transcribed texts as may have reached Jerusalem in the meanwhile. [Dr. Weidner's valuable translations (8 BoST) are received only while the Notes are in proof, and too late for incorporation in this Part of the Index.]

2. Names and grammatical forms are quoted as transcribed by the various authors, notwithstanding some appearance of inconsistency (e.g., *ad* or *at* in the word Ḫatti-Ḫatti) and the admission of some doubtful renderings (e.g., Zi-ḫar-ri-ia for Zi-mur-ri-ia) which in certain instances the author himself has recognised. Exception is made where an author has subsequently corrected mis-spellings or mis-readings to which no reference is here given.

3. The names first quoted and used for the sequence of the Index, are either those given by translators or those which reproduce conventionally and simply the most obvious Hittite form.

It is recalled that the Hittite sounds B = P, D = T, K = G, and U = W, are rarely to be distinguished, so that names commencing with any one of these four sounds may be sought under either of the corresponding initial letters. In this connection English W = German V, without distinction in sequence.

4. An attempt has been made to classify the forms according to their period as—Early, Middle, or Late, thus:—

- E = Early. Collated from texts ranging from the beginning (Sargon and Pamba) down to and including Muršil I (the conqueror of Babylon) about 1925 B.C.  
M = Middle. The intervening period including Telibinuš about 1775 B.C.  
L = Late. From and including Šubbiluliuma, about 1400 B.C. to the fall of Ḫatti, 1200 B.C.

It will be seen that very few names of the early texts re-appear in the late ones.

5. In view of the evident importance of the classification described in No. 4, and of the fact that many names occur, in their periods, only in one or other of their various grammatical forms or constructive compounds, we have decided to incorporate all grammatical inflexions not purely adverbial, as well as variants and suffixing-compounds of whatever nature arising in which the geographical name remains transparent. The Index then, so far as the material goes, is a complete philological record; and cross references have been introduced to maintain its usefulness for the geographer and historian.

It may be useful to summarise some of the grammatical forms by which the terminations and suffixes may be recognised: the following schedule is based on the studies of Hrozný, Friedrich, Forrer, and Sommer:—

### DECLENSIONS—

Nom.	-a	-aš	-iš	-uš
Gen.	-aš	-aš	-iyaš	-uwaš
Loc. and Dat.	-i	-i	-i	-wi
Acc.	-a	-an	-in	-un
Abl.	-az	-az	-iyaz	-uwaz

### MOST COMMON ENCLITICS—

bad	= really (or so)
gan, kan	= then (or so)
ia	= and, further, also
ma	= but
wa	= at the beginning of an oratio recta and (according to Forrer) at the end of the first word of each principal or sub-ordinate sentence.

These enclitics are sometimes combined into one form, e.g., iawa, magan, etc.

6. For brevity and uniformity the spelling of the Determinative is not given: it is replaced by the Symbols—T = Town, L = Land, R = River, Mt = Mountain, and compounds of these, e.g., LR = Land of the River. It is to be noted in connection with LT that often this formula (mat-alu, Sum. kur-uru) is conventional and generally to be translated 'District' without special reference to town. The geographical suffix *-ki* is also omitted.

## HITTITE GEOGRAPHICAL NAMES

ABINA	T	a-bi-na	L	Dh. KBo I. No. 1 Obv. LL.40, 43, 44 [=Lu p. 165]
	T	a-be-na		Dh. KBo I. No. 2 Obv. L.22 [=Lu p. 165]
		[a]bi-na		1 KBo 1 Rev. IV.1.6 [=Lu p. 179]
ABZU	T	ab-zu	L	Dh. KBo I. No. 2 Obv. L.24 [=Lu p. 165]
	T	ab-zu-(e)		Dh. KBo I. No. 1 Obv. L.42, No. 2 Obv. L.23
		Abzuia		Lu p. 165 [l.c. supr.]
ADANIA	LT	a-da-ni-[ia-aš]	M	Fo 2 BoTU 23 A.II. § 21 L.2; 23 B.II. § 21 L.7; 23 D.I. § 21 L.14'
ADUNUWA	T	a-du-nu-va	M	Fo 2 BoTU 18.II. L.12
AḪḪIAWA	L	aḫ-ḫi-ia-u-wa		6 KBo 27.II. L.5
AḪḪULAŠ	T	aḫ-ḫu-la-aš-ša	M	Fo 2 BoTU 23 A.II. § 21 L.2; 23 B.II. § 21 L.8; 23 D.I. § 21 L.15'
AḪUNA	T	a-ḫu-na	L	Dh. KBo I. No. 1 Rev. L.19
AKKAD	T	[ag-ka-d]u-um-na-aš	E	Fo 2 BoTU 1.I L.1'
	T	ag-ka-di-i		1 KBo 1 Rev. 10 L.27 [cf. Lu p. 203]
ALALAH	T	a-la-la-aḫ		(Bo 2592=) Fo ZDMG.NF.1 p. 180
ALAŠIA	T	a-la-ši-ia-wa		(Bo 2127 Rev. 85=) SH 99
ALḪA	T	al-ḫa	L	Dh. KBo I. No. 1 Obv. LL.12, 21 [=Lu p. 164]
ALḪIUTI (?)	T	al-ḫi(?tin?)-ú-ti	E	Fo 2 BoTU 13.II. L.19'
ALIŠA	T	a-li-ša-il		YT p. 46 (=SH 51)
	T	a-li-ša-al		YT p. 46 (=SH 51)

ABINA: A town in Central Syria, west of the Euphrates, within striking distance from Nuḫašše; wrested by Šubbiluliuma from Dušratta of Mitanni. Probable seat of a Teshub shrine. Possibly Abi of the T.A. Letters (Kn., T.A., pp. 1106, 1113) and to be identified with Ube between Homs and Damascus. Cf. Uppa, 1 KBo 4, II, L. 43 (We. 8 BoST, p. 62).

ABZU: A town name in the same context as Abina, seemingly nearer to Kinza (Kadesh); besieged by Šubbiluliuma.

ADANIA: A district and town name, mentioned (a) with Arzauiā, and (b) with Galmia and Arzawia. Probably to be identified with Adana: to be distinguished from Atania (q.v.) and from the Assyrian Adiennu or Atinni in Syria (Dh., R.B. 1910, p. 63).

AḪḪIAWA: A district mentioned in association with the Land of the River Šeḫa. If the latter is correctly identified with the River Seiḫan in Cilicia, there can be no doubt that this name is to be identified with Anḫiale (Greek Ἀρχιιάλη). The first element in the Hittite doubled consonant ḫḫ was probably nasal, as in the Greek gg, seen also in the Assyrian spelling, Ingira. The same may be said generally of other double consonants, e.g., dd in Iaruwaddaš (Iaruwandaš), gg in Šerigga (Erzingan), and zz in Azzi (Anzi); but šš usually reappears as z, e.g., Urušša (Eriza), etc. In the present case, the phonetic identity is sustained by geographical indications. Anḫiale is associated with Tarsus by Strabo, Stephanus Byzantinus, Arrian and other writers. The last-named places it a day's march from Tarsus. Strabo (XIV, v, 9) states that it was a little removed from the sea, and that next to it were the mouths of the Cydnus. Several writers mention an inscription, which to judge from the descriptions given, may have been of Hittite origin, like that on Kara Bel (Herodotus ii, 106; G., L.H., p. 172). The extent and foundations of the walls were imposing.

ALŠE	T	al-še	L	Dh. KBo I. No. 1 Obv. LL.25, 26 [=Lu p. 164]; No. 2 Obv. LL.6, 7 [=Lu p. 164]; No. 3 Obv. LL.3, 10, 12 [=Lu p. 172]; No. 4 Obv. I. L.19 [= Lu p. 177], II. L.9
ALZI	T	a-al-zi-ia-az	(2 KBo 9. Obv. I=)	SH 38, n.2
AMA	T	a-ma-il		YT p. 46
AMKA	T	am-ka		(Bo 2003, Rev. I. 5.f=) SH 77
AMURRU	LT	a-mur-ri Amurru	E	Fo 2 BoTU 3 I.12'
		Amurri	L	Lu AJSJL 37 p. 193, 197-199, 203, 210 [ll.cc. infr.]
			L	Lu AJSJL 37 p. 189 [ll.cc. infr.]
			L	1 KBo 8. Obv. LL.6, 8, 12, 13, 18, 19, 20, 23, 25, 30, 31, 34, 37. 1 KBo 10 Rev. L.14
	L	a-mur-ri	L	1 KBo 19. Obv. I.6; 1 KBo 22. Rev. L.14
	LT	a-mur-ri-i	L	1 KBo 8. L.29
	LT	a(?)-mur(?) -ri	L	Hr 3 BoST No. 5 I. L.4
ANAMUŠTA	T	a-na-mu-ušta	L	La KBo I. No. 5 IV. L.49 [=Lu p. 187]
		Anamushsha		S. Smith JEA. vol. 6. p. 45
ANKULLA	T	an-ku-ul-la-u-me-ni-eš		(Bo 483 Obv. II. L.3=) Code p. 16, n.5
ANKUWA	T	an-ku-va	E	Fo 2 BoTU 12 A.II. § 14 L.13; 12 C.I. § 14 L.20'
	T	a-an-ku-va	M	HTBM. No. 2. Rev. V. L.14
	T	an-ku-i	M	Fo 2 BoTU 17 A.II. LL.9', 24', 28'
			E	Fo 2 BoTU 12 A.II. § 14 L.10; 12 C.I. § 14 L.17'
	T	an-ku-i-bad	E	Fo 2 BoTU 12 A.II. § 14 L.11; 12 C.I. § 14 L.18'
ANŠUWA			L	Lu AJSJL 37 p. 179 [l.c. infr.]
	T	a-an-šu-wa		1 KBo 4. IV L.23
ANZARAŠ	T	a-an-za-ra-aš	M	Fo 2 BoTU 23 A.III. § 37 L.20
APAŠAŠ	T	a-pa-a-ša	L	Hr. 3 BoST No. 6 II. L.29
	T	a-pa-a-ša-an	L	Hr. 3 BoST No. 6 II. L.19

ALŠE: A district and town, bordering on (a) Mitanni, (b) Assyria, and beyond (eastward from) Išuwa. Probably the Assyrian Alzi, east of the Upper Tigris (To., A.J.S.L. XXIII, p. 334). To be identified generally with the classical Arzanene, the district around the modern Arzen.

ANAMUŠTA: A town on the Hittite side of the frontier with Kizzuwadna. It was opposite to the mountain of Zabarna (q.v.), and the name possibly survives in the Turkish form Amastum (39° 45', N.; 38° 45', E.).

ANKUWA: A town mentioned in the earlier texts between Hurma and Kuzuruš. It appears in the important schedule of towns providing singing-women (H.T.B.M. pl. 14, L.14), as a principal centre, but unfortunately no list of associated villages is given. From the indications in 5 KBo 8, L.7, it would seem to lie between the Hatti and Harri lands, in the vicinity of Gašga.

APAŠAŠ: A royal city of Arzawa on or near the outskirts of the Great Plain. The form is comparable with Hattušaš and Kuadunaša, also royal places. The possible composition Apa-ša may recall the Pappa of Ptolemy, a common variant of which was Paspā. (For the situation cf. R., H.G. p. 399.) The context, however, seems to indicate rather a site on the confines of Pamphylia, and this may be the ruined city identified with Isba of the *Notitiae*, placed by Ramsay (H.G. p. 416) on the upper course of the Eurymedon at Kiesme. The initial 'I' seems to represent

ARAHTAS	T	a-ra-aḫ-ti	L	Dh. KBo I. No. 1 Obv. L. 34
	T	a-ra-ḫa-ti		Dh. KBo I. No. 1 Obv. L.35 ; No. 2 Obv. LL.15-17.
ARAWANNA	T	a-ra-ḫa-ta-an Arahti		Dh. KBo I. No. 1 Obv. L.35 Lu p. 165 [ll.cc. supr.]
	T	a-ra-wa-an-na	L	Dh. KBo I. No. 1 Obv. LL.11, 20 [= Lu pp. 163, 164]
	LT	a-ra-u-wa-an-na		Hr. BoST No. 6 III. LL.49, 51, 52, 55
ARDUNA	T	a-ra-u-wa-an-na-aš	Hr. 3	BoST No. 6 III. L.47
	T	a-ra-u-un-n(a)		6 KBo 28 Obv. I. L.10
ARIMATTA	T	ar-du-na	L	Hr. 3 BoST No. 7 III. L.23
	T	a-ri-ma-ad-ta	M	Fo 2 BoTU 17 Bβ. L.14'
ARINNA	T	a-ri-im-ma-at-ta		4 KBo 10 Obv. L.19
	T	a-ri-ma-at-ta		4 KBo 10 Obv. L.19
	T	Arin-na (PÚ-na)		Hr. 3 BoST No. 2 II. LL.23, 29, 31, 39, 43, 50, 51, 54 ; III. LL.2, 6, 10, 13, 30
		L	Hr. 3 BoST No. 6 II. L.38 ; III. LL.28, 41, 50, 61, 86 ; IV. LL.26, 38, 47	

correctly the short initial Hittite vowel (cf. Aštarpa=Isbarta), while *p* and *b* are in Hittite the same sound. The radical objection to this identification is the disappearance of the penultimate extra vowel from the textual reading a-pa-a-ša : this vowel supplementing the syllabic *pa* seems in other parallel cases of the locality to survive as an independent sound rather than in the mere lengthening of the preceding vowel : cf. Walmaā (Olbia), Miraā (Milyas), etc. Unfortunately there are no early forms of the name available which might have explained the elision for which the metathesis alone hardly accounts. There are extensive ruins on the east bank of the Eurymedon, Lat. 37° 10', and other ruins are found in a dominating position on the slopes of Umreddin Dagħ, Lat. 37° 25', five miles east from the river, on a small tributary some three miles east of Kesme. Without further evidence, however, it is impossible to estimate the probability of the suggested identity. Cf. also Paspasa (Pasa) near Tyana, R., H.G. pp. 347, 451.

ARAWANNA : A town ; Arauwanna, a district ; mentioned (*a*) in the preamble to the treaty between Subbiluliuma and Matiuaza of Mitanni. The people and land had rebelled against Subbiluliuma's father and were recovered for Ḫatti from Išuwa. (*b*) After the Gašga campaign at the end of the second year of Muršil III, the name recurs with a reference to the preceding incidents and the steps taken by Muršil to restore his sovereignty. (*c*) Hattušil III alludes to these rebellions (VI KBo, 28 Obv. L.10), confirming Muršil's account of raids extending into the district of Kišša (cf. Hr. 3 BoST No. 6, Rev. III, L.48 and Sayce J.E.A. VIII, p. 233). From the various contexts the district can be identified with Ptolemy's Arawene, between Taurus and the loop of the Euphrates above Samosata.

ARDUNA. A town name occurring in the following sequence : Kašipa, Mt. Gapagapa, (Ḫattušaš), Arduna, Kalašma, Lalḫa, Išḫuppa, Lakkuš, in an unplaced excerpt from the campaigns of Muršil III. It was apparently on the frontiers of Kalašma, q.v.

ARIMATTA. A town name of the age of Telibinuš. The sequence of names in the context is : Ḫattušaš, Burušḫanda, Ḫarašḫapa, Taššaš, Arimatta, Parukidtaš, Zunnaḫaraš, Šinuwanda.

ARINNA. The absence of this name in the early texts is noticeable : in the later period its Solar Goddess became all powerful, first of all local deities, Queen, Maker of Kings and Queens, Protector of Fugitives, Goddess of War and Guardian of Treaties. The name, which signifies a Spring, is distinguished from all similar forms, Aruna, Arawanna, etc., by its spelling, whether idiographic or syllabic, A-ri-in-na, which is confirmed by the Egyptian rendering Ernen ('I-r-n-n). The Lycian Arinna (coins) and Arina (obelisk) and Ptolemy's Arane in Armenia Minor are excluded from identity either for this reason or from consideration of the texts, for both areas were in revolt and the objective of military campaigns at a time when Muršil III made supplication at the shrine of the goddess. The form Arinnanda (q.v.) would seem to be derivative. The site remains

ARINNA ( <i>contd.</i> )	T a-ri-in-na	(Bo 3187, Bo 477.9, Bo 474 I.3, VAT 7683 IV.11=) Fo ZDMG. N.F.1 p. 192
	M Fo 2 BoTU 18.II. LL.5, 9	
	L Dh. KBo I. No. I. Rev. LL.35, 40 [=Lu pp. 168, 169]	
	Hr. 3 BoST No. 6 I. LL.22-25, 27, 38; II. LL.3, 25, 61	
	(KBo 3 No. 4 Obv. I. 24=) SH. 109	
	Code § 50 p. 44 LL.58, 61; § 51 p. 44 L.3	
	L Hr. 3 BoST No. 6 I. L.17	
	L Hr. 3 BoST No. 6 I. L.21	
	(Bo 546 I-II=) Fo ZDMG. NF.1 p. 239	
	T a-ri-in-na-ma-kan	M Fo 2 BoTU 18 III. L.7'
	T a-ri-in-na-mit	M Fo 2 BoTU 18 II. L.10'
	T arinna-aš (TUL-na-aš)	(Bo 2125 Rev. I. 8f=) SH 87
	T a-ri-in-na-aš-mi-iš	SH 40 (=YT p. 45)
	T a-ri-in-na-an	(Bo 415 Obv. II. L.8=) Code p. 16, n.5
	T arinna-ia (TUL-na-ia)	G.L. JEA. 6 p. 194
	T a-ri-in-na-az [=as]	
	T a-ri-in-nu-um-ni-iš	
	'I-r-n-n [Eg.]	
ARINNANDA	Mt a-ri-in-na-an-da	L Hr. 3 BoST No. 6 II. L.37
	Mt a-ri-in-na-an-da-an	L Hr. 3 BoST No. 6 II. LL.34, 38, 40, 46

unidentified; but a scrutiny of the texts narrows down the field of search to the central area within ready access of the capital, and to a situation unaffected by disturbance in the vassal states. In one text the name occurs between Adana and Ḫattušaš: the other references are of doubtful value topographically. The cult of the Goddess survived as Ma-Bellona at Comana, coins showing the goddess radiate. Comana of Pontus seems to have already borne its name in Hittite times (see 'Kumani'); and the possible identity of Arinna with Comana Cappadociae (L.A.A. 1914, Pt. 3) remains undisputed by the new texts but not proved. This site is placed by Strabo (XII, 11-3) in the upper valley of the Saros, and is identified with the extensive Roman remains at Shahr (Chantre, *Mis.* pp. 133-143) a village at the eastern end of a main pass through the Anti-Taurus from Mazaca to Melitene, at an altitude of nearly 4,500 feet. No Hittite remains have been noticed among the ruins, but an altar to the goddess-mother is found on the neighbouring high pass of Kuru-Bel (P.S.B.A. 1908, p. 42, pl. 1). The antiquity of the name Comana associated with the town is open to doubt; and it is significant that in the several lists of Cataonian hiera (cf. the note on Ḫubišna) the name Kumani nowhere appears. The further question of possible identity with the 'strongly fortified mountain fastness' of Arina, devastated by Shalmaneser, or with 'Arini at the foot of Mt. Aise,' the objective of Tiglath Pileser I, cannot well be answered until the identity of Arinna is established; but it is noticeable that in the latter text Arinni appears as a variant reading of Arini, and the people of Kummani are mentioned in the narrative as occupying the city. (Cf. the note on Kumani below). These Assyrian texts indicate a considerable military and political organisation (cf. Lu. A.J.S.L. XXVIII, p. 162. King, *Annals* 75-76) such as might accord with the tradition of Comana in the Roman Age. In the Hittite texts little else transpires, except the co-existence of a Tešub-deity, as at Boghaz Keui, Malatia, Doliche and Hierapolis Syriae. The apparent reference to a king of Arinna in the Tablet Chantre No. 1 (YT, p. 45, L. 15) should now be corrected to read 'The King goes from Arinna to Ḫattušaš.'

ARINNANDA. A mountainous region of Arzawa and probably in Lycia, for Muršil III, after his campaign there (second campaign of his first year) went 'back' to the river Aštarpa (Obv. Col. II, LL. 47-8). It is possibly related to the Lycian Arīna or Arina. The form of the name is parallel to Marašanda, the River of Maraš. The termination *-anda* with its variants *-adda*, *-atta*, *-assa*, etc., was discussed with discernment in 1896 by Kretschmer (*Gr. Sp.*, pp. 293-311). (Cf. also Iaruwattaš and its variants).

ARIPŠAŠ	T	a-ri-ip-ša-a-an	(Bo 2023 Rev. II. 12=) SH 16 L Hr. 3 BoST No. 6 IV. LL.37, 39
ARMANA(Š)	T	ar-ma-ni	E Fo 2 BoTU 3 I. L.13'
ARMATANA	T	ar-ma-ta-na	L Dh. KBo I. No. 1 Obv. LL.13, 22 [=Lu p. 164]
ARUAR	T	a-ru-a-ar	1 KBo 11 I. LL.25, 29 [=Lu p. 208]
ARUNA		a-ru-u-na	L La KBo I. No. 5 IV. L.43 [=Lu p. 187]
ARWANA?	T	ar-wa-a-..na (?)	L Hr. 3 BoST No. 7 (5a) II. L.26
ARZAMIA	T	ar-za-mi-ia	M Hr. 3 BoST No. 4 II. L.2
ARZAWA	T	ar-za-ú-i-ia	M Fo 2 BoTU 17 Bβ L.7'; 23 A.II. § 21 L.2
	T	ar-za-vi-ia	M Fo 2 BoTU 23 B II. § 21 L.8; 23 D I. § 21 L.15'
	T	ar-za-ú-ia-aš	M Fo 2 BoTU 17 Bβ L.6'
	T	ar-za-ú-i-ia-aš	M Fo 2 BoTU 17 A.III. L.42'
	L	ar-za-u-wa	L Hr. 3 BoST No. 6 II. L.8
	LT		La KBo V. No. 4 Rev. L.50. Code § 19A p. 14 L.46
	T	ar-za-u-wa	L Hr. 3 BoST No. 6 II. LL.19, 28, 33, 54; III. LL.27, 29, 32, 36, 37 La KBo IV. No. 3 Obv. II. L.18. KBo V. No. 4 Rev. LL.39, 52
	LT	ar-za-wa	L La KBo 4 No. 5 L.4
	T	ar-za-u-wa-ia-an	L Hr. 3 BoST No. 6 II. L.18
	LT	ar-za-u-wa-az	(2 KBo. 9 Obv. I.=) SH.38 n.2

ARIPŠAŠ. One of two fortified cities in the district of Azzi, the other being Dukkamaš. The name simulates the classical Arabissos (Yarpuz); but the place must be sought east of the Euphrates.

ARMATANA: One of the group of rebellious towns on the eastern frontier of the empire reconquered by Šubbiluliuma. Hattušil's Summary (VI. KBo 28, L. 13; A.J.S.L. VIII, p. 233) suggests that thereafter the boundaries of Kizzuwadna were advanced to act as a buffer frontier. (See Urušša). A comparison of the texts suggests a site in Northern Armenia, and that the 'enemy of Armatana' were the Harri.

ARUNA: A town towards the sea on the revised frontier of Kizzuwadna, *temp.* Muršil III. It was 'not to be rebuilt,' and its traces are not identified.

ARWANA: A town mentioned in a fragmentary text of Muršil III, in association with Mira. Possibly to be identified with the Lycian Arīna. This latter name occurs several times on the obelisk of Xanthus (Fellows: *Lycia*, p. 457) and coins with this legend are attributed to Xanthus (Head: *Hist. Num.*, p. 691) in agreement with Stephanus Byzantinus, who states that the former name of Xanthus was Arna. (Cf. also Forrer, *ZDMG* 1922, p. 221.)

ARZAWA: Early form ARZAWIA. One of the chief states of the Hittite Empire. Its component principalities are indicated by the narrative of Muršil's campaigns (close of the first year and the second year) and further details are given in the several treaties that followed. In the early texts Adania is mentioned in sequence with, but not clearly comprised within, the area named Arzawa, the stem of which seems to survive however in East Cilicia in the names Erzín and Arsus. Probably also the lowlands of Luia which it included indicate the eastern plain of Cilicia around the lower course of the Pyramus. Arzawa also comprised: (a) The lands of the River Šeḫa (Seiḫan); (b) the mountain region of Lawaša (Lauzadus); (c) the River Aštarpa (Isparta); (d) the town Walmaa (Olbia); (e) Miraa (Milyas), with which is associated (f) Kuwaliya (Kabalia); which includes (g) the town Wi-ya-na-wa-an-da (Oeneanda) and of which the lower boundary was (h) the R. Šiyanta (Xanthos, *Turk.* Eshen or Eshenide). Uiluša (Ialysos or ? Elaueusa) and Ḥaballa (? Kaballa) are mentioned in association with Arzawa in treaty-texts

ARZIA	T ar-zi-ia	L Dh. KBo I. No. 1 Rev. L.47 [=Lu p. 169], 1 KBo 4. Rev. IV. L.21 [=Lu p. 179]
AŠŠARADDA	T a-aš-ša-ra-ad-da	Hr. 3 BoST No. 1 II. L.40
AŠHARPAIA	Mt aš-ḥar-pa-ia	L Hr. 3 BoST No. 6 III. LL.39, 41
	Mt aš-ḥar-pa-ia-an	L Hr. 3 BoST No. 6 III. LL.39, 43
	Mt aš-ḥar-pa-ia-an-ma	L Hr. 3 BoST No. 6 III. LL.44
AŠIHI	T a-ši-ḥi Ashili	L 1 KBo 11 I.6 L Lu p. 207 [cf. l.c.s.]
AŠTARPA	R a-aš-tar-pa	L Hr. 3 BoST No. 6 II. LL.24, 47
	R aš-tar-pa	L Hr. 3 BoST No. 6 II. L.48. 4 KBo 3. Obv. I. L.20
AŠTATA	T a-aš-ta-ta	L Dh. KBo I. No. 4 Obv. II. LL.9, 42 [=Lu p. 177]
	T aš-ta-ta	(Bo 2023 Obv. II. 60, 61=) SH 38 L Dh. KBo I. No. 1 Rev. L.19 [cf. l.c.i.]
	T aš-ta-ta-az Ashtati	(Bo 2023 Obv. II. 67=) SH.38 Lu AJSL 37 pp. 168, 188, 189 [=l.c.i.]
	T aš-ta-ti	L Dh. KBo I. No. 1 Rev. L.18; 1 KBo 6, Obv. LL.21, 37

with Ḫatti. The argument is developed in the Liverpool *Annals of Archaeology* 1923(p. 21 ff.). Sites unplaced or uncertain are Apašaš, Mt. Arinnanda, and Buranda. Other sites in Mira and Kuwaliya are: Aūra (or A-kit-ra), Yalie, Lumma or Ḫumma and 'Ku-ad-du-na-ša' (q.v.), a fortress of Dudḫalia. The boundary as mentioned by Ḫattušil III passed through Tuwanuwa (Tyana) and Uda (Hyde). Arzawa thus comprised in the age of Muršil all the southern sea-board of Asia Minor from Cilicia to Lycia inclusive. It may have included the island of Rhodes and a considerable portion of Pisidia.

AŠHARPAIA Mt.: A mountain region on the frontier of Gašga, the people of which had cut off the roads to the land of Bala, calling for the intervention of Muršil III in his third year of campaigning. One direct road from Ḫattušaš to Bala as traced in the Antonine Itinerary traversed the watershed between Ispa (Euspoena) and Arani, descending thence to Melitene (R., H.G. p. 275). (For the alternative routes see Ištītina and Zazziša). In view of the evidence indicating the position of the Gašga country this mountain is to be sought in the vicinity of Ispa-Arani. Possibly some element of the name survives in that of the Surbehan Dag which overlooks the descent from Arani towards Malatia by the Kuru Chai.

AŠTARPA R.: This river is mentioned twice in the accounts of the campaigns of Muršil III in Arzawa, who fought a battle near it in the neighbourhood of Walmaā (Olbia), and fixed his headquarters upon its banks. It was apparently the 'Upper Boundary' of 'Miraa and Kawaliya,' and if these principalities are identical with Milyas and Kabalia, then there can be no doubt as to the identity of the river with the modern R. Isparta. The names of three rivers of Arzawa, the Šeḫa, the Aštarpa and the Šiyanta thus seem to re-appear more clearly in their Turkish forms of Seiḫan, Isparta and Eshen(ide). The name Isparta or Isbarta is derived, Prof. Ramsay points out, from the town name Baris (εις Βάρταν): the old river name has thus been assimilated to the modern form.

AŠTATA: A town, centre of a state. A summary of the references is as follows: (a) Aḫuna and Tirga were two of its fortresses 'on the other side of' the Euphrates. (b) Near the border of Mitanni. (c) Mentioned between Ḫanigalbat and Aleppo. (d) Mentioned in the sequence Carchemish, Aleppo, Nuḫašši, Amurri, — Aštata. A gap in the first quoted text leaves a certain doubt as to the position of this state. The various contexts are best satisfied by the theory that it extended across the Euphrates, with its main parts on the east side, as far as Nahr Belih, where the ruins of 40 or 50 towns have been observed. (Cf. Fo., M.D.O.G., No. 61 Map; Weidner, M.D.O.G., No. 58 Map).

