

# **TARANGAMPADI (TRANQUEBAR) EXCAVATION & CONSERVATION REPORT**

**2001 - 2002**

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Front Cover : Front view of Tarangampadi fort

Back Cover : Night view of Tarangampadi fort under illumination

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## **PREFACE**

The State Department of Archaeology was started in the year 1964. It has 85 monuments in its control. The maiden attempt at conservation archaeology exclusively by the Department was launched in 2001 AD. Earlier during the 8th World Tamil Conference, Sartaj Mahal and Arsenal Towers in the Thanjavur Palace Complex were conserved by the Archaeological Survey of India. The work of conserving the Southern Wing of the Danish Fort, Dansborg (Old Governor's Residence) in 2002 AD with in a period of 3 months was a successful work of conservation.

This was possible due to the co-operation extended by Thiru K.T. Narasimhan, Superintending Archaeologist of Archaeological Survey of India (ASI) and Thiru M.G. Chella Pillai, former Archaeological Engineer of ASI in Tamilnadu. The work of conservation of the rampart wall was pending for more than 8 years. Excavation was taken up to know the nature of the foundation, so that conservation could be done. Notes of inspection called as "Archaeological Prescription" were prepared by me for several monuments, out of which Dansborg, Tranquebar is an important monument.

These notes were given to the State PWD to serve as a guide for conservation of monuments according to archaeological norms under the 11th Finance Commission Grants. I have used a Participatory Approach using Participatory Rural Appraisal (PRA) methods. I consulted stake holders viz. Archaeologists, local people and heritage lovers, Archaeologist Thiru K.T. Narasimhan, ASI Engineer, Thiru M.G. Chella Pillai and Engineers of Public Works Department (PWD). The notes of inspection given by me on Tranquebar are appended in this report.

The excavation was done under my direction and guidance by Thiru T. Subramanian, Archaeologist of the State Department of

Archaeology, Government of Tamilnadu. The mounds of sand were removed carefully.

Two offsets were found and several types of bricks ranging from the large size of the early 17th Century AD to the small size of the late 18th Century AD were seen. Some conservation done in the early 20th Century around 1930s could also be seen as a course of bricks on the rampart wall after excavation.

Strata after strata were carefully exposed. Some artefacts were also found like the broken porcelain of Europe of the 17th Century AD. They were laid out in the pottery yard (see photo).

The nature of the foundation was exposed. This helped to conserve the rampart wall and rebuild it using similar bricks and other bricks that had already been stocked at site since 1997 AD. They were used in the inner layer. In the outer layers, use was made of old bricks which were reused or new bricks made to the old dimensions. The rampart wall is now complete.

The work of conservation started during July 2002 during my tenure and was completed during the tenure of my successor Thiru Ashok Vardhan Shetty, I.A.S., who took charge on 23.8.2002. The work was done by the PWD under the guidance of Thiru M.G.Chella Pillai. I have again taken charge on 20.7.2003 and am happy to see the completion of work.

I have also included a few photographs of the conservation work of the badly damaged southern portion of the fort building itself (Old Governor's Residence). This work was started on 14.4.2002 and was completed on 14th July 2002 during my tenure. This included the monument and interior lighting and received world wide acclamation including a citation from the Govt. of Tamilnadu and appreciation from the Queen of Denmark.



Place : Chennai  
Date : 03.09.2003

Dr. R. Kannan, Ph.D., I.A.S.,



## **INTRODUCTION**

The State Department of Archaeology is doing excavation in various places, from the prehistoric period to the historic period. Most of the excavations were done in the historic sites like Gangaikondacholapuram, Poompuhar etc. These excavations reveal the archaeological importance of the area. The Tarangampadi excavation was done near the rampart wall. This was done to know the nature of the foundation before conserving the wall. This is excavation for conservation.

A rampart wall was constructed around the Tarangampadi fort in 1620 AD. This rampart wall was damaged due to storms. So it looked like a mound. The State department of Archaeology laid a trial trench in the year 2001. The base of the whole rampart wall was not exposed within the single trench. So in the next year 2002, three more trenches were laid at lower levels as offsets. The foundation and the method of construction were exposed in this excavation. This rampart wall was constructed with burnt bricks in headers - stretcher method.

