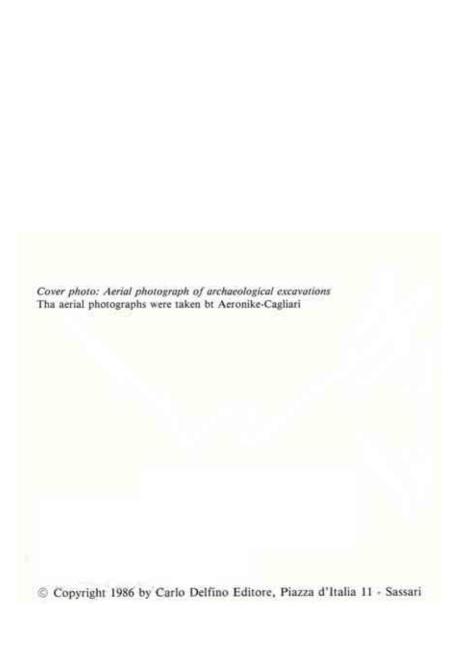
# **NORA**



## ARCHAEOLOGICAL SARDINIA

1

Guide books and Itineraries

Carlo Tronchetti



Carlo Delfino editore

#### AN INTRODUCTION TO ROMAN SARDINIA.

In 238 B. C. the Phoenician mercenaries settled in Sardinia, revolted against Carthage and applied to Rome for help. The opportunity to seize the island, a Punic bridge-head rich in natural resources, was grasped and T. Sempronius Gracchus consul took possession of the Sard-Punic coastal cities. After that date Sardinia, which had been set up as a province together with Corsica in 227, was officially ruled by Rome.

If, on the one hand, that zone greatly influenced by the Phoenicians underwent a process of romanization, on the other hand, the interior remained constantly hostile to both the new and the old rulers. Latin sources report a long series of campaigns against rebellious peoples, which sometimes culminated in wars against those movements led or encouraged by representatives of the old ruling class which consisted of large landowners. The most famous war was the revolt led by Amsicora, during the period of Hannibal victories over the Romans. However, a pitched battle near Cornus, put an end to the movement in 215 B. C

Because of its good geographic position in the centre of the Mediterranean sea, Sardinia was considered an important strategic point and as such it played a noteworthy role during the troubled years of the civil wars between Mari us and Silla, and between Caesar and Pompeius.

In the imperial age, apart from some skirmishes against the indomitable people from the interior, nothing of particular interest occurred or at least there is no record of it.

Little is known about the organisation of the island in the Roman age. As far as the republican period is concerned, the political system was the same as under the Phoenicians, as we can see from ancient sources. A number of landowners still kept the ownership of their states even if a part of their lands had certainly to be espropriated and allotted to Roman citizens. Two epigraphs, one concerning Nero, near Olbia, and another concerning Claudius, near Sulci (S.Antioco) affirm the principle of ownership by emperors during the imperial period.

Much data about extensive cereal growing infertile plains, prevailingly in Campidano, show that Sardinia was one of the three leading

wheat suppliers of Rome. Another resource was mining, mainly concentrated in the area around Iglesias which used S.Antioco harbour. We do not know how agriculture and mining were organized. We are in a position to know something about the former from the few archeological remains which are scattered in plains and hills, but, a detailed study has never been carried out. It seems possible, however, to reconstruct the positions of small hamlets and dwelling centres with a small number of "villae", though not much is known. As for the mines, two inscriptions on lead bars show us they were imperial property.

Little more is known about urban centres except for three "municipia": Cagliari, Nora and Sulci, and two colonies: Turns Lybisonis (Porto Torres) and Usellus, the former newly founded, the latter perhaps honorary.

Because of its geographical position, Roman Sardinia partecipated in extensive trading. At the Roman harbour of Ostia, in the guild yards, mosaics in two rooms mentions "navicularii Turritani" and "Kalaritani", that is, maritime trades from Porto Torres and Cagliari.

Goods poured into Sardinia from alla over the world. From the republican age onwards, wine from Greece, Etruria and, perhaps from Campania together with black painted pottery and table earthenware were imported, while Spain supplied wine, gerum (a fish sauce) and oil. There was also much elegantly made table ware, the so-called "clear sealed Italic", "Late Italic" and "south Italic" as well. Evidence of close relations to nearby North Africa, encouraged by geographical closeness and habit, is suggested by the early appearance of NorthAfrican sealed pottery from the end of the 1st century A.D. onwards. During the middle and late imperial age contact was kept up as results from Tripolitan amphoras and from the African types I and II, which were used to carry oil and gerum. A strong cultural influence on mosaic production can be seen, especially in the southern part of central Sardinia.

Unfortunately, because of the scanty literary and epigraphic remains and the limited specifica archeological research, a detailed study of the economic and social Sardinian organization in the Roman age has not been carried out. Neither can we rely on the even less detailed studies on the following period, from the last half of the 5th century onwards, when Sardinia was occupied by the Vandals.

#### GEOGRAPHIC AND TOPOGRAPHIC SITUATION

The town of Nora lies on a promontory (Capo di Pula)  $38^{\circ}$  59' 13" degrees North and  $3^{\circ}$  26' degrees West (line reference Monte Mario meridian).

This strip of land is divided from the mainland by a narrow isthmus and at the point in which it is most narrow it is not more than 80 metres wide. Then the promontory widens, and extends into Punta 'e su coloru (cape of the snake) and towards the East into Punta di Coltellazzo, in front of an islet of the same name.

In shape it is more or less triangular and the side which looks into the sea is about 650 m.wide and as far as the narrow neck of the isthmus, to 500 m. The promontory rises opposite the so-called "Casa della Guardiania", at the same level as the 'tombolo' which marks the sea boundary of the 'Peschiera di Nora', 3 m. above sea level. The ground is flat except in three places: the so-called 'high place' or 'temple of Tanit' 5 m. above sea level; 'Punta 'e su coloru' 6 m; About sea level and 'Punta di Coltellazzo which is the highest place, 32 m. above sea level'.

The common idea of 'submerged' Nora is based on a reciding of the coastline, which did in fact happen but not so much as to justify the local tales about the town lying on the sea bottom. The examination of aerial photographs carried out by Prof. Schmiedt has enabled us to reconstruct how the coast has receded less than 90 m. at Sout-west cove, and to identify a series of wharfs that jut out over the sea. Instead, the isthmus looks only slightly modified and, its maximum width must never have been over 100 m.

Underwater search has not achieved much, only the identification of the remains of a Punic town wall opposite 'Casa della Guardiania', since in the southwest cove the Rio Tintiori sediments have raised the sea bottom.

A thorough geo-morphological inspection of the Nora area has not been carried out. West of Cagliari the coast is essentially formed by Holocene alluvium and dunes with Oligocene trachytes and trachitic tuffs. At Nora the rocks which can be seen at 'Punta Coltellazzo' have been identified as 'andesite'.

We do not know for sure where the first Nora settlement was. The

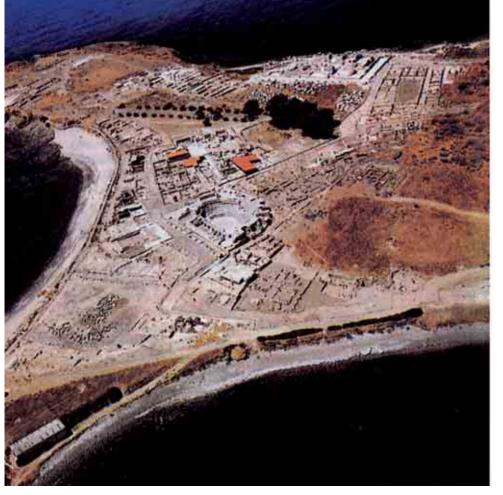


Fig. 1. Aerial view of excavations

most ancient remains, consisting of earthenware fragments, have been found in the part of the sea between the capes. As regards the expansion of the urban centre, even if excavations have not been completed, some indirect evidence allows us to locate it almost exactly.

The position of the Phoenician 'tophet' and necropolis has been found. The former was a few yards north of S.Efisio's church, very distant from the inhabited site wheareas the latter, now eroded by the sea, was situated along the coast between 'Casa della Guardiania' and the present access to excavations. It might be stated that the Punic town was narrower than the Roman one. In actual fact

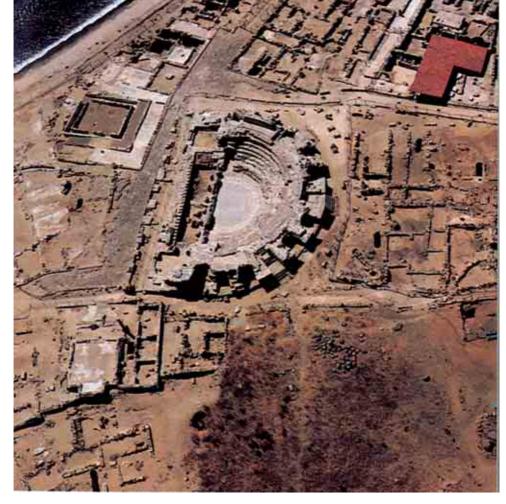


Fig. 2. Aerial view of excavations

this town went at least as far as "Casa della Guardiana", north of wich, at its feet, have been identified the foundations of an amphitheatre. The whole isthmus had the function of a necropolis, consisting of tombs 'alla cappuccina'. It was crossed by a road which had aqueduct on each side and the remains of which can be dated to the middle Imperial Age.

## History

Little is known about the history of Nora as an urban centre because not much has been passed on in writing; little more is left of epigraphs; archeology has given us most of the information.

These three kinds of records together illustrate the historical events of Nora from the time of the first inhabitants to the time it was eventually abandoned.

Probably the site was settled by Nuragic people. Some typical Nuragic

Tshaped hewns had been reused in the foundations of the so-called 'Temple of Tanit' and some earthenware fragments of the same cultural period have been found on 'Punta di Coltellazzo' and also beneath the dwellings. A clearer evidence, however, is given by a Nuragic well near the south-east corner of the baths by the sea, with a flight of steps leading down to the water. The well has never been excavated so that its chronology can neither be known nor supposed. Life in Nora and its surroundings is certified by the ruins of a Nuraghe standing on the only significant relief of 'Guardia Mongiasa', 13 m. above sea level, inland. Now, unfortunately it is concealed by a Navy settlement.

Even the name Nora is related to the Mediterranean root nornur, present in Sardinia, which belongs to a prePhoenician substratum.

As aforesaid, the chronology of these Nuragic remains is unknown so it cannot be said whether the settlement had already been abandoned at the Phoenicians' arrival.

There are more reports about the Phoenician foundations. First of all the position of the settlement itself is significant. The Greek historian Tucidide, writing about Sicily (Stories VI.2) stated: "Also the Phoenicians lived there, here and there, after they had occupied the promontories on the sea and the islets in front of Sicily". This typology of settlement has been found also in other areas colonized bt the Phoenicians, and in Sardinia the promontories of Nora and Tharros and the islet of S.Antioco bear witness to this fact. The geographic place itself, then, should indicate the Punic origin of the town. Moreover a literary evidence is given by Pausania (X. 17.5) who reported that the Iberians led by Norax, had come to Sardinia and founded Nora, the first town in the island. Later Solino confirmed this theory (IV. 2) specifying they

had come from Tartesso. Generally the Iberians led by Norax have been identified as Phoenicians and the most ancient archeological records in the island, which, actually, has been found in Nora, bear witness to the fact that it was the first town in Sardinia. One of them, which may be dated to the 8th century B.C. reports the name Sardinia for the first time, but, neverthiess, the existence of the town in that period cannot be demonstrated. In actual fact it might have belonged to a structure or to holy dedication more ancient than the urban settlement. Another epigraphic record, which is still controversial, consists only of a few letters with different chronology. If this record could be dated back to the 8th century there would be more chances to know the truth about the settlement in that time.