AŠŠUR	T a-aš(?)-šur(?)	(Bo 2130 12=) SH.130
	T a-aš-šur	L Dh. KBo I. No. 3 Obv. LL.10, 12
	T aš-šur	L Dh. KBo I. No. 3 Obv. LL.3, 51
	L aš-šur	L 1 KBo 10 Obv. LL.44, 45, 47, 48
	T aš-šur-az	(2 KBo 9 Obv. I.=) SH 38 n.2
	Assyria	L Lu AJSL 37 pp. 172, 174, 201, 202
	T a-te-ra	L Dh. KBo I. No. 3 Obv. L.6
AŠURNA	T a-šu-ur-na-aš	M Fo 2 BoTU 23 A.III. § 37 L.20
AŠŠUWA		SH 200
AŠ-TAŠ	T aš-?-ta-aš	M Fo 2 BoTU 23 A.I. § 12 L.36
ATANIA	LT a-ta-ni-ia	La KBo I No. 5 IV. L.54 [=Lu p. 187]
AURA	a-ú-ra	L La KBo IV. No. 3 I. L.19
AWARAŠ	Mt a-u-wa-ra-aš	Hr. 3 BoST No. 1 II. L.10
AZZI	L az-zi	L Hr. 3 BoST No. 6 IV. LL.18, 19, 23, 35. Hr. 5 BoST p. 46
	T az-zi	(Bo 2023 Rev. I. 48=) SH 82. (Bo 2023 Rev. II. 42=) SH 91
		L Hr. 3 BoST No. 6 III. L.93
BALĤUIŠŠA	T bal-ĥu-iš-ša	L Hr. 3 BoST No. 6 II. LL.2, 5
	T bal-ĥu-iš-ša-az	L Hr. 3 BoST No. 6 II. L.7
	T ba[l]-ĥ[u]-[iš]-š[a]	L 3 KBo 4 Obv. II. L.1
[BAM]BIKI	T (-)bi-ki	L 1 KBo 1, Rev. L.43 [=Lu p. 169 cf. also Lu AJSL 39 p. 65]

ATANIA: A district on the permanent frontier of Kizzuwadna, next in the list to the Mtn. of Zabarina, on the other side of the boundary from Turutna and Šerigga. These names being identified with the Sabrina R., Tortan and Erzingan respectively, this district corresponds approximately to the area watered by the sources of the Kelkid Irmak (*Lycus Fl.*) and extending eastward to include the upper valleys of the Chorokh Su.

AURA: A town mentioned in the untranscribed text of the treaty between Muršil III and the King of Mira and Kuwaliya, the Lycian district of Arzawa. It seems to have been a point upon the lower boundary, the Šiyanta R. or Xanthus. If this be so, it may be identified with the ancient city once 'surrounded by a fine Cyclopean wall' marked by the modern village of Ooran (*Hoorahn*; Fellows: *Lycia*, p. 125) which commanded a gorge near the junction of the two main streams between Cadyanda and Oeneanda. (Cf. the Lycian Ure, Sundwall *op. cit.* p. 232).

AZZI: This district occupied the attention of Muršil III during the last of his ten years of campaigns. It was a land of fortified cities; two of them drawn out to battle were Aripšaš and Dukkamaš. Later reference to these events by Hattušil (VI, KBo 28, LL. 11, 12) to which Professor Sayce calls attention (*A.J.S.L. VIII, 1922, p. 233*) states that Šamuḥa was then made the frontier. The resemblance of Aripšaš to Arabissos may be fortuitous but cannot be ignored. That the state was a small principality on the eastern border of the Hatti-realm is fairly clear, for Muršil had dealt consecutively with each of the disaffected areas, Gašga, Tibia, Arawana, etc. It can hardly be placed in Pontic Cappadocia (cf. Forrer, *M.D.O.G.*, No. 61 Map) for the text (Col. 3, L. 83) separates it clearly from the area of Kizzuwadna. More probably it is to be connected with the Assyrian Alzi and the classical Anzitene. (Cf. Fo., *P.A.R.*, p. 29; To., *A.J.S.L. XXIII, p. 345*). This would be one of the numerous cases where a nasal element may be suspected in the first member of a doubled consonant. Cf. Aḥḥiawa, Arñna, Šerigga (Erzingan), İaruwaddas, etc.

BALĤUIŠŠA: The name of a town in the district of Išhubitta (in the vicinity of Gašga); restored to the realm of Hatti by Muršil III in a battle fought there with the enemy chief Bišḥuruš.

(BAM)BIKE: The name is a restoration proposed by Luckenbill (*A.J.S.L. 39, p. 65*). The broken name appears in a list of Tešub-deities, witnesses of the treaty between Šubbiluliuma and Mattiuaza of Mitanni, in the following sequence: Ḥalab, Liḥzina, Šamuḥa, Ḥurma, Šarišša, Šaganuwa, Hiššašḥapa, Taḥaia, (Bam)biki, Kizzuwadna, Uda. This context hardly favours the proposed restoration; but there can be no doubt as to the antiquity of the site and the Hittite origins of the Cult at Hierapolis Syriae as described by Lucian (cf. G., *S.G.*: Introduction and Notes).

BARDUWATAŠ	T	bar-du-va-ta-aš	M	Fo 2 BoTU 23 A.II. §21 L.2; 23 B II. § 21 L.8; 23 D I. § 21 L.15'
BARGA	LT	bar-ga	L	Hr. 3 BoST No. 5 I. L.3
	L	barka	L	Hr. 3 BoST No. 5 II. LL.5, 18
BARMINIAŠ	T	bar-mi-ni-ia-aš	M	Hr. 3 BoST No. 4 III. L.31. Fo 2 BoTU 23 A.III. § 37 L.30
BARUŠTABA	T	ba(?ka?)-ru-us-ta-ba-a-il	YT	p. 45, L.7
BETIARIK	T	be-te-ia-ri-iq	L	Dh. KBo I. No. 1 Rev. L.41 [=Lu p. 169]
	T	be-it-ti-ia-ri-iq	L	Dh. KBo I. No. 2 Rev. L.19 [=Lu p. 169]
		(-)ia-ri-iq	L	1 KBo 4 Rev. IV. L.7 [cf. Lu p. 179]
		P-?-r-k[Eg.]	GL.	JEA 6 p. 194
BIGGAĪNARIŠŠA	L	bi-ig-ga-i-na-ri-eš-ša	L	Hr. 3 BoST No. 6 IV. L.29
	LT	bi-ig-ga-i-na-ri-eš-ša-ma	L	Hr. 3 BoST No. 6 IV. L.30
	LT	bi-ig-ga-i-na-ri-eš-ša-ia	L	Hr. 3 BoST No. 6 IV. L.33
BIKUMIAŠ	T	bi-ku-mi-ia-aš	M	Fo 2 BoTU 23 A.III. § 38 L.41; B III. § 38 L.5; G III. § 38 L.4'
BIŠAIŠA	Mt	bi-i-ša-i-ša	L	1 KBo 4 IV. L.29 [=Lu p. 179]

BARDUWATAŠ: The sequence of names is: Adaniaš, Arzawa, Šallapaš, Barduwataš. Aḫḫulaš.

BARGA: This district, with its fortified town Iaruwadaš, is the subject of a special agreement between Muršil III and Abimardaš. The latter pleaded that the town had belonged to his grandfather, that it had been wrested from him by the chief of the Amurri (?) and handed over to Tetteš, a Sa-Gaz man, and he asked for its restoration. Barga is associated later in the document with Carchemish, and (doubtfully) with Aleppo. The Amorite name Abimardaš and the amended reference to Amorite intervention (reading Amurri for Ḫarri in L. 4) all help to determine a site in northern Syria. It is in fact mentioned with Qatna in the Tell El Amarna fragment (Kn. No. 57); and in the Assyrian records of Shalmaneser (858-855 B.C.) is associated with A-di-en-nu (var. a-ti-in-ni) and Argana in the principality of Hamath. (Cf. Dhorme: R.B. 1908, p. 503, n. 2; 1910, p. 63 and p. 192). Iaruwadaš is Arwad; and the name Barga survived in the classical name of the Bargylus Mountains, between the river Orontes and the sea.

BIGGAĪNARIŠŠA: A district and town mentioned with the town Iaḫreššaš in a context with Kizzuwadna and Gašga. An unlucky gap prevents a direct explanation of the allusion to Gašga. Our reading would be that both places were within the border of Kizzuwadna: the one Iaḫreššaš had refused to supply conscripts, and the other Biggainarišša had been invaded by people from Gašga, and was now brought back to the sovereignty of Muršil. The peculiar form and composition of the name suggests identity with the equally peculiar Basgoedariza of Strabo (XII, iii, 28). The change of the third letter may be due to a simple clerical error in the original Greek. According to the geographer this was in Pontus, being one of the seventy-five fortresses built by Antipater, two others being Hydera and Sinoria. The name evidently was difficult, and as given by Ptolemy and in the Peutinger Table is corrupt. The probable site is fully discussed by Ramsay (H.G., p. 56) in the light of various texts and placed not far from Clotidariza or Olotoedariza in Armenia Minor. Thus a welcome independent light is thrown upon the position of Kizzuwadna and of Gašga, tending to corroborate the location of those states as indicated under their names later in this Index; for in this position Biggainarišša would be just within the border of Kizzuwadna and in the immediate vicinity of Gašga. If this identity is sustained we derive the useful local equations  $d = n$ ,  $šš = z$  (cf. Maššuhanda, Urušša, &c.).

BIKUMIAŠ: The sequence of the text reads: Šuwanzuwannaš, Tamlutaš, Bikumiaš, Damašhunaš, Ḫalipašuwaš: apparently a Syrian context.

BIŠAIŠA Mt.: This name occurs in a list of three mountain-deities invoked in the treaty between Šubbiluliuma and Teitti of Nuḫašše (Syria) in this sequence: (Kinza), Mt. Lablani (Mt. Lebanon), Mt. Šariana (Mount Hermon), Mt. Bišaiša (Lulaḫḫi, Ḫabiri).

BIŠAŠ	T	bi-i-ša-aš	M	Hr. 3 BoST No. 4 III. L.26. Fo 2 BoTU 23 A.III. § 37 L.25
BITURA		bi-i-tu-ra Bituratu	L	La KBo I. No. 5 IV. LL.40, 42 Lu p. 187 [cf. ll.cc.s.]
BURANDA	T	bu-ú-ra-an-da	L	Hr. 3 BoST No. 6 II. L.35
	T	bu-ra-an-da	L	Hr. 3 BoST No. 6 II. LL.55, 56, 57, 67
	T	bu-ra-an-da-za	L	Hr. 3 BoST No. 6 II. LL.58, 68
	T	bu-ra-an-da-an	L	Hr. 3 BoST No. 6 II. LL.35, 64, 66, 79, 82
BURGABU	T	bur-ga-bu	YT	p. 45 L.5
BURUŠHANDA	T	bù-ru-uš-ḫa-an-da	E	Fo 2 BoTU 1 I. LL.5', 6'; 7. Obv. LL.74, 77
			M	Fo 2 BoTU 17 A.III. LL.7', 10', Bβ L.12'
	T	bu-ru-uš-ḫa-an-da-an	M	Fo 2 BoTU 17 A.III. L.8'
	T	bu-ru-uš-ḫa-an-dum-na-an	E	Fo 2 BoTU 10γ LL.4', 5' (=Code p. 16, n.5)
BURUŠ		bu-ru-uš bu-ru-uš ḫa-tim bu-ru ḫa-tim	30 30 30	Tabl. pp. 73, 95 Tabl. pp. 84, 93, 94 Tabl. p. 94

(BIŠHURUŠ) : This name (Hr. 3 BoST. No. 6 Col. II, L. 1) is a restoration in which only the initial syllable and ḫ are apparent. In the same context LL. 3, 5, it is clearly the name of a chief. An examination of the context and of the original text as copied by H. H. Figulla and O. Weber leaves us with no doubt that the correct restoration of the town name is Balḫuišša, referred to in LL. 2, 5.

BITURA : The place nearest the sea in the new frontier with Kizzuwadna (q.v.) *temp.* Muršil III. It is apparently not to be identified with the place of similar name in the Assyrian records (Fo., P.A.R., pp. 30, 85) unless 'the Sea' could indicate Lake Van, which is considered highly improbable, while a frontier starting thence would hardly suit the context or the geographical conditions. We suggest a possible identity with Bafra (otherwise Bafira), near the mouth of the Halys River on the Black Sea coast.

BURANDA : A defensible city of Arzawa, on a hill, dominated by higher ground, from which its water supply could be stopped. When Muršil III advanced upon Apašaš the rebels of Arzawa retreated in three directions, one contingent with the king to the Great Plain, a second to Buranda, the third to the Mt. Arinnanda. There is no definite clue to the situation of the town. A place *Purindos* in Caria is mentioned by Kretschmer (*Gr. Spr.* : quoting Stephanus Byz.) but the context suggests a more central situation, in Pisidia or Cilicia Tracheia, as Muršil proceeded thence to the land of the River Šeḫa (in West Cilicia). The name Balanda on the maps in the district of Ermenek (Lat. 36°22' N., Long. 33°44' E.) may possibly provide a clue : it is situated at an altitude of 2,500 feet under the southern slopes of Keussuyuk Dağh. A well-defined mountain track (at one time a road, but now discontinuous) communicates in several directions with the West, and leads down the Valley of the Kuru Çai to Selefke (Seleucia), whence the road is open to Cilicia. Archaeological details are not available, and further evidence on both sides is required. Another possible site is the Isaurian *πορινδεις* (Ramsay, *Studies, etc.*, p. 323, § 51), but from the contexts it would appear less probable, and the etymology of the name is doubtful (R., H.G., p. 382).

BURGABU : The context presents the following sequence :—Zizannaš, Ḫibburiaš, Burgabu, Kišmitta, Ḫazzumia. The names would appear to be early.

BURUŠHANDA : The identity of this very ancient and important site is a subject of discussion (cf. Ehelolf O.L.Z. 24, p. 121. Albright, J.S.O.R. VII, p. 5 ff.). The contexts associate it (a) with Neša, (b) with Ḫattušaš, Ḫadra and Ḫurma, (c) with Ḫattušaš, Ḫarašḫapa and Taššaš, (d) with Ḫattušaš.

DADDAŠŠIŠ	T	da-ad-da-aš-ši-iš	4	KBo 10 I. L.30 (=Fo ZDMG. NF 1 p. 219)
DAGNIARI	Mt	dag-ni-ar-ri	(Bo 448=)	Fo ZDMG. NF 1 p. 243
DALAWA	T	da-la-u-wa	(Bo 2127, Obv. 66 f=)	SH 98
	T	da-la-(?)-u(?) -wa(?) -an	(Bo 2127, Obv. 66 f=)	SH 98
DAMAŠHUNAŠ	T	dam-ma-aš-ḥu-na-aš	M	Fo 2 BoTU 23 A.III. § 38, L.41; B III. § 38 L.5; G III. § 38 L.5'
DA-?-IŠTA	T	da- . . -iš-ta	Hr. 3	BoST No. 1 III. L.34
DUDDUL	T	du-ud-du-ul	L	1 KBo 10 I. L.42 [cf. Lu p. 201; AJSL 39 p. 65]
DUDDUŠGAŠ	T	du-ud-du-uš-ga	L	Hr. 3 BoST No. 6 I. L.36
	T	du-ud-du-uš-ga-aš-ša	L	Hr. 3 BoST No. 6 I. L.33
	T	du-ud-du-uš-ga-an-na	L	Hr. 3 BoST No. 6 I. L.35
DUKKAMMAŠ	T	du-uk-kam-ma-an-na	L	Hr. 3 BoST No. 6 IV. LL.37, 40
DUNNA				HTBM No. 2 Rev. VI. L.7
	T	du-un-na	L	Dh. KBo I. No. 1 Rev. L.49 [=Lu p. 169]. 1 KBo 4 Rev. IV. L.24 [=Lu p. 179]
DURBINA	T	dur(?tuḥ?) -bi-na	L	La KBo I. No. 5 IV. L.55 [=Lu p. 187]
		Eḥbina		S. Smith JEA. vol. 6, p. 45 [cf. l.c.s.]
DURKI	LT	dur-ki	E	Fo 2 BoTU 3, Obv. L.15

DAMAŠHUNAŠ: This name simulates Damascene, and the identity is probable, for the context reads:—Šuwanzuwannaš, Tamlutaš, Bikumiaš, Damašhunaš, Ḥalippašuwāš, Kalašum-miaš. The name last quoted seems to be a possible variant of Kalašma and that which precedes is a compound form of Ḥalep (Aleppo). The historical relations of the Hittites with Damascus thus date from the Hyksos period.

DA—IŠ—TA: This city is associated with Mt. Šuwaraš in the list of Tešub shrines: the reference is apparently to an image of stone. Šuwara suggests Isaura.

DUDDUŠGAŠ: A chief town and centre of a district in the land of Gašga. The people of this district and of Ḥalilaš had apparently suborned the town of Durmitta from its allegiance, and the first campaign of Muṣiḥ III was directed against this rebellious area. Duddušgaš was annexed to the realm of Ḥatti. The name (quoted as read by Hrozný) seems to have a reduplicated stem (derived from contact with the Bala area: cf. Fo ZDMG. NF. I, p. 243 f.) leaving the root Duš-gaš, or Duš-kaš, in which it is possible to see the Daskusa of Ptolemy. (cf. also Taggaštaš). The Taska of Ptolemy in Armenia Major is, however, suggestively similar, and should this prove to be the real identification the territory of Gašga must have extended east of the Euphrates.

DUKKAMAŠ: One of the two fortresses in the land of Azzi reduced together with Aripšaš by Muṣiḥ III. Unplaced.

DUNNA: This name appears in the list of deities invoked in the treaties with Mitanni (Mesopotamia), and with Nuḥašši (Syria). In both instances its place is between Taḥurpa and Ḥubišna: in the latter the list reads, Gatapa, Taḥurpa, Dunna, Ḥubišna, Išḥupitta, Laanda. The city was one of religious importance, providing or utilising eight singing women as compared with five each of Katapa and Ankuwa. It is probably identical with Ptolemy's Tynna of Cataonia.

DURBINA, also read Tuḥbina and Eḥbina: A place on or near the Šamri river, at the extreme boundary with Kizzuwadna, beyond Luwana and Zilabbuna. Possibly to be identified with Tarpinū on the Chorokh Su (Boas), Lat. 40° 35', Long. 40° 58'.

DURKI: The context places this early name of a district between Nigki and Kuršaura.

DURMITTA	T dur-mi-id-ta	L 1 KBo 4 IV. L.14 [=Lu p. 179]
	LT dur-mi-it-ta	L Hr. 3 BoST No. 6 I. LL.31, 41
	LT dur-mi-it-ta-mu	L Hr. 3 BoST No. 6 I. L.30
	T tur-mi-it-ta	L Dh. KBo I. No. 1 Obv. LL.12, 21 Rev. L.45 [=Lu pp. 164, 169]
EGYPT	(readings under ' Mišri ')	L Lu AJSL 37 pp. 190-197, 202
ELLAIA	T el-la-ia	L 1 KBo 4 IV. L.20 (=Lu p. 179)
ERIMMA	T e-ri-im-ma	L La KBo I. No. 5 IV. L.46 (=Lu p. 186)
ETUTAŠ (?)	T e(?)-tu-ta-aš	La KBo V. No. 4 Rev. L.25
EUPHRATES	See Purattu	
GABBUBBUWA	T ka-ab-bu-ub-bu-wa	L Hr. 3 BoST No. 7 II. L.7
	T ga-ab-bu-ub-bu-wa-bad	L 5 KBo No. 8 I. L.34
	T gab-bu-ub-ba-?	L (5 KBo No. 8 I. L.32=) SH 86
GAITHARZA	T ga-it-khar-za-i-il	YT p. 45
GALMIA	T gal-mi-ia-aš	M Fo 2 BoTU 23 B.II. § 21, L.7; 23 B.I. § 21, L.14'
GANNUWARA	T gan-nu-wa-ra	L Hr. 3 BoST No. 6 IV. L.17
GAPAGAPA	Mt ga-pa-ga-pa	L Hr. 3 BoST No. 7 II. LL.16, 17
	Mt ka-pa-ga-pa	L Hr. 3 BoST No. 7 II. L.18
GARALUM	T ga-ra-lum	L Dh. KBo I. No. 1 Rev. L.43 [cf. l.c. infr.]
	Garahum	L Lu p. 169

**DURMITTA**: This name occurs in several interesting contexts. (a) Its people rebelled against the father of Šubbiluliuma who restored the sovereignty of Ḫatti by a campaign against Išuwa, whither the rebels had taken refuge under the protection of Mitanni; (b) Its deity was invoked in the subsequent treaty with Mitanni; (c) It is the first town mentioned in connection with a further revolt of Gašga and neighbouring peoples, which Muṣil III was called on to repress on his accession. It was apparently a Gašga town, or had been suborned from its allegiance by warriors of Gašga. It finally submitted and supplied its quota of soldiers for the royal armies. The form of the name indicates the pronunciation Durminda (cf. Iaruwaddaš), and equation with Derende (Taranta) would seem possible. The vicinity of this town has yielded several striking Hittite monuments (G., L.H., p. 141 ff.).

**ELLAIA**: A town mentioned uniquely in the list of deities invoked in the treaty with Nuḫašše, *temp.* Šubbiluliuma. The sequence of Zamama-deities is: Ḫatti, Ellaia, Arzia.

**ERIMMA**: A town on the Kizzuwadna side of the new Hittite frontier defined by Muṣil III. The sequence is: Bitura, Zinziluwa, Erimma, Mt. Zabarina.

**GABBUBBUWA**: A reduplicating name, with possible stem Gabbuwa; unplaced. It was reached by Muṣil III in a campaign beyond Taggašta, the sequence of revolting towns reading: Ištalubba, Kabbubbuwa, Ḫutpa. The decisive battle took place at Ḫutpa. The context in V. KBo No. 8 refers successively to Gašga, Gabbubbuwa, Taḫanta and the R. Kumišmaḫaš.

**GALMIA**: The context mentions Adania and Arzawia, suggesting that this name may be an earlier form of Walmaā (q.v.)

**GANNUWARA**: A town in the province of Azzi: the text is broken.

**GAPAGAPA Mt**: Pursuing his march from Gabbubbuwa and Ḫutpa, Muṣil arrived at Zagabura, whence he proceeded to the land of Kašipa and then crossed the mountain of Gapagapa. The objective of the expedition is not clear, but Kalašma is the district next mentioned.

**GARALUM**: The sequence in which this name occurs, in the list of protecting deities invoked in the treaty with Mitanni, reads: Kizzuwadna, Uda, Ḫatti, Garalum; followed by Zithariaš, Karziš and Ḫapanta.

GAŠGA			(3 KBo No. 6 Obv. II. 3=) SH 85
	L	ga-aš-ga	L Hr. 3 BoST No. 6 III. L.70
	T		L Hr. 3 BoST No. 6 I. L.47; III. LL.73, 74, 77; No. 7 II. L.4; 5 KBo Obv. II. L.10
	LT		L Hr. 3 BoST No. 6 I. LL.32, 36, 37
	LT	gaš-ga	L Hr. 3 BoST No. 6 I. L.40
	T	ga-aš-ga-aš	L Hr. 3 BoST No. 6 I. LL.30, 41; III. LL.40, 43, 58, 61; 5 KBo Obv. II. L.17; 6 KBo Obv. I. L.7
	T	ka-aš-ka-aš	L Hr. 3 BoST No. 6 I. L.31
	T	ga-aš-ga-aš-ma	(Bo 2003, Obv. I. 14=) SH 84
	T	ga-aš-ga-ia	L (5 KBo No. 8 I. 33=) SH 86
	LT	ga-aš-ga-ia (?)	L Hr. 3 BoST No. 6 I. L.56
	T	ga-aš-gan	L Hr. 3 BoST No. 6 III. LL.41, 63; IV. L.30
GAŠŠAMU	T	ga-aš-ša-mu-il	YT p. 46 (=SH 51)
GATAPA	T	ga-ta-pa	L 1 KBo 4 Rev. IV. L.23 [=Lu p. 179]
	T	ka-a-ta-pa	HTBM. No. 2 Obv. I. L.6
	T	ka-a-ta-bar (?)	HTBM. No. 2 Obv. I. L.27
GAZZARUNAILIŠ	R	gaz-za-ru-na-i-liš	(Bo 2077, III. 20=) Fo 1 BoTU p. 19
GAZZIURAS			Hr. 5 BoST p. 46
	T	gaz-zi-ú-ra-aš	3 KBo 6 Obv. I. L.71

GAŠGA: The internal evidence of the texts of Šubbiluliuma, Muršil III and Ḫattušil III leaves no doubt as to the general situation of this troublesome state. A detailed examination (G., L.A.A. 1923 pt. 3) indicates the following conclusions:—Gašga was a buffer state between Ḫatti and the Ḫarri, lying in a mountainous vicinity, between the Halys and the Euphrates, bordering on Kizzuwadna and Tibia, and with Kiššia and Arawana not far. Ḫalilaš and Dudušgas were two of its chief towns and districts: another was Išhubitta, in which were the towns Ḫumeššenaš and Balḫuišša, the former of which was destroyed and the latter re-captured by Muršil. Adjoining Išhubitta was the Hittite district of Tibia with its town Paḫadaduwaš; and adjoining Tibia was the Hittite district of Iština. The Highlands and the Hittite Zazziša were in proximity to the last named, on the Gašga border. On the frontier was the route to Bala; and the rectification of the boundary apparently made Nenašša a frontier town (VI. KBo No. 28 L.7; Sayce, J.E.A. VIII, p. 233). Parallel sequences (3 BoST 7 Obv. II LL.2 ff. and V. KBo 8 LL.6-40) point to a road passing through the vicinity of Gašga, from the Red River, by Taggašta, Ištalubba, (Gašga), to Gabbubuwa, where it possibly bifurcated, leading in the one case to Ḫutpa, Zagabura, land of Kašipa, Mt. Gapagapa, thence possibly to Kalašma; while the other sequence is Taḫanta and the River Kumišmaḫaš. The domain proper to Gašga would appear to have been the western valley of the Euphrates, between the Rivers Kangal Irmak, south of Zimarra, and the Tochma Su, north of Melitene. To the north-east was the kingdom of Kizzuwadna (formerly part of Ḫatti) with Biggainarešša just within its frontier. To the north-west reaching to the Halys was the district of Išhubitta (Euspoena) with Ḫumeššenaš (Komisene, Kamisa) and Balḫuišša which remains unplaced. A mountainous region separated this area from Kizzuwadna, in the position indicated for Mt. Tarikarimuš. The rightful frontier of Gašga lay along the ridge overlooking the road from Sebasteia to Melitene (cf. Ašḫarpaia); and to the west of this, bounded by the upper course of the Tochma Su should be Tibia and Iština. Zazziša, which marked the limit of the Gašga inroads, seems thus to identify itself with Azizie; while Nenašša, which defined anew the frontier, may perhaps be Tonosa of the Antonine Itinerary. The town names of Du(du)-ška and Daggasta recall Ptolemy's separate towns of Daskusa (Armenia Minor) and Dagusa (Melitene), which are, however, usually regarded as identical by other geographers.

GATAPA: This name appears in the treaty with Nuḫašše, in the following context, which is not necessarily geographical: Ḫurma, Šamuḫa, Anšuwa, Gatapa, Taḫurpa, Dunna, Ḫubišna.

GULBINAŠ	T	gul-bi-na-aš	(3 KBo 1 III. 25=) Fo ZDMG. NF. 1 p. 229
	L	ku-ud-bi-na-aš	Fo 2 BoTU 23A. III. § 37, L.24 Hr. 3 BoST No. 4 III. L.25 (Bo 2048, L.45=) Fo ZDMG. NF 1 p. 229
GURTA	T	gur-ta Kurta Gurta	L Dh. KBo I. No. 1 Rev. L.54 Lu p. 170 [cf. l.c. supr.] (KBo I. l.c.s.) Fo ZDMG. NF 1 p. 250
	L		Dh. KBo I. No. 1 Obv. LL.11, 20 Lu pp. 163, 164 [cf. ll.cc. supr.]
GURTALIŠŠA	T	gur-ta-li-iš-ša Kurtalisha	
ḪADRA	T	ḫa-ad-ra-a	(Bo 2095 I. 14-18; Bo 2097 III. 12-25=) Fo ZDMG. NF 1 p. 248
	T	ḫa-at-r(a)-a ḫa-ad-ra-a-aš	L Code p. 49 n.13 M Fo 2 BoTU 17 A.III. L.15'
ḪAGBIŠŠA	T	ḫa-ak-biš-ša	(3 KBo 6 Obv. II. 42=) SH 123 (=Hr. 5 BoST p. 52)
	T	ḫa-ag-bi-iš-ša ḫa-ag-biš-ša	Fo 1 BoTU p. 6 Fo 1 BoTU p. 6
ḪAGGAMIŠŠA	T	ḫa-ag-miš-ša	M Fo 2 BoTU 17 A.II. L.37'
	T	ḫa-ag-mi-iš-ši-ma	E Fo 2 BoTU 15 L.7'
	LT	ḫa-ag-ga-mi-iš-ša	L 1 KBo 8 Obv. L.14 [Lu p. 198]
	T	kha-ag-ga-mi-is-ya-il	YT p. 47 Fo ZDMG. NF 1 p. 181
ḪAIAŠA	T	(ḫa-i)a-ša	(5 KBo 3 I. L.6=) SH 37
	T	ḫa-ia-ša	(5 KBo 3 IV. 14=) SH 37. (Bo 2023 Rev. I. 16=) SH 38 (5 KBo 3 IV. 25, 26=) SH 101
	T	ḫa-ia-ša-aš	(Bo 2023 II. 71=) SH 37
	T	ḫa-ia-ša-an	(Bo 2023 Obv. II. 56=) SH 38
	LT	ḫa-ia-ša-ia	5 KBo 3 IV. 28
	T	ḫa-ia-ša-az	(2 KBo 9 I. 9=) SH 38
ḪAIZZI	T	Kha-iz-zi	YT p. 46
ḪALAB	T	ḫa-al-pa	E Fo 2 BoTU 14β LL.22', 23' (Bo 2023 Rev. I. 6f=) SH 2
	T	ḫal-pa	E Fo 2 BoTU 14β L.19'
	M		Fo 2 BoTU 19 L.6'; 21 III. L.5'; 23 A.I. § 9 L.28;   23 B I. § 9 L.27 Hr. 3 BoST No. 4 I. L.27
	L		Dh. KBo I. No. 1 Obv. L.30; Rev. L.46; No. 4 Obv. II. L.14

GURTALIŠŠA or Kurtališa, appears at the head of the list of rebellious districts leagued with Išuwa against King Subbiluliuma, including Arawanna, Zazziša, Kalamašu (?Kalašma), Timna (*var* Timina, ? Tumanna).