### **TARANGAMPADI (TRANQUEBAR) FORT - TARANGAMPADI EXCAVATIONS**

Tarangampadi, the historical port, lies on the east coast in Poraiyaru Taluk of Nagapattinam district. It is situated on the Nagapattinam - Chidambaram road at the distance of 15 km south of Kaveripoom-pattinam, the celebrated Chola port of Sangam Age and 7 km north of Karaikkal. The river Poraiyar locally called Uppanaru, has

a confluence with the Bay of Bengal on the southern side of the fort.

### **Historical background**

This port city is in existence since the Sangam period with varying degrees of importance. The Sangam works like *Purananuru* (391), *Agananuru* (100) and *Natrīnai* (131) refer to this city as Poraiyaru. The Sangam poet Kalladanar praised the elder (*kilan*) of Poraiyaru, who posed with the chariot. *Agananuru* refers to ‘*pariyudai narrerp periyān viriyanarp punnaiyan kaavar purandai munrurai*’. The term *purandai munturai* undoubtedly indicates that the town Purandai (Poraiyaru) would have existed as a port town. The word *munturai* always stands for a port that is situated on the estuaries. The suffixes that are found in association with celebrated port towns like *Virai munturai* (Arikamedu), *Puhār munturai* (Kaveripoom-pattinam) and *Karachi munturai* (Korkai) clearly vindicate this point.

Another Sangam poem, *Natrīnai* (131) refers to this place as Poraiyaru. The relevant lines say ‘*narrerp periyēn, kal kamal poraiyaru anna*’. Beyond the reference cited above nothing could be discerned from Sangam literature. Much of the data relating to this place emerges from the medieval period.

The earliest standing monument that stands on the seashore of this place is the Siva temple called *Masilamaninathar* Temple, then called *Mannivānnesvaram*. It carries an inscription datable to the Pandya king, *Maravarman Kulasekaran*. The 1305 AD inscription states this place as *Sandankanpadi* alias *Kulasekaranpattinam* (SII 4:399). It is clear from this inscription that this place is



known as *Sandankanpadi* and it is renamed as *Kulasekarapattinam* during the period of the Pandya king, *Maravarman Kulasekaran*. The present name Tarangampadi would be the corrupt form of *Sadanganpadi*. Further this inscription refers to the trade guild *patinenvisayattar* (traders of 18 countries) and *karaiyar* (probably sailors). During this period, particularly under the Pandya's, the trade guild *patinenvisayattar* took an active part in international trade and also played a great role in the maintenance of the port. Another inscription also refers to the merchants as *Settis* (SII 4:400). An Inscription engraved during the 24th regnal year of the *Pandya* king, *Maravarman Vira Pandya* refers to the merchants and the soldiers who were stationed at the port for the protection of merchants. The inscription datable to *Sundara Pandya* found in the *Amirtakateswarar* temple at *Tirukadaiyur* in *Mayavaram* taluk of Nagapattinam district also refers to this port as *Kulasekarapattinam*. The inscription engraved on a loose slab during the period of the *Nayak* king, *Achchutappa Nayak* found at *Masilamaninathar* temple refers to this place again as *Sadankanpadi*. It also refers to the soldiers who were stationed at this place in the protection of the merchants. This indicates that this place continued as a port town till the *Nayak* period. However, whether the fort existed immediately prior to the Danish is not definitely known. The term *kottai senai kaikolar* found in the *Nayak* inscription stands for the soldiers who were placed to protect the fort. As the name of the fort is not specifically mentioned, it is inferred that this *kaikolar* would have protected the fort that existed at Tarangampadi.

An inscription datable to 1606 AD found in the

*Varadarajaperumal* temple dedicated to God *Vishnu* mentions that this temple was reconstructed by one *vikram vaidya chettiyar*. He made certain provisions for the daily worship at this temple. He collected the taxes from fisherman alias *Ariya nattar* and donated the same to this temple. The local fishermen still worship this temple as *matsyavatara*, one of the ten incarnations of *Vishnu*. Every year festivals are being conducted in this temple.

Coins of Chinese origin were also encountered at this place. The inscription found at *Varadharajaperumal* temple mentions a term called *sampan suvanthiram*. Scholars feel that *sampan* is nothing but a corrupt form of *San-Pan*, which stands for a Chinese ship. There are references about *sampokku* which also has a close resemblance to *sampan*. Further quite a number of Chinese celedon wares collected at this place clearly suggest that this port would have had contact with China.