Archeological records, however, do not allow any certainty. Pesce reports of proto Corinthian and Rhodes pottery fragments found in coastline dwellings which could be dated to the aforementioned century. Actually no scientific evidence is given about them so we cannot rely on his theories. The most ancient finds can be dated between the end of the 7th and the beginning of the 6th century B.C. They belonged to a Phoenician incineration nechropolis which was slightly excavated by Patroni at the beginning of our century.

Another evidence of archaic Nora has been given by earthen floors near the seaside where, recently, some remains dating from the early 6th century B.C. have been found in the debris left by more ancient excavations.

Little is also known about the Punic town. Some traces have been discovered mainly in the urban settlement, most of them consisting of material remains. The unmistakable Punic buildings are quite few, i.e. the foundation of the "Temple of Tanit", the ruins of a fortification topping 'Punta di Coltellazzo, a foundry and some remains in 'opus africanum' masonry of the lower level by the sea. Burial offerings, however, bear witness to the fact that the town was a wealthy trading centre. Tombs contained several burials with rich gifts consisting of local and Greek pottery, amulets, precious metal jewels, and ornamental personal items.

It may hence be inferred that the town, already flourishing in the 5th century, bloomed in the 4th century and began to contact Rome and the Italic world at the end of that century.

Even without any written records, there is evidence of the remarkable importance of Nora (probably more remarkable than Cagliari) among the southern coastal towns, in the Punic Age.

In actual fact, in the early period of the Roman rule, which had started in 238 B.C., Nora probably was a governor seat. Later, in the Imperial Age, even if Cagliari had become more powerful, some milestones (miliarii) indicate Nora as "caput viae" of the road which ran throught the west coast of the island.

Since most of the present visible remains belong to the Roman age, we must say something about the history of Nora.

Evidence of its "status" of "municipium" is given by a statue dedicated to a Quintus Minucius Pius, quattorviro "jure dicundo", that is, an appointed member of that legal system. As aforesaid, several milestones bear witness to the significance of the **town.** Further evidence is given by the high rate of dwellers in its territory and also by a great number of nechropolis, hamlets and rich villas. Outstanding epigraphic records relate about dedications to emperors and gods, workmanship on buildings, streets, etc. Because of finds from excavations most buildings in Nora can be dated between the 2nd and the 3rd century, the period of its maximum flourishing. Archeological discoveries show that Nora was a centre of extensive trading as it had been in the Punic period. Goods poured into Sardinia from Spain, Greece, the Italian Peninsula, southern Gallia and mostly from Africa. They consisted of wine oil, fish sauce, elegantly made table ware, etc.

Therefore a rich town with inhabitants as wealthy as a Favonia Vera who had given her fellow citizens a house in Cagliari to be used as support and lodging by those who went there for trade; or as a Quintus Mucius Scaevola who built with his own money a public edifice. Of course there was also the dark side of things as shown by the events mentioned in "Pro Scauro", an oration delivered by Cicero, where he defended M. Emilus Scauro from the charge of having impelled Anne's wife to suicide. The Roman orator, instead, charged Anne himself with the killing of his wife, saying that he wanted to marry Bostarte, the mother of a Nora citizen. Other news, of a later age, between 425 and 450 A.D., reports of some repairs done to the aqueduct by a preminent citizen of Nora.

Little is Known after this period apart from a few archeological rec-

ords. Probably Nora, which had mostly lived on maritime trading, began to decay when, because of the pirates, sea activities were abandoned, and when, between 456 and 466, the raids of the Vandals compelled Nora dwellers to retreat into the safer interior of the island. In actual fact, in the 8th century, Anonimo Ravennate wrote of Nora as a presidium, a fortress, showing it was no longer an urban centre. Probably, the finishing stroke was given it by the Arabs who used to raid the northern Sard coast at the beginning of the 8th century. By then the zone had already been abandoned but scanty traces of life in following periods can still be found on the upper layers of ruined Roman buildings. On the isthmus, near Nora, the small church traditionally connected with S.Efisio's martyrdom must have remained a cohesive pole. It had been built by Vittorini later than 1082 and has remained almost unchanged even if some additions were made up in the 8th an 19th centuries. S.Efisio's cult is still object of devotion and evidence of its vitality and link with Nora is given by the fact that when the town had already been abandoned the 'curatoria' of Nora continued to exist as a judical and administrative unit in the period of 'Giudicati'.

## The history of excavations

It is not until 1952 that Nora begins to be excavated. Its monumental ruins, which were only a few and scarcely visible, had already been noticed by the sixteen century scholar Giovanni Fara and identified as ancient Nora. Further information was given by the nineteenth cent. travellers. One of them, Francesco d'Austria-Este, wrote about the ruins of the acqueduct, of a theatre, where he counted ten or nine rows of seats, and of a thermal building which must have been the sea Baths. Baron Maltzan also, reported of the theatre and of an inscription about some repairing work done on the aqueduct which dates to the Age of Theodosius and Valentinian. He found the inscription slab reused as a step of S.Efisio's church. This is the first example of the plundering the abandoned town had hundergone in the course of time.

La Marmora was the first to report about the planimetry of the theatre, while Spano carried out some experimental excavations. At the end of the 19th century the earliest vast scale excavations were started,



Fig. 3. Group of diggers of the late 19th Century

exactly in 1899. After a violent sea storm which had brought to light a part of the Punic tophet, Vivanet carried out some experimental excavations and the result consisted of urns and steles. Some of them were taken to the Archaeological museum of Cagliari while others were covered again with earth. Later they were illegally reused as building material. Very recent restorations carried out by engineer G.Tola of Sopraintendenza ai Beni Ambientali, Architettonici, Artistici e Storici of Cagliari have allowed to recover some steles which had been reused in the building by the church.

In 1981 and 1982 Nissardi carried out a detailed investigation on the hipogeic Punic necropolis, in the chambered tombs of which some remarkable burial offerings were found. Now they are displayed at Cagliari museum.

Later, at the very beginnign of this century, excavations have brought to light a section of the funerary area of the Roman Imperial Age full of enchytrismos and 'cappuccina' tombs built according to a funerary typology common to other Sard zones.

Probably, apart form these tombs, there must have been more



Fig. 4. Excavations of the Tophet

consistent funerary structures because of the presence of an 'opus testaceum' masonry building. Besides, there is evidence of an anphitheatre at the feet of 'Casa della Guardiania', the foundations of which measured  $34.50 \times 28.50$  metres.

Other partial excavations uncovered Imperial Age rooms and the Temple of Tanit area, where upper floors of the Roman Repubblican Age were found.

In 1952, laying a stage for the performance of a play written by Marcello Serra, (under the care of ESIT), some ancient structures were brought to light. After that discover, Prof. Gennaro Pesce, at that time-Sopraintendente alle Antichità della Sardegna, started a systematic work supported by regional funds. A building yard was provided where almost fifty diggers worked under the supervision of inspectors and volunteers.

The excavations lasted until 1960 uncovering more than 7413 acres of remains. Unfortunately, a scientific study about excavations, finds, structures, and the topography and chronology of the town has never been carried out or, at least, issued. Therefore all the stratigraphic data



Fig. 5. Excavations of the Punic necropolis

the town area, and the relations between mobile finds and structures are missing.

From 1960 onwards, the present Superintendente Ferruccio Barreca has carried out some experimental excavations of the Punic fortifications of the acropolis on 'Punta di Coltellazzo'. Some Roman tombs which had been brought to light by chance, were dug in 1977 and 1982; moreover, the present author excavated totally the sea baths and carried out a limited examination on some areas of the town in 1977. The eastern hillslope of the Temple of Tanit and the zone enclosed by the Navy are still to be investigated.

#### **ITINERARY**

On the left of the very entrance to the archeological zone you can see some remains of a **thermal building** fl. In actual fact the sea has eroded the eastern part of the building and the few rooms left have not been excavated yet. From A-B street, which is paved with andesite and

edged by rising small blocks of the same material, there is access to an almost square room (9 x 9.50 mt.) decorated with floor mosaic and a central pillar. The mosaic is made up of circular patterns displaying a flower with eight leaves in the middle. The flower itself is surrounded by eight more circular patterns, each with a design of a cross shaped flower. Its colors are those always employed in Nora i.e. white, red, ochre and black.

It can be dated to the 4th century A.D. Since parts of the perimeter walls of this atrium had been removed in ancient times, and others, particularly the one by the entrance show additions, they cannot be identified beyond doubt. The wall structure is constructed with irregular stones, originally overlayed with plaster. From the atrium entrance to a room of indefinite plan lying East was gained through a threshold decorated with a mosaic adorned with lozenges including a zig-zag pattern. The mosaic floor of the room, of which only a fragment has been left, is decorated with adjoining lozenges and squares. This room opens on to another smaller, almost square one which might have been the 'apodyterium'. The heated rooms must have been situated in the seaeroded part. The remains of two of them can still be seen, that is, the apse of one, while the other, which is better preserved, may have been a 'calidarium' because of the presence of a 'praefurnium' on its eastern apsed part. The room and the atrium were divided by a small blind tunnel the remains of which consist of segments of walls (27:28 cm thick), built in 'opus testaceum', masonry, and a part of the lower square brick floor. North of the 'calidarium there is a narrow tunnel closed by a wall which must have been the outer one. Because of the sea erosion on the east side, the massive foundations of the baths are now in full view. They had been built in square sandstone blocks that might have belonged to a plundered, more ancient, big building.

The southern part of the edifice cannot be identified since excavations have never been completed. A large basin, perhaps a 'natatio', connected to the baths has been identified, while its link with another structure situated on the street side is uncertain. This structure which is incomplete and elongated in shape can be identified as a fountain remarkably similar to another one on the opposite side of the street.

Proceeding along the street, which is indented and winding in order to preserve some more ancient buildings, you can see on your right some fragments of walls pertaining to buildings which lie unexcavated beneath the modern large parking area. Something more can be seen on the left but even this zone has been damaged by the sea erosion. It may be identified as an 'insula' or a dwelling district because of the presence of remains of pavements, walls, wells, cisterns and underground vaulted rooms.

When you reach the entrance-gate to excavations you can turn to the right and climb the so called Tanit hill from the top of which the town plan and its position on the isthmus can be seen clearly. The remains on the hill top belong to the **Temple of Tanit**. It was called Tanit by Patroni, when he brought to light, at the beginning of this century, a little stone pyramid which he identified as the stone idol of the goddess Tanit, usually represented as a triangle surmounted by a circle. There is no other evidence as regards the name. Originally the structure was not supposed to be in view. Judging by its masonry work it must have been a foundation consisting of rough irregular stones among which stand out angular, roughly squared blocks of andesite and sandstone.



**Fig. 6.** The Roman road. In the background the thermal building  $n.\ 1$ .

They have been identified as architraves belonging to Nuragic dwellings. Witness to this fact is born by some Nuragic Tshaped hewns which were eventually reused in drywalls.