ḪADRA: The sequence of names in the earlier text reads (LL.7'-35'): Burušḫanda, Ḫattušaš, Ḫatti, Ḫadra, Ḫurma, Šugzia, Ḫaggamišša. The last is one of the few names found in texts of all periods. The context in that of Telibinuš associates Ḫadra, with Ankuwa and Šanaḫuitta.

ḪALBUMAŠ: This ancient town name from its construction and the context indicates the vicinity of Aleppo. Compare the forms Zalpa, Zalbumaš in the sequence of names (LL.26'-31'): Ḫattušaš, Zalbumaš, Zalpa, Ḫaššumaš, Ḫaššuwaš, Ḫalbumaš, Ḫalpa.

ḪALAB. Aleppo: (*Assyr.* Ḫalman; *Egn.* Ḫ-l-p; *Harri* Ḫalpawa<sub>n</sub>). This ancient Syrian city is mentioned freely in the texts, as in the records of Egypt and Assyria. A Hittite

ḪALAB ( <i>contd.</i> )	Ḫalpa	Hr. 5 BoST p. 47. Lu pp. 164, 169, 178 [cf. l.c. supr.]
	T ḫal-pa-aš	E Fo 2 BoTU 14a L.8' M Fo 2 BoTU 23 A.I. § 9 L.28; 23 B.I. § 9 L.27; Hr. 3 BoST No. 4 I. L.27
	T ḫal-pa-aš-ša	E Fo 2 BoTU 10β L.31'
	T ḫal-pa-an	M Fo 2 BoTU 23 A.I. § 9 L.28; Hr. 3 BoST No. 4 I. L.27
	T ḫal-pa-wa <sub>a</sub> -an (ḫarr.)	(Bo 1995 IV. 15=) Fo ZDMG. NF 1 p. 226
	T ḫa-la-ab	M Fo 2 BoTU 20 II. L.13'; 21 III. L.4'
	LT ḫa-la-ab	L 1 KBo 6 Obv. LL.3, 11, 14, 16-19, 22, 29, 30, 34, 39; Rev. LL.5, 6, 10, 11, 12, 14, 15, 16, [=Lu pp. 188, 189]
	T ḫa-la-ab	L 1 KBo 6 Obv. L.26 [=Lu p. 189]; 1 KBo 11 Obv. LL.25, 28 [=Lu p. 208]
	T ḫal-ab	L Dh. KBo I. No. 1 Rev. L.42 [=Lu p. 167]
	T ḫal-ba	L Dh. KBo I. No. 1 Obv. L.11
	Ḫalba	Lu p. 193 [=l.c. infr.]
	L ḫal-ba	L 1 KBo 15 Rev. L.14
	T khal-la-bi-ia-il	YT p. 45 (=SH 51)
	Ḫ-r-p [Eg.]	GL. JEA 6 p. 194
ḪALBUMAŠ	T ḫal-bu-u-ma-aš-ša	E Fo 2 BoTU 10β L.30'
ḪALILA	T ḫa-li-la(?)	L Hr. 3 BoST No. 6 I. L.36
	T ḫa(?)-li(?)-la(?)-aš	L Hr. 3 BoST No. 6 I. L.32
	T ḫa(?)-li-la-an-ma	L Hr. 3 BoST No. 6 I. L.35
ḪALIPPAŠUWAŠ	T ḫa-li-ib-pa-šu-va-aš	M Fo 2 BoTU 23 A.III. § 38 L.41; 23 B.III. § 38 L.6'; 23 G.III. § 38 L.5'
ḪALIWA	Mt ḫa-li-wa	L Dh. KBo I. No. 1 Obv. LL.12, 21 [=Lu p. 164]
ḪALSUA	L ḫal-su-a	L 1 KBo 22 Rev. 5 [=Lu p. 210]

inscription and carvings have been found there (G., L.H., p. 97). The ancient tell which indicates probably the original Hittite stronghold is now crowned with a mediaeval fortress (*ibid.* Pl. XXXVIII cf. Pl. III and p. 7). As early as the beginning of the second millenium B.C. (in the age of Ḫattušil I) 'the kings of Ḫalab held a great kingdom' (I. KBo VI. LL.11-14. Lu p. 188): this the great conqueror Muršil destroyed in a campaign which extended to Babylon (III. KBo No. I LL.22, 28. Hr. loc. cit., p. 103). During the Hyksos period it appears to have regained its dominating importance, in connection with the kingdom of Ḫanigalbat, calling eventually for further intervention from Dudḫalia I, about 1450 B.C., the age of the Egyptian Pharaoh Thothmes III (whose records first make mention of the Kheta). The subsequent struggle between Hittite and Egyptian for possession of this area are further illuminated by new documents, in particular by the pre-ambles to the treaty between Muršil III (c. 1310 B.C.) and Rimišarma, king of Aleppo, of which a copy made by Mutallu is preserved.

ḪALILAŠ: A chief town of Gašga (q.v.), mentioned twice in the same context as Duddušga.

ḪALIPPAŠUWAŠ: A name which by construction and context seems to be a compound or derivative form of Ḫaleb. It is placed in the sequence of names between Damašḫunaš (?Damascene) and Kalašumiaš, the latter possibly a variant of Kalašma, q.v.

ḪALŠUWA: This name occurs only once in a fragmentary inscription which indicates, however, the geographical sequence Kizzuwadna, Ḫalšua, Kinza. The first of these names is spelt textually 'Kizwadna'; and the form Ḫalšua suggests a confusion between Išuwa and Alše, or a combination of these words. (On the Ḫ, cf. SH, p. 200).

ḪAMMUḪA	T	ḫa-am-mu-ḫi-ia-il	YT p. 45 (=SH 51)
ḪAMMUNA	T	kha-am-mu-na-a-il	YT p. 46
ḪANḪANA	T	ḫa-an-ḫa-na	L Dh. KBo I. No. 1 Rev. L.45 [=Lu p. 169]
		Hanahana	Lu p. 179 [l.c. infr.]
	T	ḫa-an-na-ḫa-an-na	1 KBo 4 Rev. IV. L.15
	T	ḫa-an-ḫa-ni	(Bo 2897 II. 10-14=) Fo ZDMG. NF 1 p. 194
ḪANIGALBAT	LT	ḫa-ni-gal-bat	L 1 KBo 6 Obv. LL.17, 19 [=Lu p. 188]
	L	ḫa-ni-gal-bat	L 1 KBo 20 Obv. L.10 [=Lu pp. 209, 210]; Rev. L.6 [=Lu p. 210]
	L	ḫa-ni-kal-bat	L 1 KBo 14 Obv. LL.8, 10 [=Lu p. 206]
ḪANIŠU	MtT	ḫa-ni-šu	L 1 KBo 11 Rev. 16 [=Lu p. 209]
ḪAPALLA	T	ḫa-pal-la-ma	L Hr. 3 BoST No. 6 III. L.24
	LT	ḫa-pa-a-al-la-wa-at-ta	(Bo 2127 Rev. 23=) SH 93
ḪAPANTARIAŠ	T	ḫr-p-n-t-r-y-s[Eg].	GL. JEA 6 p. 194
ḪARAḪARAŠ	T	ḫa-ra-ḫa-ra-aš	M Fo 2 BoTU 23 A.III. § 38 L.38; 23 B.III. § 38 L.3'; 23 G.III. § 38 L.2'
ḪARAḪŠUWAŠ	T	ḫa-ra-aḫ-šu-va-aš	E Fo 2 BoTU 13 II. L.23'

ḪANIGALBAT: Some details of interest appear in the new documents concerning this kingdom, otherwise well known from Assyrian sources and the Tell El Amarna letters. In the age of Dudḫaliya I (c. 1450 B.C.) it was seemingly invaded by the King of Ḫaleb though a part of the Hittite Empire. An undated document I. KBo 14 (translated by Lu p. 206) speaks of robberies in this area by people from Turira; recalling the Tell El Amarna letter in which the escort of caravans in that area is mentioned (W., T.A.L. No. 256). There is a further reference to disturbances in I. KBo 20, but the text is fragmentary. Forrer (M.D.O.G. No. 61, p. 30), assigns to Ḫanigalbat a great influence during the Hyksos period, with Aleppo and Malatia as chief centres: subsequently Ḫarri and Mitanni divided the territory.

ḪAPALLA: Presumably the Hittite form of Kaballa; this name appears unexpectedly in the summary of Muršil's dispositions in Arzawa (q.v.) at the end of his campaigns, wherein he records the names of the chieftains to whom he assigned the three principalities—Mira, the Land of the River Šeḫa and Ḫapalla, grouping all within Arzawa. It is to be inferred that his previous campaigns had reduced the district to submission as in the other cases. Consequently, one of the three unplaced sites whither he was constrained to follow the rebels, namely Apašaš, Buranda and the Mtn. of Arinnanda, probably lies within that area, and for the reasons already indicated under their respective names, that of Apašaš seems to be the most probable, being also in the vicinity of the Great Plain. The text of the treaty with Targaš(ša)nalliš, the chief of Ḫapalla whom Muršil III appointed, is preserved and published (V. KBo No. 4): it adds little of geographical interest, but it confirms the association with Arzawa. A district of similar name is mentioned on the obelisk from Xanthus, reading Kopll (Fellows: *Lycia* p. 499) or Cuplle (Sundwall op. cit., p. 15; cf. also Cup(e)-lli, ib., p. 124). Its identity is however doubtful (cf. L.A.A.X. p. 25).

ḪAPANTARIAŠ: This name, gleaned from the Egyptian text of the Hittite treaty, seems to have no direct parallel in the new texts.

ḪARAḪARAŠ: A reduplicating stem (cf. Fo ZDMG. NF. 1, p. 243 f.). The context seems to associate the town with Melitene: Mallitaškuriaš, Ḫaršuwaš, Tipalaš, Kurša.

ḪARAḪŠUWAŠ: The context associates this name with Zalpa and Ḫattušaš. (cf. also Ḫaršuwaš in the foregoing list).

ḪARANA	Mt ḫa-ra-na	L Dh. KBo I. No. 1 Obv. LL.12, 21 [=Lu p. 164]; No. 2 Obv. L.2 [=Lu p. 164]
ḪARAŠḪAPAŠ	T ḫa-ra-aš-ḫa-pa-aš	M Fo 2 BoTU 17 Bβ L.13
ḪARAŠTA	T khar-as-ta-a-il	YT p. 45
ḪARETA	L ḫa-ri-e-ta	1 KBo 19 Obv. L.10 [=Lu p. 193]
ḪARḪARPA	T khar-khar(?) -pa(?) -a-il	YT p. 47
ḪARKIAŠ	T ḫar-ki-ia-aš	M Fo 2 BoTU 23 A.III. § 37 L.18
ḪARKIUNA	T ḫar(?) -ki(?) -u(?) -na-an	E Fo 2 BoTU 7 I. L.17
	T ḫar-ki-ú-na-an-na	E Fo 2 BoTU 7 I. L.23
ḪARMURIK	T ḫar-mu-ri-ig	L Dh. KBo I. No. 1 Rev. L.17 [=Lu p. 167]
ḪARMA	cf. Ḫurma	
ḪARRANU	T ḫarranu (KAS) Ḫarrana	L Dh. KBo I. No. 3 Obv. L.47 Lu p. 174 [l.c. supr.]
	T ḫarran-ni (KAS-ni) Ḫarrani	L Dh. KBo I. No. 3 Rev. L.23 (=Fo ZDMG. NF 1 p. 249) Lu p. 175 [l.c. supr.]
ḪARRI		Lu AJSL 37 pp. 163, 169-178, 180, 181, 185, 186, 208
	L ḫar-ri	L Dh. KBo I. No. 1 Obv. L.2; No. 3 Rev. L.9; No. 4 Obv. II. LL.7, 41; 1 KBo 5 Obv. I. LL.11, 14, 23; Rev. III. LL.37, 45, 48; Rev. IV. LL.5, 19, 30
	T ḫar-ri	L Dh. KBo I. No. 1 Rev. LL.71, 74; No. 3 Obv. L.12; Fo ZDMG. NF 1 p. 195; Hr. 5 BoST p. 42
	ḫar-ri	L 1 KBo 11 Obv. L.25

ḪARANA Mt: From the context this is the name of a mountain district which revolted from Subbiluliuma's father and went over to Ishuwa (q.v.). It occurs twice in the sequence: Durmitta, Alḫa, Mt. Ḫarana, half the land of Tegarama, Teburzia, Ḫazga. This list indicates the border of the Euphrates from Melitene to Karana (Erzerum), and the probable identity of Ḫarana with the latter. (cf. also Karahna).

ḪARAŠḪAPAŠ: The context associates this town with Ḫattušaš, Buruḫanda, Tašša and Arimatta. The name may prove to be an earlier form of Hiššaḫapa (q.v.).

ḪARMURIK: A fortress of Mitanni, associated with Šibri and Šurun, and to be identified possibly with Tell Ḫarmurik (36° 40' N., 40° 55' E.) which lies about 15 m. south-west of Tell Waḫšuk (?Waššukkanni) or 40 m. south-west of the ruins of Lelan, which may alternatively mark the site of the capital of Mitanni. (cf. Note on Miššuwanzaš).

ḪARRI: The texts throw considerable light on the position and influence of this powerful state, the hereditary rival of Ḫatti. It occupied the highlands of Armenia, later Urartu. To the north it bordered on Kizzuwadna, with the town Urušša (Eriza) on the boundary; to the west was the buffer state Išuwa, while to the south it embraced Alše and bordered on Mitanni. All of these districts it invaded from time to time and occasionally dominated. The expansion of Mitanni under Tushratta menaced the supremacy of its royal line resulting in a temporary league with Ḫatti. The struggle between the two houses is constantly reflected in the texts, the Hittite policy being directed to support the weaker side. After Tushratta's death Ḫarri became supreme, dominating the whole eastern frontier from the Black Sea to Carchemish, with dominion over Kizzuwadna, Mitanni and Irrite. Even the border states between Ḫatti and Ḫarri were shaken in their allegiance and serious rebellions ensued. Against this constant menace the Hittite kings took the part of the dethroned prince of Mitanni on the one side, while on the other side an offensive and defensive alliance was concluded with Kizzuwadna, and the treaty with Ḫarri was cancelled.

ḪARRUWAŠAŠ	T	ḫar-ru-wa-ša(?) -aš	Hr. 3 BoST No. 1 III. L.13
ḪARŠALAŠ	T	ḫar-ša-la(?) -aš-ši	Hr. 3 BoST 1 II. L.32
ḪARŠANḪILAŠ	T	ḫar-ša-an-ḫi-la-aš	M Fo 2 BoTU 17 A.III. L.51'
ḪARŠUWAŠ	T	ḫar-šu-va-aš	M Fo 2 BoTU 23 A.III. § 38 L.39; 23 B.III. § 38 L.3'; 23 G.III. § 38 L.3'
ḪAŠŠUWA			SH 200
	T	ḫa-aš-šu-u(?) -ma-aš	E Fo 2 BoTU 10β L.29
	T	ḫa-aš-šu-va-aš	E Fo 2 BoTU 10β L.30'
	T	ḫa-aš-šu-i	E Fo 2 BoTU 12 A.I. § 5 L.24
	T	ḫa-aš-šu-an	E Fo 2 BoTU 12 A.I. § 6 L.26
	T	ḫa-aš-šu-va-an	E Fo 2 BoTU 12 B.I. § 6 L.2'
	T	ḫa-aš-šu-va	M Fo 2 BoTU 23 A.II. § 24 L.17
	M		Fo 2 BoTU 23 A.II. § 24 L.17
ḪATETENA	T	kha-te-te-na-a-il	YT p. 46
ḪATTARRINA	T	ḫa-at-ta-ri-na	1 KBo 4 Rev. IV. L.18 [=Lu p. 179]
ḪATTENAŠ	T	ḫa-ad-te-na-aš	M Fo 2 BoTU 17 A.II. L.38'
ḪATTI	T	ḫa-ad-tu	E Fo 2 BoTU 14 β L.21
	T	ḫa-ad-ti	E Fo 2 BoTU 3 I. L.11'; 7 Obv. L.36; 8 I. § 3 L.19; 8 II. § 13 LL.68, 76; 8 III. § 16 L.6
	M		Fo 2 BoTU 17 A.III. L.14'; 22 A.I. § 2 L.8'; 23 A.I. § 14 L.44; 28 L.8'
	M		Hr. 3 BoST No. 4 I. L.43
	L		Hr. 3 BoST No. 5 I. LL.1, 2, 11, 20; No. 6 III. L.92; No. 7 IV. L.28. Dh. KBo I. No. 1 Obv. LL.1, 3, 10, 11, 14, 17, 23, 24, 25, 28, 34, 35, 36, 37, 39, 43, 45, 46, 50, 52, 55, 57, 59, 68, 69, 70, 71, 73, 74; No. 1 Rev. LL.8, 9, 11, 12, 14, 22, 40, 43; No. 3 Obv. LL.18, 19, 20, 21, 25, 28; No. 3 Rev. LL.19, 21, 37, 42; No. 4 Obv. I. LL.2, 7, 8, 15; Obv. II. LL.2, 4, 7, 11, 13, 15, 16, 46
	L		1 KBo 4 Rev. III. LL.26, 28; 1 KBo 5 Obv. I. LL.6, 7, 16, 27, 32, 35. Rev. III. LL.18, 20, 22, 35; Rev. IV. LL.56, 61, 64; 1 KBo 6 Obv. LL.9, 10, 12, 13, 28, 33; Rev. LL.7, 9, 11, 13; 1 KBo 8 Obv. LL.2, 13, 32, 33, 36; Rev. LL.2, 10; Code § 5 p. 4 L.12; § 20 p. 16 L.51; § 21 p. 16 L.54 (Bo 2020 Obv. I. L.6=) SH 84; (Bo 2027 Obv. II. L.27=) SH 106
	LT	ḫa-at-ti	
	LT		
	LT		

ḪARRUWAŠAŠ : The context reads : Mt. Šaluwanta of the town of Ḫarruwašaš.

HATTI (*contd.*)

L

L Hr. 3 BoST No. 5 II. LL.20, 29;  
No. 6 I. L.1; Dh. KBo I.  
No. 2 Obv. LL.5, 6, 9, 16, 25,  
33 Rev. L.18; No. 3 Rev.  
L.44; No. 4 Obv. II. LL.48,  
49, 55. 1 KBo 4 Rev. III. L.2;  
1 KBo 7 Obv. LL.2, 6, 7, 9, 10,  
12, 15, 19, 20, 21, 22, 23, 25,  
27, 31, 35, 38, 40, 42; 1 KBo 10  
Obv. LL.1, 26 Rev. L.15;  
1 KBo 15 Obv. LL.13, 14, 17;  
1 KBo 19 Obv. L.4 Rev. L.12;  
1 KBo 23 Obv. L.2; 1 KBo 24  
Obv. L.13 Rev. LL.2, 7;  
1 KBo 25 L.7; 1 KBo 29 LL.2,  
11, 16

(Bo 2048=) Fo ZDMG. NF 1  
pp. 176, 193, 197

(Bo 2029 Obv. II. 19ff.=) SH 124

T

L Hr. 3 BoST No. 7 III. L.15;  
Code § 5 p. 4 L.10; § 19A p. 14  
L.47; p. 15 n.20; § 20 p. 14  
L.50; § 55 p. 48 L.19;  
Dh. KBo I. No. 2 Rev. L.21;  
No. 3 Rev. L.2 No. 4 Obv. II.  
L.31; 1 KBo 4 Rev. IV. LL.20,  
30; 1 KBo 5 Rev. IV. L.15;  
1 KBo 6 Rev. L.17; 1 KBo 11  
L.26

(Dh. KBo I. No. 1 Rev. LL.47,  
71; No. 3 Obv. L.41; 1 KBo 4  
Rev. III. L.31; 1 KBo 6 Obv.  
LL.20, 27; 1 KBo 7 Obv. LL.18,  
28; 1 KBo 10 Rev. L.3;  
1 KBo 19 Obv. L.9

L Hatti (KUBABBAR-ti)

L Hr. 3 BoST No. 5 II. L.10

T hat-ti

Hr. 3 BoST No. 2 II. L.13;  
No. 6 III. L.18

LT hat-ti

(Bo 2026a Rev. 20f.=) SH 76  
L Dh. KBo I. No. 2 Obv. LL.16, 21,  
26, 27, 31, 35, 40; Hr. 3 BoST  
No. 6 I. LL.10, 15

L hat-ti

Hr. 3 BoST No. 2 II. L.54

T hat-ti-ma

L Dh. KBo I. No. 1 Rev. L.13

T ha-at-ti-ma

L Hr. 3 BoST No. 6 III. L.12

L hat-ti-wa

(Bo 2020 Rev. II. 29f.= SH 4  
(=SH 116)

LT ha-at-ti-ia

L ha-at-ti-ia-wa

Hr. 3 BoST No. 6 I. L.15

T ha-at-ti-ia-wa-an-na-aš-kan

(Bo 2023 Rev. II. 33ff.=) SH 113  
(Bo 2359 I. 28=) Fo ZDMG.

T ha-ad-tu-uḫ-e (harr.)

NF 1 p. 227

LT ha-ad-tu-ḫi-ni-ta (harr.)

(U. 101 II.=) Fo ZDMG. NF 1  
p. 228

LT ha-ad-tu-ḫi-ni-pa (harr.)

(U. 101 II.=) Fo ZDMG. NF 1  
p. 228

Hatti

Lu pp. 163-181, 184-201, 203, 209

HATTINI (?)

T ha-ad-ti-ni-wiḫ-na (harr.)

(Bo 2716 Rev.9, 10=) Fo ZDMG.  
NF 1 p. 226

ḪATTISATUM (?)	T	kha-ad(?la?)-di-sa-tum(?)	YT p. 46
ḪATTUŠAŠ	T	ḫa-ad-tu-ša	E Fo 2 BoTU 7 I. L.44; 13 II. L.26'
	T	ḫa-ad-tu-ši	E Fo 2 BoTU 10γ L.2'; 13 I. L.19'; II. LL.21', 30'
	M		Fo 2 BoTU 17 A.III. L.10'; 18 III. L.10'; 23 A.I. § 8 L.24; § 9 LL.29, 30; 23 A.II. § 27 LL.33, 34; § 30 L.48; § 33 L.66; 23 B.I. § 8 L.23; § 9 LL.28, 30; 23 B.IV. § 50 L.22; 23 C.IV. § 50 L.10'; 23 E.II. § 33 L.13'; 23 F.IV. § 33 L.1'; Hr. 3 BoST No. 4 I. LL.23, 28, 29; II. LL.33, 34, 43, 66
	L		Hr. 3 BoST No. 5 I. L.22; III. L.9; No. 7 I. L.11; III. L.18; IV. L.4
	T	ḫattu-ši (KUBABBAR-ši)	YT p.45 (=SH 40) L Hr. 3 BoST No. 6 I. LL.34, 46, 51; II. L.44; III. LL.9, 20, 30, 37, 55, 59, 66, 89; IV. LL.32, 33
	T	ḫa-ad-tu-ši-ma	E Fo 2 BoTU 8 III. § 17 L.19 M Fo 2 BoTU 23 A.III. § 34 L.1; 23 F.IV. § 34 L.13'
	T	ḫa-at-tu-ši-pé	L Code § 19A p. 14 L.47
	T	ḫa-ad-tu-ša-aš	E Fo 2 BoTU 8 III. 21 L.47 M Fo 2 BoTU 17 Bβ L.11'
	T	ḫa-ad-tu-ša-aš-ša	E Fo 2 BoTU 13 I. L.20'
	T	ḫattuš-aš-ma-za (KUBABBAR-aš-ma-za)	L Hr. 3 BoST No. 6 II. L.42; III. LL.34, 53; IV. L.42
	T	ḫa-ad-tu-ša-an	E Fo 2 BoTU 7 I. L.50; 8 II. § 13 L.72; 10β L.26'; 10γ L.3' M Fo 2 BoTU 18 III. LL.8', 12'; 20 II. L.9'
	T	ḫattu-ša-an (KUBABBAR-ša-an)	L Hr. 3 BoST No. 6 III. L.59
	T	(ḫa-ad-tu-š)a-an-na-va	M (Bo 2788=) Fo ZDMG. NF 1 p. 184
	T	ḫa-ad-tu-ša-az	E Fo 2 BoTU 8 III. § 17 L.14
	T		L Code § 19A p. 14 L.45
	T	ḫa-at-tu-šum-ni-eš	L (Bo 415 Obv. II. L.9=) Code p. 16 n.5
ḪAZGA	T	ḫa-az-ga	L Dh. KBo I. No. 1 Obv. LL.13, 22 [=Lu p. 164]

**ḪATTUŠAŠ**: This name, a derivative or compound form of Ḫatti, seems to have a distinct connotation. Prisoners and booty are almost invariably sent to Ḫattušaš: the king himself may return to the town Ḫatti. Gods and subjected provinces pertain to Ḫatti. In one context quoted, it is recorded that Muršil III at the close of his campaign in Arzawa brought 66,000 prisoners to the 'royal house' (Hrozný loc. cit. Rev. III L.32), that the generals and cavalry of Ḫattušaš brought also prisoners and booty (L.34) and that the king himself returned to Ḫattušaš (L.37). Ḫattušaš would seem to be the capital of Ḫatti (cf. the forms Apašaš, Kuadunaša). The suggestion of an independent palace may be explained by the extension of the city to enclose the 'Lower Palace' on the northern terrace at Boghaz Keui (G., L.H., p. 207) wherein most of these archives were discovered.

**ḪAZGA**: From its form and the context, this name would seem to be a variant reading of Gašga. The pronunciation of the name was thus probably Ghazga. [The value of Ḫ is discussed by Hr., SH, p. 200].

HAZZI	Mt	ħa-az-z(i)	(Bo 475 I. 4=) Fo ZDMG. NF 1 p. 195
	Mt	ħa-az-zi-ti	L Dh. KBo I. No. 1 Rev. L.41 [=Lu p. 169]
HAZZUMIA	T	kha-az-zu-mi-(ya-il)	YT p. 45
HİBBURIA	T	ħi-ib-bu-ri-ia-il	YT 45 (=SH 51)
HİMAŠMAŠ	T	ħi-ma(?)-aš(?)-ma-an	L Hr. 3 BoST No. 6 I. L.59
HİMMUWA	T	ħe-im-mu-va	E Fo 2 BoTU 8 II. § 11 L.61 (Bo 2095 I. LL.14-18. Bo 2097 III. 12-25=) Fo ZDMG. NF 1 p. 248
	T	ħe-mu-va	Fo ZDMG. NF. p. 248 n.3
HİNDUWA	T	(ħi-in-)du-wa	(Bo 2127 Obv. 66f.=) SH 98
HİŠŠAŠHAPA	T	ħi-iš-ša-aš-ħa-pa	L Dh. KBo I. No. 1 Obv. L.43 [=Lu p. 169]
		Ĥ-s-s-p [Eg.]	GL. JEA 6 p. 194
HUBIŠNA	T	ħu-(u-bi-)iš-na	E Fo 2 BoTU 12 A.III. § 37 L.23 <sup>7</sup> M Fo 2 BoTU 23 B.I. § 4 L.9 L (KBo I. No. 4 Rev. IV. 25=) Hr. 3 BoST No. 4 I. p. 98 n. 9
	T	ħu-biš-na	M Hr. 3 BoST No. 4 I. L.9; Fo 2 BoTU 23 A.I. § 4 L.10
	T	ħu-bi-iš-na	M Fo 2 BoTU 23 C.I. § 4 L.10 L (Dh. KBo I. No. 1 Obv. L.50=Lu p. 169=) Hr. 3 BoST No. 4 p. 98 n. 9
	T		L 1 KBo 4 Rev. IV. L.25 [=Lu p. 179]
HULAIAS	R	ħu-u-la-ia-aš-ša	M Hr. 3 BoST No. 4 III. L.33; Fo 2 BoTU 23 A.III. L.32 4 KBo 10 Obv. L.20
	LR	ħu-la-ia	

HİMAŠMAŠ: Ĥumiššenaš. The context (LL.53, 58) places this town in the district of Išhubitta (Euspoena) within the sphere of Gašga. The reading is doubtful: if correct it would seem to be related to Ĥumeššenaš which occurs in a parallel context (LL.43, 45); the two names appear to survive in the classical forms Kamisa and Komisene respectively. (Strabo XII, iii, 37, XI, xiv, 4). There was an ancient fortress at Kamisa which Strabo reported to be already in ruins. In these identities, Ĥi becomes Ka, while Ĥu survives as Ko. The aspirate thus disappears. [On this question cf. ZDMG. I. NF., p. 159]. Regarded as a reduplicating form with the stem Ĥimaš, the name Ĥimašmaš appears to be the direct parent both of the classical Kamisa and of the modern Khomes which marks the site.