Two missionaries one under the leadership of Bartholomeus Zeigenbalg and another under Fr. Schwartz deserve special mention. Zeigenbalg landed at Tarangampadi on 9th July 1706 during the reign of Frederick IV, the King of Denmark and Norway. The first printing press in Tamil established at Tarangampadi and the New Testament translated into Tamil by Zeigenbalg was printed here. He built the New Jerusalem Church at Tarangampadi in October 1718, which is located on the northern side of the fort. Fr. Schwartz, the celebrated mentor of Maratha king Serfoji II of Thanjavur, arrived at Tarangampadi in 1750 AD and served there for eleven years before moving over to Thanjavur.

Foreign traders slowly made their presence at this port during the reign of the *Nayaks* of Thanjavur. They were from England, France, Holland and Denmark.

The King of Denmark sent two ships to India under the leadership of Ove Gedde. Before coming to India, he stayed at Sri Lanka. With the help of Roeland Crape of Holland, he made contact with the *Thanjavur Nayak* ruler, *Ragunatha Nayak*. Both Ove Gedde and *Ragunatha Nayak* made an agreement on 19th November, 1620. This agreement was written on a golden leaf in which *Ragunatha Nayak* affixed his signature in Telugu script. This agreement presently is housed in the Royal Archives, Copenhagen. According to the agreement, a part of Tarangampadi was given to the Danish trader and also a provision was made for collecting taxes. This agreement was made in line with the Nagapattinam agreement, which was given to the Portuguese during that time.

After that, Tarangampadi became a centre for Danish traders for nearly 225 years. Nearly 51 Danish Governors were posted to Tarangampadi, which itself indicates the importance it attained during their rule. Tarangampadi was under the control of the Danish East India Company administrators from 1620 to 1845 AD. The ships of Denmark used to take six months to reach Tarangampadi. To mark the momentous occasion of the arrival of a ship, they issued a coin with name of the ship on the coin like David, Elephant, etc.

### **Tarangampadi Fort**

The fort was first built in 1620 AD. Though most parts of the fort had been reconstructed several times,



fortunately we could recall the original plan and other additional structures based on the plans made from time to time, which are available.

Tarangampadi fort consisted of two large structures. They were the rampart wall and the main buildings. The rampart wall was a fairly large foursided structure with bastions at each cardinal point. Along the three inner sides of the fort wall, a single storied building was constructed. These rooms were used for barracks, warehouse, kitchen and jail. Now, the rooms on the southern side are in good condition but the rooms on the western and northern sides have been completely damaged. On the eastern side of the fort, there was a two-storied building facing the sea. It was the main building of the fort. The vaulted lower storey served as magazines and a warehouse while the vaulted upper storey contained the church and the lodgings of the governor, the senior merchants and the chaplain. The fort was surrounded by a moat and access to the fort was over a drawbridge. This moat has completely disappeared. The sea on the eastern side and the river on the southern side protected it.

A flagstaff is built on a higher platform. A dome like structure found in the terrace on the centre part of the main building is built like an elephant back. It is divided into four compartments. These four domes are tied with iron rods. In the second phase of the work, the outer fortification wall has been built by providing a moat in between the inner and outer fortification wall. To bring the water from the adjoining Uppanar river to the moat, they made a water-inlet in the southwest corner of the outer fortification wall.

In the third phase of the construction, the complete fortification covering the entire town was made. This little town had no fortification up to 1660 AD but the Danish governor Eskild Anderson (1665-72) had built walls around the town and strengthened the walls with four large gun towers. It was constructed in Indian military tradition. After some time, the walls were replaced by stone faced earthen ramparts. Gun towers were gradually replaced by bastions. The city fortification wall started at the southwest corner of the previously mentioned outer fortification wall and adjacent to the water-inlet. After circumambulating the entire city, the wall ends with the northeastern corner of the outer fortification wall. This made the city a fortified one. This fortification wall covering the entire city was strengthened from time to time. For instance, initially, this wall did not contain any bastions. Later, nearly eight bastions were added in which two are in circular fashion and the remaining are conical in shape.

