

A SHORT ACCOUNT OF THE EXCAVATIONS AT PETRA IN 1955 - 56.

During the year 1955-56 the Government of Jordan gave a special grant to its Department of Antiquities for the purpose of opening up Petra and making it more attractive and understandable to tourists. The plan as evolved by Mr. Lankester Harding, formerly Director of Antiquities, was to be spread over three seasons of excavation. The first season was devoted to rebuilding part of the retaining wall which runs along the South bank of the Wadi Musa inside the city area (Parr, 1957), and the second consisted of excavating the *cardo maximus* which also runs along the southern bank of the Wadi (Harding, 1958). This latter work was entrusted to the writer assisted by Hasan Awad Qutshan of the Department of Antiquities. As the objective was clear and limited, to uncover the road as far as the Triumphal Arch, and if possible to the temple, and no great complications were anticipated, about 70 men were employed. These consisted of about 40 from the B'dul tribe who live in Petra, 10 from the 'Amarin, the neighbouring tribe to the North, and 20 from the Liathneh of Wadi Musa.

Work started at the eastern pier of the steps which lead to the "Upper Market" (Watzinger 1921) and continued to a few metres short of the "*Triumphal Arch*". For the whole of this distance, some 240 metres, the road and southern pavement were completely cleared from the deposit of wind- and waterlaid sand which covered them to a depth which varied from over three metres at the southern wall to about 50 cm. near the wadi bank. The northern pavement had been badly damaged and in parts washed right away by the uncontrolled floods which pour down the wadi after rain. This pavement was cleared at its eastern end to a point opposite the South side-road, thereafter, owing to lack of time as the end of the financial year was approaching, only the two steps that led up to it were cleared along its entire length.

The *cardo*, which has been completely washed away by floods to the east of the point where the excavations started, runs straight West, descending steeply as it approaches the "*Triumphal Arch*". Apart from two patches it is in an excellent state of preservation; it is six metres wide and very steeply cambered, having a rise of about 25 cm. in three metres. This steep camber makes it very difficult for shod animals to keep their feet today, a fact coupled with the complete absence of wheel-marks which suggests that the topography of Petra, even in an era of paved roads, limited the methods of conveyance to pack transport and palanquins. The *cardo* is bordered by wide pavements approached by two steps, and for about 65 metres the column bases of a colonnade which ran along the south pavement are still *in situ*.

It has long been known that after Petra's decline a Christian community continued to live there. The excavations have shown there was a row of little rooms, probably a *suq*, built along the southern pavement, whose walls are composed of the architectural fragments of a Petra that was already in ruins, presumably destroyed by earthquake. The floors of these small rooms are mostly paved, either using the original pavement, or by laying small flagstones above it at varying levels. One room continues out across the pavement and into the road where it is founded on ten column drums (Pl. VII, 1). In this room the floor is laid above a few cms. of fill which had covered the original paving stones. The road also had reverted to a dirt road by that time with a surface about 40 cm. above its paving.

Behind the north pavement, abutting on to the containing wall of the wadi, a series of four small rooms were excavated, three entirely and one partially. These appear to belong to a complex of buildings that ante-date the construction of the Roman *cardo maximus*, and went out of use and were filled up when the great buttress wall for the *cardo* was built. In two of these rooms the most spectacular finds were made. These include a number of painted bowls, all broken, but which have since been made up into a unique collection of almost complete vessels (Pl. VII, 2). There were pottery lamps bearing reliefs, all dating to the 1st Century A.D. terra-cotta figurines, plain vessels and many sherds (Pl. VIII, 1). The most important of these finds are some Nabataean ostraca written on both plain and painted vessels. They are written in cursive Nabataean which is already showing an even closer relationship to Arabic than in the formal script.

Unfortunately it is impossible to date the construction of the *cardo* with accuracy. It could be either the Antonine period, when there was great building activity in the Near East, or even in the reign of Trajan himself. It is however, extremely fortunate that an expedition by the British School of Archaeology in Jerusalem led by Mr. Peter Parr has recently put down trenches in places where the *cardo* paving had already been destroyed, and the results of this highly important work should place the building of the *cardo* on a firm basis, as well as bring to light evidence for the pre-Roman city of Petra.