HUBIŠNA: This name has been freely identified with Kybistra, and a Cappadocian site is indicated by an analysis of the lists. These read: (E) Nenašša, Ušša, Ĥubišna; (M) in each version, Ĥubišna, Tuwanuwa, Nenašša, Laanta, Zallara; (L) Dunna, Ĥubišna, Laanda; also Dunna, Ĥubišna, Išhubitta, Laanda. The earlier lists give no difficulty; the association with Nenašša and Tuwanuwa supports the identification with Kybistra. But of the names in the Late lists, which are those of hiera, Dunna and Laanda are classed as Cataonian sites by Ptolemy, being grouped with Komana, while Išhubitta (Euspoena) lies north east in Armenia Minor. There thus remains a possibility that Ĥubišna in the Late texts indicates Kabassos, which heads Ptolemy's Cataonian list, from which Kybistra by general consent is to be omitted (R., H.G., p. 310 n.) Kabassos is mentioned also by Stephanus Byz. as a village on the road from Tarsus to Mazaka. It is interesting to note that the site of similar name on the Hellespont presents the variant form Kubasa (Pauly-Wiss.). The Lycian stems also may be usefully compared (Sundwall *op. cit.* p. 118).

HULAIAS(Š): This river name, simulating that of the Halys, occurs last in a list of sixty towns or districts in a document of Teļibinuš (III. KBo No. 1) which is, however, broken. The same name occurs frequently in the untranslated text IV. KBo 10, and the association of names is similar. Thus LR Ĥulaia (L.31), U-ša-wa-attaš (L.32) in the latter, compares with Wašuwattaš (L.33) followed by R. Ĥulaiaš (L.33) of the former. This text is important geographically as it defines boundaries and provides an obvious sequence, but the names are unfamiliar and possibly dialectic.

ḪULARA	T	khu-u-la-ra-il	YT p. 45 (=SH 51)
ḪULAŠŠA			(KBo V. No. 3=) Fo ZDMG. NF 1 p. 219
ḪUMIŠŠENAŠ	T	ḫu-mi-eš-še-na-an	L Hr. 3 BoST No. 6 I. L.45
ḪUNTARA	T	ḫu-un-ta-ra-a	E Fo 2 BoTU 12 A.I. § 3 L.13
ḪURMA	T	ḫu-u-ur-ma	E Fo 2 BoTU 12 A.I. § 3 L.11
	T	ḫu-ur-ma	E Fo 2 BoTU 12 A.I. § 5 L.24; II. § 15 L.15; 12 C.I. § 15 L.21 L Dh. KBo I. No. 1 Obv. L.21 [=Lu p. 164]
	T	ḫu-ur-ma-aš	M Fo 2 BoTU 23 A.III. § 37 L.22
	T	ḫu-ur-mi	E Fo 2 BoTU 12 A.II. § 14 L.8; 12 C.I. § 14 L.16'
	T	ḫu-ur-ma-an	E Fo 2 BoTU 13 I. L.20' M Fo 2 BoTU 17 A.III. L.26'; 17 Ba L.3
	T	ḫu-ru-ma	E Fo 2 BoTU 10γ L.20'
	T	ḫu-ru-ma-az	M Fo 2 BoTU 17 A.III. L.21'
	T	ḫu-ru-um-ma-an	M Fo 2 BoTU 17 A.III. L.32'
	T	ḫur-ma	L Dh. KBo I. No. 1 Obv. L.12 [=Lu p. 164], 1 KBo 4 Rev. IV. L.22 [=Lu p. 179]
		ḫar-ma	L Dh. KBo I. No. 1 Rev. LL.42, 48 [=Lu p. 169]
ḪURNIAŠ	T	ḫu-ur-ni-ia-aš	M Hr. 3 BoST No. 4 III. L.29; Fo 2 BoTU 23 A.III. § 37 L.28
ḪURPANAŠ	T	ḫu-ur-pa-na-aš	M Hr. 3 BoST No. 4 I. L.36; Fo 2 BoTU 23 A.I. § 12 L.37
ḪURŠAMMAŠ	T	ḫu-ur-ša-am-ma-aš	M Fo 2 BoTU 17 Bβ. L.4'
ḪURUḪḪI		Hurihhi	Lu p. 207 [cf. l.c. infr.]
	T	ḫu-ru-uḫ-ḫ[i]	L 1 KBo 11 Obv. L.6
ḪURUTTAŠ	T	ḫu-ru-ut-ta-aš	M Hr. 3 BoST No. 4 III. L.30; Fo 2 BoTU 23 A.III. § 37 L.29

ḪUMMA: A possible variant (La MSS.) of Lumma, mentioned in the treaty between Muršil III and the king of Mira and Kuwaliya. The form Lumma is not identified, but the form Ḫumma would equate well with the Lycian Khoma, which is placed by Ptolemy in Milyas as one of its four principal cities, and by Pliny (V. 27) on the River Aedesa. Kiepert places it about 15m. east of Oeneanda, on one of the sources in the upper marshes of the Arycandus River, west of Elmaly. There are rock-tombs in the neighbouring hill-side. Alternatively Ptolemy's Komba would appear to represent the name equally well, for Ḫu often becomes K, and B sometimes appears for M (cf. Ḫumiššenaš and Šammuḫa); and there is also this peculiar coincidence, that a variant of the name in the Notitiae (R, H.G. Tabl., p. 424) replaces the K by L. This site is placed by Kiepert at Gömbe, north of Nisa on the Ak Šu, also one of the sources of the Arycandus River, though in fact Ptolemy places Khoma between Nysa and Candyba, and associates Komba with Pinara.

ḪURMA: This name, which survives the ages, appears significantly in a Syrian context in the treaties with Mitanni and Nuḫašše, being associated uniformly with Šammuḫa. It was the centre of Teshub worship, and as such the name should be restored next after Liḫzin in the Egyptian treaty. Its tutelary deity was called Ḫantetaššu. It may be identified with Ptolemy's Urima, near the Euphrates, in the vicinity of other great centres of the Hittite cult at Doliche and Hierapolis. (cf. G., S.G., p. 17, n.49).

HUŠKIWANTEŠ	ḫu-uš-ki-wa-an-te-eš	i KBo 11 Obv. L.14 [=Lu p. 207]
HUTPA	T ḫu-ut-pa	L Hr. 3 BoST No. 7 II. LL.8, 9
IAḤRIŠŠA	T i-ia-aḫ-ri-iš-ša	(Bo 2023 Rev. I. 31 f.=) SH 40
	T i-ia-aḫ-ri-eš-ša-aš	(Bo 2023 Rev. I. 20=) SH 40
	T i-ia-aḫ-ri-eš-ša-an	(Bo 2023 Rev. I. 31=) SH 40
	T ia-aḫ-ri-eš-ša-an	L Hr. 3 BoST No. 6 IV. LL.25, 26, 27, 32
IALIE	T ia-li-e	La 4 KBo 3 Obv. I. L.22
IAMMAŠ	T i-ia-am-ma-aš	M Fo 2 BoTU 23 A.III. § 37 L.31; Hr. 3 BoST No. 4 III. L.32
IARUWATTAS	T i-ia-ru-wa-ta-aš	L Hr. 3 BoST No. 5 I. L.3
	T i-ia-ru-wa-da-aš-wa	L Hr. 3 BoST No. 5 I. L.14 (=SH 204)
	T i-ia-ru-wa-at-ta-an	L Hr. 3 BoST No. 5 I. L.15
	T i-ia-ru-wa-an-da-an	L Hr. 3 BoST No. 5 I. L.19
	T i-ia-ru-wa-ad-da-an	L Hr. 3 BoST No. 5 I. LL.23, 26
IATI	T ia-ti-il	YT. p. 46 (=SH 51)
IB-DUMMAŠ	Mt ib (i(?) . . .)du-um-ma-aš	Hr. 3 BoST No. 1 I. L.43
IKKUWANIAS	T ik-ku-wa-ni-ia-aš	M Hr. 3 BoST No. 4 III. L.29
	T ig-ku-wa-ni-ia-aš	M Fo 2 BoTU 23 A.III. § 37, L.28
ILANZURA	T i-la-an-zu-ra	M Fo 2 BoTU 21 III. LL.10', 13'
ILLAIA	T il-la-ia	L Dh. KBo I. No. 1 Rev. L.47 [=Lu p. 169]
IRRITE	T ir-ri-te	L Dh. KBo I. No. 1 Rev. LL.20, 28, 57 [=Lu pp. 168, 170]; No. 3 Obv. LL.36, 37, 39, 40, 42, 43, 45, 50 [=Lu pp. 173, 174]; No. 3 Rev. L.25 [=Lu p. 175]
IŠḤUPPA	LT iš-ḫu-u-up-pa	L Hr. 3 BoST No. 7 Rev. III. L.27

HUŠKIWANTEŠ: 'The Sons of Laria . . . sang the song of the god Zamama in Hushkiwantesh.' Lu p. 207.

IAḤRIŠŠA: After his campaign in Tibia Muršil III led an expedition at the end of his ninth year of campaigning into Kizzuwadna: after taking possession of this town he proceeded to Biggainarešša. The context rather suggests a search for the ruins just inside the frontier of Kizzuwadna, near Nicopolis, on the road from Zara to Oloetodariza. (Cf. Cumont: *Voyage . . . dans le Pont*. Map XXII and p. 304). The maps, however, show a site called Yarhissar (Lat. 39° 50', Long. 37° 25') on the road from Sivas to Zara, near where it is joined by the road from Khomes (Ḥimašmaš: Ḥumiššenaš). The resemblance of names is irresistible; and this identification would indicate a centre of disaffection before reaching the frontier of Kizzuwadna, the possibility of which must be admitted in view of the disturbance at the neighbouring city of Ḥumiššenaš. That the situation was urgent is further indicated by the fact that Muršil III had to postpone a necessary campaign in Azzi in order to cope with this nearer danger.

IARUWATTAS: A fortress in the district of Barga (q.v.). This name has a special phonetic interest on account of its various forms, establishing equivalence between the terminations -wataš, -wattaš, -wadaš, -wandaš: in other words it indicates a nasal element in the double consonant which in Syria could even be suppressed. The place was the subject of a special agreement with the Amorite prince Abi-martaš. The name is clearly the Hittite rendering of Arwad (Arvad) and the text is to be read by the side of the relevant Tell-Amarna letters upon which they throw a flood of light. Both the Egyptian and Hittite documents refer to the grandfather of Abi-martaš. (Cf. particularly W., *T.A.* 84, and Hr. loc. cit., p. 130 ff.).

IRRITE: A district of Mitanni, immediately east of the Euphrates, apparently opposite to Carchemish and comprising or bordering on Aštata to the south.

IŠḤUPPA: The only context places this district in or near Kalašma, q.v.

IŠHUPITTA	T	iš-ḥu-bi-id-ta	L	1 KBo 4 IV. L.26 [cf. Lu p. 179]
	T	iš-ḥu-pi-it-ta	L	Hr. 3 BoST No. 6 I. LL.43, 44, 47, 53, II. L.1
IŠTAḤARA	T	iš-ta-ḥa-ra	L	Hr. 3 BoST No. 7 I. LL.8, 13
	T	iš-ta-ḥa-ra-al	YT	p. 47 (=SH 51)
IŠTALUBBA	T	iš-ta-lu-ub-ba	L	Hr. 3 BoST No. 7 II. L.6
	LT	iš-ta-lu-ub-ba	L	5 KBo 8 I. LL.30, 32
IŠTITINA	T	iš-ti-ti-na	L	Hr. 3 BoST No. 6 III. L.91
	T	iš-ti-ti-na-ma-za	L	Hr. 3 BoST No. 6 III. L.71
IŠUWA	T	i-šu-wa	L	Dh. KBo I. No. 1 Obv. LL.10, 11, 15, 16, 18, 20 [=Lu pp. 163, 164]; No. 4 Obv. I. L.16 [=Lu p. 177]
	LT	i-šu-[wa]	1	KBo 5 Obv. I. L.8 [=Lu p. 180]
	LT	[i-šu]wa	1	KBo 5 Obv. I. L.10 [=Lu p. 180]
	LT	i-šu-wa-aš	1	KBo 5 Obv. I. L.21 [=Lu p. 180]
KAḤAT			Fo	ZDMG. NF. 1 p. 249
KALAMTE	T	ka-lam-te	L	Dh. KBo I. No. 1 Obv. L.12
		Kalamashu	L	Lu p. 164 [cf. l.c. supr.]
KALAŠMA	T	ka-la-aš-ma-aš	M	Fo 2 BoTU 22 C.I. L.11
	T	ka-la-a-aš-ma	L	Hr. 3 BoST No. 7 I. L.9; No. 7 III. L.25; No. 7 IV. LL.5, 12, 27

IŠHUBITTA: A town and district of Gašga (q.v.), in the vicinity of which were Balḥuišša and Ḥumiššenaš (with Ḥimašmaš). By pronunciation Isupinda (cf. Iaruwattaš, and vid. Friedrich ZDMG. NF. 1, p. 159) and in the light of the several contexts, it may be identified with Euspoena of the Antonine Itinerary, on the road from Sebasteia (Sivas) to Melitene (Malatia).

IŠTAḤARA: 'The powerful land of the town of Ištaḥara' annexed, it would seem, a town called Pittalaḥšaš. A town Šunupaššiš and the town Kalašma are mentioned in the context, which is obscure.

IŠTALUBBA: This name occurs on the march of Muršil from Gašga to Kalašma in the following sequence: Taggašta, Ištalubba, Kabbubbuwa, Ḥutpa. In V.KBo 8, which appears to be an unplaced fragment of Muršil's campaigns, the sequence of references is Marišta (1, 5), Taggašta (LL.6-29); Ištalubba (L.30 ff.) Dakkuwaḥina (L.35) followed by Gašga and Kabbubbuwa. It would thus appear to have been east of the Gašga area beyond the Euphrates.

IŠTITINA: The context places this town in the vicinity of Gašga (q.v.), in immediate proximity to Tibia, a district watered by the northern sources of the Tochema Su. The stem is reduplicating, giving the root Iština or Išdina, which may possibly be identified with Osdara, on the main road from Mazaca by Arabessos and Melitene to the East. This identification would seem to accord with and amplify the record of Muršil (Obv. III. L.40), that rebels of Gašga had cut off the roads to Bala. Iština which had been annexed to Tibia was made once more a province of the land of Ḥatti.

IŠUWA: The texts indicate the position of this state clearly as bordering on the Euphrates, on the eastern side, opposite to Gašga and in proximity to other revolted districts including Alḥa, Arawanna, Armatana, Durmitta, Ḥurma, Kurtališa, Teburzia, Tegarama, and Zaz(zi)ša. From Assyrian sources (To AJSL. XXXIII, p. 344) it included Azzi as a province. It thus occupied the great loop of the Euphrates eastward of Zimarra and Melitene, including the lower valley of the Arsanias River. Its eastern frontier bordered on Ḥarri.

KAḤAT: A variant reading (cf. Fo P.A.R., p. 19) of Kapa (Lu pp. 169, 170) reading 'Kurinni (or Gurrini) of Kaḥat' for 'Kurinni of Kapa.'

KALAŠMA: (?var. Kalašumia). The context of the latter suggests a site in Northern Syria, the sequence being Damašḥunaš—Ḥalippašuwaš—Kalašumiaš. The text describing Muršil's relations with the Kalašma area are brief and partly broken. A chieftain Aparruš seemingly

KALAŠUMIAŠ	T	ka-la-šum-mi-ia-aš	M	Fo 2 BoTU 23 A.III. § 38, L.42, 23 B.III. § 38, L.6'; 23 G.III. § 38 L.6
KALA . . . IAŠ	T	ka-la- . . .-ia-aš	M	Hr. 3 BoST No. 4 III. L.43
KAMARIBI	T	ka-ma-ri-bi	L	Dh. KBo I. No. 3 Rev. L.25 [=Lu p. 175]
KANIŠ, KANEŠ			Fo	ZDMG. NF. 1 p. 192, 196, 197, 198; Hr. 5 BoST p. 46 (=VAT 13005, Obv. I. 39); Hr. 5 BoST p. 42
	T	ka-ni-eš	E	Fo 2 BoTU 3 I. L.11'
	LT		L	3 KBo 6 Obv. I. L.71
	T	ka-ni-iš	Fo	ZDMG. NF 1 pp. 192, 196, 197, 198
		ga-ni-iš	30	Tabl. pp. 54, 80, 93
KAPA	T	ka-pa	L	Dh. KBo I. No. 1 Rev. LL.36, 37, 54 [=Lu pp. 169, 170]; No. 3 Rev. L.23 [=Lu p. 175]
KAPAŠ-	Mt	ka-pa-aš-	E	Fo 2 BoTU 13 I. L.13'
KARAH[NA]	T	ka-ra-aḥ- k-ḥ-n[Eg.]	L	1 KBo 4 IV. L.12 [=Lu p. 179] GL. JEA. 6 p. 196
KARAŠMITTIA	T	ka-ra-as-mi-it-ti-ya-il	YT.	p. 47
KARDUNIAŠ		Karaduniash	Lu	pp. 200, 201, 203, 205
	LT	ka-ra-an-du-ni-ia-aš	L	1 KBo 14 Rev. L.2
	T	ka-ra-an-du-ni-ia-aš	L	Dh. KBo I. No. 3 Obv. LL.14, 15
	L	ka-ra-an-d[u-ni-ia-aš]	L	Dh. KBo I. No. 4 Obv. II. L.8
	L	[kar-a]n-du-ni-ia-aš	L	1 KBo 10 Obv. L.2
	L	kar-an-du-ni-ia-aš	L	1 KBo 10 Obv. L.26, 27; Rev. L.4
	L	kar-an-du-[ni-ia-aš]	L	1 KBo 10 Rev. L.3
KARKAMIŠ	LT	kar-ga-miš	(Bo	2023 Obv. II. 47, 59=) SH 38, 102; Lu pp. 189, 203, ; Hr. 3 BoST Rev. IV. LL.3, 6
	LT	kar-ga-miš-ia	(Bo	2003 Obv. II. 6 f.=) SH 38

attacked a neighbouring town Šappa with the result that he drew out one Tarḥiniš to battle, who routed his army. Muršil assembled his troops at Arduna. Other places mentioned are Lalḥa, Išḥuppa and Lakkuš, the latter, one of a number of fortified towns. Further troubles ensued, and Muršil's general Ḥutubiyanza went on a punitive expedition to Bala, Tumanna and (in haste) to Šarkuzzaš: afterwards he reached Zaparaššaš and further on Miššuwanzaš. A first impression may suggest identity with the district of Killiz, with its numerous fortified towns (Sinjerli, Sakje-Geuzi, etc.); though the name Zaparaššaš may recall Ptolemy's Zoparissas in Melitene. The juxtaposition of Bala suggests, on the other hand, the identity of Kalašma with the Assyrian Kilissa, which lay to the east of the Euphrates opposite Komagene. (To AJSL. XXIII, p. 355). This also was in a land of fortified cities, among which are mentioned in texts of Tiglath Pileser III; Ḥista, Ḥarbisina, Barbaz, and Tasa. In this situation the district would adjoin Azzi and Bala to the north and Irrite to the south. The texts which refer to Bala and Zaparaššaš seem to be satisfied by this hypothesis, which is substantiated by the recognition of Miššuwanzaš (q.v.) in the form Mazuwati and a study of the respective contexts.

**KARAHNA**: This name occurs only in the Egyptian text of the Hittite treaty *temp* Rameses II wherein the goddess of this town is invoked. The restoration of the name in the text of the Hittite treaty with Nuḥašši is possible but conjectural. Suppression of the ḥ (cf. Fr. ZDMG. 1 NF., p. 159) would give the form Karana, but on present evidence a Syrian location is more probable.

**KARKAMIŠ**: The Hittite remains of the city of Carchemish (Jerablus) are described G., L.H. pp. 123, 129, and particularly the recent discoveries by Hogarth and Woolley: Carchemish, Excavations by the British Museum 1914 and 1921.

KARKAMIŠ ( <i>contid.</i> )	T	kar-ga-miš-aš	(Bo 2003 Obv. II. 9=) SH 38
	T	kar-ga-miš-ša	(Bo 2003 Obv. II. 44 f.=) SH 38
	T	kar-ga-mi-iš-ša-an	(Bo 2003 Rev. I. 27=) SH 38
	T	kar-ga-miš	M Fo 2 BoTU 23 A.I. § 12, L.37; 24 III. L.4; 24 V. L.16; Hr. 3 BoST 4 I. L.36
		[kar-]ga-miš	L Dh. KBo I. No. 1 Rev. L. 32
	T	kar-ka-mi-iz	L 1 KBo 14 Obv. L.7 [=Lu p. 206]
	T	qar-ga-miš	L 1 KBo 11 Rev. L.21 [=Lu p. 209] L Dh. KBo I. No. 3 Obv. L.36 [=Lu p. 173]
KARNA	T	kar-na	L Dh. KBo I. No. 1 Obv. L.62
KARNA	Mt	kar-na	L Dh. KBo I. No. 1 Obv. LL.12, 21 [=Lu p. 164]
KARTAPAḪUM	T	kar-ta-pa-ḫu-um-ni-eš	(2 KBo 12, Obv. II. 34 ff.=) SH 50
	T	kar-ta-pa-ḫu-me-ni-eš	(2 KBo 12 Obv. II. 31=) SH 50
KARZIŠ(?)		K-r-d-nt[Eg.]	GL. JEA. 6 p. 194
KAŠA	T	ka-š(a)	L Dh. KBo I. No. 1 Rev. L.49 [=Lu p. 169]
KAŠIARA	Mt	ka-ši-ia-[ra]	L Dh. KBo I. No. 4 Obv. I. L.19 [=Lu p. 177]
		[ka-]ši-ia-ra	1 KBo 4 Obv. L.20 [=Lu p. 177]
KAŠIPA	T	ka-a-ši-pa	L Hr. 3 BoST No. 7 II. L.15
	T	ga-a-ši-pa	L Hr. 3 BoST No. 7 II. L.15
KAŠTAMA	T	kaš-ta-ma	(VAT 13005 I. 25=) Fo 1 BoTU p. 16
KAŠŠU	Mt	kaš-šu-ú	(Bo 2368 I. 42=) Fo 1 BoTU p. 16
KATAPAŠ	T	ka-ta-pa-an	M Fo 2 BoTU 18 III. L.13'
	T	ka-ta-pa-aš	6 KBo 28 Rev. L.39
KATAPUM	T	ka-a-ta-pu-me-ni-eš	(2 KBo 12, Obv. II. 37=) SH 50 192
	T	ka-a-ta-pu-um-ni-eš	(2 KBo 12 Obv. II. 34 f.=) SH 50
KIANA	T	ki-a-na	1 KBo 19 Rev. L.3 [=Lu p. 193]
KINAḪḪI	L	ki-na-aḫ-ḫi	1 KBo 19 Obv. 8 [=Lu p. 193]
KINZA	T	ki-in-za	(Bo 2023 Obv. II. 3, 14) SH 38
	LT	ki-in-za	(Bo 2003 Obv. II. 23=) SH 38
	T	(ki-in)?-za-an(?)	(Bo 2023 Obv. II. 15=) SH 38
	LT	ki-in-za-ia-az	(Bo 2003 Obv. II. 21=) SH 38
	LT	ki-in-za-ia	(Bo 2023 Obv. II. 7=) SH 104
	L	ki-in-za	1 KBo 22 Rev. L.7 [=Lu p. 210]
	L	[ki]-in-za	L 1 KBo 19 Obv. L.10 [=Lu p. 193]
	T	ki-in-za	L Dh. KBo I. No. 1 Obv. L.40 [=Lu p. 165]; No. 2 Obv. L.22 [=Lu p. 165]; No. 4 Obv. II. L.14 [=Lu p. 178]; 1 KBo 4 Rev. IV. L.28 [=Lu p. 179]

KARZIŠ : The Hittite text shows this name to be that of a deity (Mitannian treaty, Lu p. 169) : the Egyptian text of the Hittite treaty shows the same name to be also that of a district.

KINZA : This name, familiar in Syrian contexts, is probably to be identified with the Egyptian Kd-su (Kadesh) which otherwise does not appear in the texts. (cf. Dh., R.B., V, n.s., 1908, p. 504).

KIŠMITTA	T	ki-iš-mi-it-ta-il	(YT p. 45=) SH 51
KIŠŠIA	T	ki-iš-ši-ia-a	L Hr. 3 BoST No. 6 III. L.48
[KI]ŠUTI		[ki]-šu-ti	L 1 KBo 4 IV L.9 [=Lu p. 179]
KIZZUWADNA		Kissuadni	Lu pp. 169, 171; AJSL 39 p. 64
		Kissuwadni	Lu pp. 179, 180, 181, 182, 184, 185; AJSL 39 p. 64
		Kizzuwadna	(Bo 2410=) Fo ZDMG. NF. 1 p. 182
		Kissuwadna	Lu p. 206 [l.c. infr.]; AJSL 39 p. 64
		ki-iz-zu-wa-at-na	L Hr. 3 BoST No. 3 I. L.1; 1 KBo 14 Obv. L.20
	T		La KBo V. No. 2 Obv. L.2 Lu p. 193, 210 [ll.cc. infra.]; AJSL 39 p. 64
	T	ki-iz-wa-ad-na	L 1 KBo 15 Rev. L.19; 1 KBo 22 Rev. L.4
	T	ki-iz-zu-ad-na	L Dh. KBo I. No. 1 Rev. LL.43, 47
	T	gi-iz-zu-ad-na	L Dh. KBo I. No. 2 Rev. L.20
	T	ki-iz-zu-ad-ni	L Dh. KBo I. No. 1 Rev. L.51
	T	gi-iz-zu-ad-ni	L Dh. KBo I. No. 2 Rev. L.24
	T	(kizzuw)a(?) -at-na-az	L Hr. 3 BoST No. 6 IV. L.22
		Ḫ-d-w-d-n[Eg.]	GL. JEA. 6 p. 194

KIŠŠIA: A Hittite district bordering on Arawanna (q.v.). A variant form is Gaššia (Ga-aš-ši-ia) in VI. KBo 28 Obv. L.10 (to be so read instead of Gassi, J.E.A. VIII, p. 233). From the contexts it would appear to be located in the vicinity of Samosata (cf. Šamuḫa).

KIZZUWADNA: The references to this kingdom, one of the most important members of the Hittite imperial confederation, are all Late, a fact which accords with the statement of Muršil III that in the time of his grandfather its territory had been part of the realm of Ḫarri. (Treaty: I. L.5 ff. Lu p. 180). Subsequently it broke away from Ḫatti and went over to Ḫarri, then very powerful, to which, in fact, it became a vassal state. The treaty with Muršil III restored its autonomous position on the basis of an alliance, which it maintained in the reign of Ḫattušil III. The position of this land has been much discussed, but an analysis of the new materials leaves little doubt that it occupied generally the position of Pontus in later times. The main arguments (more fully discussed in L.A.A. 1923, Pt. 3) are as follows:—(a) It bordered on Ḫarri and on Ḫatti: Urušša (Eriza) was a point on or near the junction of the common frontiers (Treaty, IV. LL.5-10). (b) It included Komana—at a date undetermined (Hr. 3 BoST No. 3 p. 60 ff.). The antiquity of the name of Komana Cappadociae is doubtful (cf. Arinna). (c) In the later empire, probably during the reign of Ḫattušil, it contained the iron-stores, hence probably the iron-fields, and the earliest known iron-fields were those of the Chalybes, which though ill-defined (Strabo XII, iii, 19, etc., Pliny VI. 4, Xenophon Anab. IV, 7, 15 and V. 5, 1,) were somewhere in Pontus. (d) The frontier as revised by Muršil III ran from Bitura near the Sea, by Zinziluwa, Erimma, the Mt. of Zabarina, the district of Atania with the towns Luwana and Durbina to Zilabbuna where it joined the Šamri river. The reading Zabarina is open to some question, owing to a flaw in the penultimate syllable; but it is so read by Lu (p. 187) and Zabarna by Sydney Smith (J.E.A. VIII, 1922, p. 45). The reading Zabarašna is textually admissible; but Zabarašša, recently proposed by Weidner (8 Bo Stu. 1923, p. 109) does not agree with the text as published. The doubt is unfortunate, as this name is the key to the solution. Zabarašna would suggest Ptolemy's Zoparissus in Melitene; while Zabarina appears in the name of a river (the Kara-Budak, which flows into the Euphrates a little to the north, above Zimarra) in an inscription found by Hogarth (*Pontem sup. flumini Sabrinae*, publ. by Yorke, J.H.S. XVIII, 1898, p. 320). That this is the correct reading and identification is borne out by the names on the Hittite side of the frontier in this vicinity. Opposite Zinziluwa and Erimma was Šalia, a name reappearing in Siala and in Zara (Turk. Zara or Zala). The antiquity of the former name is doubted by Ramsay (H.G., p. 349 § 37), but the name Zara is well-rooted though its early form is not known. Opposite Atania was Turutna, surviving in the Turkish form Tortan (Long. 39° 12'), which overlooks the Euphrates from the north. Opposite Luwana

KUADDUNAŠA	T	ku-ad-du-na-ša	La 4 KBo 3 Obv. I. L.17
KUMANI	LT	ku-ma-an-ni	(Bo 2001 Obv. I. 1=) SH 14, 52
	T	kum-man-ni	E Fo 2 BoTU 13 II. L.17'
	T	ku-ma-ni	L Hr. 3 BoST No. 3 IV. L.14
	LT	kum-ma-an-ni	La KBo V. No. 1 Obv. 1 L.1 ; Rev. 4 L.42

was Šerigga, a name which is reflected in Ptolemy's Zoriga (Armenia Major), and reappears in the modern Erzingan, near which also was the site called in Hittite and Byzantine times Urušša and Eriza respectively. The Turkish word assimilates both these local names. (e) The general position of the central portion of frontier, along the heights to the north of the Euphrates between Zimarra and Erzingan, indicated by the foregoing considerations, is borne out by several chance references, notably Muršil's incursion to Biggainarešša, and the position of Urušša (q.v.). Lastly, the modern Amastum appears to reproduce the Hittite Anamušta (q.v.) in the precise position and sequence indicated by the context. The rest of the frontier is less definite. At the one end Bitura may be Bafra, and at the other the Šamri (or raging) River suggests the similar appellation Boas applied to the Acampsis Fl. The straightforward reading of the text suggests, however, that from somewhere near Erzingan, the Euphrates itself was the boundary, and in that case the term Šamri was applied to the Great River itself. Without further evidence it is hardly possible to say which of these two rivers is indicated, owing to the ambiguity introduced into the Hittite description by the literary practice, seen in numerous other cases, of 'writing ahead,' foreshadowing and summarising in a line the tenour of facts that remain to be described. The division by paragraphs seems to support the interpretation which indicates the Euphrates as the frontier; but the political boundaries of later times favour the identity of the Šamri with the Boas.