The structure . has an almost square, very squat, rectangular shape. Its walls enclose some square and rectangular empty spaces and it is difficult to see a connection between those and the upper rooms. The southern side with a rectangular central space and two square ones at its sides is quite regular; whereas, along the eastern side where a long rectangular space flanks three rectangular and square ones, there is no tripartite plan. Pesce, who excavated the monument, thought it was the platform of an altar or a small 'edicula' dedicated to Tanit. Some architectonic materials that were reused in structures of the Roman Republican Age must have belonged to it.

By the south-east corner there is a deep square mouthed hollow carved in the rock, probably a cistern. North of the 'temple' there are the remains of a building of small irregular sandstones. It consists two unroofed rooms facing North, in the larger of which lies a small base, perhaps an altar? Other remains the shape of which cannot be distinguished, can be found to the South, together with a wall built of square sandstone blocks; this wall encloses a 'stenopos', which slopes down to the theatre and south of which there are some rooms from the Roman Age.

From this point it is possible to go back to the entrance of the enclosed zone and to go along the Roman street A-B. Just past the entrance, on your right, down the hillslope of Tanit, you can see the remains of a kind of gargoyle, like a lion's head which, together whith two Egyptian moulded corniches, must have belonged to a big public building of the Punic Age, may be to the 'Temple of Tanit' itself or to something still buried in the hillslope. The conjecture of a big building lying here, is supported by the fact that there are massive terracing walls, as yet only partially excavated, that can be seen on the right of the street; there is also the beginning of a flight of steps (the first three steps) 4.50 mt. wide, leading upwards. Evidence that the 'monuments' belonged to an advanced period of city life is given by the presence of frequently repaired cisterns, one of which lies in line just with the stairs: this had been covered to allow the stairs to be used.

However, the remains on the hillslope cannot be dated with any cer-

tainty. Remains of mud walls set high up, probably subsequent to the Roman Imperial Age, can still be seen. There are also square block walls built using the technique of 'opus testneeum' and 'cementicium' of the Roman Age, cisterns and segments of foundations probably from the Punic Age. In short, the excavations have not given any evidence of what must have happened in this area. Therefore it is quite impossible to understand the function and organization of this area.

Continuing along the street you can see on your right what is left of a **building which** had six small rooms fl. Its walls are of irregularly cemented black andesite stones. Some of these walls are built on square sandstone block structures. Because of the difference between the street and the floor the building seems to have been built on more ancient remains, but, unfortunately, most walls are missing and the exact plan is unknown. On the right side of the street there are some rooms with walls built using the 'opus caementicium' technique, connected to others madeof huge sandstone blocks enclosing rooms which had been built in different ages and using different masonry techniques. Their connection with the adjoining temple and their function are unclear.

At this point street A-B turns suddenly to the right (segment B-C) because of **the large Forum square**. The position of this square, beside the sea may indicate that it had been built on an already existing more ancient square of the Punic period. In this period the harbor and the market place used to the closely connected. Soundings have never been carried out beneath the pavements to try to confirm this theory. The square is regular in shape, even if the side beside the sea cannot be distinguished because it is eroded. Its eastern and western sides are delimited by porticoes into which rooms and 'abmulatories' opened. To the East it is too difficult to make any theories because the wall structure is mostly missing: there is only a fragment of a fine floor mosaic which can be dated between the **2nd and the 3rd** century AD.

The mosaic is made up of an outer band displaying white squares and black clepsidrae pattern, this is decorated with adjoining lozenges forming crosses. The aforesaid band encloses a central zone: here circles with crosses inside them alternate with concave sided squares. Still on the eastern side of the Forum, at the north-east corner you can see the base of an arch, or of a door with its threshold, which must have

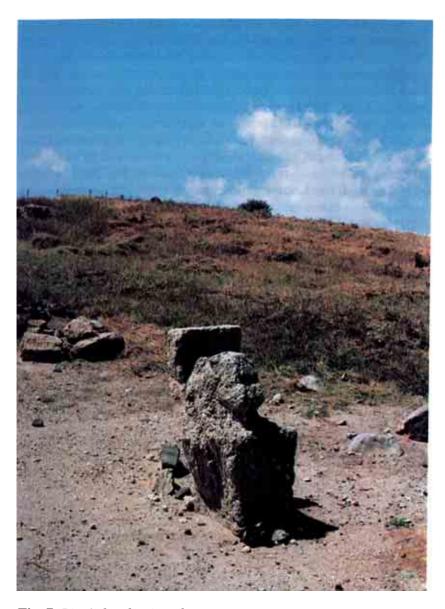


Fig. 7. Lion's head gai-goyl

been one of the two remaining accesses to the square, the other one being opposite the turning in the street. It is easier to understand the western side. In actual fact the portico is more in evidence since the bases of columns and pillars are made up of a paler material which stands out from the black andesite pavement. A small room opens into the north-west portico which enclosed a long 'ambulatory' into which three rooms, separated by walls, opened. Some walls had already been removed and on the one left there are still the remains of a red painting. Of the floor mosaics which decorated these rooms only a few fragments are left. In the southern portico there is a well-preserved drain which collected water from the whole zone. This drain goes from the theatre, on the west, to the sea.

Everywhere in this area traces of subsequent superimpositions can be clearly seen. All over the western area, where the ground rises, you can see huge sandstone block structures different from the buildings that were built on top, and remains of foundations.

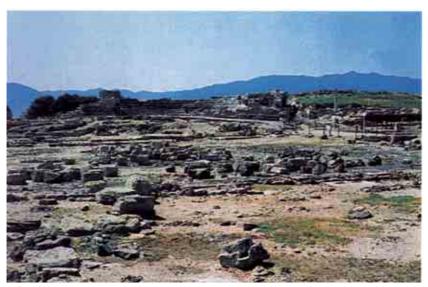
On the north side the plan of the Forum is irregular because there is the foundation of another building that juts out into the square. We do not know whether this was an even more ancient building left there by the Romans with a particular function, a tribune for instance, like the Rostra in Rome. It has not been identified yet, while the rectangular sandstone base more or less in the centre of the square, is clearly defined. Probably it was the pedestal of a statue in honour of a famous, eminent man from Nora or from Sardinia, or, perhaps, from the Empire itself.

The base of another important monument has been found in the Forum. It is the base of an honorary statue dedicated to Quintus Minucius Pius dating from the late 1st to the 2nd early century A.D., which had been used to pave the square. In fact it was used when it had no more meaning for the inhabitants of Nora. Later, probably, it was used to fill a hole in the dilapidated pavement.

Proceeding along street B-C, on your right you can see the **temple.** flA flight of three steps, 2.10 m. wide, was the access from the street to the 'peribolus' (enclosed court) which was decorated by a patterned mosaic representing a labyrinth. In line with the first there is a second flight of steps leading to the 'pronao'. At the centre of this flight of steps there was an altar of which there are some remains. The archeol-

ogist who ecxcavated it said the 'pronaos' probably consisted of six columns and one of them has been badly re-assembled while the bases of the others cannot be identified; thus the actual number of the columns is still uncertain.

The temple cell is almost square in shape even if all its sides are of different sizes. Its walls, almost razed to the ground, were built using the 'opus vittatum' techinique. They rise from a layer of bricks that marks the walking surface. Externally, below, there are black andesite stone foundations which have been brought to light by deep excavations. The cell floor is made of a fragmented mosaic decorated by a stripe with patterns of clepsydras and white squares, each containing a black flower, which make up differently patterned squares. At the centre of the mosaic there must have been a pattern which was different from the symmetrical patterns at the sides, but it is difficult to reconstruct it. The mosaic dates between the 2nd and the 3rd centuries A.D. Behind the cell 'there is a very small room where a white marble threshold, one of the two, and a mosaic floor of white tesserae (tablets) are left. It was probably an 'adyton' (innermost sanctuary).



**Fig. 8.** The forum seen from east. In the background the temple and the testre

Perhaps the 'peribolus' went round the three sides of the temple as can be assumed from the black stone structure of the foundations, now in sight, and from the higher level of the thresholds of the three small rooms which open onto it. Probably, the excavation went deeper than the floor level and brought to light a cistern, perhaps combined with a well, that must have been more ancient than the Roman temple. Still in the western 'peribolus' we can see two bases resting against the cell wall. Perhaps they were meant for supporting half columns, fragments of which can be seen scattered around. The function of the three small rooms is unknown. They might have been stores for votive offerings, ceremony vestments, or priests dwellings.

On the eastern side little can be identified. A very deep excavation brought to light a floor built of small stones, ceramic fragments, held together with mortar, and an opening which may have been the mouth of a cistern or a well. Both of them had been covered by the cell foundation walls. This side of the temple cannot be defined.

Now street B-C turns to the left and continues in front of the theatre.

If you go along the theatre side, towards the foot of the hill of Tanit, you can see the remains of a foundry. The structure of this small monument is characterized by a lock shape and has been identified as glassworks from the traces of a fire and the fragments of melted glass found inside the monument. The different building techniques of the two walls and the different level of the foundations reveal that the glassworks had been altered in the course of time, but, since detailed excavations data are not available, its chronology is not certain. The excavator assumed it could be dated from the Roman Republican age. Retracing your steps you can see the outstanding bulk of the theatre. DI one of the best preserved Roman buildings in Nora. Its semicircular surface is surrounded by a brick wall 29 cm. thick, broken by eight big quadrangular niches and three 'vomitoria' (accesses to the theatre). The lower half of the outer theatre wall is decorated by an elegant moulded cornice. Back to the street again, we can see that the segment C-D of B-C street continues passing in front of the theatre. The present itinerary crosses the portico 'post scaenam', that is, a portico resting against the rear stage wall. This portico was supportd by ten pillars, blocked up in a later age. Access to the stage was gained by the door-

ways of two small rooms connected to the stage. Beyond the portico

'post scaenam', on the south side, the theatre front was framed by a colonnade, but only its bases are left. The orchestra could be reached by two vaulted passageways, recently repaired. The mosaic floor is decorated with a band adorned by circles. This mosaic ban encloses a semicircular zone of red marble 'opus sectile', which has undergone restorations in modern times. In the centre of the floor there is the opening of a drain well which collected the rainfall water. It flowed into a sewer drain leading 'to the Forum, as aforesaid. The 'cavea' (seating space) consisted of then rows of steps where the spectators sat. From the 'vomitoria', the spectators reached their seats by a wide tunnel built above the 'cavea'. Above this vaulted tunnel there were two small tribunes which could be reached from the portico, by two stone flight of steps. The 'front scaenae' (front stage) is made up of bricks and decorated by four semicircular niches, which, probably, must have contained some statues. Two small flights of steps situated at the sides of the front stage led up to it. The stage set was paved with wood beams which, now, are missing, but their embedments can stil be seen.



**Fig. 9.** *The temple (n. 6)* 

Those beams must have been supported by brick pillars resting on the lower part of the stage, 'Hyposcenium'. Here four big jars have been found. They rested in hollows dug in the ground and are supposed to be suond amplifiers, i.e. they amplified the actors' voices as reported by the Augustean architect Vitruvius. The chronology of the theatre can be drawn from one of these jars. In actual fact its maker, who lived in the age of Trajan and Hadrian, imprinted his mark on the jar rim. A coin from the Emperor Hadrian age (117-138 A.D.) has been found in the excavation of the stage foundations, and this confirms the date in which this building was erected.