The reason for this complete lack of evidence must now be recorded. With the exception of the painted bowls, ostraca and a few other finds which were taken by hand by Mr. Harding to the Amman Museum, all the other finds and sherds from *cardo*, rooms and other soundings were stored, through lack of space, in the old Museum near the Roman theatre in Amman. Owing to internal troubles in the country during the latter part of 1956 the Army took over this building, and somehow, either during or after the take-over, more than fifteen packing cases of material from Petra vanished into thin air, and have not yet reappeared. It must be stressed that this tragedy was not the fault of any of the present heads of the Department none of whom were in office when it happened. On the contrary, the writer is greatly indebted to His Excellency Saïd Dura, former Director of Antiquities; Dr. Awni Dajani, Director, and Mr. Rafiq Wafa Dajani, Curator of the Museum, who have given her every help and facility for studying the few finds remaining from the excavations. A full report is in preparation, and thoroughly unsatisfactory though it must inevitably be, nevertheless it will at least provide a fine series of the Nabataean painted and incised wares.

The evidence for dating provided by the coins is also, unfortunately, not entirely reliable. In the first place only a fraction of the total number of coins appear to have survived the disaster, and in the second, those from the very important blocked rooms have had their levels mixed in cleaning, although there is no particular reason to suppose that their provenance is also mixed. This is particularly sad in the case of the blocked rooms, because not only does the dating of the ostraca depend on them, but also, for architectural reasons, it appears that this particular row of rooms were blocked when the *cardo* was built. The alternate strata in these rooms are, therefore, the surface deposit, accumulated through eighteen hundred years from the hill known as Zantur which lies to the south; the late pavement suq; and the blocked room; with a possible stray coin from a flooding Wadi Musa.

In room R. N. 4 (Plate VIII, 2) where the ostraca were found it is comparatively easy to leap the gap in date as far as coins are concerned. Sixteen were found of which five were Aretas IV,

one Rabbet II, then a satisfactory jump to the 4th Century which claims three, a date which fits nicely for the small pavement rooms according to the remaining coin evidence from the *cardo*. There is, however, one enigma and that is an extremely worn coin No. R. N. 4. 23: obverse worn almost smooth; traces of bust right; faint trace of ΕΞ?; Reverse: eagle displayed with head left, supporting a wreath enclosing the letters SPQR. This coin may be dated to Severus Alexander and comes in the middle of the jump. The six undecipherable ones can probably be assigned with a fair amount of certainty, by size, shape and peculiarities of stamping as five Nabataean, and one small 4th century Roman. Again the gap is clear, and it is tempting to place the Alexander Severus coin in the surface deposit and say that these rooms went out of use soon after Arabia Petraea became annexed to Rome in 106 A. D. On the other hand the coins from R. N. 2, a room which produced identical types of painted bowls and lamp fragments, and presumably went out of use at the same time as R. N. 4, produce no such clear out gap. This time there are two Antonine coins standing in the centre, although statistically the gap does exist. 26 coins were found in the different levels of this room of which thirteen are undecipherable. For the rest a brief nominal list must suffice as the full coin catalogue will be published in the final report: Aradus Autonomous, 2nd Century B. C. 1; Aretas IV, 2; Augustus, 1; Rabbet II, 3; Trajan, 1; Faustina II, 1; Marcus Aurelius and Lucius Verus, 1; ? Arcadius, 1; Valentinianus ? III, 1; Justinus I, 1. The undecipherable coins are probably six 4th century A. D. small coins, and seven Imperial Sesterii. These seven large sesterii are so badly worn as to be entirely smooth on both faces and for this reason the coin evidence from this room is thoroughly unsatisfactory as they may all date to the centre of the gap, or fit nicely with the theory that these rooms went out of use in the reign of Trajan. Nothing has survived from room R. N. 3, and from R. N5. only same painted bowl fragments.

The evidence produced by the lamps for dating these rooms is slightly more satisfactory although only complete specimens have survived, and all the sherds have been thrown away. Out of five lamps, four are probably imported. They are of Broneer's Type XXII (Broneer, 1930) which in Corinth were all dated to the 1st century A.D. while the fifth appears to be a rather rough local copy of the same thing. Here again, although the impression gained at the time of excavation was that all the lamp sherds were also of this type nevertheless as there was no opportunity to examine them all closely it is not now possible to say that there were no lamp sherds of a slightly later type. In passing it should be noted that all the fill in these rooms was sieved and every fragment of pottery sent to Amman for examination, this was to ensure that no inscribed sherds were missed.