KUADDUNAŠA: A town on the lower frontier of Mira and Kuwalia in Arzawa. In this name we have indicated (G., L.A.A. 1923, p. 25 n.2; and in the Note on Šiyanta below) the probability of a scribal slip for the form Kuadunata, which rings true. This suggestion seems to be confirmed by the termination of the Lycian form Kadu-wā-ti (Sundwall op. cit., p. 93). The text describes this town as 'the fortress of Dudhaliya.' There may thus possibly be seen in the element *duna(ta)*, which occurs in other Anatolian names, a parallel to the Celtic *dunon*, found, for example, in Ptolemy's Rigodunum (Britain); derived from *Rix, rigos*, a king, and *dunon*, fortified town. Philologists may see a nearer relationship in the Greek adjective *dunatos*. However that may be, the identity of this walled fortress with Cadyanda, opposed to Oeneanda, across the river 'Eshenide' (Šiyanta), can be accepted with some confidence, especially as the ruined walls of the city, repaired by the Lycian Greeks, show clear evidence of their Hittite origin. (cf. Drawing in Fellows *Lycia*, p. 121).

KUMANI: In the earliest text this name is associated with Zalpa. The first of the later texts, a priestly document, 2 KBo No. 3, contains an important geographical indication, to be gleaned from this interchange of 'Maštigga (? priestess) of Kizzuwadna' (I. 1) with 'Maštigga of Kumani' (III. 14), from which it may be inferred, as Hronzý pointed out (loc. cit., p. 60) that the town of Kumani was at that time in Kizzuwadna. The last text throws no light upon the questions of locality or identity, though suggesting again that the place was an important religious centre. If the boundary of Kizzuwadna (q.v.) has been correctly indicated, then Kumani is to be identified with Komana of Pontus, the sanctuary and rites of which are described by classical writers.

It is significant in this connection to observe that while in the several lists of hiera of the Late treaties the Cataonian and neighbouring sanctuaries (Dunna, Hūbišna, Išhubitta, Laanda) are freely mentioned, the name Komana does not appear; nor is it ever grouped with Cataonian sites (vid. Hūbišna, Maššuhanta, Nenašša, Tuwanuwa). Yet it was at Komana that the cult of the Sun-Goddess of Arinna survived (G., L.A.A., 1914, iii); while Arinna (q.v.) remains generally unrecognised. The explanation may be found in the Annals of Tiglath Pileser I., who, after speaking of inroads of Muški fifty years before his day, hence just after the fall of the Hittite Empire in Asia Minor, states (Col. V. LL.73, 84)—'The hosts of Kummani to the help of the land of Musri came; in the mountains against them I fought and defeated them. In one city, the city of Arini (var. A-ri-in-ni) which is at the foot of Mt. Aisa I shut them up. . . . At that time all of the land of Kummani . . . had called out all their lands' (Budge-King, Annals, pp. 75, 76). Was it not from this time that Arinna, occupied now by warriors from Komana of Kizzuwadna, became known in fact as Komana of Cataonia?

KUMIŠMAḤAŠ	R	ku-me-iš-ma-ḥa-an	L	Hr. 3 BoST No. 7 n.1 p. 244
	R	kum?-mi-iš-ma-ḥa	L	Hr. 3 BoST No. 7 (5a) II. L.9
KURŠA	T	ku-ur-ša	M	Fo 2 BoTU 23 A.III. § 38, L.40
	T	ku-ur-ša-(aš)	M	Fo 2 BoTU 23 B.III. § 38, L.4', 23 G.III. § 38, L.3'
	T	ku-(u)r-ša-an-. . .	M	Hr. 3 BoST No. 4 III. L.41
KURŠAURA	T	ku-ur-ša-ú-ra	E	Fo 2 BoTU 3 I. L.15
KUŠŠAR	T	ku-uš-ša-ra	E	Fo 2 BoTU 7 Obv. LL.1, 5
	T	ku-uš-ša-ra-aš	E	Fo 2 BoTU 7 Obv. L.4
	T	ku-uš-ša-ri	E	Fo 2 BoTU 12 A.I. § 1 L.1
	T	ku-uš-šar	E	Fo 2 BoTU 8 IV. § 24 L.75 (=Hr. 5 BoST p. 50)
KUTMAR	T	ku-ut-ma-ar	L	Dh. KBo I. No. 1 Obv. L.26
		ku-ud-mar	L	(KBo I. No. 1 L.26=) Fo ZDMG. NF 1 p. 229

**KUMIŠMAḤAŠ**: This river name occurs in the text quoted, but in doubtful geographical sequence, between Kalašma and Mira, in a context which mentions also the River Šeḥa and Arzawa. In another case (5 KBo No. 8: also an extract from Mušil's campaigns, L.40) it follows the names Gabbubbuwa (L.34) and Taḥanta (L.36) in a context referring to Gašga. It may thus prove to be either the Pyramus Fl. (Jeihan Su) or the Melas Fl. (Tochma Su), both important rivers politically and otherwise unnamed.

**KURŠAURA**: This name, textually Garsaura, occurs once only, in the list of Anatolian and other kings given in the Hittite records of Naram-Sin of Akkad. Distinguished by its spelling and context from Kuššara.

**KUŠŠAR[A]**: The name of an important royal centre in the earliest records, from which it would appear that the kings of Kuššara rivalled in power those of Ḫatti (Fo M.D.O.G., 61). The form Kuzuruš is possibly an early variant, though not probable, as both names occur in the same text. The form in the middle period is not known, but the name Ku-wa-ša-ri-ia-aš occurs uniquely in the age of Telibinuš, and reproduces Ku-uš-ša-ra adequately. The latest form of the time of Ḫattušil III. appears to be Gaz-zi-u-ra-aš (3 KBo 6 I. L.71; cf. Hr. 5 BoST, p. 46). The reading 'Ku-uš-šar' in the Late text quoted (6 KBo 28 Obv. L.4) is interesting, but it lacks the genitive case-ending: Dr. Mayer finds other instances in parallel cases of proper names following Babylonian ideograms, e.g.:

Kinza                    instead of the Genitive in No. 2023 Obv. II. L.3;

Kargamiš                „                    Dative in *ibid*                    L.47;

Ḫaiša                    „                    Genitive in No. 2020 Rev. II. L.14;

(quoted by Hr. SH, pp. 37, 38); and

<sup>m</sup>DU-ILU                „                    Dative in Hr. 3 BoST, p. 142 L.11; cf. LL.6, 10.

Whatever may have been the precise evolution of the name there can be little reason for doubt in identifying Kuššara with Gaziura, the ancient residence of kings of Pontus, already in ruins before the time of Strabo (XII, iii, 15). The equivalence of šš to z has been seen in several examples and is borne out by the late form which is textually identical. (cf. Biggainarišša, Urušša). But the description of the site (cf. Anderson, *Studia Pontica*, p. 71), the strength of its position, and the seeming antiquity of the pottery fragments collected there, coupled with the direct record of Strabo, are arguments more potent than the phonetic resemblance.

**KUTMAR**: A fortress of Alše, associated with Šuta, on the route to the Mitannian capital of Waššukkani. Forrer discussing the value of *t* in this name (=tl as in Tlabarna) identifies it with the Assyrian Kullimmeri, Armenian K'łmar and Byzantine Χλομαρων (ZDMG. NF. I. 1922, p. 229) and places it at the ruins of Arzan, as the chief site in that district of Arzanene (P.A.R., p. 87). Arzan or Erzen is on the Ḫazu Su, on the 38th parallel of latitude, long. 41° 40'. An indirect route leads thence southward, by Nesibin, along the Jaghjaḡha Su, the main tributary of the Khabur River, near which was Waššukkani, passing near by Zuti, the site of Šuta, lat. 37° 40', long. 41° 20'.

KUWALIA	LT ku-wa-li-ia	4 KBo 3 Obv. I. L.20
	LT ku-wa-li-ia-ia	4 KBo 3 Obv. I. L.15
KUWANNA	T ku-va-an-na-a(š)	M Fo 2 BoTU 23 A.III. § 38, L.37. 23 B.III. § 38, L.1'
KUWAŠARIA	T ku-va-ša-ri-ia-aš	M Fo 2 BoTU 23 A.III. § 37, L.27
	T ku-wa-ša-ri-ia-aš	M Hr. 3 BoST No. 4 III. L.28
KUZURUŠ	T ku-zu-ru-ú-i	E Fo 2 BoTU 12 A.II. § 14, L.12
	T ku-uz-zu-ru-ú-i	E Fo 2 BoTU 12 C.I. § 14, L.19
LAANDA		Hr. 3 BoST p. 99 n.11
	T la-a-an-da	M Hr. 3 BoST 4 I. L.9. Fo 2 BoTU 23 A.I. § 4 L.10
	T la-a-an-ta	M Fo 2 BoTU 23 B.I. ; 4 L.9, 23 C.I. 4 L.10
	T la-a-an-ta	L 1 KBo 4 IV. L.26
	Lanta	L Lu p. 179 [cf. ll.cc. supr. et infr.]
	la-a-an-da	L 1 KBo 4 IV. L.27
	T la-an-da	Dh. KBo I. No. 1 Rev. L.50 [=Lu p. 169]
LABLANI	Mt la-ab-la-ni	L 1 KBo 4 IV. L.28 [=Lu p. 179]
LAḤURAMAŠ	T la-aḥ-ḥu-ru-ma-aš	M Fo 2 BoTU 23 A.III. § 38, L. 38; 23 G.III. § 38, L.1'
	T la-ḥu-u-ra-ma-aš	M Fo 2 BoTU 23 B.III. § 38, L.2'
LAKKUŠ	T la-ak-ku	L Hr. 3 BoST No. 7 III. L.28 (=SH 3), IV. L.8
	T la-ak-ku-uš	L Hr. 3 BoST No. 7 III L.29 (=SH 3)
	T la-ak-ku-un	L Hr. 3 BoST No. 7 IV. L.9
	T la-ak-ku-un-ma	L Hr. 3 BoST No. 7 IV. L.10 (=SH 3)
LALḤA	LT la-al-ḥa	L Hr. 3 BoST No. 7 III. L.26

**KUWALIA:** A principality associated with Mira (q.v.) in a treaty with Muršil III; and hence comprised within the territory of Arzawa (q.v.) at that time (L.A.A., 1923, p. 24). Its lower boundary was the river Šiyanta. It is clearly to be identified with the classical Kabalia. (On the equivalence of W = F and β cf. R., H.G., p. 22 and p. 312 n.).

**KUWANNA:** The only occurrence of this name, in a text of Telibinuš, associates it with Wašuwadda (?Isinda), and the River Ḥulayaš (? Halys). It is thus probably the early form of Iconium (Phrygian Kawania., cf. Pauly—Wissowa, Ikonion), from which the final form emerged through the intermediary *Kaoavia*. The resulting equations are highly instructive. (cf. Walmaa, Šuwaraš . . ., &c.).

**LAANDA:** This town was apparently an important religious centre. Its gods are invoked, in the treaty with Mitanni, after those of Taḥurpa, Dunna and Ḥubišna; while in that with Nuḥašše it occurs in the sequence, Taḥurpa, Dunna, Ḥubišna, Išḥubitta, Laanda, Kinza, Mt. Lablani. In the text of Telibinuš the order is: Ḥubišna, Tuwanuwa, Nenašša, Laanda, Zallara, Maššuhanta. It is thus in no case separated from Anatolian sites, though tending towards Syria. The consistent spelling of the name indicates pronunciation Laanda rather than Lânda; and the site may be identified with Ptolemy's 'Leandis' (Cataonia), which also is suggestively grouped by the geographer with Kybistra, Kabassos and Tynna. Ramsay (H.G., p. 311) would identify Leandis with Laranda of the Antonine Itinerary, a site in a pass of Taurus south of Komana, near the upper Saros and distinct from the Isaurian city of that name.

**LABLANI:** The one appearance of this mountain-name, the deity of which is invoked in the treaty with Nuḥašše, places it after Kinza (Kadesh). Its context is Syrian: it is to be distinguished from Niblani (cf. Weidner 6 BoST p. 77 n.) and identified in all probability with the Lebanon (*Assyr.* Labnana. Lu A.J.S.L. XXXIX, p. 64).

**LAKKUŠ:** A fortified town of Kalašma (q.v.). The names mentioned in the context include Arduna, Lalḥa and Išḥuppa, but the sequence is not geographical.

LAMIA	T	la-mi-ia	L	La KBo I. No. 5 IV. L.42 [=Lu p. 187]
LARAG	LT	la-ra-ag	E	Fo 2 BoTU 3 I. 14'
LAWAŠA	Mt	la-wa-ša	L	Hr. BoST No. 6 II. L.15
LAWAZANTIA	T	la-va-az-za-an-ti-ia	M	Fo 2 BoTU 23 A.II. § 25, L.20
	T	la-wa-az-za-an-ti-ia	M	Hr. 3 BoST No. 4 II. L.20
	T	la-va-za-an-ti-ia-an	M	Fo BoTU 23 A.II. § 25, L.21
	T	la-wa-za-an-ti-ia-an Law(w)azantiyaš	M	Hr. 3 BoST No. 4 II. L.21 Hr. 3 BoST p. 113, n. 6
LIHZINA	T	li-'zi-na	L	Dh. KBo I. No. 1 Rev. L.42 [=Lu p. 169]
		R-h-s-n[Eg.]	GL.	JEA. 6. p. 194
LUBKA	L	lu-ub-qa(?bar?)	L	Dh. KBo I. No. 4 Obv. II. L.43 [=Lu p. 178]
LUHUSSANDIA	T	lu-hu-uz-za-an-di-ia		1 KBo 11 Rev. L.21 [=Lu p. 209]
LUIA	LT	lu-ú-i-ia		Code § 5, p. 4, L.11; § 23 p. 18, L.59
	L	lu-ú-i-ia		Hr. 6 KBo p. 82. Code p. 5, n. 15; § 19A p. 14, L.48, p. 14, n. 7; p. 18 n. 5
	L	lu-ú-ia-az		Code p. 15, n. 21, p. 16, n. 6
	T	lu-ú-i-ia-az		Code § 19A p. 14, L.45
	LT	lu-ú-i-ia-az		Code § 19A p. 14, L.50; § 21 p. 16, L.53
	T	lu-ú-i-ia-an		Code § 19A p. 14, L.48
	T	lu-i-um-na-aš		Code § 21 p. 16, L.53; Hr. 5 BoST p. 55 n. 1
	T	lu-ú-i-u-ma-na-aš		Code p. 16 n. 5
	T	lu-i-in		Code p.15, n. 13; Hr. 5 BoST p. 55 n.1
	LULAŠ	Mt	lu-u-la-aš	
LULLUWA	L			(VAT 7427 Obv. I. 59=) Hr. 5 BoST p. 38 n.3

LAMIA : The first place mentioned on the Hittite side of the new frontier with Kizzuwadna (q.v.) as defined by Muršil III, opposite to Bitura, not far from the sea. It was not to be rebuilt. Remains of an ancient site opposite to Bafra are described by Cumont, *Studia Pontica* II, p. 119.

LAWAŠA : LAWAZANTIA. The former is the name of a mountain region of Arzawa (q.v.) identifiable with the heights above Lavza (Lauzados). Lawazantia is apparently a Hittite form of Lauzados, on the analogy of Yaruwanda = Yaruwad(d)a. It occurs only in the text of Telibinuš where it follows the names Haššuwaš and Zizzilibbi.

LIHZINA : This hieron is quoted in both the Egyptian and the Mitannian treaties ; it was the centre of a Teshup cult. The context in the latter case reads Betiarik, Nirik, Halab, Lihzina, Šamuha, Hurma, Šarišša ; so that it is placed in the vicinity of Aleppo and Samsāt and Urima. In the Egyptian text the setting is similar, reading, with the restorations indicated : Šarišša, Halab, Lihzin, (Hu)r(ma), (Šaganuwa), (Ša)m(u)š(a), (S-h-p-n). Its identity with Ptolemy's Eragiza suggested by Petrie, would seem to be phonetically and geographically probable. This site is identified by Kiepert with Abu Hanaya on the Euphrates, just south of the latitude of Aleppo.

LUIA : (Lu-ú-ia) : A city of Arzawa, a city state in Arzawa, and the name of a lowland country. One context refers to Alašia. It is to be identified generally with the lowlands of Cilicia. If it prove to include the lands around the Pyramus, i.e., the lowlands east of the River Šeħa, then the boundary of Arzawa must have reached to the Pyramus, if not to the natural barrier of Amanus, as indicated tentatively in our map (cf. L.A.A. 1923, p. 21. Arzawa).

LUMMA	T lum-ma	La 4 KBo 3 Obv. I. L.22
LUWANA	T lu-wa(?pi?-)-na	L La KBo I. No. 5 IV. LL.55, 58 [=Lu p. 187]
LUŠNA	T lu-(u-?)uš-na	M Fo 2 BoTU 23 A.I. § 4 L.11
	T lu-u-uš-na	M Fo 2 BoTU 23 B.I. § 4 L.10
	T lu-uš-na	M Fo 2 BoTU 23 C.I. § 4 L.11
	T lu-. . .-na	M Hr. 3 BoST No. 4 I. L.10
MALAZZIA	T ma-la-az-zi-ya-il	YT. p. 47
MALI-	T ma-al-li-	M Hr. 3 BoST No. 4 III. L.40
MALIAŠ	Malijašša	Fo ZDMG. NF 1 p. 219
	T ma-li-ia-aš-ša	Hr. 3 BoST No. 1 III. L.26
MALIAŠ	R ma-li-ia-aš	(2 KBo 16, 4=) Hr. 3 BoST p. 21, n. 3
MALITAŠKURIAŠ	T ma-al-li-ta-(aš-ku-ri-ia-aš)	M Fo 2 BoTU 23 A.III. § 38, L.39; 23 B.III. § 38, L.3'; 23 G.III. § 38, L.2'
MARAŠ	T ma-ra-a-aš	Hr. 3 BoST No. 1 I. L.28
	T ma-ra-ša	Hr. 3 BoST No. 1 I. L.41
MARAŠANDA	R ma-ra-aš-ša-an-da-an	(Bo 63 IV.=) Fo ZDMG. NF 1 p. 197
MARIŠTAŠ	T ma-ri-iš-ta-aš	M Fo 2 BoTU 23 A.III. § 37, L.21
	LT ma-ri-iš-ta-ia	5 KBo 8 I. L.5
MAŠA	T ma-a-ša	Hr. 6 KBo p. 81

LUMMA : A city of Mira and Kuwalia, i.e., in Lycia, read alternatively by La as Humma (q.v.).

LUWANA : A frontier town of Kizzuwadna (q.v.) possibly in the district of Atania, and to be sought near the Euphrates, between Zimarra and Erzingan. Possibly the *Λάδανα* (Dalana) of Ptolemy which appears appropriately between the two places mentioned, though the independence and orthography of the name are open to question. The reading Lu(wa)na is doubtfully to be restored in the text of Telibinuš which gives the sequence Nenašša, Laanda, Zallara, Maššuhanta, Lu . . . na.

MALITAŠ . . . : In this compound name we may tentatively recognise Milid (Melitene, the ancient Malatia), geographically an important frontier town of the Empire and famous for its Hittite monuments (G., L.H., pp. 399, 135-140). The texts do not give other forms (unless Malazzia be a variant) nor does the context help yet in the identification, the associated names being mostly unplaced : the sequence reads Kuwanna, Laḫurumaš, Malitaš, Ḫaraḫaraš and Ḫaršuwaš. Possibly the paucity of references to Melid may prove to be due to the nature of the texts examined, which are chiefly concerned with rebellions and political frontiers, in which the history of Melid, necessarily one of the bulwarks of the Empire, had no direct share. Another possible variant is Maliaš (Ma-li-ia-aš-ša for Maliata), occurring in the list of Teshup shrines which ancient Malatia (Eskishehr) is known from its monuments to have possessed.

MARAŠ : MARAŠANDA. In the former name there is to be seen the original name of Marash. From the texts it was a centre of Tešup worship ; and the known monuments (G., L.H., p. 399) include representations of the Mother Goddess, both as divine woman and child and in the Ceremonial Feast. Other sculptures are from a local palace. The compound form Marašanda is the name given to the River of Marash, a tributary of the Pyramus (cf. Lawaša, Lawazantia ; Arinna, Arinnanda, etc.). Other compound forms are Marašanna (Ma-ra-aš-ša-an-na) and Marašaia (Ma-ra-aš-ša-ia) both names of men (Fo 2 BoTU No. 12 A.II. § 16 L.22 and *ib.* 12 C. L.26 ; also *ib.* A. II. § 16 L.24).

MAŠŠUḪANDA	T	maš-šu-ḫa-an-ta	M	Hr. 3 BoST No. 4 I. L.10. Fo 2 BoTU 23 A.I. § 4 L.11, 23 C. § 4 L.11
	T	maš-šu-ḫa-an-da	M	Fo 2 BoTU 23 B.I. § 4 L.9
	T	maš-šu-ḫa-an-da-aš	M	Fo 2 BoTU 23 A.III. § 37 L.30. Hr. 3 BoST No. 4 III. L.31 (VAT 13005 I. 47=) Fo 2 BoTU p. 40, n. 2
	T	maš-šu-ḫu-un-ta-aš		(VAT 7456 II. 34.    VAT 7512 III. 7=) Fo 2 BoTU p. 40 n. 2
	T	maš(-aš)-ḫu-un-ta		
MAŠUWATI	T	ma(?ku?)-su-wa-ti Mazuwati	L	Dh. KBo I. No. 1 Rev. L. 17 Lu p. 167 [cf. l.c. supr.]
MATIKSA	T	ma(?ba?)-ti-ik-sa-il	YT.	p. 45
MATILLA	T	ma(?ba?)-ti-il-la-il	YT.	p. 45
MINIAŠ	T	mi-ni-ia-aš	M	Fo 2 BoTU 17 A.III. L.43'
MIRA	L	mi-ra-a	L	1 KBo 24 Obv. LL.3, 6 [=Lu p. 196]
	LT	mi-ra-a	L	Hr. 3 BoST No. 6 III. L.23; No. 7 (5a) II. L.22
MISRI	L	mi-iš-ri-i	L	Dh. KBo I. No. 4 Obv. II. L.8. 1 KBo 7 Obv. LL.4, 5, 9, 11, 12, 18, 19, 22, 23, 25, 26, 27, 29, 34, 36; 1 KBo 10, Obv. LL.55, 56, 59, 62, 67, 71, 72, 73; 1 KBo 15. Obv. LL.15, 25 Rev. L.6; 1 KBo 23 Obv. LL.2, 6, 13; 1 KBo 24 Obv. LL.7, 10, 15; 1 KBo 25, 1, 6
	LT			1 KBo 8 Obv. L.5
	L	mi-[iš-]ri-i		1 KBo 23 Obv. L.4
	L	mi-i[š-r]i		(Bo 2029 Obv. II. 19 ff. =) SH 124
	LT	mi-[iš-]ri-ma-wa-aš		(Bo 2003 Rev. II. 10 ff. =) SH 100
	LT	mi-iš-ra-ma		(Bo 2003 Rev. I. 5 f. =) SH 77
MIŠŠUWANZAŠ	T	mi-iš-šu-u-wa-an-za-an	L	Hr. 3 BoST No. 7 IV. L.25

MAŠŠUḪANTA: This interesting name of the Middle Empire is found at the end of the following sequence: Ḫubišna, Tuwanuwa, Nenašša, Laanda, Zallara, which indicates Cappadocia. The name itself, stripped of its termination (cf. Arinna, Arinnanda; Maraš, Marašanda, etc.) leaves the radical element Maš-šu-ḫa. The doubled š is found in several examples (Urušša, Biggainarišša, &c.) to survive as z; while ḫ, where it does not disappear, survives as k, (Ḫumiššenaš, Komisene, etc.) disclosing the form Ma-zu-ka, which simulates Mazaca so nearly that the identity would seem probable. Further, the name Mazaka was traditionally derived from Mosoh (R., H.G., p. 303), the ancestor of the Cappadocians; this tradition seems both to corroborate the identification and explain exactly the origin of the Hittite name.

MIRA[A]: A principality of Arzawa (q.v.) coupled with Kuwaliya (Kabalia) and identified with Milyas (G., L.A.A., 1923, p. 24), Lycian Mira, (Sundwall, op. cit., p. 149). The boundaries of the combined territory are defined by a treaty which Muršil III concluded with Kupanta-kal, apparently after quelling the revolt in his early campaigns. The rivers Aštarpa (Turk. Isbarta) and Šiyanta (Turk. Eshen or Eshenide; Gk. Xanthos) were the upper and lower boundaries, and numerous towns are mentioned, among them Wiyanawanda (Oeneandos), Kuadunaša (?Kadyanda), Aura (? Ooran), Yalia and (?) Ḫumma (q.v.). The status of its king is seen in his independent diplomatic correspondence with the Pharaoh, Ramses II, whose letter was, however, sent to Ḫattušaš and found there among the archives.

MIŠŠUWANZAŠ: A fortified town in or near Kalašma, occupied by Muršil's general, Ḫutubiyanza at the end of his campaign during which he visited successively Pala, Šarkuzzaš, Žaparaššaš and Kalašma. The name seems clearly to be a variant of Mašuwati (Mazuwati, Lu

## MITTANNI

Mitanni

Lu pp. 163, 166-169, 171-173,  
175-177, 188L mi-it-tan-ni  
T mi-it-ta-an-niL Hr. 3 BoST No. 6 III. L.68  
L Hr. 3 BoST No. 6 I. L.16; III.  
LL.47, 95. Dh. KBo I. No. 1  
Obv. LL.2, 3, 49, 51, 52, 57,  
59, 62, 63, 64, 68, 69, 71, 72,  
76; Rev. LL.10, 14, 18, 22,  
36, 72, 75; No. 2 Obv. LL.30,  
32, 33, 37, 40; No. 3 Obv.  
LL.1, 2, 11, 19, 22, 23, 24, 30;  
Rev. LL.20, 21, 22, 41, 45;  
No. 4 Obv. I. LL.3, 4, 10, 18  
(VAT 13060, 1=) Fo ZDMG.  
NF 1 p. 252

LT mi-id-ta-an-ni

L 1 KBo 6 Obv. 23

LT mi-id-ta . . .

## MUBIRĤE

LT mu-bir-ĥi

L Dh. KBo I. No. 1 Obv. LL.30, 31,  
No. 2 Obv. LL.11, 12  
Lu p. 164, 165 [cf. ll.cc. supr.]

## MU-KIŠ

T mu-KIŠ  
Mukish[he]L Dh. KBo I. No. 4 II. L.14  
Lu p. 178 [cf. l.c. supr.]

## MUKISHĤE

cf. Mubirĥe and Mu-KIŠ

## MUTAMUTAŠŠA

(Bo 2127, 127=) Fo ZDMG.  
NF 1 p. 246

## NAMNA

Mt nam-ni

(Bo 475 I. 4=) Fo ZDMG. NF 1  
p. 195

## NANNI

Mt na-an-ni

L Dh. KBo I. No. 1 Rev. L.41  
[=Lu p. 169]

## NENAŠŠA

T ni-na-aš-ša  
T ne-na-aš-ša  
T ne-na-aš-šaE Fo 2 BoTU 12 A.III. § 35 L.16  
M Hr. 3 BoST No. 4 I. L.9  
M Fo 2 BoTU 23 A.I. § 4 L.10;  
23 B.I. § 4 L.9; 23 C.I.  
§ 4 L.10

p. 167), on the analogy of Iaruwataš = Iaruwantaš, and by comparison of the contexts. In this identification lies the clue to the topography of Kalašma (q.v.) and its position east of the Euphrates. For the text of Šubbiluliuma associates the site with a series of North Mesopotamian fortresses: Ĥarmurik, Šibri and Šurun, in a context referring to an expedition against Tušratta in Mitanni. The name of Ĥarmurik seems to survive as Tell Ĥarmurik (Lat. 36° 40'; Long. 40° 55'), some 15 m. south-west of the Mitannian capital. Weidner, however, would read Murmurik (BoST 8, p. 23 L.17 n.6). Šibri and Šurun, between which Mazuwati is mentioned, are not identified with any certainty, but Zaparaššaš (of which Šibri may be a shorter variant) seems clearly to be Šabirešu of the Assyrian texts, the site of which, between Nesibin and Šarišša, north-east of Šuta and some fifty miles to the north of Waššukkani (cf. Fo., P.A.R., p. 107), may be Sorisba or Sorezba (Lat. 37° 28'; Long. 41° 20'). Topographical considerations relate Miššuwanza itself to the vicinity of Diarbekr (Amida), with which, indeed, it may prove to be identical. The stem of the name seems to be Miššawa, or Mizuwa, whence a possible intermediate form Amiza.

MUBIRĤE (read Mukiš-ĥe by Lu pp. 165, 178): Appears to be the name of a district west of the Euphrates, between Ĥalpa and Nia. (Dh. R.B., 1908, p. 500 ff.).