At the corner of street D-C with street D-E, seawards, there is a partic ular building fl, the remains of which consist of a narrow plastered and round cornered tunnel, 80 cm. wide, that lies at a very low level. This tunnel, which must have been a water drain, encloses an un-built zone where only scanty traces of more ancient walls are left. Along the northern, western and southern sides of this tunnel, another one runs, which is paved with small stones and ceramic fragments held together with mortar. The remains of its walls still show some traces of plastering. In a later age a partition wall between the west and the south wings was built. Into the south wing three rooms opened, the first one, on the south-west side, was connected with a large rectangular room. Access to it was gained by a wide doorway into the street. We can notice that in this building foundations some remains of more ancient building of the Punic age were reused. Among them you can see two plastered Egyptian mouldings. This building structure was damaged long ago i.e. parts of the partition walls of the three southern rooms have been removed and their floors are missing. The whole eastern section of this building does not exist any longer, and nobody knows whether the tunnel continued also along this side, or any rooms opened into it. Because of the poor maintenance of the walls, it is impossible to say whether there was any connection between the afore -mentioned rooms and other ones which stretched southwards and were paved in the same way. Those rooms had been built on the remains of more ancient edifices made up using the 'opus africanum' masonry technique.

The function of this building is uncertain. The first excavator assumed it might have been a tannery with an innermost structure built like a tunnel for the tanning fluids storage. He assumed also the

existence of a second floor with a balcony used to essicate the hides. But there is no evidence to support this theory and, moreover, a tannery could not have been built in a public central zone of the town, adjoining the theatre and the Forum. Probably, it must have been a fountain adjoining rooms perhaps used for private meetings, a Guild seat or something like it. A recent limited excavation allows to date the building from the middle Imperial Age, not earlier than the 2th century A.D. Continuing along street D-E, on our left we can find a block of houses D consisting of rooms which are not easy to identify. Because of the poor remains of walls and the scanty excavations, it is difficult to say which were the rooms. However, it seems that at least a main nucleus of this block of houses could be reached from street D-L. Entrance to a room below the street level could be gained by a doorway with steps. At both sides of this room lay several rooms, one of which, that underwent many repairs, can be described. It is elongated in shape and decorated with mosaics dating between the end of the 2nd and the first half of the 3rd cent. A.D. In other rooms there are some jars accommodated in holes dug in the soil which must have been used for food-stuff stor-



**Fig. 10.** *The theatre (a. 8)* 

age, and there are also mortars and ovens. These rooms must have been arteraft workshops or dwellings where some commercial activity, for domestic purpose only, was produced. But no evidence supports these theories. A detailed study about those structures and their connections with the adjoining baths should be carried out, in order to know also their chronology and planimetry.

Proceeding along the street, on the left there is a passageway which leads to the **central baths** . This building cannot be identified, because little is left of its walls and moreover it underwent a lot of superimpositions and restorations. The present author will therefore examine the zone starting from the thermal building, then the surrounding rooms and at the end he will mention the remains of more ancient structures which have been brought to light by the excavation.

Certainly, the central nucleus of the baths consisted of the large L shaped 'frigidarium' which could be reached by a mosaicked corridor that belonged to another structure. Even if the walls of this 'frigidarium' are missing, the mosaic floor, with its central drain is well preserved. The aforementioned mosaic is decorated with a design of alter-



Fig. 11. The hyposcenium of the theatre and its sound amplifiers

nate ochre and brown two-edged-hatchets which form diagonal patterns against a white background. This mosaic is enclosed by a white band from which the exact plan of the room can be drawn. The mosaic style has allowed to date it back from the second half of the 3rd century A.D. Opposite the present entrance there is a basin with steps. Because of its style this must have belonged to the 'frigidarium even if any connection with it is missing, and its structure is dilapidated. On the left of the 'frigidarium' there is another room with irregular sides which has been identified as the 'apodyterium' (bath dressingroom). The remains of its walls are lm. high.

There are also some fragments of a brickwork built on the mosaic which indicate late remaking. The mosaic floor was decorated with a double contour hand which includes svastikas and white, black and ochre squares.

The central part of the mosaic was adorned by perpendicular bands which enclosed white squares alternate with black clepsydrae. Every large square formed by the intersecting bands has at its centre and on every corner ochre squares. The floor can be dated between the 3nd

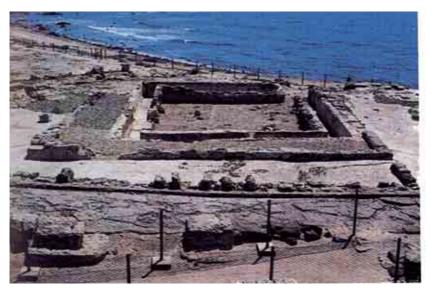


Fig. 12. Building complex 11. 9

and the 3rd centuries A.D. On the right of the 'frigidarium' there must have been the heated rooms. The floors of them are missing while the level of the pillars which supported them (suspensurae) is left. In this zone, what can be noticed first is that the aforesaid building was erected, like the ones adjoining the entrance, on foundations made up of huge square sandstone blocks. Since the same kind of foundations can be also found beneath the heated rooms of this bath building, it must have been constructed using a particular masonry technique. It is not easy to identify the plan of these rooms because all their walls are missing but some theories may be made. First of all we can see four 'praefurnia' (furnaces used to heat the rooms).

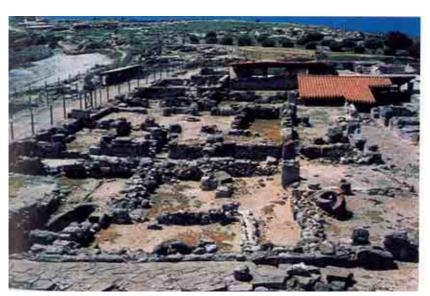
The one on the south-west corner opens into an aisle. Traces of a partition wall can still be clearly seen. On the basis of what is known about the bath building typology, a plan of the thermal building can be reconstructed as follows: adjoining the 'frigidarium' there must have been two rooms (tepidaria), both of them heated by a 'praefurnium'. These 'tepidana' gave access to the large 'calidarium', rectangular and elongated in shape, the short side of which was apsed. The 'calidarium' was heated by two furnaces. Therefore the itinerary through the baths must have been circular, ring-like, Le one passed from the 'frigidarium' through the other 'tepidarium'.

Behind the 'praefurnia' there were the service rooms, the remains of which are better-preserved on the southern part, where some traces of a drain have been left. Probably it collected also the water from a lavatory adjoining the 'frigidarium'. On the northern side, you can see on the brick structure of a 'praefurnium', traces of a small flight of steps which led to upper levels. One of these levels consists of a floor paved with bricks which must have been a big water reservoir, as seen in other Sardinian bath buildings.

Actually the mosaicked **corridor** (**eastern peristilia**) leading to the 'frigidarium' does not belong to the bath building or at least to its original phase. In actual fact, it underwent many alterations in different ages as you can see from the frail gray tuff columns incorporated into walls of a later age. The mosaic floors and the columns that have been left bear witness to the presence of a peristyle, the northern sides of which (corridor) and the western ones have mosaic floors decorated with white squares outlined with ochre. Each square encloses a flower,

while the eastern and the southern sides have mosaic floors decorated with a pattern of intersecting circles. In the centre of the peristyle there are some remains of a mosaic adorned by ochre exagons at the sides of which lie white rectangles. Because of their style the mosaics can be dated back between the end of the 3rd and the 4th centuries A.D. Evidence of the subsequent alterations is given by a floor built, using 'opus sectile' masonry technique, in the central zone of the room, that can be dated to the late 4th century. This floor was built on a more ancient one. It is not clear whether there was a connection between this peristyle and the baths: it might have been a 'deambulatorium' as already seen in other places like this.

Probably the **western peristyle**, the so-called Ninfeo, which lies at a few metres distance, adjoing the street, cannot be identified as a 'deambulatorium' of the baths. Actually it is not in line with the baths axis and the distance between this peristyle and the thermal building seems too great. Moreover it is nearer the service rooms of the baths than the meeting rooms. The peristyle is quite well-preserved and has



**Fig. 13.** *Dwelling district north from the central baths.* 

maintained its original shape. The mosaic decoration is quite complex. Being the peristyle aisles divided into two parts by the bases of pillars, we can see that the external decoration is adorned by white and ochre rectangles and squares, while the internal one is adorned by a network pattern of lanceolate leaves with intersecting 'peltae'. Every circle formed by that pattern encloses a 'Solomon Knot'. The mosaic floor of the nave situated in the rear is decorated by a series of adjoining circles and curvilinean squares.

On its wall there are still traces of red painting. In the central part, that must have been unroofed, there are remains of a tiled mosaic. Between the rooms and the aisles, and among the pillars, there are rectangular mosaic thresholds decorated with different patterns. These mosaics date from the first half of the 3rd century A.D.

Walls from the 1st phase or laterwalls which followed the more ancient plan. LIII Walls from the 1st phase which have been removed. Threshold and offsetts the 3rd from the 2nd phase. Paved floors from the third phase.

## Walls from later unidentified phases.

The function of the western peristyle and its connection with other structures are unknown. It is not easy to understand the function of the more ancient buildings, north-west from the baths. fl If we examine the mosaicked passageway which gave access to the baths, we can see on its right side (western) a doorway, which was the entrance to rooms that have by now desappeared. The only thing which has been left of them, consists of a capital. The excavator set it on small brick columns to show the visitors the floor level of the room where it was found. The aforementioned doorway and the floor where the capital was found, belonged to the second phase of the structure. Some offsetts which supported the floor, the embedments of which are still Visible on the wall remains, belonged also to that phase. Some fragments of a whitewashed floor pertaining to the room adjoining the street, belong to a third phase the masonry of which covered the second and the first phases. The remains left of the most ancient phase, permit the reconstruction of a possible plan.

The remains consist of pavements, floors, thresholds and walls which were built following the more ancient original frames. The miss-

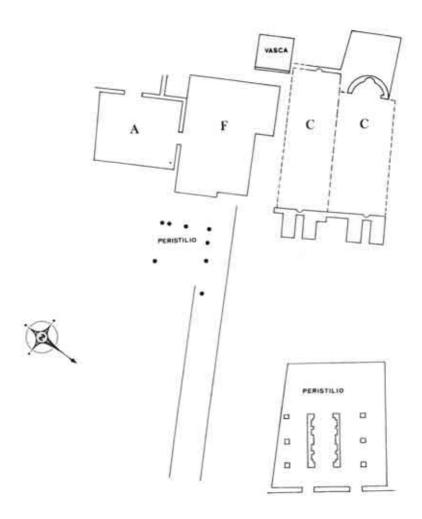


Fig. 14. Central baths and qion1,g per/sii/fa (sketched plan).

ing walls can be identified by visible traces on floors and pavements. If we examine the room adjoining the baths (1) we can see that it was divided into two parts by a later wall. This room had a floor made up using the 'opus spicatum' masonry technique, which was built over the

original mosaic floor decorated with tesserae (tablets). In the eastern part of the room you can see a well-preserved rectangular paved zone, probably it was a pedestal for something unknown. Entrance to room 2 from room 1 was gained by a threshold, almost covered by the aforementioned wall, at the same level as the white tesserae floor. The extension of this room is unknown because its floor, built using the 'signinum' tecnique, has been obstructed by a later wall. In room 3 there are still the southern wall and a part of the western one, while the other walls can be identified only by some clean cuts into the 'signinum' floor. Access to a western room 4 was gained by a doorway, which had been obstructed by the huge blocks of the 'Ninfeo'. This room stretches northwards. Beyond it, which was built later, the room wall shows some traces of red plaster. At East, adjoining 4 there is room 5 which cannot be well defined but it seems to have been separated from room 6. This room was large and had a floor built of small stones held together with mortar. The two circular zones of this floor which are left, bear witness that, in origin, there must have been two columns. The chronology of this structure, pertaining to the first phase,



Fig. 15. Central baths Mosaic of the f, igida, iu,n

is certified by the style of its floors, which may be dated to the 1st century B.C. Any connection between these rooms and the ones west from the 'Ninfeo', which dated from the late Republican Age, is unknown.