At this moment there are 276 coins surviving from the *cardo* of which 137 are undecipherable. Of the remaining 139, fifty-five are 4th century A. D. taken here to include one coin of Diocletian, and there are eight Byzantine ones, the latest being of Justin II and Sophia. In addition, of the 137 undecipherable ones, 130 appear to be small bronzes of the 4th century. This throws the odds overwhelmingly in favour of the pavement suqs being constructed from the ruins of Petra sometime during the 4th century, and probably after the reign of Constantine. In view of the non-survival of all other evidence from the *cardo* that is really all that can be said until Mr. Parr's excavations are completed.

Two inscriptions help to throw light, but unfortunately not direct evidence, on the history of the *cardo*. The first consists of three large inscribed blocks which formed part of an important dedication. Two of these blocks were excavated on the lower steps of the flight

leading to the "Upper Market"; and one had been removed a short distance away where it lay on its face on the surface close to the wadi side. On the outer edge of the pavement in front of the ascending flight, is a large monumental plinth with moulded base (Pl. IX, 1). About six metres away in the same position relative to the pavement and flight of steps is the remnant of a similar plinth. Nearby several architectural fragments including two voussoirs from an arch were found. All these factors indicate that a free-standing arch bearing an important inscription was erected at the edge of the pavement in front of, but not as wide as the steps leading to the "Upper Market". Only three stones have been found so far, and these belong to the end of the inscription. Unfortunately those which told of the reason for the dedication are missing, although they may yet be found on the east and central parts of the steps as the arch appears to have collapsed backwards across the pavement.

The inscriptions will be published in full by Mr. John Strugnell in the final report and only a brief outline is given here. The writer is indebted to Mr. Strugnell for supplying her with information which will be published in advance of his own report. The dedication is written in Greek, and originally consisted of six stones bearing three lines of inscription, of which the uppermost is in large monumental letters and the lower two in smaller ones (Pl. IX, 2). The dedication is to the Emperor Trajan by the city of Petra during the Proconsulship of Caius Claudius Severus. It is dated to Trajan's 18th year as Tribune, and 7th acclamation as Emperor, that is, sometime between September and December 114 A.D., in other words eight years after the annexation of Arabia Petraea to Rome in 106. A.D.

We know from milestones bearing inscriptions (Michon, E. 1897) that the southern section of Trajan's Imperial Highway linking Bosra with the Red Sea was completed sometime between 10th December 110 and 10th December 111, and one milestone in the Jebel Druze not far from Bosra has been dated by Germer-Durand to 111 (Germer-Durand 1896), which brings it within range of the southern stretch, while Maqie (Butler, 1899) reads the date as 114 A.D. the same year as the new inscription in Petra. Should the later reading for this stretch of road be correct it indicates that the northern part was finished last, the accent being apparently to open up, protect and hasten the caravan routes entering the Roman Empire from Aqaba and Arabia. In any case the establishment of the Highway coupled with the cessation of petty wars must have opened to the outside world the rather remote but by no means unsophisticated city of Petra to an extent hitherto undreamed of. In the ensuing flood of direct influence from the Roman world it is tempting to see in the erection of this monumental commemorative arch only three years after the completion of the southern section of Trajan's Highway, evidence for the inhabitants of Petra turning her into a true Roman city as soon as possible after the annexation.

It seems certain that the position of the *cardo* was already planned, and in all probability its construction had already reached the "Upper Market" before the arch was erected on the pavement edge, and it is also improbable that a monument of such importance would be erected on the side of a non-existent pavement in front of a non-existent building, or that the *cardo* would be built to fit with a previously built arch, or that the arch would be moved to fit the *cardo*. The first point to be considered when planning a Roman city, or Romanising an extant one, would surely be the position of the *cardo maximus*, the main artery of the city on which everything, else hinged. There is some evidence that the construction of the *cardo* began from the east, and was carried out in a manner that will be familiar to those who know Jerash well, where there are many examples of the same phenomenon. In short, the work

was begun with enthusiasm and ample resources, but before the end either the enthusiasm or the money petered out. In any case, the pavement steps lying east of the side road which comes in from the south about 100 metres west of the "Upper Market" are composed of uniformly long, well-cut slabs of sandstone, while those to the west of the side road are of much smaller and shorter blocks set with no apparent attempt at uniformity of size, and there is a total absence of the remains of any column bases.