NENAŠŠA: The position of this town is indicated by the earlier texts (a) next to Šugzia, which is unplaced; (b) in the sequence: Ĥubišna, Tuwanuwa, Nenašša, Laanda, Zallara, Maššuhanta, (Kybistra, Tyana, Leandis, . . . ., Mazaka) which is clearly Cappadocian: Nenašša of these texts may therefore be identical with Ptolemy's Nanassos in Garsauritis, which appears in the sequence Phrea, Archelais, Nanassus, Diocaesarea, Salambriae. This cannot, however, be the same site as that indicated in a Late text of Ĥattušil III to which Professor Sayce has called attention (J.E.A. VIII, 1922, p. 233) which states that after the rebellions of Gašga

NERIK	T	ne-ri-ik	(Bo 2125 Obv. I. 12=) SH 87
	T	ne-ri-ig	Fo ZDMG. NF 1 pp. 192, 193
	T	ne-ri-ig-ma	Fo ZDMG. NF 1 p. 192
	L	ne-ri-ik-ka	Hr. 3 BoST No. 2 I. L.1
	LT	ne-ri-ik-ka	Hr. 3 BoST No. 2 I. LL.6, 13
	T	ne-e-ri-ik-ki	(Bo 2097 Obv. II. 61=) Hr. 3 BoST p. 29 n. 3
	T		L Code § 50 p. 44 L.58
	T	ne-ri-ik-ka-az	(KBo III. No. 7 Obv. I. 1; II. 22, 23=) Hr. 3 BoST p. 29, n. 4
	T	ni-ri-ik	L (Dh. KBo I. No. 1 Rev. L.42=) Hr. 3 BoST p. 29 n. 4
		Nirik	L Lu p. 169, 179 [l.c. supr.]
	Nerikka	Hr. 5 BoST p. 52	
NEŠA	T	ne-e-ša	E Fo BoTU 7 I. LL.16, 23, 24, 42, 44, 54, 63, 68, 76
	T	ne-ša	E Fo 2 BoTU 14a L.13'
	T	ne-e-ša-aš	E Fo 2 BoTU 7 I LL.4, 7, 20
	T	ne-ša-aš	E Fo 2 BoTU 14a L.13'
	T	ne-e-ši	E Fo 2 BoTU 7 I. L.55
	T	ne-e-ša-an	E Fo 2 BoTU 7 I. L.6
	T	ne-e-ša-az	E Fo 2 BoTU 7 I. L.40

(clearly the situation described in the Annals of Muršil III) the town Nenašša was made the frontier town. The spelling is the same, Ne-na-aš-ša-an (in the Accusative, VI. KBo 28 L.7). Now it is impossible to identify this frontier city of Gašga with any site on the plateau. One objective of Muršil's campaigns was to maintain his lines of communication with Bala (by Malatia) and *a priori* with Syria; and though it is to be recognised that his subsequent policy granted certain extensions of territory here and there, it cannot be believed that the troublesome peoples of Gašga were granted an extension so far westward that the main communications with Bala and even with Syria would have passed under their control, while the North Syrian states and the hiera of Cataonia would have been cut off from the realm of Ḫatti. A political wedge would, in fact, have been driven into the heart of Ḫatti; but the texts show that such was far from being the result of Muršil's campaigns and subsequent negotiations. It must be concluded either that the reference to Nenašša in Ḫattušil's summary is a textual corruption, or that there were two cities of the same name, or that the site was not that apparently assigned to it by Ptolemy. The Nenašša of the frontier of Gašga is to be sought west of the road from Azizie to Sivas, and that of Tonosa (*Turk.* Tonus, more nearly Tonuz) suits the context while providing the elements of a phonetic equation.

NERIKKA: The name of a town and district; the site of an important national shrine of Teshup, consulted in oracles and invoked in the treaties with Mitanni and with Nuḫašše. The former, which gives the more complete list, places it next in sequence after Betiarik, preceding Ḫalab, Liḫzina, Šamuḫa, Ḫurma—all in North Syria. The compound form Nerikka-Ilum (Lu p. 198, read Nerikka-shems by the late Professor Winckler, M.D.Ö.G. No. 35, p. 43) appears as the name of a son of Ḫattušil III who espoused an Amorite princess. There is no ready clue to the identity of the place.

NEŠA : NEEŠA. The bisyllabic form of this early name occurs twice, uniquely in a context with Aleppo. The numerous examples of the tri-syllabic form all occur in a single text between the names Kuššara, Ḫarkiuna, Zalbuwa, Ḫatti, Šalatiwara and Burušhanda. The indications are thus a Syrian context for the former and an Anatolian one for the latter. The sites suggested are respectively Nisus placed by Kiepert tentatively at Altyntash, north of Doliche in Syria; and Nyssa on the south bank of the Halys in Morimene, at a bifurcation of main roads, one of which connected directly with the site of Ḫattušaš. The latter name survives as Nirse or Nissa (Hamilton, *Researches*, II, p. 265) which shows that the Greek *v* was not radical. Nyssa is listed by Ptolemy in Murimene but misplaced. (R., H.G., pp. 287-8 and Map, p. 197).

NI	T	ni-wij-na (ḥarr.)	(Bo 2716 Rev. 9-10=) Fo ZDMG. NF 1 p. 226
NIA	T	ni-ia	L Dh. KBo I. No. 1 Obv. L.30 [=Lu p. 164];
	L		L No. 2 Obv. L.12 [=Lu p. 164]
	LT	ne-ia	L Dh. KBo I. No. 1 L.31 [=Lu p. 165]
NIBLANI	Mt	ni-ib-la-ni	L Dh. KBo I. No. 1 Obv. LL.4, 47; [=Lu pp. 163, 165]; Rev. No. 1 L.16 [=Lu p. 167]; No. 2 Obv. L.27 [=Lu p. 165]
NIKKI	LT	ni-ig-ki	E Fo 2 BoTU 3 I. L.14'
NINUWA	T	ni-nu-wa	L 1 KBo 4 Rev. IV. L.18 [=Lu p. 179]
	T	ne-nu-wa	(2 KBo No. 9 Obv. I. 38=) SH 106
	T	ni-nu-wa-wi <sub>1</sub> (ḥarr)	(Bo 2760 L.9=) Fo ZDMG. NF 1 p. 226
NUḤAIANA	T	nu-ḥa-ia-na-az	M Fo 2 BoTU 21 III. L.9'
NUḤAŠŠI			Hr. 5 BoST p. 52
	LT	nu-ḥaš-ši	L Dh. KBo I. No. 1 Obv. L.38 [=Lu p. 165]; No. 4 Obv. I. LL.5, 11 [=Lu p. 177]
	LT		L 1 KBo 4 Rev. III. L.25 [=Lu p. 179]; 1 KBo 6 Obv. LL.23, 31 [=Lu pp. 188, 189]
	L		L 1 KBo 6 Obv. L.34 [=Lu p. 189]
	T	nu-ḥ[aš-ši]	L 1 KBo 4 IV. L.10 [=Lu p. 179]
	T	nu-ḥa-aš-še	L Dh. KBo I. No. 2 Obv. L.20 [=Lu p. 165]
PADDAMA	T	pád-da-ma-az-gan	E Fo 2 BoTU 6 III. L.24'
PAGKI	LT	pa-ag-[ki]	E Fo 2 BoTU 3 I. L.9'
PAḤADADUWAŠ	T	pa-ḥa-da-du-wa-an	L Hr. 3 BoST No. 6 I. L.50
PAKUMMALIAŠ	T	pa-kum-ma-li-ia	E Fo 2 BoTU 12 A.II. § 19 L.40

NIA: A town in the vicinity of Aleppo and the Euphrates. The references in the T.A. letters (Ni) and Egyptian texts (Niy) confirm the general situation. (cf. Dh. R.B. V., 1908, p. 504; W. M. Muller, *Asien*, p. 263; Petrie, *Syria and Egypt*, p. 177; Breasted, *Hist.*, p. 270, *A. Rec.* II. 125, &c.).

NIBLANI Mt.; The indications for identifying this mountain range are of special interest. The most suggestive statement (Lu p. 167) is to the effect that Šubbiluliuma seized certain lands of Mitanni in the time of Tushratta, that he crossed the Euphrates and for outpost brought Mt. Niblani within his borders. The previous context embracing Nuḥašše (p. 165) Abina and Kinza indicates the Lebanon and a confusion with Laplani. From what is known of the Hittite frontier which Muršil re-established the identity with Nimrud Dagh (as suggested by Weidner 6 BoST 77) overlooking Lake Van at the eastern extremity of Anti-Taurus, east of the Euphrates, would seem to suit the several contexts. This mountain is to be distinguished from the Nemrud Dagh above Gerger, west of the Euphrates.

NUḤAŠŠE: An important town and district of Northern Syria, already familiar from the T.A. letters and the Egyptian Records, in which it appears as N-w-g-s (Dh., R.B., V. 1908, p. 503). The Hittite texts confirm the previous indications as to its general position in the vicinity of Ḥaleb, Kinza and Aštata. It was a centre of Tešup worship, and like Aleppo was leagued to Muršil by a special treaty.

PALA	pa-a-la-a	(VAT 13005 Obv. I. 46=)
	LT pa-la-a	5 BoST p. 47
	LT	L Hr. 3 BoST No. 6 III. L.40 ;
	T pa-la-um-ni-li	No. 7 IV. L.20
		L Code § 5 p. 4 L.11
		Hr. 5 BoST p. 47
PALAPPALAAŠŠA		(Bo 2045 L.33=) Fo ZDMG.
		NF 1 p. 246
PAPANĦAŠ	T pa-pa-an-Ħa-az	(2 KBo 9 Obv. I=) SH 38, n. 2
PARAMANZANAŠ	T pa-ra-ma(?) -an-za-na-aš-ša	M Fo 2 BoTU 17 A.III. L.44'
PARAŠA	LT pa-ra-ši	E Fo 2 BoTU 3 I. L.12'
PARIENTAŠ	T pa-ri-en-ta-aš	Hr. 3 BoST No. 1 III. L.7
PARUKITTAŠ	T pa-ru-ki-id-ta-aš	M Fo 2 BoTU 17 Bβ L.15'
PAŠILI	T pa-ši-li-i-il	YT p. 46 (=SH 51, 190)
PAWAZZIAŠ	T pa-wa-az-zi-ia-aš	M Hr. 3 BoST No. 4 III. L.26
	T pa-va-az-zi-ia-aš	M Fo 2 BoTU 23 A.III. § 37 L.25
PITTALAHŠAŠ	[L] pi-it-ta-la-aĦ-ša	L Hr. 3 BoST No. 7 I. L.12
	L pi-it-ta-la-aĦ-ša-aš	L Hr. 3 BoST No. 7 I. L.4
	ma-za-kan	
	LT pi-it-ta-la-aĦ-ša-an	L Hr. 3 BoST No. 7 I. L.14
PURATTU	R purattu	L Dh. KBo I. No. 1 Obv. LL.6, 7, 9, 18, 30, 47 ; Rev. LL.15, 20, 33, 34, 53 ; No. 2 Obv. LL.11, 28 ; No. 3 Obv. L.40

PALA or BALA : This name survives singly and in compound forms in several classical and modern names to be found in the vicinity of Pala (Balabitene) on the Arsanias Fl., the main easterly branch of the Euphrates. A study of the political geography of Muršil's campaigns (discussed in detail in the notes on AšĦarpaia, Gašga, Iština, Kalašma, Mt. Niblani and Zazziša, etc.) leaves little reason to doubt the general exactitude of these indications. The province was of peculiar political importance, being bounded on the north-east by Ħarri, on the north-west by Išuwa, on the south-west by Azzi and on the south by Kalašma and Mitanni. To the south-east the mass of the Anti-Taurus system separated it from the kingdom of Alše on the borders of nascent Assyria and Ħarri, which formed the extreme political frontier of the empire of Ħatti under Šubbiluliuma and Muršil III. The name occurs commonly in association with Tumanna, e.g., in the fragment of Muršil's campaigns (V. KBo 8 II. L.22) in a context which mentions also 'ĦalĦia' and Gašga.

PARAŠA : A very early name, occurring in sequence between Amurri and Armani.

PARIENTAŠ : A city with a Tešup shrine, furnished with a stone image and a large Bull of metal (? iron). The place occurs in the series of Tešup shrines, described by the text, between Šaruwalašši and Mt. Šaluwantaš of Ħarruwašš.

PAWAZZIAŠ : This town is mentioned only in an incomplete text of Telibinuš, in which also appear the names—Šamlušnaš, Gulbinaš, . . . , . . . , Bišaš, . . . , . . . , and Šienzanaš.

PITTALAHŠAŠ : A town and district plundered by the 'chief of the mighty land of IštaĦara,' which in its turn, to judge from a somewhat difficult context, seems to have been in the vicinity of Kalašma.

PURATTU R. : This form is the Semitic rendering of the ideogram representing the Euphrates, *Hebr. Prat, Arab. el-Furat.*

QATNA	T	qaṭ-na Katna	L	Dh. KBo I. No. 1 Obv. L.37
	T	qaṭ-ni	L	Lu p. 165 [ll.cc.supr. et infr.] L Dh. KBo I. No. 2 Obv. L.19
ŠABADDUWA	T	ša-bad-du-va		(Bo 2022 III. 4, 9, 22=) Fo 1 BoTU p. 16
	T	ša-bi-id-du-va		(Bo 2368 I. 38, 39=) Fo 1 BoTU p. 16
ŠABUḤA		cf. Šamuḥa		
ŠABINUWA	LT	ša-bi-nu-wa-ḥi-ni-ta (ḥarr.)		(U. 101 II.=) Fo ZDMG. NF 1 p. 228
	LT	ša-bi-nu-wa-ḥi-ni-wa <sub>a</sub> (ḥarr.)		(U. 101 II.=) Fo ZDMG. NF 1 p. 228
ŠADDUPPA	LT	ša-ad-du-up-pa	L	(5 KBo 8 I. L.4=) Fr. ZDMG. NF 1 p. 173
ŠADI-UŠTIYA	T	sa-di-ṣ-us-ti-ya-al		YT p. 46
ŠAGANUWA	T	ša-ga-nu-wa	L	Dh. KBo I. No. 1 Rev. L.42 [=Lu p. 169]
	T	šaḥ-bi-n[a]		(Bo 4818 V. 30=) Fo ZDMG. NF 1 p. 194
ŠAḤBINA		s-ḥ-p-n [Eg.]		GL. JEA. 6 p. 194
	Mt	ša-aḥ-ḥu-bi-i[d-t]a-ia		(Bo 2073 I. 32=) Fo ZDMG. NF 1 p. 245
ŠALATIWARA	T	ša-la-ti-va-ra	E	Fo 2 BoTU 7 I. L.52
	T	ša-la-ti-va-ra-ša	E	Fo 2 BoTU 7 I. L.53
ŠALAMBUM	T	ša-lam-bu-um-n[i-eš]		(2 KBo 12 Obv. II. L.34 f.=) SH 50
	T	ša-lam-bu-me-ni-eš		(2 KBo 12 Rev. 34=) SH 50
ŠALIA		ša-a-li-ia	L	La KBo I. No. 5 IV. L.45 [=Lu p. 187]
	T	ša-li-ia-aš		4 KBo 10 Obv. L.29

QATNA : The Syrian town known from the Tell el Amarna letters (Kn. 53, 63. W.138, 139) in which it is grouped with Damascus in contexts which mention Nuḥašše and Niy. The Hittite text—the treaty of Šubbiluliuma with Mattiuaza of Mitanni—associates the place with Araḥtaš, where the revolt of Niy was crushed. It is located by Petrie (Syria and Egypt, p. 164) at Qatana, fourteen miles west-south west of Damascus; and by Breasted (Hist., p. 352) in the upper valley of the Orontes (cf. Dh., R.B., V. 1908, p. 506). It may be identical with Kattine on the lake of Homs; but this site is relatively near to Kadesh, while important centres like Homs, Restan and Hamath remain unidentified. It is to be distinguished obviously from the Assyrian Qatni on the Khabur (Fo., P.A.R., pp. 15, 105).

ŠADDUPPA : The name of a district in a document describing part of Muṣṣil's campaigns in Gašga, where it is placed between Taggašta and Marišta. The somewhat similar name Ištalubba is mentioned several times (LL.30, 35, 41), but the places are distinct.

ŠAGANUWA : The name of a hieron occurring in the sequence: Šamuḥa (Samosata), Ḥurma (Urima), Šarišša (Sareisa), . . ., Ḥiššašḥapa, Taḥaia.

ŠAḤBINA : A city with a Teshup shrine, recognised in the form S-ḥ-p-n of the Egyptian treaty in which it is placed last in the list of Teshup-deities invoked, next after Šamuḥa (S-m-s; Samosata). The form Šaḥḥubitta (Šaḥubinta) seems to be a variant of the same (cf. the forms Išḥubitta = Euspoena; Iaruwatta = Iaruwanda; Mašuwati = Miššuwanza, &c.).

ŠALIA : (a) The name of a place on the Hittite side of the frontier with Kizzuwadna (q.v.), temp. Muṣṣil III. It was opposite to Zinziluwa and Erimma, and lay between Aruna and Anamušta. It was rebuilt and its memory probably survives in the names Siala and Zara (Turk. also Zala), which mark the course of the frontier in that section. (b) The name Šaliaš occurs in an important text IV. KBo 10 L.29 in the suggestive sequence Za-ar-nu-ša (L.27), R. Ḥu-u-la-ia, Za-ar-wi-ša and Mt. Šar-la-im-mi-iš (L.28), Ša-li-ia-aš and Wa-wi-wa-ra-aš (L.29), a context which seems to give the boundaries of states in the same area previous to the separation of the kingdom of Kizzuwadna.

ŠALITTAŠ	T	ša-li-it-ta-aš	M	Hr. 3 BoST No. 4 III. L.24
	T	ša-li-id-ta-aš	M	Fo 2 BoTU 23 A.III. § 37 L.23
ŠALLAPAŠ	T	šal-la-pa-aš	M	Fo 2 BoTU 23 A.II. § 21 L.2 ; 23 B.II. § 21 L.8 ; 23 D.I. § 21 L.15'
	T			Hr. 3 BoST No. 4 II. L.2
ŠALMA	T	šal-ma		HTBM. No. 2 Obv. I. L.28 Obv. II. L.19
ŠALUWANTA	Mt	ša-lu-wa-an-ta		Hr. 3 BoST No. 1 III. L.13
	Mt	ša-lu-wa-an-ta-aš		Hr. 3 BoST No. 1 III. L.16
ŠAMMAḪA	T	ša(?ta?)-am-ma-ḫa	L	Hr. 3 BoST No. 6 III. L.45
ŠAMA-ŠAŠ (?)	T	ša-ma-(?da?)-aš(?)-. . -aš		Hr. 3 BoST No. 1 III. L.43 ; p. 27
ŠAMLUŠAŠ	T	ša(?) -am-lu-ša-aš	M	Hr. 3 BoST No. 4 III. L.41
	T	ša-am-lu-uš-na-aš	M	Hr. 3 BoST No. 4 III. L.25
	T	ša-am-lu-uš-na-aš	M	Fo 2 BoTU 23 A.III. § 37 L.24
ŠAMRI	R	ša-am-ri	L	La KBo I. No. 5 IV. L.59 [=Lu p. 187]
ŠAMUḪA				SH 95 ; Hr. 5 BoST pp. 42, 46
	T	ša-mu-ḫa	L	1 KBo 4 IV. 22 [=Lu p. 179] ; Dh. KBo I. No. 1 Rev. LL.42, 48 [=Lu p. 169]
	T	[š]a-mu-ḫa		(U. 186 IV. 3=) Fo ZDMG. NF. 1 p. 195
	T	ša-mu(?)-[ḫa]		(Bo 469, 2=) Fo ZDMG. NF 1 p. 195
	T	ša-mu-ḫa-aš	M	Fo 2 BoTU 23 A.III. § 37 L.21
	T	ša-bu-ḫa	L	Dh. KBo I. No. 2 Rev. L.19 [=Lu p. 171]
		s(?) -m(?) -s[Eg.]		GL. JEA. 6 p. 194

ŠALUWANTAŠ : The name of a mountain 'of the town of Ḫarruwašaš' on which was a shrine with a stone carving and organised rites.

ŠAMMAḪA : (The alternative reading Ta-am-ma-ḫa—Hr. op. cit., p. 206—would seem from Weber's copy of the text to be very doubtful). After opening the road to Bala by reducing the mountain region of Ašḫarpaia to submission, Muṣiḫil III proceeded to this town and thence to (?) Ziulila. The narrative in the next paragraph speaks of Arawana. There are three mountain routes southward from the vicinity of Melitene : but on none does any trace of these names survive. Ptolemy's Semissos would seem to suit the context, but the authenticity and identity of the name are doubtful.

ŠAMRI R. : The name or appellative of the river which from Zilabbuna onwards formed the frontier of Kizzuwadna (q.v.). The word means 'raging' (Lu p. 187) which suggests at once the classical Boas (roaring) a name applied to the Lycus Fl. the chief tributary of the Acampsis Fl. (Chorokh Su), which flows into the Black Sea at Batum. The point is difficult (G., L.A.A., Pt. iii, 1923) : the alternative explanation of the context would identify the river with the Upper Euphrates above Erzingan. It would in either case divide Kizzuwadna from Ḫarri, rather than from the territory of Ḫatti.

ŠAMUḪA : This important religious centre appears among the list of deities invoked in all treaties, as in the important treaty-text VI. KBo 28. Two interesting variants are Šabuḫa of the Mitannian version of that treaty, and S-m-s in the parallel list of the Egyptian treaty. The name appears always in close association with Ḫurma, and in two cases with Ḫalab and Liḫzina. A site in North Syria is thus indicated. Its identity with Samosata seems probable, and this is supported by the Egyptian reading. The Assyrian Kammuḫu reproduces the Hittite termination.

The reference to Šamuḫa in VI. KBo 28, in the passage which Professor Sayce has translated (J.E.A. VIII, 1922) may seem at first sight inconsistent with this identification, or suggest a confusion with Šammaḫa. The orthography in this case is Ša-mu-ḫa-an (*acc.*, in agreement with the construction of the passage). The extract is, in fact, a brief summary of the revolt that

ŠANAĤUITTA	T	ša-na-ḥu-id-ti	E	Fo 2 BoTU 8 III. § 20 L.42
	T	ša-na-aḥ-ḥu-id-ta-an	M	Fo 2 BoTU 17 A.II. LL.36', 40'
ŠANANTIA	T	ša-na-an-ti-ia		Hr. 3 BoST No. 1 IV. LL.1, 6
	T	ša-na-ti-ia		Hr. 3 BoST No. 1 IV. L.5
	T	ša-na-an-ti-ia-aš(?)		Hr. 3 BoST No. 1 IV. L.15
ŠAPPA	LT	šap-pa	L	Hr. 3 BoST No. 7 III. L.6
	T	šab-pa		(KBo III. No. 6 II. 40=) Fo 1 BoTU p. 21
ŠARIANA	Mt	ša-ri-ia-na	L	1 KBo 4 IV. L.28 [=Lu p. 179]
ŠARIŠŠA	T	ša-ri-cš-ša	L	Dh. KBo I. No. 1 Rev. L.42 [=Lu p. 169]
	T	ša-ri-cš-[ša]	L	1 KBo 4 IV. L.8 [=Lu p. 179]
	T	ša-ri-iš-ša	L	Dh. KBo I. No. 2 Rev. L.20 [=Lu p. 179]
	T	ša-a-ri-iš-ša-a-i		(VAT 7463=) Fo ZDMG. NF 1 p. 183 (=211)
		S-r-s[Eg.]		GL. JEA. 6 p. 194
ŠARKUZZAŠ	T	šar-ku-uz-za-an	L	Hr. 3 BoST No. 7 IV. L.21

followed the death of Šubbiluliuma, leading to the campaigns of Muršil III and a series of treaties delimiting the frontiers of the various disaffected provinces. Reference to the texts of Muršil III (Hr. 3 BoST p. 207 LL.48, 55, &c.) shows that the incursions of Arawanna into Kiššia (presumably Ga-aš-ši-ia of the text quoted) are probably to be read together with, and as part of, the disturbances in the neighbouring land of Azzi (q.v.) reading thus: 'Then the enemy of Arawanna came and seized all the land of Kiššia, (and) then the Azzian enemy came and seized all the Upper country: thenceforward the town of Šamuḥa was made the frontier.' The position of Samosata would suit the context so read. It is even possible that the passage 'seized all the Upper country' is misplaced in this summary, as the Annals of Muršil (loc. cit. Col. III. LL.67, 70) state that it was Piḥuniaš of Tibia who invaded the highlands and annexed them to Gašga. Some gaps in Col. 4 which refer to Azzi leave the point doubtful. The obvious general explanation is that the people of Azzi inspired and joined the rebellion of Gašga on the one hand and of Arawanna on the other: the previous league with Išuwa (Lu p. 164) establishes a precedent.

ŠAPPA: This name occurs after the names Zagabura, Kašipa, Mt. Gapagapa, [Kalašma], but the last-named restoration is the only geographical indication. It is distinct from Zippalanda (cf. loc. cit. L.16).

ŠARIANA Mt.: A hieron quoted in the treaty with Nuḥašše only. The sequence of names in the text reads: Laanda, Kinza, Mt. Lablani, Mt. Šariana, Mt. Bišaiša. It is thus probably to be sought in Central Syria and identified with Mt. Hermon (cf. Deuteronomy, iii, 9).

ŠARIŠŠA: A chief sanctuary of Tešup, invoked in the treaties with Mitanni, Nuḥašše and Egypt. Its absence from the list in VI. KBo 28 is explained by the break in the text. The name occurs in the complete texts in the sequence: Šamuḥa, Hurma, Šarišša, Šaganuwa, Hišašhapa. The other lists show that the names of these national Teshup-shrines are chosen from all through the Empire, but there is some geographical sense in the arrangement. The Egyptian list reads: Zippalanda, Betiarik, Hišašhapa, Šarišša, Haleb. Its identity with Sarisa (Sereisa, Strabo XVI. i. 24; *Turk.* Sharish) near the main stream of the Tigris F. below Diarbekr (Long. 41° 20'), some 60 m. to the north of the Mitannian capital, would seem to be indicated.

ŠARKUZZAŠ: This name is mentioned in the Annals of Muršil, in a context describing a revolt in Kalašma, in the geographical sequence: Pala, Tumanna, Šarkuzzaš, Zaparaššaš, Miššuwanzaš. The last name is the Mišuwati or Mizuwati of the records of Šubbiluliuma, and was seemingly in the vicinity of Diarbekr. Zaparaššaš, the Assyrian Šabirešu, is located at or near Shorisba (Lat. 37° 28'; Long. 41° 20'), thirty miles north of Nisibin. The precise position of Šarkuzzaš is not indicated. On the road from Shorisba to Diarbekr the only suggestive name is Shukerli, near the latter: but southward close to Nisibin in the vicinity of Serchekhan there is to be found on Kiepert's map (D. VI.) a cluster of names including Sarindje, Sahridjke, Shoruk, in which the radicals of Šarkuzzaš seem to be preserved. The site would be some 25 miles north of the Mitannian capital Waššukkani.

ŠARPAENTA	T	šar(?) -pa-en(?) -ta	Hr. 3 BoST No. 1 III. L.20
ŠARUWALLAŠAŠ	T	ša -ru -wa -la -aš -ši	Hr. 3 BoST No. 1 III. L.1
ŠEĤA	R	še -e -ĥa	L Hr. 3 BoST No. 6 III. LL.17, 18; No. 7 (5a) II. L.23
	LR	še -e -ĥa -ma	L Hr. 3 BoST No. 6 III. L.24
	LR	še -e -ĥa -ia	L Hr. 3 BoST No. 6 III. L.22
ŠERIGGA	T	še -ri -ig -ga	L La KBo I. No. 5 IV. L.58 [=Lu p. 187]
ŠIBBUNA		se(?) -ib(?) -bu -na -a -il	YT p. 44
ŠIBRI	T	ši -ib -ri	L Dh. KBo I. No. 1 Rev. L.17 [=Lu p. 167]
ŠIENZANAŠ	T	ši -i -en -za -na -aš	M Hr. 3 BoST No. 4 III. L.27
	T	ši -i -en -za -na -aš	M Fo 2 BoTU 23 A.III. § 37 L.26
ŠINATUWAŠ	T	ši -na -tu(?) -va -aš	E Fo 2 BoTU 8 II. § 9 L.50
ŠINUWANTAŠ	T	ši -nu -va -an -ta -aš	M Fo 2 BoTU 17 Bβ L.17'
	T	ši -in -nu -wa -an -ta	4 KBo 10 Obv. L.26
ŠIPPA	T	ši -ib -pa	(Bo 4818 VI. 10=) Fo ZDMG. NF. 1 p. 196 (=Hr. 5 BoST p. 42)
		(Perhaps mistaken for the god aš -ka -ši -ib -pa)	
ŠIŠANA	T	ši -ša -na -a	L Dh. KBo I. No. 1 Rev. L.34
ŠIYANTA	R	ši -ia -an -ta	L Al 4 KBo 3 Obv. I. L.21

ŠEĤA : A river of Arzawa giving its name to a district associated with Aĥiawa (Anchiale). It is readily identified with the Šarus Fl., *Turk. Seiĥan.* (G., L.A.A., 1923, I, 'Arzawa,' p. 24).

ŠERIGGA : A town on the Hittite side of the Kizzuwadna frontier (*temp.* Mušil III), between Turutuna and Zilabbuna. Possibly identical with Ptolemy's Zoriga of Armenia Major, on or near the Euphrates just below Erzingan, in which an element of the name survives. The modern Erzingan seems to have replaced in name and in fact both Šerigga (which belonged to Ĥatti), and the neighbouring Urušša (Eriza) which marked the joint frontier of Ĥatti, Ĥarri and Kizzuwadna. (G., L.A.A., 1923, Pt. iii).