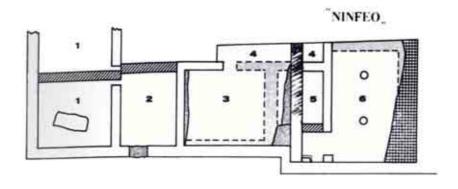
On the right side of street D-E, on the hillslope of Tanit hill, there are some remains of houses that must have belonged to a dwelling district . Unfortunately, even in this area, excavations have gone as deep as the sterile soil, and only the most visible pavements and floors have been left. It is a serious problem since, because of the sloping ground, everything concerning the original house structure has been lost. Actually the superior walls of rooms belonging to an upper level cannot be distinguished from the ones on the lower level (ground floor). Moreover it is unknown whether the formers opened into the 'stenopos' which skirted the Tanit hill top, or access to them was from the lower rooms. The latters are long rooms, perpendicular to the street axis, which were paved using the 'opus signinum' building technique, these floors were cros sed by several water drains. The walls of the aforesaid rooms were made up using the 'opus caementicium' and 'africanum' building techniques. They surrounded small rooms in many of which there was a cistern for domestic purpose. Many water drains come from the areas near those cisterns, some of them collected waters from rainfall others collected water coming from the cistern well. Water flowed into the huge covered sewer trunk line which ran lengthwise beneath the street. The original andesite pavement of the street is missing. Among the aforesaid houses lies a small open space probably meant for a public structure. After a zone paved using 'opus signinum' masonry technique there is a fountain, the plan of which is almos square in shape. The side facing the street is hollow. This fountain was built using the 'opus testaceum' masonry tecnique while the space in front of it - where people used to fill their pots -was paved with andesite. Probably the fountain water come from a huge structure which was erected behind it. Of this structure which must have been a small 'castellum aquae' only the floors are left. After the fountain you can see a steep 'stenopos' which led up the Tanit hill top. This 'stenopos' was ran through by a drain, part of which was made up of bricks while the other one was cut in the rock. The street reaches now a square that is formed by a four streets crossing i.e. street D-E, the one we are coming from E-G, its continuation which leads to the sacred area, southwards; and ET which leads

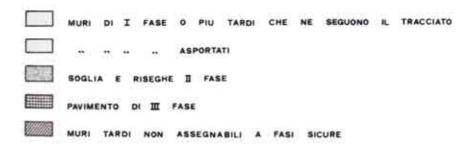


Fig. 16. Mosaic of the west per/style (o. 13).

obliquely up the slope.

Some dwelling houses opened to E-F street and the **square.** They are better-preserved than others. The 'opus africanum' building technique is the peculiar feature of this district which is divided from the next one by a wall. On the northern end of the square you can notice the base founations of columns or pillars that enclosed a small portico. From the small room which opens to it there was access to other rooms situated on a different level because of the sloping hill. This small room was provided with a cistern served by a drain. Along street ET we can





**Fig. 17.** Rooms ,from the Republican age north from the Central baths (sketched plan).

see a long entrance, crossed by a drain, which led to two other rooms which lie on the same axis. The second one of these rooms still shows traces of a small 'peristyle' and of a small staircase which led to rooms situated on an upper level. The two aforementioned rooms opened to other rooms. The northern section of this block of houses has not been excavated yet.

Back to the square we continue along street E-G, where, on the right side there is a **building complex**, the plan and the purpose of which are almost unknown. A wide doorway which opens to the square gave access to a room connected with a series of rooms which opened into each other. Their walls were built using the 'opus africanum' masonry technique and there must have been at least one cistern. The many changes and restorations undergone by this group of buildings are still visible: for instance, there are two thresholds in the entrance room, the former is at the same level as the street we are coming from, while the latter, which opened to street ET, on the right side, lacks its floor. The function and the connection of the two rooms are unknown. In actual fact it is difficult to identify remains of buildings made up using the 'opus africanum' technique because often the small stones held together with a weak material in the spaces between the load bearing pillars, collapsed longtime ago. If the excavation has not recorded any collapse of stones between the bearing pillars, these ones may be identified as doorjamb pillars.

Proceeding along the street we can see a large room, the andesite threshold of which was obstructed long ago, in a late phase of the town life. In this room there are some remains of columns and the bases of what must have been a small peristyle whith a pillar in its centre, but it



Fig. 18. Public fountain

is difficult to identify it. The room walls, built using 'opus africanum' technique, do not open to other rooms, therefore, even if they seem to belong to another edifice we are going to see later, their connection with it is not clear.

The whole right side of street EG is occupied by a big edifice which takes up a block of houses. Along the street three wide doorways open to there big rectangulars rooms. The first one of these rooms has on its left corner a small space which has not been excavated yet. The second one, on its rear side, opens to two small spaces, while the third one gave access to a small space which even if it has already been excavated does not show any traces of thresholds or openings and, therefore it cannot be identified. It is clear that the partition wall, between the two rooms facing the street, has been added in a latter phase and, moreover, each wall of every room was built with a different masonry technique. Proceeding along the street, round the corner we find street E-G where the building facade can be seen. It consists of a portico, but only the pillar bases of it are left. A wide doorway gave access to a large room which also opened to street E-G. This room contains a small rectangular space on the left and a rear one that opens into street E-G. The walls of this room were built using 'opus vittatum' masonry technique, while both the door-posts pillars (25 cm. thick) and the floor are made up of bricks. A second wide doorway opens into the portico, it belonged to a room which in its near side opened to another room. This one which on its right side communicates with another room, contains in its left corner the remains of a big jar. Entrance to a third room could be gained by the portico. This room, in its near end, has a doorway, partially blocked up and a raised floor as seen in another edifice in Nora.

After the aforementioned rooms you can see the access to another corridor leading to a long room with a pillar at its centre. From the near side of this room there was access to another room.

The corridor runs along the whole buildings, lengthwise. On the right, after a doorway which opened to two long rectangular rooms, there is now a blind wall. It was made up of andesite pillars and the intervening spaces were filled with stones irregularly held together with concrete faced with bonding corses of bricks. Beyond this wall lies a rectangular room without openings like the one lying on the other

side, and a vast rectangular space which has not been dug out yet. At present, there is no access to it from the several rooms that surround it. Still unknown is the function of this space, i.e. we cannot say whether it was an open courtyard meant for letting light into the innermost rooms, or if there were any buildings which opened into it. If it had been a colonnade obstructed in a later age the building could be identified, according to the already known typologies, but, since a detailed study has not been carried out, this seems improbable. On the left wall of the corridor there are the doorways of eight rooms which are still partly covered with earth, while the fifth one shows traces of a wall painting. The last room is the smallest one. A well and a cistern open into the corridor floor but their chronology and connection with the building are unknown. On the rear of the corridor, on the right, there is another rectangular space.

As aforesaid, this building cannot be clearly identified. Because of the adjoining 'Small Baths', the excavator thought it was a 'hospitium' connected to the baths, but another theory can be made. Since it was situated by the harbour, the submerged structures of which have been

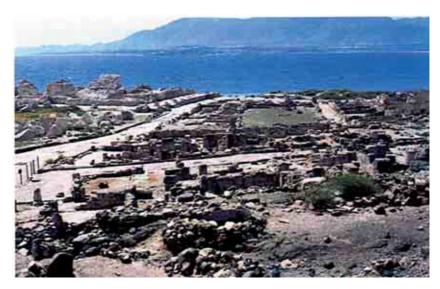


Fig. 19. Porticoed house in district n. 16

seen by means of aerial photographs, and because of the typology of the rooms with wide doorways, it can be assumed that the building was used for victuals or other goods storage as it was quite common in the Roman world. Actually it was unusual that smaller rooms opened into larger ones because this was not a characteristic feature of warehouses, but it was often associated with market places. Excavations should be carried to an end in order to find out whether the typical features of such buildings (tholoi, edicules) can be seen in the central space. Now, however, we can assume that, probably, the building and the harbour were connected and the former served as a warehouse or/and a shop. As for its chronology, the excavation data do not help much to establish it. The mixed building techniques may indicate that restorations have been carried out, and this fact can be considered evidence of a long life. Since the 'Small Baths', dating from the 4th century A.D., seem to rest on it, it is likely that the building was more ancient and it could be dated back to the third century. Along street G-H, the last edifice which has been excavated is the one of the 'Small Baths'D. By a small staircase, entrance was gained to a corridor decorated with a mosaic adorned by a pattern of adjoining octagons. Each of then has a black square at its centre and ochre triangles at its sides. The mosaic is dated from the 4th century like every mosaic of this buildings. Many drains open on the corridor while along the southern wall runs a bench which continues in the next room. The mosaic of this room is decorated with a pattern of lozenges and squares, and with circles in the background spaces which inclose different patterns. The bench in this room shows regulars openings covered with tiles according to the 'cappuccina' technique, a fact which demonstrate its function as 'apodyterium'. From the corridor access to the frigidarium can be gained by a small staircase. Almost square in shape it is decorated with a mosaic adorned by circles and squares with floral patterns. At its centre opens a drain for the water which flowed into a basin, with three apsed niches, situated on East. In a later age the floor was raised so that the basin became a furnace. Next to the 'frigidarium' is the 'calidarium' heated by a 'praefurnium', still visible at a lower level on the eastern side. At its side there is a flight of steps which gave access to the 'calidarium' west of the 'frigidarium' and the 'calidarium' there were two rooms, the original floors of which are missing. These rooms or, at least, one

of them, may be identified as warm rooms (tepidaria), that is, a passageway between the 'frigidarium' and the 'calidarium', following a circular itinerary. The masonry technique of the building is the 'opus vittàtum' and its chronology, as aforementioned, dates from the 4th century A. D.