The fortified town lost its importance because of Haider Ali. The fortification wall along the beach was also washed away by the sea. After that the town completely changed its structure and appearance. Now the fortification wall of the town is not found except at the main entrance in the western side of the town. It is a protected monument maintained by the Archaeological Survey of India. Because of the political situation, the East India Company bought the Danish settlement in India in 1845. So the Danish King sold the town and territory to the English East India Company.

Now only the two storey main building and the outer



fortification wall stand as a mute testimony to the excellent fort that survived for centuries. The moat has completely disappeared due to sand filling. The outer fortification wall, inner fortification wall and the city fortification wall have been renovated from time to time in order to strengthen the wall. For instance, the rooms built along the inner edge of the inner fortification wall were damaged. Due to this, the rampart lost its strength. In order to strengthen the wall or prevent further deterioration, a new wall having 75 cm breadth has been constructed along the entrance of the rooms. The gap between the inner edge of the rampart and this wall is filled with sand thereby making the total breadth of the wall to 11.25 m. The sand fill broadens the wall size considerably.

### **Aim of the Excavation**

The information gathered from different sources clearly suggests that this place continued in existence for a long period of time. The fort built in 1620 AD also went into different stages of construction and subsequent destruction. The exposed rampart wall could not give any idea on the nature of construction and subsequent modification. The non-availability of the factual data hindered in planning the preservation of the monument. So, it was planned to take up a small preliminary excavation near the fortification wall to identify the different phases of the construction.

The entire excavation was done by Thiru T. Subramaniam, Archaeologist under the direction and guidance of Dr. R. Kannan, Ph.D., I.A.S., Commissioner of Archaeology.

## **Layout of the trenches**

In total, four trenches were laid in which the trench 1 (TGI-1) in the year 2001 and the remaining three in 2002 (TGI-2, TGI-3, TGI-4). The TGI-1 was laid at the northern entrance of the rampart wall. TGI-2 was near the inner edge but on the western side of the northern gate (present main entrance). The TGI-3 was laid on top of the rampart wall but above the TGI-1. The TGI-4 was laid further to the western side of the TGI-2. The size of the trench was 2x2 m except the TGI-4 which was 1x4 m. It is not possible to cut-across the entire rampart at a single point as it would damage the entire structure. To avoid and prevent any further damage, the trenches were laid where the wall was completely damaged. Therefore, the trenches occupied different levels. The nature of deposit exposed in the TGI-1 and TGI is given below for better understanding.

## **Description of the cuttings**

The trial trench TGI-1 was laid on the rampart wall in 2001. It measured 2x2 meters and was oriented in south-north direction. The removal of the humus exposed the sand mixed with soil. Below this layer 75 cm breadth of rampart wall was exposed. The exposure of the wall restricted the area of digging to 1.25 m. To overcome this, the area of the trench was extended a further 50 cm on either side and this made the total extension to 1 m. At the depth of one meter brick paved floor was exposed. Full bricks as well as half bricks were used for the floor. Above this floor three layers were noticed.

The trench (TGI-2) measuring 2x2 meters was laid near the rampart wall and oriented in south - north direction. It was dug up to the depth of 2 meters from the

surrounding ground level. The occupational deposit revealed two kinds of foundation forms, one above the other.

### **Stratigraphy**

One need not expect any occupational debris in the rampart wall and the aim of the excavation also was to expose the nature of construction rather than the exposure of any cultural material. The integration of stratified layers that were exposed at different levels yielded eight layers in total. The fusion of stratification that was found in all the four layers can be understood in the following layers:-

Layer 1 consisted of sea sand soil and the content of the soil was almost uniform throughout the trench. The thickness of the stratum varied from 45 to 50 cm. Layer 2 having 50 cm thickness was made of loose sand mixed with pebbles. These two layers were brought to fill the rampart wall. The 30 cm thick layer 3 consisted of brownish soil and was a little hard. Brickbats, sand and lime were mixed in this soil. Layer 4 having 35 cm thick deposit was also brownish in colour but the brick bats and lime patches were found here and there. Below the layer 4, brick paved surface was exposed. Three rows of bricks were exposed. The layer 5 was yellow in colour and very loose and porous in texture. The thickness of the layer varied from 30 to 35 cms. Layer 6 was quite distinguishable from the above layer both in texture and content. This stratum was blackish in color due to the appearance of clay contents in it. The thickness of the layer was 15 cms. The layer 7 was brownish soil and was a little hard. The average thickness of the layer was 35 cm. Brickbats and mortar were mixed with this layer. Chinese potsherds and coarse red ware sherds were collected. Layer 8 was similar to the layer 7.