The writer is greatly indebted to Mr. Peter Parr for permission to say that in his soundings under the north pavement and *cardo* he found no evidence for any previous paved street along that line although there were innumerable superimposed sand tracks. The *cardo* itself is most solidly and deeply founded, adding further weight to the theory that the arch was built after the foundation at least had been laid, also there is no apparent irregularity in the paving stones that surround the extant plinth.

In view of the rather unsatisfactory indication from the coins, and the somewhat more satisfactory evidence produced by the 1st century lamps, the blocked rooms could well have gone out of use early in the 2nd century. This possibility, coupled with the evidence from the arch and inscription dating to 114 A.D. indicate the probability that the *cardo maximus* was laid down soon after the annexation and during the reign of Trajan.

The second inscription was found built into the outside wall of one of the pavement suqs. It is in Latin, and probably formed part of the base of a statue or altar, though it is impossible to tell which, or where its original position lay though no doubt that was fairly close to the place where it was found. It is dedicated to Diocletian alone and dates to about 283 A.D. This inscription does show, however, that Petra was still in being and that monuments to the Emperor were erected up until the beginning of the 4th century at least. The comparatively large number of 4th century coins from the *cardo* 54 legible and 130 illegible, plus only eight Byzantine ones against 83 earlier ones, indicates that the pavement suqs came into being late in that century after some disastrous earthquake had destroyed the centre of Petra. As it has already been stated, the coin evidence is unsatisfactory but it can be taken as a general indication of the time of the disaster.

The fact that from its canon of proportion to its solid foundation the *cardo maximus* appears to be indubitably Roman poses the question as to whether it was not Nabataean drive and enthusiasm allied to Roman engineering and architectural experience that first envisaged and then carried out the damming and diverting of the waters from Wadi Musa at the entrance to the Siq. As the *cardo* appears to be the first paved road running on that particular line, and as the paving continued right up the Siq and is still extant in parts, the damming and tunnel for the diverted Wadi Musa may all be part of the grandiose and magnificent conception for rebuilding Petra as a Roman city. Although this is not proven it is interesting to point out once more in this context that the dedication to Trajan is dated to eight years after the annexation of Arabia Petraea.

One other point should be mentioned. The *cardo* when paved and finished must have been extremely slippery for animals. Today shod animals find it difficult to keep their feet unless on the absolute crown of the newly excavated road. A combination of the camber, the smooth limestone and above all the comparatively steep slope leading down from the bridge over the dam and right into Petra (Watzinger 1921) must have been a serious obstacle to camel caravans. Camels are notoriously bad over rock, and even slip wildly on such rough

and comparatively non-skid rock as sandstone, while the *cardo* was of smooth limestone. When Petra was fully built up as a Roman city, with streets, houses and temples stretching in every direction, there does not appear to have been room, or even a large enough gap in the ruin fields to accomodate the vast caravans that must have continued to converge there for long after the annexation to Rome. It is therefore suggested that with the building of the *cardo* and establishment of the Roman city, even if it had not happened earlier, the caravans were diverted to the plains which lie to the north and south of the city, and were handled there. There is plenty of room, and several immense open cisterns in the middle of el-Beida as well as what appears to be a marshalling yard, or possibly impounding yard for customs purposes build right across one of the northern wadis which leads up from the Wadi Araba and comes out to the north of el-Barid. With the marshalling areas for the caravans situated well away from the city centre, the local pack transport from there into Petra could easily have been undertaken by sure-footed mules and donkeys. Also the pack routes down into the Wadi Araba lead from these two probable collecting areas, so time would also have been saved.

Finally it is hoped that the "Upper Market" will be fully excavated one day, the missing part of the inscription may yet be found and it may tell purpose of the building. There is another slight enigma too. The steps appear to lead up at too shallow an angle to reach the great platform at the top in the required distance. But Petra is full of enigmas and only careful excavation will help to unravel some of them.

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