A detailed study on the other side of G-H street is still to be carried out. Only a few traces of walls enclosing rooms which seem huge, have been left, but it is impossible to reconstruct an exact plan or identify them. Back to the corner G of G-H street, we are in front of the big building of the **Sea Baths** D. Its northern and western sides are skirted by a colonnade, while the western side was eroded by the sea. Entrance to it was gained by a small flight of steps (1) at the colonnade corner, leading up the porticoes. A wide andesite threshold gave access to the atrium (2), where the collapsed vault of which has been left. What is left of the andesite-slab floor and the benches resting against the wall, as well as some raised and blocked up doorways, belong to the second phase of the building life. Access to the 'apodyterium' from the atrium



**Fig. 20.** Aerial view of the western slope of Tanit hill. On the background the sea-baths (left); building complex n 17-18 (centre); the small thermal building n. 19 (right).

could be gained by an opening on the side opposite the entrance. The dressing room mosaic floor is decorated with hollow sided intersecting lozenges which form patterns of circles. It is clear that the andesite floor and the bench

that have been put here after their restoration are more ancient than the mosaic floor. The large 'frigidarium' could be reached from the atrium by the 'apodyterium' (4). The 'frigidarium' shows a standard plan with an apsed niche on one side while, against the two justaposed walls, there were bath-tubs for cold baths. Water came from three apsed niches which adorned the upper parts of the walls. The water resorvoirs were situated in the north-west part of the building where the remains of the collapsed building have shown some raised huge basins from which water flowed into the niches by canals situated inside the walls. Probably these huge basins were filled with water, from the aqueduct, which came by means of a pipe resting against the portico of building n° 18. The 'frigidarium' floor still shows traces of the collapsed vaults and, furthermore, it reveals that, at the time of the collapse, the building had already been plundered of all its rich fittings. In actual fact, traces of marble slabs, (perhaps 'opus sectile') which adorned it, can still be seen even if the excavations have not found them.

Access to the bath-tubs could be gained by steps faced with marble, some traces of which have been left. Still well-preserved are the sewer holes of the bath-tubs, which flowed into a sewer trunk under the 'frigidium', the wells of which are open. Several doorways open into the 'frigidarium' and entrance to the heated rooms was gained by the doorway on the north-west corner. Unfortunately, because of the dilapidated floors, the old itinerary has been changed. In fact, from a doorway opposite the entrance you can enter a large room which is the counterpart of the atrium (13) connected with the colonnade by means of a doorway which, later, would be obstructed by a bench. Also this room was paved with mosaic decorated with a beehive exagons pattern, but, the state of decay of the remains has not allowed any restorations, so the floors have been covered again. On the western wall (13), between two big fragments of the collapsed cross vaults, there is a doorway which gives access to a small square room (12). This must have been a passage space leading to a large apsed room on the west side (11) largely eroded by the sea. On the walls, however, you can still

see the offsetts used for the air-spaced paving of the floor; they bear witness to the fact that the room must have been heated by a furnace situated on the west side. Also this room was connected with the 'frigidarium'.

The purpose of rooms 13,12 and 11 is quite unknown. The first one may have been a secondary atrium and the second one a passage atrium, while room 11 could be identified in different ways. It may have been a warm room for women who entered there from room 13 and shared the 'frigidarium' with men, or it may have been a 'destrictarium', that is, a room for bath in steam. Unfortunately, owing to the decay of this section of the building, it is impossible to make any theory. The other three rooms on the western side can be surely identified. They were heated by furnaces situated in a corridor (9). Traces of the furnaces have been seen by means of serial photographs and underwater investigation in the extension of sea adjoining the thermal building. In order to prevent the building any further damage by sea-storm, this extension of water has been filled with earth. The three rooms are quite

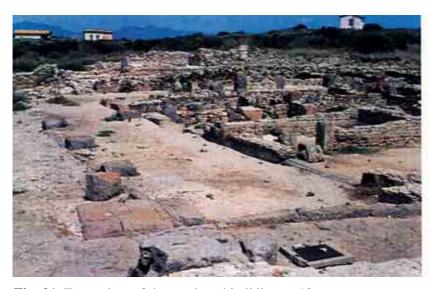
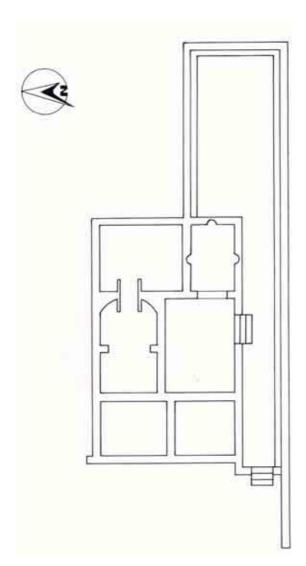


Fig. 21. Front view of the porticoed building n. 18



**Fig. 22.** Small baths (small thermae). Sketched plan of the small baths.

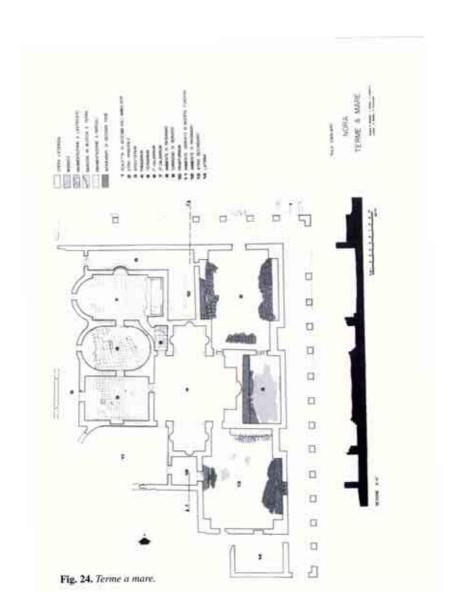
well-preserved, some parts of the projecting sections of the walls can still be seen together with the lower floor which was paved with almost square bricks.

On this floor rested the 'suspensurae' (small bricks 21 cm, piled in

columns) with intervening spaces between them, 60 cm. wide. The first room, connected with the 'frigidarium', was a 'tepidarium' (5), on the southern wall of which there is a rectangular niche. Opposite it there is a doorway which opened to 6. This room is ellipsoidal in shape and within its walls are still visible the canals which conveyed the heat provided by the furnace. On the eastern wall there is an opening by means of which hot air circulated under the floor of the small space (8) between the 'frigidarium' and the 'calidarium' 7. The latter is rectangular in shape, with an apsed western end and an apsed niche on the wall opposite doorway 6. The east side is occupied by a small rectangular bath-tub heated by the adjoining furnace. This room has been identified as a 'calidarium' both for the typology of its plan and the presence of two furnaces. Apart from few traces of its opening the western furnace is missing while the eastern one is well-preserved. Access to this could be gained by a tunnel (9) which ran, at a lower level, along the northern side of the thermal building. The unpaved floor of this tunnel was run by a drain. The structure of the furnace (10) resting against the 'calidarium' has been preserved; on the right side



Fig. 23. Corridor of the small baths n. 19.



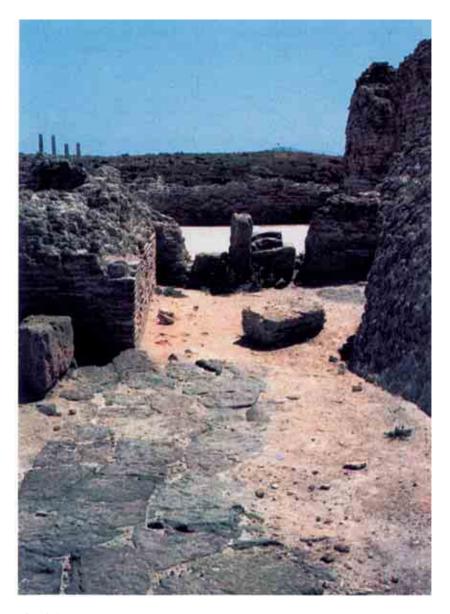
wall we can still see traces of steps leading up to the large water tanks on the roof. The flight of steps continued beyond this point as shown by some steps carved on a large fragment of a wall in the upper part of the ruins. East of the furnace there is a small raised space, probably meant for combustible (fuel). The small basin adjoining the furnace that can still be seen, shows the system of the air spaces within the walls which were made of by 'tegulae mammatae', that is, four projecting parts with holes in their corners, fixed on the walls by means of iron nails. They were later covered by plaster.

Access to the last room belonging to the baths could be gained from the near of the eastern portico by a raised threshold. It has been identified as a public lavatory (14) which was cleaned by a gutter from the baths and leadig towards the sea.

The building was made up of a concrete nucleus covered with 'opus testaceum' masonry 26/27 cm. thick, broken up at regular intervals (210 cm.) by square brick (44 cm.) courses. The upper sections of the doors were defined by flat arches of bricks and the rooms must have been luxuriously adorned. Plenty of small glass-glazed tesserae



Fig. 25. Terme a mare



**Fig. 26.** Threshold of the apodyterium in the sea baths, palfly raised and obstructed.

(tablets), that must have made up polychrome mosaics, which decorated walls or vaults, have been found. The chronology of the baths can date back from the end of the 2nd century A.D. as resulting from the studies carried out on the earthenware remains found beneath the floors. About two centuries later, the date is not certain, the building underwent some restorations and was destined to a different purpose. By means of what is shown by the stratiphical layers which remained after the collapse, the building can be dated because of its higher thresholds and andesite floors. Dating also from this phase are the steps next to the early stairway which formed the entrance. The purpose of the monument in that age is unknown. The final collapse occured after a fire, visible traces of which have been found beneath the huge collapsed vaults. Fron the materials found in stratum, it can be dated back between the 7th and the 8th centuries A.D.

The large quadrangular cistern which obstructed some openings of the adjoining eastern portico of the baths, belonged to a later, still unknown phase. The flight of steps of a **Nuragic well** located beside the cistern, is the most ancient evidence about Nora.



Fig. 27. Vasca del frigidarium delle terme a mare

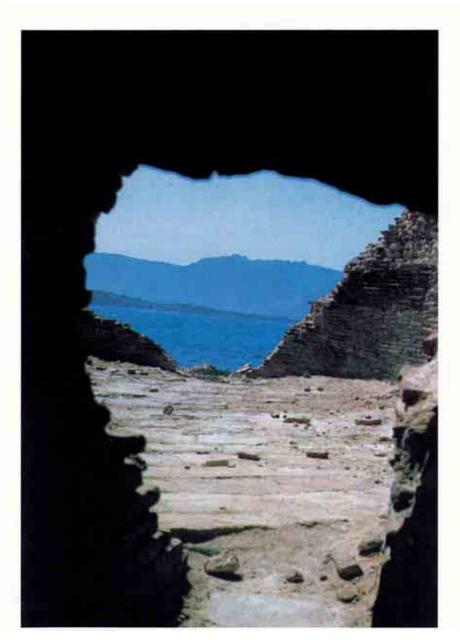


Fig. 28. Floor of the central heated

East from the sea baths there is a **large space**, which, at present, is occupied by some remains removed from the baths. A scanning has revealed that a section of this zone had been partly paved with small stones. On the northern side of this zone you can see the remains of a colonnade with a threshold but the lack of detailed studies and excavations does not allow to identify the structure to which they belonged, even if it may have been something connected with the baths, a gymnasium, for instance, as already seen in sites like this.

Back to point E, you can take EI street leading southwards and fol low it lengthwise, walking on the original layout and then flanking it. At the end of the paving we can see, at the street edges, **two bases**. Because of the site and the architectonical remains nearby, they may be identified as the bases of a door or of an arch which must have marked the access to the very city, since the other section of the isthmus was occupiedby peculiar buildings.