ŠIBRI : A fortress of Mitanni mentioned in a text of Šubbiluliuma in the sequence : Ĥarmurik, Šibri, Mazuwati, Šurun. The name simulates the later Assyrian Šubri or Šubria, which is placed generally in the district of Alše (cf. Fo P.A.R., p. 86, etc.; Olmstead, J.A.O.S. 38 IV. 1918, Map III); it may, however, be the local name of the Hittite Zaparaššaš (q.v.) which is followed in the list of Mušil III by Miššuwanzaš, the Mazuwati of this text. (cf. also Šarkuzzaš above).

ŠIENZANAŠ : One of the unfamiliar names of the texts of Telibinuš, appearing before Waštiš-nuandaš, in a series which mentions also Bišaš, Pawazziaš and later Kuwašariaš. The form of the name bears a resemblance to the later name Ši-ia-an-ta, and if this be sustained it may prove to be an early form of Xanthos the Lycian City.

ŠIYANTA : The name of a river, the lower boundary of Mira and Kuwaliya, on the frontier defined by Mušil III. The upper boundary was the River Aštarpa. Near it was Wiyanawanda, and opposed to that Kuadunaša and other sites which can be recognised (vid. the note on Arzawa and L.A.A. 1923, p. 21 ff.). The fertile suggestion by Dr. Albright that this River-name was to be found in the classical Xanthus is confirmed on every hand and provides the clue to numerous identifications. The Xanthus is called to-day Eshen, formerly Eshenide. (On the Lycian stem Sñta vid. Sundwall, op. cit., p. 195.) The Aštarpa River is now called the Isparta in assimilation with the similar name of the town Isbarta, which is itself derived, Professor Ramsay points out, from the name Baris (*εἰς Βαρύν*). Mira and Kuwaliya are recognisably Milyas and Kabalia (Lycian, Mira and Kabala : cf. Sundwall : op. cit., pp. 102, 149). Wiyanawanda is clearly Oeneanda. Kuadunaša (possibly a scribal error for Kuadunata,—one wedge only distinguishes ša from ta), would appear to be Kadyanda, a site whose 'Cyclopean Walls' (Fellows *Lycia*, p. 121) resemble exactly those of Boghaz Keui : it was called the fortress of Dudĥaliyaš.

ŠUDA	T	šu-ú-da	M	Fo 2 BoTU 21 II. L.7
	T	šu-ú-da	L	Dh. KBo I. No. 3 Rev. L.26 [=Lu p. 175]
	T	šu-ú-ta Šuta	L	Dh. KBo I. No. 1 Obv. LL.26, 27 L Lu p. 164 [ll.cc. supr. et infr.]
ŠUGZIA	T	zu-ú-ta	L	Dh. KBo I. No. 2 Obv. LL.7, 8
	T	šu-ug-zi-ia	E	Fo 2 BoTU 12 A.III. § 35 L.16'
			M	Fo 2 BoTU 17 A.III. L.35'; 17 Ba L.6; 23 A.I. § 17 L.58; 23 C.II. § 17 L.3
ŠULUPAŠŠIŠ	T	šu-ug-zi-ia-va	M	Fo 2 BoTU 23 A.I. § 16 L.57
	T	[šu-u]g-zi-aš	M	Fo 2 BoTU 17 A.III. L.49
	T	šu-ug-zi-ia-aš	M	Fo 2 BoTU 23 A.III. § 37 L.20
ŠURUN	T	šu-lu-pa-aš-ši		(Bo 4818 VI. L.14=) Fo ZDMG. NF 1 p. 195. Hr. 5 BoST p. 42
	T	šu-nu-pa-aš-ši-iš	L	Hr. 3 BoST No. 7 I. L.1
ŠURUWA	T	šu-ru-un	L	Dh. KBo I. No. 1 Rev. L.17 [=Lu p. 167]
	T	šu-ru-wa-a		Hr. 3 BoST No. 1 II. LL.9, 16
ŠUTUMMA	T	šu-tu-um-ma-na-aš	M	Fo 2 BoTU 21 II. L.6 (=Code p. 16, n. 5)
ŠUWANZUWANNAŠ	T	šu-va-an-zu-va-an-na-aš	M	Fo 2 BoTU 23 A.III. § 38 L.40; 23 B.III. § 38 L.4'; 23 G. III. § 38 L.4'
ŠUWARAŠ	Mt	šu-wa-ra-aš		Hr. 3 BoST No. 1 I. L.32
	Mt	šu-wa-ṛa		Hr. 3 BoST No. 1 I. L.37; III. L.34; IV. L.17

ŠUGZIA: In the earliest text this place is grouped with Nenašša, Ušša and Ĥubišna: in the middle period with Ĥurma and Arzawia. Its late form is not apparent.

SUNUPAŠŠIŠ: The general location of this town is indicated by the geographical sequence of Pitalaḥšaš and Ištaḥara, associated with Kalašma.

ŠURUN: A fortress in Northern Mitanni, between Lake Van and the Euphrates: it is preceded in the context by Ĥarmurik, Šibri and Mazuwati. Possibly to be located at Arsinia (Arghana), about thirty miles north-north-west of Amida (Diarbekr).

ŠUTA: A fortress of Alše, stormed by Šubbiluliuma. The context mentions it between Kutmar (*Ass.* Kullimeri) and Waššukkani (the Mitanni capital). It is identical (cf. Fo., P.A.R., p. 20) with the Assyrian Sudi; and it may be located with some certainty at, or in the vicinity of, Keḫr Zuti (37° 20' E.; 41° 15' N.) near which is a group of similar names (Saada, Siti, Zat). It would thus be about forty-two miles north of the capital at Waššukkani.

ŠURUWA: In this city was a stone image of Tešup and possibly one of the Sun-goddess. On the neighbouring mountain of Awwaraš was another stone image. The latter name recalls the Lycian Aura; but Šuruwa may prove to be an early form of Isauria.

ŠUWANZUWANNAŠ: This reduplicating stem reduces to a form like Šuwana. The place is mentioned in the sequence: Ĥaršuwaš, Tipalaš, Kurša, Š., Tamlutaš, Bikumiaš, Damašḥunaš.

ŠUWARAŠ Mt: To this mountain are attributed supplies of gold and of iron of which some of the cult objects in the sanctuary of Tešup at Maraš were made. On it, seemingly, was a town Da . . . išta (cf. Taggašta), where among other cult objects of Tešup was a statue of iron. With it there is uncertain mention of a Mt. Tarlipantaš. It is tempting to see in this name an early form of Siwas, near the chief mineral sources of Anatolia. The form of the name suggests, however, Isaura (cf. Kuwanna).

TAGARAMA	T ta-ga-ra-ma	M Hr. 3 BoST No. 4 I. L.38. Fo 2 BoTU 23 A.I. § 13 L.39. § 17 L.61; 23 C.II. § 17 L.6
	LT te-ga-ra-ma	L Dh. KBo I. No. 1 Obv. LL.13, 20, 22; No. 2 Obv. L.2 [=Lu p. 164]
TAGAŠHADIA	T ta-ga-as-kha-di-ia-al	YT. p. 47 (=SH 51)
TAGGAŠTA	LT tag-ga-aš-ta	L Hr. 3 BoST No. 7 II. L.5; 5 KBo 8 Obv. I. LL.6, 7, 9, 15, 16, 21, 23, 27
	T tag-ga-aš-ta-ma	L 5 KBo 8 Obv. I. L.18
	T tag-ga-aš-ta-be	L 5 KBo 8 Obv. I. L.29
	T tag-ga-aš-ta-mit	L Hr. 3 BoST No. 7 II. p. 230, n. 1
	T tag-ga-aš-ta-aš-ma	L 5 KBo 8 Obv. I. L.4 (= Fr ZDMG. NF 1 p. 173)
	LT tag-ga-aš-ta-ia	L Hr. 3 BoST No. 7 II. p. 230 n. 1; 5 KBo No. 8 Obv. I. L.28
	T tag-ga-aš-ta-an	L Hr. 3 BoST No. 7 II. p. 230, n. 1; 5 KBo 8 Obv. I. L.28
TAĦAIA	Mt ta-ĥa-ia-i	E Fo 2 BoTU 12 A.I. § 3 L.16
TAĦAIA	T ta-ĥa-ia	L Dh. KBo I. No. 1 Rev. L.43 [=Lu p. 169]
TAĦANTA	LT ta-ĥa-an-ta	5 KBo 8 Obv. I. L.36
TAĦURPA	T ta-ĥur-pa	L HTBM No. 2 Rev. IV. L.14 Dh. KBo I. No. 1 Rev. L.49 [=Lu p. 169]
	T ta-aĥ(ĥur?)-pa	L 1 KBo 4 Rev. IV. L.24 [=Lu p. 179]

**TAGARAMA**: In the earliest reference this name occurs after Ħurpanaš and Kargamiš. In the preamble to Šubbiluliuma's treaty with Mitanni 'half of the land of Tegarama' appears among the list of rebels who went over to Išuwa, in the sequence, twice repeated ' . . . Ħurma, Mt. Ħarana, T., Teburzia, Ħazga (Gašga), Armatana (Ħarri).' These lists suggest the vicinity of the upper Euphrates, and from other considerations, including the position of the mountain Tarikarimuš (q.v.), we incline to place it provisionally on both banks of the Euphrates above Zimarra, one half being thus in Hittite territory, the other half in Išuwa, with Gašga adjoining to the south-west.

**TAGGAŠTA**: In the detached fragment of Muršil's campaigns in Gašga (Hr. loc. cit.) the route taken was from the Red River (? Halys) to Taggašta, and thence to Ištalubba, Gabbubbuwa and Ħutpa. In V. KBo 8 the portion referring to Taggašta, which occupies a chief place in the document, follows Marišta and again precedes Ištalubba (q.v.). It seems to correspond with the Dagusa of Ptolemy in Melitene, near a crossing of the Euphrates, though the separate existence of this site has been much doubted (vid. Duddušgaš. cf. R., H.G., p. 71).

**TAĦAIA**: The mountain of this name is mentioned in an earlier text after the names: Arzawa, Ħurma, and Ħuntara. The town of the same name was a hieron of Tešup, mentioned only in the Mitannian treaty, when it occurs in the sequence Šarišša, Šaganuwa, Ħiššašĥapa, T., (Bam)bike, Kizzuwadna, Uda.

**TAĦANTA**: The name of a district mentioned, in the text quoted, between Gabbubbuwa and the River Kumišmaĥaš.

**TAĦURPA**: A hieron, with a shrine of the Mother-goddess, invoked in the treaties with Mitanni and Nuĥašše. The two lists are parallel, the most complete reading: Šamuĥa, Anšuwa, Gatapa, T., Dunna, Ħubišna, Išĥubitta, Laanda. The first name is possibly Samosata, while the three which follow are probably Tynna, Kabassos (or ?Kybistra), Euspoena, and 'Leandis.' It is thus to be sought in the Eastern Taurus. Its great importance is attested by the unusual number of twenty-five singing women ministering at the sanctuary: most unfortunately the names of the surrounding villages are not preserved in the text as in other cases (HTBM. l.c.).

TAITA	T ta-i-ta	L Dh. KBo I. No. 1 Rev. L.28 [=Lu p. 168]
	T ta-i-te Taite	L Dh. KBo I. No. 3 Obv. L.13 Lu p. 172 [l.c. supr.]
TALGAMUŠ	T ta-al-ga-mu-us-(il)	YT p. 245
TAMALKIŠ	T ta-ma-al-ki	(Bo 2095 I. 14-18. Bo 2097 III. 12-25=) Fo ZDMG. NF 1 p. 248. Hr. 6 KBo p. 83
	T ta-ma-al-ki-ia	L Code § 54 p. 48 L.15 E Fo 2 BoTU 8 II. § 11 L.61 Code p. 48, n. 11
TAMINTA	L ta-a-mi-in-ta	L 1 KBo 19 Obv. L.7 [=Lu p. 193]
TAMLUTAŠ	T ta-am-lu-ta-aš	M Fo 2 BoTU 23 A.III. § 38 L.40; 23 B.III L.5; 23 G.III. § 38 L.4'
TAPPA	T ta-ap-pa	(1 KBo 58, L.7=) SH 206
TAPPAŠANDA	T tab-pa-aš-ša-an-da	E Fo BoTU 8 II. § 12 L.63
TAPPAŠPAŠ	T ta-ab-pa-aš-pa-aš	M Fo 2 BoTU 23 A.III. § 37 L.19
TAPPAZILI	Mt ta-pa-az-zi-li	E Fo 2 BoTU 13 I. L.31'
TAQANAMAŠWA	T ta-qa-na-maš-wa Nabarwa	L Dh. KBo I. No. 1 Rev. L.57 Lu p. 170 [cf. l.c. supr.]
TARḪUNTAŠ	T tar-ḫu-un-da-aš-ša	(Bo 2667 Rev. II. L.5=) Fo ZDMG. NF 1 p. 219 (Bo 859 I. 7=) Fo ZDMG. NF 1 p. 219
TARIKARIMUŠ	Mt ta-ri-ka-ri-mu	L Hr. 3 BoST No. 6 III. L.63
	Mt ta-ri-ka-ri-mu-un	L Hr. 3 BoST No. 6 III. LL.58, 60
	Mt ta-ri-ka-ri-mu-un-ma	L Hr. 3 BoST No. 6 III. L.64
TARLIPANTAŠ	Mt tar-li-pa-an-ta-aš	Hr. 3 BoST No. 1 IV. L.18
TAŠḪINIA	T t[a]-aš-ḫe-ni-ia	Code p. 49 n. 14
	T ta-aš-ḫe-ni-ia	(Bo 2095 I. 14-18. Bo 2097 III. 12-25=) Fo ZDMG. NF 1 p. 248
	T ta-aš-ḫi-ni-ia	Fo ZDMG. NF 1 p. 248 n. 2
	T	L Code § 54 p. 48 L.16

TAITA : A town of Mitanni, associated in the contexts with Irrite and with Alše. In an Assyrian text, it appears as Taidi (Fo., P.A.R., p. 30), conquered by Adad-Nirari together with Šuri, Kaḫat, Amasaki, Ḫurra, Šuduḫi, Nabula, Wassukani, Irridi, the fortresses of the Kašiaeri Mt. as far as Eluḫat, Sudi, Ḫarani and Carchemish (*id.*, p. 19).

TAMINTA : A town of Central Syria on the route of the second division of the army of Rameses II towards Kadesh previous to the battle with the Hittite armies of Mutallu. (cf. Breasted, *Hist.*, p. 427 ff.).

TARIKARIMUŠ Mt. : This mountain region, which had sided with Gašga in rebellion against Šubbiluliuma, was reduced to submission by Mušil in his fourth campaign and fortified. It was in the district of Zimurria (Zimarra). The name, which is akin to Tagarama, seems to provide the Hittite original form of the Assyrian Tilgarimu (cf. Fo., F.A.R., p. 84).

TARLIPANTAŠ Mt. : This mountain is associated in a damaged text with Mt. Šuwaras (q.v.), possibly as furnishing metals for the furniture of the sanctuaries of Tešup.

TAŠḪINIA : The position of this town is indicated only by the following textual sequence : Tamalki, Ḫatra, Zalpa, T., Ḫemuwa.

TAAŠŠAŠ	T	ta-aš-ša-an	M	Fo 2 BoTU 17 Bβ L.13'
TAAŠŠITA	T	taš-ši-ta		1 KBo 11 Obv. L.19 [=Lu p. 207]
TAWINIA		[Tawin]ia		Lu p. 179
	T	ta-ú-i-ni-ia	E	Fo 2 BoTU 13 I. L.17'
	T	ta-wi-ni-ia (ta-GEŠTIN-ni-ia)	L	Dh. KBo I. No. 1 Rev. L.45 [=Lu p. 169]
TAWAŠIA	T	ta-u-as-ya-il		YT p. 46
TEBURZIA	T	te-bu-ur-zi-ia	L	Dh. KBo I. No. 1 Obv. L.13, 22 [=Lu p. 164]
TERUMNAŠ	T	te-ru-um-na-aš	M	Hr. 3 BoST No. 4 III. L.30. Fo 2 BoTU 23 A.III. § 37 L.29
TIBIA	LT	ti-bi-ia	L	Hr. 3 BoST No. 6 I. L.49; III. LL.67, 87, 90, 93
	T		L	Hr. 3 BoST No. 6 III. L.68
TILIURA	T	ti-li-ú-ra		(Bo 2043 Rev. II. 17 ff. =) SH 55. (Bo 2043 Obv. I. 6 f. =) SH 117
TIMNA	LT	tim-im-na	L	Dh. KBo I. No. 1 Obv. L.12 [=Lu p. 164]
	LT	tim-mi-na	L	Dh. KBo I. No. 1 Obv. L.21, No. 2 Obv. L.21 [=Lu p. 164]
TINIŠIPA	T	ti-ni-ši-pa	M	Fo 2 BoTU 21 III. L.7'
TINTUNIA	T	ti-in-tu-u-ni-ia-il		(YT p. 45 =) SH 51
TIPALAŠ	T	ti-pa-la-aš	M	Fo 2 BoTU 23 A.III. § 38 L.39; 23 G.III. § 38 L.3'
	T	ti-pa-a-la-aš	M	Fo 2 BoTU 23 B.III. § 38 L.4
TIRGA	T	tir-ga	L	Dh. KBo I. No. 1 Rev. L.19 [=Lu p. 168]

**TAAŠŠA** : This name occurs only in the sequence : Ḫattušaš, Buruḫanda, Ḫarašhapaš, Tašša, Arimattā, Parukittaš, Zunnaharaš, Šinuwanta. A compound form appears to be Tešup-Tašša (4 KBo 10) a district bound by the terms of a treaty between Tudḫaliyaš (?) and Ulmi-Tešup. Taššita may be a variant. A city Tasa is mentioned in the records of Tiglath Pileser III as on the borderland of Kummuḫi (Kommagene), in association with Kilissa (Kalašma) and Enzi (Azzi).

**TAWINIA** : A hieron quoted with Durmitta and Ḫanḫana among the gods invoked in the Mitannian treaty. Telebina appears to be the local name of a deity.

**TEBURZIA** : A town whose people went over to Išuwa in the rebellion that preceded the campaign of Šubbiluliuma in Mitanni. Other confederates were Mt. Ḫarana, Tegarama, Ḫazga (Gašga) and Armatana (Ḫarri). If to be identified with Trapezus (Trebizond), as seems possible, the text would show that the rebellion had been joined by some of the states later grouped together in the independent kingdom of Kizzuwadna.

**TIBIA** : The chief of this city-state, in the time of Šubbiluliuma had invaded the highlands, penetrating to Zazziša : he attached the highlands to the land of Gašga and annexed the region of Iština to his own kingdom. In this text, in view of the evidence discussed under Gašga (q.v.) Zazziša may be identified with the modern Azizia, and Iština (Isdina) possibly with Osdara. The town and land of Tibia must then be sought in the valley of the Balikly Šu, the main northern tributary of the Tochma Šu, on the confines of Gašga. The incidents described are not mentioned in the summary given in the text VI. KBo 28, being included doubtless under the reference to Gašga.

**TIM(MI)NA** : A district name mentioned between Zazziša, Kalašma and Mt. Ḫaliwa, Mt. Karna, Durmitta, in the list of districts revolting with Išuwa and Gašga against Šubbiluliuma. Possibly identical with Tumanna (q.v.).

**TIRGA** : A fortress of Aštati or of Irrite, east of the Euphrates : found in the context with Aḫuna. Forrer (P.A.R., p. 15) would identify it seemingly with the Assyrian Sirqu, which he places, however, at Tell 'Išara on the right bank of the river.

TUḪUBIA	T	tu-u-khu-ub-bi-ya-il	YT. p. 46
TUMANNA	LT	tu-u-ma-an-na	L Hr. 3 BoST No. 7 IV. L.20
	T	tu-u-um-ma-an-na-an	5 KBo 8 II. L.15
TURIRA	T	tu-u-ri-ra	L 1 KBo 14 Obv. LL.6, 10-13, 15, 16, 19 [=Lu p. 206]
	T	tu-u-ri-ra-ma	L 1 KBo 14 Obv. L.14 [=Lu p. 206]
TURUTNA		tu-ru-ut-na	L La KBo I. No. 5 IV. L.53 [cf. Lu p. 187]
TUWANUWA	T	tu-u-wa-nu-wa	M Hr. 3 BoST No. 4 I. L.9
	T	tu-u-va-nu-wa	M Fo 2 BoTU 23 A.I. § 4 L.10; 23 B.I. § 4 L.9; 23 C.I. § 4 L.10
UBARIAŠ	T	ú-ba-ri-ia-aš-ša	E Fo 2 BoTU 8 II. § 9 L.50
UDA	T	u-da	L 1 KBo 4 Rev. IV. L.9 [=Lu p. 179]
	T	u-da	L Dh. KBo I. No. 1 Rev. LL.43, 46 [=Lu p. 169]
	T	ú-ta	L Dh. KBo I. No. 2 Rev. L.21 [=Lu p. 169]
UDAḪZUMI (?)		u(?)-daḫ(?) - zu(?) - mi (perhaps a mistake for ul-lam-mi)	E Fo 2 BoTU 12 A.II. § 15 L.16. (=Fo ZDMG. NF 1 p. 182)
UGARIT	L	ú-ga-ri-id	1 KBo 10 Rev. L.14 [=Lu p. 203]

TUMANNA : This name, several times associated with Pala, is found in one context connected with Kalašma, in the geographical sequence : Pala, Tumanna, Šarkuzzaš and Zaparaššaš. It may be sought in the vicinity of Mush, the only district in this context that remains unnamed.

TURIRA : A town and district. Convoys of the Pharaoh (? Rameses II) appear to have been plundered in the vicinity and the booty was brought into the city. The context mentions Karkamiš and Hanigalbat.

TURUTNA : A place on the Hittite side of the Kizzuwadna frontier, as defined by Muṣil III. It lay between the Anamušta (? Amastum) which was opposite the Mt. of Zabarina (the source of the Sabrina Fl.) and Šerigga (Zoriga) near Erzingan. It may be identified with the Turkish name Tortan, near the north bank of the Euphrates in the district indicated, Long. 39° 12 E'.

TUWANUWA : From the earlier context, which gives the sequence : Ḫubišna, T., Nenašša, Laanda, Zallara, Maššuḫanta, there can be little hesitation in recognising in this name the Hittite spelling of Tyana. Of the sites mentioned, Kybistra, Nanassos, Leandis and Mazaka are all known from Ptolemy and other classical sources, to have been in this vicinity of Cappadocia. There is a later reference in a similar setting, Nenašša, Arzawa, and Uda (VI. KBo 28 L.9), in which text Tyana and Uda are placed on the new frontier of Arzawa (Hr. BoST 5 p. 40 n. and Sayce J.E.A. VIII, p. 233). Tawanannaš appears also as a personal name (Fo 2 BoTU 10a; I. L.10').

UDA : This city was one of the national hiera, with the dual cult of Tešup and of Hebe (Ḫipa). These divinities are invoked in the treaties with Mitanni and with Nuḫašše. The site-names are, however, dispersed in these texts : that of Uda occurs (a) at the end of a list after Kizzuwadna; (b) between Ḫalpa and Kizzuwadna, (c) between (Ki)šuti and . . . Išḫubitta. In the political text (VI. KBo 28 L.9) it is associated with Tyana as on the frontier of Arzawa (Sayce J.E.A. VIII 1922, p. 233); and from this context its identity with the classical Hyde is to be inferred. This city is placed tentatively at Kara-Bunar by Ramsay (H.G., p. 337) and by Kiepert.

UGARIT : This district name occurs once only in a letter of Ḫattušil III to Babylonia. Merchants of the latter had been waylaid in the country of Amurru and slain. It is clearly the Syrian district called Ekereth in the Egyptian documents, captured by Rameses II (B., A.R. III. § 306) and sending a contingent on the side of Ḫatti to the battle of Kadesh (*ibid.* § 309). In the Egyptian lists it occurs (a) between Kadesh and Mesheneth, (b) between Karkemish and Kode. In the Tell el Amarna letters it appears textually in its Hittite form Ugarit, mentioned (a) with

UGULZID	ú-gul-zi-id (ḫatt.)	(VAT 7427 I. 56=) Fo ZDMG. NF 1 p. 229
	ú-gul-za-ad (ḫatt.)	(1 KBo 1 L.39=) Fo ZDMG. NF 1 p. 229
	T ú-kul-za-at Ukulzat	L Dh. KBo I. No. 1. Obv. L.39 L Lu p. 165 [ll.cc. supr. et infr.]
	T ú-ku-ul-za-at gul-zi-la-az	L Dh. KBo I. No. 2 Obv. L.21 (2 KBo 9 I. L.5=) Fo ZDMG. NF 1 p. 229
UḪUŠMAN	T Uhušuman u-ḫu-šú-ma-an	Lu p. 170 [l.c. infr.] L Dh. KBo I. No. 1 Rev. L.55 ; Fo ZDMG. NF 1 p. 250
	T Uhušmani u-ḫu-uš-ma-a-ni	Lu p. 175 [l.c. infr.] L Dh. KBo I. No. 3 Rev. L.23 ; Fo ZDMG. NF 1 p. 250
UILUŠA	LT u-i-lu-[ša]	La KBo IV. No. 5 L.4
ULLAMMA	T ul-lam-ma	E Fo 2 BoTU 12 C.I. § 15 L.22 M Fo 2 BoTU 17 A.III. L.45' ; (=Fo ZDMG. NF 1 p. 182)
	T ul(?) -lam(?) -mi	E Fo 2 BoTU 12 A.II. § 15 L.16
ULLIWA	LT ú-ul-li-u-i	E Fo 2 BoTU 3 I. L.10'
ULUŠNA	T ú-lu-uš-na	HTBM. No. 2 Rev. IV. L.15, Rev. V. L.5
UQABUWA	T u-qa-a-bu-va	M Fo 2 BoTU 21 II. L.7
	T u-qa-a-bu-ia-aš-ša	M Fo 2 BoTU 21 II. L.8
URŠU	T ur-šu	L 1 KBo 11 Rev. L.22 [=Lu p. 209]
URUŠŠA	T u-ru-uš-ša	L 1 KBo 5 IV. L.6 [=Lu p. 186]

Zaluḫḫi, on the sea ; (b) with Tyre, but not associated ; (c) with Gebal, 'as far as Ugarit' ; (d) in a context announcing that the king of Danuna was dead, and half the city of Ugarit was consumed with fire, ending with an obscure reference to Ḫatti ; (e) in a letter from the Pharaoh to the King of Babylon. Petrie (Syria and Egypt, p. 185) locates the district in the vicinity of Jebel Akrad, north of the westerly bend of the Orontes. This name and that of the Kurt Dagh, coupled with the foregoing considerations, suggest that the district embraced the valley of the Kara Su, with the sites of Sinjirli and Sakje-Geuzi, with natural access to the sea by the Beilan Pass (G., L.H., p. 9 ff. and Pl. VII). Zaluḫḫi suggests the port and original name of Seleucia (built or rebuilt by Seleucus Nicator).

UILUŠA : A principality in the vicinity of Arzawa (q.v.) with which Muršil concluded a treaty. Its king is stated by Fo. (Contents of KBo IV.) to have been named Alakšanduš. It may be identical with Ialysos in the Island of Rhodes. The alternative identification with the Cilician Elaeusa, possible phonetically, would seem more probable on general grounds ; for during the course of Muršil's campaigns in Arzawa one of the king's sons fled 'into the sea' (Hr. 3 BoST p. 191 L.53), and this accords well with the position of Elaeusa which was once separated from the mainland. Archelaus, says Strabo (XIV. v. 6), resided there and built a palace. The name Archelaus may be directly derived from that of Uḫḫi-GALLU-iš, the king of Tracheia in the age of Muršil.

UKULZAT : A Syrian town in the vicinity of Nuhašše.

URUŠŠA : In this name may be recognised the Byzantine Eriza, on or near the site of Erzingan. It plays an important role in the treaty with Kizzuwadna, which annulled previous arrangements between Ḫatti and Ḫarri and rectified the frontiers. It is probably to be inferred from the context (IV. LL.5, 10. Lu p. 186) that Urušša was at the meeting place of the frontiers of Ḫatti, Ḫarri and Kizzuwadna ; that it was now removed from the control of Ḫarri and apparently retained by Ḫatti under conditions favourable to Kizzuwadna, to which it had formerly belonged.

UŠŠA	T uš-ša u-uš-ša	E 2 BoTU 12 A.II. § 6 L.27; III. § 36 L.20' 4 KBo 10 Obv. L.21
WALMA	T wa-al-ma-a	L Hr. 3 BoST No. 6 II. L.24
WARGAŠAŠ	T wa-ar-ga-ša-aš T va-ar-ga-aš-ša-aš	M Hr. 3 BoST No. 4 III. L.23, Fo 2 BoTU 23 A.III. § 37 L.22
WAḤSUŠANA	wa-aḥ-šu-ša-na	30 Tabl. p. 90
WAŠTIŠŠAŠ	T wa-aš-ti(?)-iš-ša-aš T va-aš-ti-iš-š[a-aš] T wa-aš-ti-iš-...	(Bo 2004 Rev. 18=) Hr. 3 BoST No. 4 p. 125, n. 6 M Fo 2 BoTU 23 A.III. § 37 L.26 M Hr. 3 BoST No. 4 III. L.27
WAŠŠUKKANI	T wa-aš-šug-ga-an-ni T wa-šug-ga-an-ni T ú-aš-šuk-ka-ni T ú-aš-šu-ka-ni	L Dh. KBo I. No. 1 Obv. L.27 [=Lu p. 164] Rev. L.56 [=Lu p. 170] L Dh. KBo I. No. 3 Obv. LL.9 [=Lu p. 172] 48, 49, 54 [=Lu p. 174]; Rev. L.25 [=Lu p. 175] L Dh. KBo I. No. 2 Obv. L.8 [=Lu p. 164] L Dh. KBo I. No. 2 Rev. L.32 [=Lu p. 170]
WAŠUWATTAŠ	T wa-šu-wa-at-ta-aš T va-šu-wa-ad-ta-aš	M Hr. 3 BoST No. 4 III L.32 M Fo 2 BoTU 23 A.III. § 37, L.31

UŠŠA: This name occurs in one context between Nenašša and Ḥubišna. In another (IV. KBo 13, I. L.48) it is grouped with Aleppo and Bala. Its identity with Issos would thus appear probable. Neither of the similar names, Aza, Iassos satisfies this setting.