In actual fact, going towards the right, we can see the remains of two big patrician residences. The former is **called house of the tetrastyle atrium** since the atrium with the bases of four columns and the 'implu-



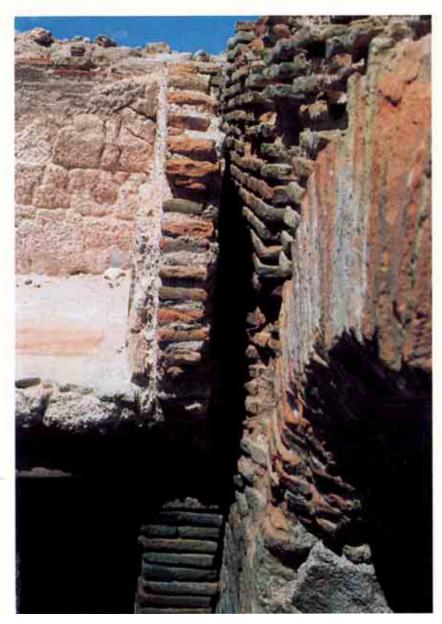
Fig. 29. Small basin of the 2nd calidarium of the sea baths.

vium' is in a good state of preservation. The columns which are now standing are not situated where they were in origin. The reports of the excavations in this zone have shown that the columns belonged to the portico across the front of the house. Probably the excavator put them there in order to emphasize what, in his opinion, was the best appearance of the 'domus' (residence).

As aforesaid, across the front of the house lay a colonnade, the six bases of which have been left and there is also a half-column or pillar which rests against a southern wall. In a later age the first intercolumnar space on the left had been obstructed by a wall. The second one, by now out of its original place, shows a marble threshold that gave access to a tunnel run by a drain. This tunnel led into the tetrastyle atriume where there was the 'impluvium', the axis of which was not in line with the one of the tunnel.

Next to the 'impluvium' there is a water well. The atrium is flanked by many rooms most of which opened into it while others were situated on three other corridors. Just on the left of the entrance lies a 'cubiculum' which has a mosaic floor divided into two sections: the smallest rectangular one must have been an alcove, and its mosaic is adorned with

a pattern of adjoining squares which can be dated between the late 3rd century and the 4th cent. A.D. The other section of the room floor is adorned by a fine mosaic decorated with Greek crosses pattern Le a central octagon, whith exagons which form the arms of the cross. Each arm encloses different decorations. At the centre of the room is inlaid an emblem outlined with black. This emblem represents a half-naked female figure riding a sea-animal against a white ground. The emblem is a rare example of Sardinian mosaic without any geometrical patterns. It dates from the first half of the 3rd century A.D. Opposite the above described room there is another mosaicked one with an apse on its southern side. This room is decorated with a mosaic adorned by a pattern of stars which are formed by crossing squares that make up lozenges and hoctagons. Also this mosaic can be dated back between the end of the 2nd and the first half of the 3rd century. Beneath the floor, which blocked it up, there was a well or a cistern. This fact is evidence that the house was built in an earlier phase. Recently, an excavation carried out during the restoration of the mosaic has unearthed,



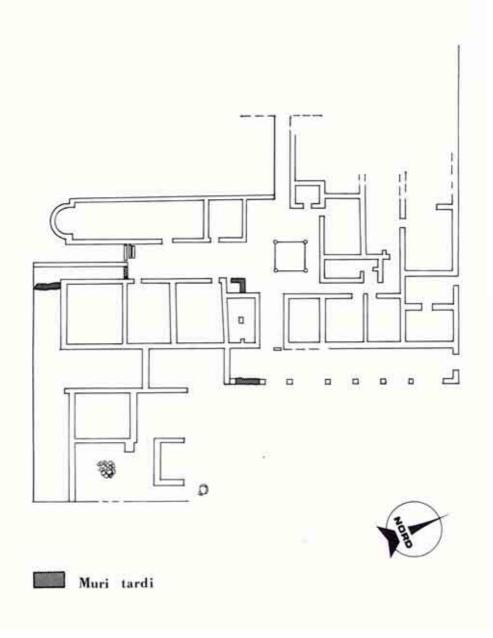
 $\textbf{Fig. 30}. \ \ \textit{Detail of the hollow spaced well structure}.$ 

beneath the Roman walls, some remains of a house from the Punic age. These remains were connected with a floor paved with rock crumbs whic can be dated about the 3rd century B. C.

The corridor into which the aforementioned rooms and at least another one opened led to a small flight of steps that must have led up to an upper floor, now missing. Next to the steps the corridor continues narrowing towards a corner on the left which, in a later age, was blocked up together with the corridor. The corridor led to several rooms which cannot be identified. These rooms, that make up a kind of wing on the left of the entrance, must have belonged to the section of the house services because of the presence of a well, of floors built using the 'opus signinum' masonry technique and of a zone partially paved with bricks. Going back to the atrium you can see another corridor opposite the entrance. On its left there are two adjoining rooms decorated with mosaics. The former mosaic is not well-preserved since only its contour band has been left, while the latter is in a good state of preservation. This is decorated with a pattern of two lines of hoctagons, each of them enclosing a hollow-sided smaller hoctagon. On the right side of the corridor lie two rooms with mosaics, of the first of which only a small white fragment

has been left while the other one is decorated with interesting bands enclosing 'Solomon knot' patterns. This mosaic can be dated back from the end of the 2nd and **the middle 3rd century A.D.** A fourth small corridor led from the atrium into a small room with e floor mosaic, adorned by intersecting black-rimmed bands, which dates back from the 4th century. More rooms lie in the house front and on both sides of the corridor, but, unfortunately, their function, connection and phases cannot be defined because of the state of excavations. Furthermore, one of the rooms, which is divided into two parts by a partition wall was not connected with other rooms even if it was part of the house body. In fact, it opened only to the 'stenopos' (alley) running along the northern side of the building. Because of its location far from the urban centre it could not have been a 'taberna' so its purpose is unknown

As afore-described, therefore, the house of the tetrastyle atrium, dating from the early 3rd century A.D., was built on more ancient Punic remains of rooms that had been abandoned. It is unknown whether it



**Fig. 31** House of the tetrastyle atrium. Sketched plan of the front rooms Late walls.

was founded, in the early Imperial age, even if the service rooms show the 'signinum' building technique which has generally been dated from the late Republican age or the early Imperial age. Recent excavations in Cagliari have shown that the 'signinum' building technique survived in Sardinia till a quite late age and its use together with its contemporary polychrome mosaics could be due to the different functions of the rooms.

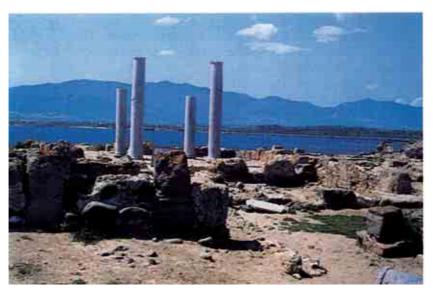
North of the house of the tetrastyle atrium, beyond the 'stenopos' lie the remains of another **patrician residence** D which is in a worse state of preservation. It underwent frequent restorations in a later age and there are no mosaics. Its front is, more or less, in line with the one of the tetrastyle atrium but there are no traces of a colonnade. Here too, a corridor, the access of which was blocked up later, led to a tetrastyle atrium where the bases of the four columns can still be seen. The ones on the left are englobed in a rough small wall from a later age, like the one along the corridor side which crosses the atrium behind the two bases of columns on the right. The original perimeter of the atrium can be identified from its southern and western parts where was another corridor run by a drain. This gathered water coming from the roof that flowed through drains, situated in the atrium corners, that are still visible. The side walls of the corridor present two doorways which gave access to two rooms.

The northern part of the house was damaged by later restorations and undiscriminating excavations. In actual fact, the whole northern part of the atrium is missing. There must have been a doorway which gave access to a room of which only the plane of the floor has been left while its four walls, which must have been built using the 'opus africanum' masonry technique, are missing. On the house front two rooms intersected by later walls can be seen. The southern side can be identified even if the front wall is partly missing. In the corner a large room communicates with a smaller one, which is irregular in shape, by a very wide doorway. From this room access could be gained to another room adjoining the first one, the walls of which are only partly preserved, but it must have been rectangular and elongated in shape. Between this rooms and the corridor lie other rooms but, because of a later re-building and twofolding of its walls, it cannot be identified. Finally, in the western part of the house there are other rooms but they

do not seem significant.

The two aforementioned outstanding residences built quite out of the urban centre are very different from the poorer dwellings that have been seen so far. Even if the chronological data of the second edifice are missing, the two buildings may be dated from the same age since topography has shown that both their façades were in line and both the edifices were situated at the 'stenopos' sides. The period between the late 2nd cent. and the early 3rd century must have been one of the most important for Nora, as revealed by the flourishing of mosaic art, so that a theory can be made about a local mosaic school.

Going back to street E-I we can clearly see traces of the superimposed levels of town life. If we pay attention to it, we can notice that the street does not end at the bases where its paving finishes, but continues straight on towards the big building situated at the end of 'Sa punte e su coloru'. Witness to this fact is given by the western border and some scattered paving slabs. Probably, the missing paving was removed in old times and a deep excavation has shown the remains of



**Fig. 32.** House of the teticistyle atrium (n 24)

more ancient structures which had been covered by the layout of the street in the middle Imperial age.

The street leads to a **group of sacred buildings** D constructed in different times which have undergone repairs and destructions so as the general plan, the function of the rooms, and their different phases are unknown. Examining the visible parts of the edifice we can try to reconstruct its last phase. The street reaches the foot of this group of buildings which lie on top of the promontory at different levels. The first level could be reached by a flight of steps presently missing, but traces of its steps can still be seen on the right wall which is the only one left since the left part was ereded by the sea.

The first level occupies a wide space almost unearthed now. Probably the diggers did not find any remaining floors so they were able to bring to light remains of more ancient structures. This level, which had a mosaic yard, continued southwards quite in axial line with the layout of the street and of the building itself. The mosaic of the pavement is only partly preserved, in fact its western part cannot be defined. Its



Fig. 33. Mosaic of the house of the terrastyle atrium.

simple decoration consist of a checkerboard formed by black squares which encloses ochre squares. The mosaic can be dated to the 4th century A.D. In its centre must have been an emblem which is now lost. On the eastern side the mosaic contour band and some remains of a wall indicate that the edifice ended on this side, while, southwards, it stretches for some ten metres. On its more westernly part lie four small rooms, the walls of which were made up of remains from more ancient buildings. Unfortunately, the chronology of these rooms and their connections to the original appearance of these buildings are unknown. Between the mosaic and the small rooms you can see some remains of walls pertaining to more ancient phases. From the mosaic yard a short flight of steps led up to a space in front of the temple, access to which could be gained by a wide doorway giving access to a vast room. The remaining projecting sections of its walls show they were made up using a block masonry technique while the floor foundation must have been decorated with 'opus sectile' technique. Some lower parts of the walls still show traces of a coloured marble covering. The floor can be dated because of a coin from Costantin age which has been found in a fissure of the floor foundation. This coin belonged to the same chronology of the mosaic vard, unless restoration works had re-built more ancient floors but nobody knows about it. On the southern side of this large room, which was probably unroofed, there are two doorways which gave access to two small rooms for med by an apse divided into two parts by a partition wall. A detailed study on its walls has shown that the apse and the partition wall were not chained together, so, perhaps, the apse was divided later even if both the thresholds belong to the original phase. Because of the two 'penetraha', the excavator assumed a more ancient Punic presence in the zone since that was a typical feature of the sacred Punic arcthitecture. In actual fact, evidence is provided of a more ancient cult.