WALMAA: Textually Wa-al-ma-a. A town of Arzawa near the river Aštarpa. Identified with Strabo's Olbia near the mouth of the river Isbarta, the Kestrus Fl. in eastern Pamphylia (G., L.A.A. 1923, p. 24). The form is comparable with the Lycian Ula-ma and the Ulamoi of Steph. Byz. (Sundwall: op. cit., p. 228).

It is to be recognised that an added vowel like the final a of this name indicates an additional syllable with the preceding vowel short. cf. La-a-anda = Leanda, not Lânda. The point is discussed by Christian, quoting Ylvisaker and Meissner, MVG 18, 1913, I., p. 29 n.

WAŠTIŠŠAŠ: The names associated with this town name in the text of Telibinuš are: Biiša (Bi-i-ša-aš), Pawanzia (Pa-wa-az-zi-ia-aš), Šiyenza (Si-i-en-za-na-aš), Wa-aš-ti-iš . . . , . . . nuanda (-nu-an-da-aš), (U)za (-šša-aš), Kuwašaria (Ku-wa-ša-ri-ia-aš) and Uinta (u-i-in-ta?).

WAŠŠUKKANI: The capital of Mitanni during three generations, from Šauššatar to Dušratta: wasted by Šuttarna. Šubbiluliuma claims to have entered it with the booty of Šuta, after which it was re-occupied by Mattiuaza. There was a shrine of Tešup. The texts throw no new light upon its precise position; there is mention of Irrite, of Assyria and Alše, and of Ḥarri. It is the Uššukani of Assyrian texts, identified by Forrer (P.A.R., p. 20) with Urakka. The identity is not accepted by Weidner (8 BoST, p. 9 n.6). It is placed by Forrer (P.A.R., p. 21) in the district of Nasibina, west of the Tigris in the sources of the Jaghjaḡha Su (Saocoras), a chief tributary of the Khabur river. In the same district are Šuta (q.v.) and Nabulu (mod. Nibl). We identify it provisionally with Tell Waḥsuk, (Lat. 36° 43' N., Long. 41° 8' E.) west of the Jaghjaḡha Su near its junction with El Radd. The identity is based on the similarity of the names: the most extensive ruins recorded in this area are those of Lelan on the Nahr Jerrhi (36° 48' N., 41° 30' E.).

WAŠWATTAŠ: This town name is grouped in the text of Telibinuš with Barminiai and Maššuhanda (L.30), Iamma (L.31) and followed by the River Ḥulaiāš (L.32). The pronunciation would seem to have been Usonda (cf. Iaruwattaš), which may later have become Isinda.

WATTARWA	T	wa-at-tar-wa	Hr. 3 BoST No. 1 II. LL.21, 25
WINTA	T	ú-i-in-t[a]?	M Fo 2 BoTU 23 A.III. § 37 L.27
WIYANAWANDA	T	wi-ia-na-wa-an-ta	4 KBo 3 Obv. I. L.18
ZABARNA (?)	MtT	za-ba-ar-aš(?) Zabarina Zabarna	L La KBo I. No. 5 Rev. IV. L.49 Lu p. 187 [cf. l.c. supr.] Sm. JEA. Vol. 8 p. 45
ZAGABURA	T	za-ga-bu-u-ra	L Hr. 3 BoST No. 7 II. L.14
ZALBUWA	T	za-al-bu-u-va-aš	E Fo 2 BoTU 13 I. L.6'
	T	z[a]-a-al-bu-aš	E Fo 2 BoTU 7 I. L.31
	T	za-a-al-bu-va	E Fo 2 BoTU 7 I. LL.39, 40, 43
	[T	z]a-al-bu-va-az	E Fo 2 BoTU 7 I. L.42
	T	za-al-bu-az	E Fo 2 BoTU 7 I. L.38
	T	za-al-bu-u-ma-aš	E Fo 2 BoTU 10β L.28'
ZALLARA	T	za-al-la-ra	M Hr. 3 BoST No. 4 I. L.9; Fo 2 BoTU 23 A.I. § 4 L.10; 23 B.I. § 4 L.9; 23 C.I. : 4 L.11

WIYANAWANDA : Textually Wi-ya-na-wa-anda : a town near the Šiyanta River, the lower boundary of Mira and Kuwaliya, a principality of Arzawa (q.v.) *temp.* Muršil III. The Lycian form appears to be Wīnu-wā-ta (Sundwall : op. cit., p. 243). It is phonetically and geographically identical with Oeneanda, near the Xanthus Fl. (*Turk.* Eshen) in Lycia, which is the area of Milyas (*Lyc.* Mira) and Kabalia (G., L.A.A. 1923, p. 21 ff.).

ZABARNA or ZABARINA Mt. : This name gives the clue to the frontier and general position of Kizzuwadna (q.v.) : it is to be identified with the sources of the Kara-budak river, which flows into the Euphrates just above the bend at Zimarra. The mountain in which it rises, the Kizil Dagh, is in fact, the main watershed of the region. A tributary rises on Chorok Dagh a chief height of the Beli Dagh. The river was called in classical times the Sabrina (J.H.S. XVIII 1898, p. 320), clearly a very ancient name, which has not, however, survived. The further importance of the identification which is confirmed by an analysis of the texts (see Biggainarišša, Šerigga, Turutna, Urušša, Zimurria, &c.) and the doubtful reading Zabarašna, are discussed under the note Kizzuwadna (above) and G., L.A.A. 1923, Pt. iii. The mountain was opposed on the frontier to Anamušta, a name which seems to survive in the Turkish form Amastum (Lat. 39° 45' N.; Long. 38° 45' E.).

POSTSCRIPT.—Dr. Weidner, in his recent translation of political texts (8 BoST 1923, p. 109) reads the name Zabarašša, and would identify it with the town name Zaparaššaš (below). This reading does not however conform with the text as published, and the proposed identification cannot hold if our general argument proves to be correct. It must be identified rather, in that case, with the neighbouring site of Ptolemy's Zoparissus in Northern Melitene.

ZAGABURA : This name of a town and district occurs in the following sequence on a line of march. The Red River (? Halys); Taggašta of Gašga; further, Ištaľubba, Gabbubbuwa, Ĥutpa; further on Zagabura; then the land of Kašipa; further the Mts. of Gapagapa. The text (in a new column) next refers to Kalašma. A precise clue to the identification of these names is wanting. It is certain that sites like Kharpūt, Bitlis, Diarbekr and Urfa must have their Hittite counterparts, and be connected with the west bank by lines of route defined by names that will in due time be recognised.

ZALBUWA : The names associated with this name in the texts are (a) Kuššara, Neeša, Ĥarkiuna and Šalatiwara, (b) Ĥatti and Ĥaššuwa, (c) Zalpa. All these contexts are Early; and in the Middle period a different orthography is to be anticipated.

ZALLARA : This name occurs in the age of Telibinuš in the Cappadocian list : Ĥubišna (Kybistra), Tuwanuwa (Tyana), Nenašša (Nanassa), Laanda (Leanda), Zallara and Maššuĥanta (Mazaka). The site of Larissa (Ekrek) may be tentatively suggested (Cf. G., L.H., p. 148).

ZALPA	T za-al-pa	(Bo 2095 I. pp. 14-18; Bo 2097 III. 12-25=) Fo ZDMG. NF I p. 248 E Fo 2 BoTU 13 I. LL.9', 10' 13', 14', 18', 21'; II. LL.20', 21', 23', 27' L Code 54 p. 48 L.16 E Fo 2 BoTU 10β L.29'
ZAPARAŠŠAŠ	[T z]a-al-pa-aš	L Hr. 3 BoST No. 7 IV. L.23
ZARAŠŠANIA	T za-pa-ra-aš-ša-an	YT p. 45
ZARKAPŠUNA	T za-ra-aš-ša-ni-ya-il	YT p. 45 (=SH 51)
ZATAŠKURIA	T za(?a?)-ta(?sa?)-as-ku-ri-ya-il	YT p. 44
ZAZZIŠA	LT za-az-zi-ša	L Hr. 3 BoST No. 6 III. L.69; Dh. KBo I. No. 1 Obv. L.20 [=Lu p. 164] L Dh. KBo I. No. 1 Obv. L.11 [=Lu p. 164]
ZIBBIRIMAŠ	T zi-ib-bi-ri-ma-az	E Fo 2 BoTU 6 III. L.14'
ZIBIŠHUNA	T zi-bi-is-khu-na-il	YT p. 46
ZIBLANDA	cf. Zippalanda	
ZIHARRIA	LT zi-ḥar(?mur?)-ri-ia	L Hr. 3 BoST No. 6 III. L.57
ZILABBUNA	LT zi-ḥar(?mur?)-ri-ia-ia	L Hr. 3 BoST No. 6 III. L.65
ZILABBUNA	T zi-la-ab-bu-na	L 1 KBo 5 Rev. IV. L.62 [=Lu p. 187]
ZILMUTTAŠ	T zi-el-mu-ud-ta-aš	M Fo 2 BoTU 23 A.III. § 37 L.19

ZALPA: The contexts do not place this site clearly. It is associated (a) with Zalbuwa, Tawinia and Hurma, (b) with Kummani, Harahšuwāš and Hattušaš. The name is early and its later form is not apparent.

ZAPARAŠŠAŠ: This site is to be found east of the Euphrates, although its name resembles so closely Ptolemy's Zoparissus in Melitene. The context tells of a revolution in Kalašma and how an army was sent under King Muršil's cousin into Pala and the land of Tumanna; thence in haste to Šarkuzzaš, afterwards to Zaparaššaš and further Miššuwanzaš, the whole being referred to again as though within the area of Kalašma (q.v.). It is identified with the Assyrian Šabirešu, and located in the vicinity of Sorisba (Lat. 37° 28'; Long. 41° 20') north-east of Šuta and some fifty miles north of Tell Waḥsuk, the conjectural site of Waššukkani, the capital of Mitanni (cf. the note on Miššuwanzaš above).

ZAZZIŠA: The general indications as to the position of this site are good. While Šubbiluliuma was in Mitanni, during the general revolt of Išuwa and Gašga, the chief of Tibia invaded the highlands and arrived as far as Zazziša. He annexed the highlands to Gašga, over which he attempted to impose his authority. Tibia (q.v.) was thus on the confines of Gašga, with Zazziša in immediate proximity. The site of Azizie (or Azizia) in a pass through Anti-Taurus on the road from Caesarea (Mazaca) to Malatia (Melitene) seems to suit the name and context perfectly.

ZIHARRIA or ZIMURRIA: The context makes clear that the latter reading is correct, as Hrozný himself suggests (op. cit., p. 208 n.3) and that the site is to be identified with Zimarra, the Zimara of Ptolemy and the Tables. The land adjoined Gašga, and in it was the mountain region of Tarikarimuš (vid. Tagarama) which took part in the revolt with Gašga.

ZILABBUNA: The extreme point mentioned in the delimitation of the frontier with Kizzuwadna by Muršil III: 'from Zilabbuna the Šamri River is the boundary.' It is unrecognised among the classical names. The position of Salmalassus or of Baiburt at the head waters of the Boas (Acampsis Fl., Chorokh Su) would suit the context perfectly should Šamri (q.v.) prove to be identical with Boas.

ZINZILUWA	T	zi-in-zi-lu-wa(?pi?)	L	La KBo I. No. 5 IV. L.46 [=Lu p. 187]; (=Hr. 3 BoST p. 111 n. 8)
ZIPPALANDA	T	zi-ib-pa-la-an-da		(Bo 442, 7; Bo 461 V. 2=) Fo ZDMG. NF 1 p. 193
	T	zi-ip-pa-[la-an-da]	L	Hr. 3 BoST No. 7 III. L.15
	T	zi-ip-pa-la-an-di-ia	L	Code § 51 p. 46 L.6
	T	(z)i-ip-la-an-di-ia	L	Code p. 46, n. 8
	T	zi-ip-la-an-di	L	Code § 50 p. 44 L.59
	T	zi-ib-la-an-di-i-el		(Bo 2796 IV. 16=) Fo ZDMG. NF 1 p. 231
		(z)i-ip-la-an-tum-ni-eš		(Bo 415 Obv. II. L.10=) Code p. 16, n. 5
		D-p-i-r-n-d [Eg.]		GL. JEA. 6 p. 194
ZIŠANNA	T	zi-is-an-na-il	YT	p. 46
ZITAKBIŠIA	T	zi-ta-ak-bi-is-si-ya-il	YT	p. 45
ZITHARIAŠ		D-i-t-ḫr-r-y [Eg.]	GL.	JEA. 6 p. 194
ZIULILA	T	zi(?)-ú-li-la	L	Hr. 3 BoST No. 6 III. L.46
ZIZANNA	T	zi-iz-[an-na-a-il]	YT	p. 44
ZIZZILIBBI	T	zi-iz-zi-li-ib-bi	M	Hr. 3 BoST No. 4 II. LL.18, 19; Fo 2 BoTU 23 A.II. § 24 LL.18, 19
ZUNNAḪARAŠ	T	zu-un-na-ḫa-ra-aš	M	Fo 2 BoTU 17 Bβ L.16'

ZINZILUWA: This town was on the Kizzuwadna side of the frontier with Ḫatti, near to Erimma and opposite to Šalia (Zara or ?Siala). It is unplaced, but would appear to have been in the sector Dazimon—Ipsala (vid. Kizzuwadna above, and L.A.A. 1923, Pt. iii). The form Zinzi suggests an original Zizzi (cf. Azzi), to become possibly Dindy, or Didy (cf. the forms Zizimene and Dindymene, Dindymas and Didyma; R., H.G., p. 227 n.).

ZIPPALANDA: A hieron with a shrine of Tešub, to whom according to one Hittite text (Hr. op. cit. III. LL.14-16) Muršil made sacrifice previous to a campaign in Kalašma. In the treaty with Egypt the name is mentioned first among the national Tešup shrines, next after Arinna. There is no clue to its identity or situation though several phonetic equations might be suggested.

ZIULILA: The first syllable of this name is doubtful. The town is to be sought in the neighbourhood of Melitene, probably towards the south. Muršil III, after punishing the mountain region of Ašḫarpaia proceeded to Šammaḫa (q.v.) and came into the town in question before proceeding to Arawanna.

ZIZZILIBBI: This town-name appears uniquely in a text of Telibinuš, where it is mentioned in some connection with Ḫaššuwa and was the site of a battle. The next place mentioned in a fresh paragraph is Lawazzantia. (cf. the note on the name Zinziluwa, which is, however, distinct, and R., H.G., p. 227 n.)

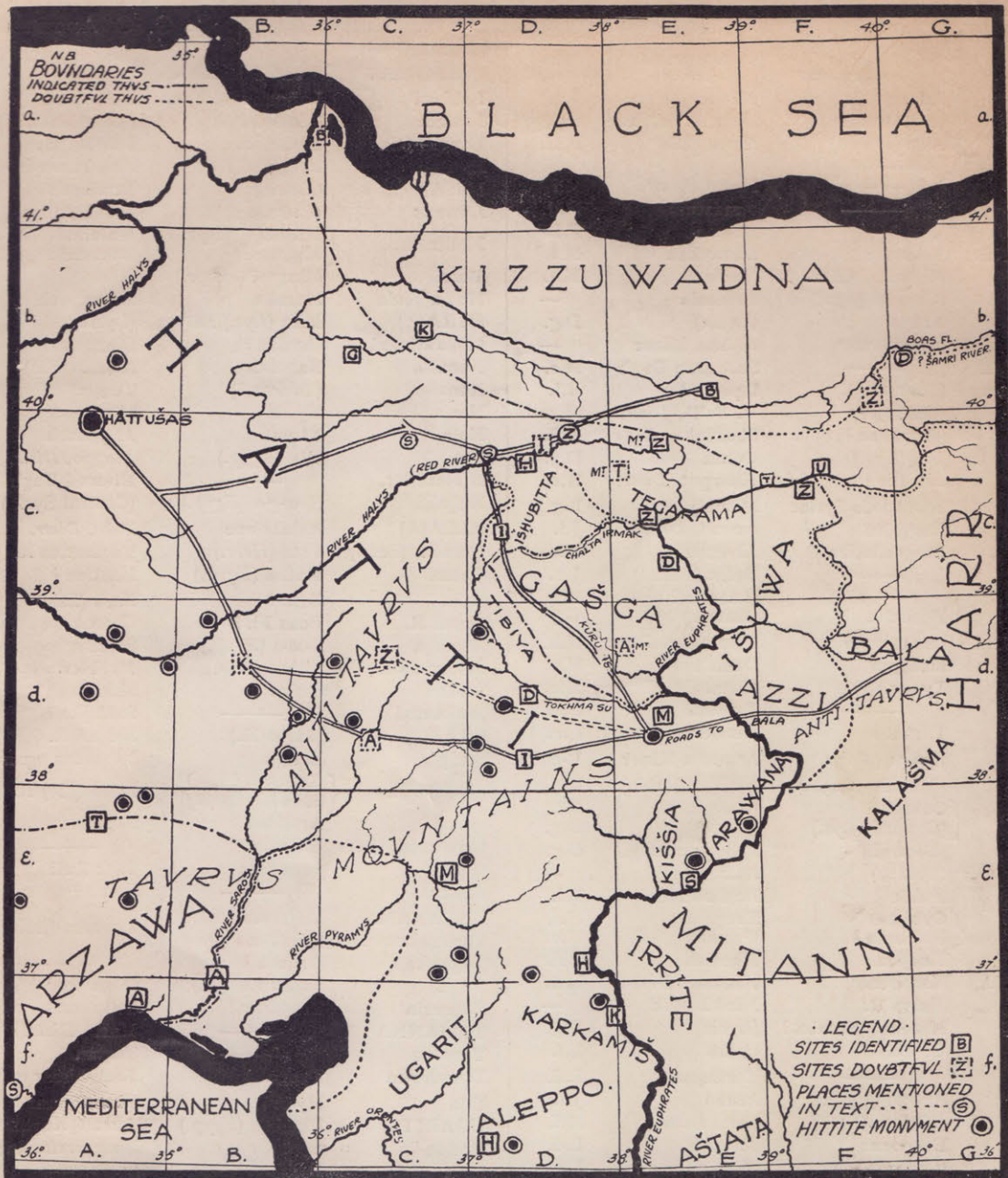
HISTORICAL NOTE.—The references to Muršil III throughout these Notes indicate the son of Subbiluliuma who succeeded to the throne of Ḫatti about 1330 B.C. He is now generally styled Muršil II, as the separate existence of a second king of the same name in the Early Period—other than the conqueror of Babylon—as suggested by Fo. MDOG. No. 61 seems to remain unconfirmed.

## SITES IDENTIFIED OR PROVISIONALLY LOCATED

*References are to MURRAY'S HANDY CLASSICAL MAP, ASIA MINOR, edited by J. G. C. ANDERSON*

Hittite Name.	Classical or other Ancient form.	Modern Name or Locality.	Map Reference.	Hittite Name.	Classical or other Ancient form.	Modern Name or Locality.	Map Reference.
Adania	Adana	Adana	J.g.	Lablani	Labnanu ( <i>Assyr.</i> )	Lebanon	K.i.
Aḫhiawa	Anḫiale	Near R. Seiḫan	I.g.	Lawaša	(Mountains)	Lavza (Mts. of)	G.g.
ALŠE	{ Alze ( <i>Assyr.</i> ) Arzanene	Arzen, <i>Distr.</i>	P.ef.	Lawazantia	Lauzados	Lavza	G.g.
AMURRI	—	Homs, <i>Distr.</i>	K.i.	Lihzina	Eragiza	Abu-Hanaya	L.g.
Anamušta	—	Amastum	M.d.	LUIA	(Cilicia)	Lowlands	J.g.
Apašaš	Ispa ?	Kesme	F.f.	Luwana	(Ladana ?)	(Nr. Erzingan)	N.d.
ARAWANNA	Arawene	Zeravikan	M.f.	Malitaš . . .	{ Miliddu ( <i>Assyr.</i> ) Melitene	{ Malatia Eskishehr }	M.e.
Arinna	Komana (Cataonia)	Shahr	K.e.	Maraš	Margasi ( <i>Assyr.</i> )	Marash	K.f.
Armatana	(Cap. of Ḫarri)	Armenia	—	Maššuḫanda	Mazaka	Kaisariyeh	J.e.
Arwana	Arḫna	(Lycia)	D.g.	MIRA(A)	Mira ( <i>Lyc.</i> ) Milyas	(Lycia)	E.g.
ARZAWA	(Kingdom)	S. Asia Minor	—	Miššuwanzaš	(Amida ?)	Diarbekr ?	O.f.
Ašḫarpaia Mt.	—	Surbehan Dagħ	M.e.	Nenaša	Nanassa	(Garsauritis)	I.e.
Aštarpa River	(Cestrus Fl.)	Isparta Su	E.f.	Nenaša	(Tonosa ?)	Tonuz	K.d.
AŠTATA	(Osroene)	R. Beliḫ, <i>Distr.</i>	M.g.	Neeša	Nyssa	Nirse	H.e.
ATANIA	(Aetulane ?)	Chardakli, <i>Distr.</i>	N.d.	Nesa	Nisus	Altyntash	L.f.
Aura	Ure ( <i>Lyc.</i> )	Ooran	D.g.	Nia	Niy ( <i>Egypt.</i> )	Aleppo, <i>Distr.</i>	L.g.
AZZI	Anzitene	Kharpūt, <i>Distr.</i>	N.e.	Niblani Mt.	—	Nimrud Dagħ	Q.e
[Bam]biki	Hierapolis Syriae	Membij	L.g.	NUḫašši	N-w-g-s ( <i>Egypt.</i> )	(Central Syria)	L.h.
BARGA	Bargylus	Arwad, <i>Distr.</i>	J.i.	PALA(A)	Balabitenē	Palu, <i>Distr.</i>	O.e.
Biggainarišša	Basgoedariza	Aivanus	M.c.	Purattu (Sem.)	Prat ( <i>Hebr.</i> )	Euphrates R.	—
Bitura	—	Bafra (Bafira)	J.b.	Qatna	Katna ( <i>Egypt.</i> )	Kattine ?	K.i.
Buranda	{ Porindeus ?	Balanda ? (Isauria)	H.g. G.f.	Šalia	Zara ?	Zara (Zala)	L.d.
DAMAŠḪUNAS	Damascene	Damascus, <i>Distr.</i>	K.k.	Šamri R.	Boas Fl. ?	Chorok Su	O.c.
Duddušga	Daskusa	Denizli	M.e.	Šamuḫa	S-m-s ( <i>Egypt.</i> )	Samsat	M.f.
Dunna	Tynna	(Cataonia)	K.e.	Šariana Mt.	Sirion ( <i>Bibl.</i> )	Mt. Hermon	J.k.
Durbina	—	Tarpinū	O.c.	Šarišša	Sarisa	Sharish	P.f.
Durmišta	Taranta	Derende	L.e.	Šarkuzzas	—	Sahrijke ?	P.f.
GAŠGA	Kasku ( <i>Assyr.</i> )	Armenia Minor	L-M,d-e	Šeḫa R.	(Sarus Fl.)	Seiḫan R.	J.g.
Ḫalab	Ḫalman ( <i>Assyr.</i> )	Aleppo (Haleb)	L.g.	Seriḫga	Zoriga	Near Erzingan	N.d.
Ḫapalla	{ Caballa ? (Cuplle ? <i>Lyc.</i> )	(Kavak ?) (Lycia)	G.f. D.g.	Šiyanta R.	{ Xanthus Fl. Šiḫta ( <i>Lyc.</i> ) }	Eshen(ide) R.	D.g.
Ḫarmurik	(Mitanni)	Tell Ḫarmurik ?	O.g.	Šurun	Arsinia ?	Arghana	N.e.
ḪARRI	(Urtu)	Armenia	—	Šuruwa(a)	(Isauria ?)	—	G.f.
Ḫattušaš	Pteria ?	Boghaz Keui	I.d.	Šuta	Sudi ( <i>Assyr.</i> )	Kefr Zuti	P.f.
Ḫubišna	{ Cybistra Kabissos ?	Eregli Urumlu	H.f. K.e.	Šuwaras	—	Siwas ?	L.d.
Ḫimaš(ma)š	Kamisa	Khomes	L.d.	TAGARAMA	Togarma ( <i>Bibl.</i> )	Zimarra-Erzingan	M-N.d.
ḪUMIŠŠENAS	Komisene	Khomes, <i>Distr.</i>	L.d.	Tarikarimuš Mt.	Tilgarimu ( <i>Assyr.</i> )	—	M.e.
Ḫulaiaš R.	Halys R.	Kizil Irmak	—	Taggašta	Dagusa ?	—	M.e.
Ḫumma	Khoma; Komba ?	(Lycia)	D.g.	Taššaš	Tasa ? ( <i>Assyr.</i> )	(Kalasma)	N.e.f.
Ḫurma	Urima	Orum	L.f.	Teburzia	Trapezus ?	Trebizond	N.b.
Iaḫrišša	—	Yarhissan	L.d.	TUMANNA	—	Mush, <i>Distr.</i> ?	P.e.
Iaruwađaš	Arwad ( <i>Egypt.</i> )	Aruad	J.i.	Turutna	—	Tortan	M.d.
IRRITE	(Mitanni)	Urfa, <i>Distr.</i>	M.f.	Tuwanuwa	Tyana	Kizli-hissar	I.f.
Išḫupitḫa	Euspoena	Kangal	L.d.	Uda	Hyde	Kara-Bunar ?	H.f.
Ištītina	(Osdara ?)	Giaour-Oren ?	L.e.	UGARIT	Ekereth ( <i>Egypt.</i> )	Akrad (Kurt Dagħ)	K.g.
IŠUWA	E. of R. Euphrates	Dersim, <i>Distr.</i>	N.d-e.	Urušša	Eriza	Near Erzingan	N.d.
KALAŠMA	E. of R. Euphrates	Diarbekr, <i>Distr.</i>	O.f.	Ušša	Issos	—	K.g.
Karkamiš	Carchemish	Jerablus	M.g.	Walmaa	(Ulamo?)	Olbia	E.g.
Kinza	Kodse: Kadesh	Tell Nebi-Mindu	K.i.	Waššukkani	Uššukani ( <i>Assyr.</i> )	Tell Waḫsuk	P.g.
KIZZUWADNA	(Pontus) Kingdom	(Samsun-Batum)	K-O.c.	Wašuwaḫtaš	Isinda ?	Istanos	E.f.
Kuadduna[t]a	Cadyanda	(Lycia)	D.g.	Uiluša	{ Ialysos ? Elaeussa	{ (Rhodes) Ayash	{ C.g. I.g.
Kumani	Komana (Pontus)	Geumenek	K.c.	Wiyawanda	Oeneanda	(Lycia)	D.g.
Kuršaura	Garsaura	Ak-serai	I.e.	Zabarna (Mt.)	Sabrina (Fl.)	Karabudak Su	M.d.
Kuššar[a]	Gaziura	Turkhal	K.c.	Zallara	Larissa ?	(Ekrek)	J.e.
Kutmar	Kullimeri ( <i>Assyr.</i> )	Arzan ?	P.f.	Zaparaššaš	Šabirešu ( <i>Assyr.</i> )	Sorisba	P.f.
KUWALIA	Kabalia	(Lycia)	D.f-g.	Zazziša	—	Azizia	K.e.
Kuwana	Kawania	Konia	G.f.	Zilabbuna	Salmalassus ?	—	N.c.
Laanda	Leandis	(Cataonia)	K.e.	Zimurria	Zimarra	Zimarra	M.d.
				Zinziluwa	—	Ipsala, <i>Distr.</i>	L.c.

THE EASTERN FRONTIER OF ḪATTI UNDER THE LATER EMPIRE



In this theory of the position of states on the Eastern frontier of Ḫatti, the kingdoms of Ḫatti, Kizzuwadna, Ḫarri, Gašga, and Arzawa correspond in general terms, but with the differences indicated in the map, with Cappadocia, Pontus, Armenia, Lesser Armenia and Greater Cilicia respectively.

- B,a: ?Bitura. C,b: Gaziura (Kuššara); Kumani. E,b: Biḡgainarišša. F,b: ?Zilabbuna.  
 A,c: Ḫattušaš. D,c: Iaḫreššaš, Humiššenaš, Iḫubitta. E,c: Mt. Zabarina, Mt. Tarikarimuš;  
 Zimurria: Duddušaš. F,c: Turutna, Urušša, Šeriḡga (Z).  
 B,d: Maššuhanda (K). C,d: Zazziša: Arinna. D,d: Durmiṭta, Iština. E,d: Malitaš,  
 Mt. Ašḫarpaia.  
 A,e: Tuwanna. C,e: Maraš. D,e: Ḫurma. E,e: Šamuḫa. G,e: Mišsuwanzaš.  
 A,f: Aḫḫiawa: B,f: R. Šeḫa, Adania. C,f: Ugarit. D,f: Ḫaleb, Karkamiš.