At the beginning of the corridor the excavation has brought to light four small statues and two bigger stone ones which, being in fragments, have been re-assembled. They are very interesting and significant because by means of them chronology can be established. Infact they belonged to the mid-Italic trend and can be dated from the 2nd century B.C. Le. to the Roman Republican period, when Sardinia was still under the influence of the Punic culture and tradition. The small

statues represent devotees with offerings while the bigger ones indicate the god to which the temple was dedicated. One of them represents a sleeping man lying on the ground with a snake twined round his body. The head of the snake

is missing but it must have been situated by the man's head. The other statue also represents a sleeping man but without the snake. It is known that the rite of incubation was practiced in the sanctuaries dedicated to the cult of the god Aesculapius. Since the snake was sacred to this god, the small statues and the temple itself must have been connected with Aesculapius cult. If we accept this theory and a phase dating to the 2nd century B.C., there are neither traces of a more ancient Punic foundation, nor of any intermediate phases between the 2nd century B.C. and the 4th century A.D. (The sanctuary mosaic dates back from the 4th cent. A.D.). Evidence of those centuries is provided only by a fragmented epigraph which can be dated to the beginning of the 3rd century A.D. but it is unknown whether it belonged to this area.

From the rectangular enclosure next to the temple, a southern door way gives access to a zone full of remains. The first of them you can



Fig. 34. Mosaic of the house of tetrastyle atrium.

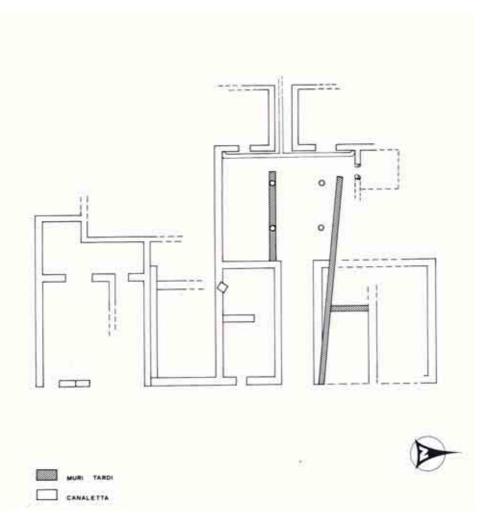


Fig. 35 House north of the tetrastyle. Sketched plan, main rooms.

see is the **base** of a sacred edicula by the foundation of the building apse. Not has been left of this small monument exept for a frieze decorated with Urei snakes adorning the front. At present, the frieze is in the museum of Cagliari. Beyond these remains, looking down from the promontory cliff, you can see a small room paved with small stones and ceramic fragments held together with mortar (cocciopesto technique). This room belonged to a building which cannot be identified be-

cause of the sea-erosion. Still on the more westernly part of the promontory there are some caves carved out of the rock, the function of which is unknown, that is, whether they were cisterns, storerooms or caves connected to the cult of some deities. Since any data about the materials which have been found in this place are missing it is impossible to make any theories about them.

Farther west you can see some **remains of edifices** D from the Ro man age or, perhaps, from a later one, which were built on more ancient

remains. But they are so dilapidated that cannot be identified. It is also difficult to identify a fortification wall on the promontory side by the sea. The regular cuts which can be seen on the rock by the sea, must have been the foundation planes for the dry-squared blocks, a building technique of the Punic world. Probably, the squared blocks used in the foundations of the main walls of Aesculapius sanctuary had been removed from these walls after it had lost its function.

Proceeding towards the house of the tetrastyle atrium we can see some bases with remains of a mosaic which indicate the layout of a **peristyle** D. The few fragments of the mosaic floor can be dated from about the first half of the 3rd century A.D. The surrounding zone has not been excavated yet and the building to which the peristyle must have belonged is still unknown.

From this point we can walk to the end of street EI, then, turning to the right, we proceed along a path between the beach and the **east-ern dwellings** D. Excavations in this zone were carried out in order to bring to light the structures without caring for the different building events. Infact, we can see dilapidated remains of projecting sections of walls, but planes and floors cannot be distinguished. The most used masonry technique was 'opus africanum' the stones of which, held weakly together, have collapsed by now. At present (1983) the archeologists are trying to do something about it. Some slight escavations carried out in the zone, that was not excavated in the 1950, have revealed a series of floors and re-buildings made up in different ages i.e. from the Punic period to the Roman age. The use of the 'opus africanum' masonry technique in the middle Roman age can be seen by means of a small Roman altar later reused as a load bearing element of one of these walls. It is quite certain that this place must have been a

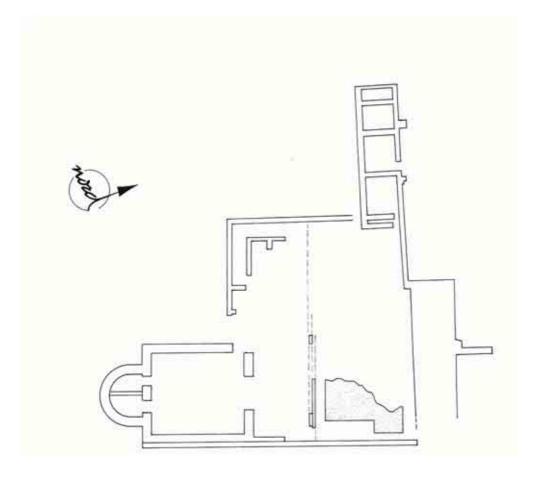


Fig. 36 Aesculapius' Sanctuary. Imperial phase. Sketched plan.



 $\textbf{Fig. 37.} \ \textit{Ce/la of Aesculapius sanctuary (26)}. \ \textit{In the background the tower of Coltellazzo}.$ 



Fig. 38. Giovine dormiente dal santuario di Esculapio.

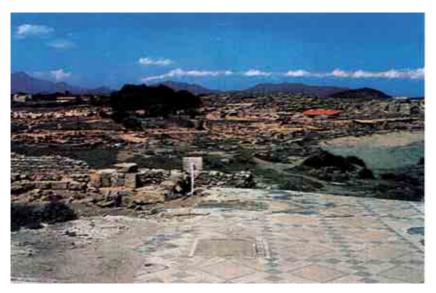


Fig. 39. View of Nora from the cella of Aesculapius sanctuary.



Fig. 40. Strutture con muri a telaio del quartiere n. 30

dwelling district because of the presence of cisterns and wells. Earlier excavations had provided very ancient materials dating from the Phoenician age, but, unfortunately, they have been lost. However, an investigation carried out in the debris lying in this zone has found out some fragmenst which can be dated back from the first half of the 6th century B.C., that is, from Phoenician times.

The path runs along the outer side of the forum then turns around it and leads towards Street A.B. and the exit.

## Glossary

**Adyton:** The innermost sanctuary or shrine in ancient

temples, often a private chamber.

**Alcove:** A recessed part of the cubiculum meant for a

bed.

**Apodyterium:** A dressing room in a Roman Bath or

palaestra.

**Tetrastyle atrium:** The central hail of a Roman house. When

marked by columniation with four columns

across the front it was called tetrastyle.

**Calidarium:** The room in a thermal building for bath in

steam. Often with one or more bathtubs

filled with fresh water for cooling off.

**Cappuccina:** Roofing system consisting of a double slope

structure covered with slabs or tiles.

Caput viae: It was the central point indicating the pro-

gressive extents of space measured linearly

along a road.

Castellum aquae: An edifice or structure for gathering the

water coming from the aqueduct and them

conveyed to the city.

Cavea: The tiered semicircular seating space of a

theatre or amphiteatre.

Cocciopesto: Paving built of small stones and ceramic

fragments held together with mortar.

**Cubiculum:** A room provided in a Roman house, consti-

tuting a bedroom.

**Deambulatorium:** A porticoed corridor.

**Destrictarium:** Room in a thermal building for massages

and anointments.

**Domus:** A dwelling for ancient Roman times.

**Ecista:** The founder of a town.

**Emblem:** A featured picture or ornament in mosaic

word used for decorating pavements, floors or walls. Often it was an imported

and separate ornament.

**Forum:** The marketplace or public place of an

ancient Roman city. It formed the centre of

Judicial and public business.

**Frigidarium:** A room of ancient Roman thermae furnished

with a cold bath and used for coohag off.

**Gargoyle:** Architectonic element. A spout often having

the form of an animal head projecting from a roof gutter to throw rain-water

clear of a building.

**Hospitium:** Hotel.

**Impinvium:** A cistern or a tank in the atrium or peristyle

of a house of ancient Rome to receive

the water falling through the 'compluviurn'.

**Macellum:** Marketplace.

**Miliarium:** Milestone i.e. a stone serving a mile post,

which marked the distance from the "caput viae". Often it bore the name of the person who had carried out the road work and the name of the Emperor of that age.

**Natatio:** Swimming pool.

**Nymphaeum:** Dedicated to the nymphs. Shrine of

Nymphs. A Roman building or room con aining a foundation adorned with plants and sculpture, and serving as a place of

rest.

**Opus auricanuni:** Wall structure made up of intervaled pillars

or huge blocks. The intercolumnar spaces were filled with small and irregularly shaped stones held together with different

materials

**Opus caementieium:** Masonry material consisting of mortar,

pozzolana which when mixed with lime form an execellent cement. With this cement was mixed an aggregate of broken ceramic

fragments.

**Opus sectile:** Stone inlay or tiling using pieces cut to fol-

low the outline of the design. The floor consists of a plychrome mosaic of marble fragments larger than tesserae and generally

forming abstract or stylized floral

patterns.

**Opus spicatum:** Paving technique consisting of small bricks

rectangular in shape laid in the form of a

spike or a herringbone pattern.

**Opus testaceum:** Masonry structure consisting of an opus

caementcium nucleus faced with bricks and

tiles.

**Opus Vittatum:** Wall structure consisting of an opus caemen-

ticium nucleus faced with bonding

courses of bricks and blocks.

**Orchestra:** A semicircular space in a Roman Theatre

used for the seats of persons of distinction.

**Peribotus:** Corridor skirting an edifice. An enclosed

court especially about a temple.

**Peristyle:** A colonnade surrounding a building, a

court or a temple.

**Porticus post scaenam:** A portico resting behind the 'scaena' (stage)

of the theatre.

**Praefurnium:** Furnace for heating the thermal rooms.

**Pronao:** The outer part of a temple forming a portico

immediately in front of the cella.

Rostrum, p1. Rostra: Platform for speakers in the Forum in

ancient Rome, decorated with the beaks of

ships captured in war.

Signinum: Cocciopesto (paving made up of small

stones and ceramic fragments held together with mortar) with white tesserae inlaid.

**Stenopos:** Alley, lane.

Suspensurae: The Roman thermal buildings were heated

by means of hot air circulating under the floors and through hollow bricks in the walls. The walking plane was supported by small brick pillars, set at regular intervals,

which were called suspensurae.

**Tepidarium:** A warm room of the ancient Roman thermae

> used to sit in. It was situated between the frigidarium and the calidarium.

Thermal building: Public bathing establishment divided into

> different rooms (apodyterium, frigidarium, calidarium, destrictarium, praefurnium,

suspensurae).

Tholos: A round building of classical date and

style. Often with a colonnade.

Vomitoria: An entrance piercing the banks of seats of

a theatre or amphitheatre.

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