It was also brownish in color and the average thickness of the layer was 30 cm. Small pieces of brickbats and mortar were mixed in this layer in less quantity than the seventh layer. Below this a row of bricks were found above the natural soil. The natural soil was reached at an average depth of 2.80 meters.

### **Nature of construction of the Rampart wall**

The exposure of constructional material that was found at different levels clearly suggested the method of construction. A single layer paved brick was laid right on the natural soil i.e., sea sand at this place. Above this brick paved floor, 30 cm thick compact clay mixed with brickbats and lime was laid. Above this compact earth filling, again 30 cm thick yellowish soil, locally called *tavittuman*, was used. Over this yellowish soil, another brick floor was paved. The total breadth of this floor comes to 12.25 m. By leaving a metre on the interior, the rampart wall is built upon this floor covering breadth of 11.25 m. The rampart wall consists of two walls each having a thickness of 75 cm. The gap between the two walls (9.25 m) is filled with brickbats, soil and sand. The total height of the wall comes to 4 m. The binding material used in the wall is lime mortar. The size of the brick is 20x13x4 cm. The upper surface of the wall slopes inward in conical shape. The upper surface is completely covered with a brick paving. The conical shape and the brick paving helps to drain the rain water as well as prevent any seepage of water into the wall surface. The outer and inner surface of the wall is plastered with lime mortar. Two layers of lime mortar were exposed. The lime mortar is again washed with red ochre. Another buttress wall having a thickness of 65 cm was added attached on the outside of the wall. It seems, this

was added in later days as the size of the brick varies from that of the rampart wall. The size of the bricks used in the buttress wall is 21x12x6 cm. The bricks used in the rampart wall is made of fine clay and well burnt. All the bricks are equal in size, whereas the brick used in the buttress wall are mixed with more sand and are irregular in shape. The buttress wall could be a late 19th Century or early 20th Century construction.

### **Pottery**

The potsherds collected from Tarangampadi excavation were red ware, black ware and Chinese ware. Red ware sherds occurred in large quantity. The fabric of the red ware was mostly coarse and a few sherds might have been prepared out of better clay. Most of the red ware was well fired and few ill-fired sherds were also collected. A few black ware sherds were also unearthed. The Chinese potsherds contained blue colour painting on the white colour surface. Flower designs and lines were found both on the exterior and interior surface of the pot. One sherd shows a beautiful Chinese lady in blue color on the exterior surface. The dress and the appearance of the face are interesting.

### **Conclusion**

After finding out the nature of the construction, conservation has been carried out. Photos and sketches of Tranquebar downloaded from the website [www.trankebar.net](http://www.trankebar.net) and those taken at site are placed at the end of this report.



## **INSPECTION NOTE**

of Shri K.T.Narasimhan, Superintending Archaeologist,  
Archaeological Survey of India, Chennai Circle, Chennai-9.

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Name of the Monument : Dansborg, Tranquebar,  
Nagappattinam District.

Date of Inspection : 17.7.2001.

A joint inspection was made by me along with Dr.R.Kannan, I.A.S., Commissioner, Govt.Museums and I/c of Department of Archaeology, Govt. of Tamil Nadu and Shri Sudhip Jain, I.A.S., District Collector, Nagapattinam District.

This fort is facing east, having flight of steps to reach the hall. The fort is running North-South orientation having vaulted roof. It appears that the present floor level was raised. It is evident from the fact that the lime plastered arches are not having atleast 4 feet height, which shows the original level might have been different and the present floor level was raised.

The fort structurally seems to be in good condition, but heavily damaged due to age and weathering. Though originally lime was used for plastering subsequently cement was used. This fact can be seen, because still a few patches of lime plaster exist even today. The core is affected wherever the plaster has gone. It is not possible to visualize the actual extent of damage to the wall unless and otherwise it is deplastered.

The conservation measures are recommended as under:

- 1) Deplastering the exterior as well as the interior walls.
- 2) Depiastering of interior portion of the dome (vaulted roof).

- 3) Pinning/grouting/filleting wherever necessary to get even surface of the wall.
- 4) Thorough washing of the entire surface (Deplastered surface) with sweet water. This is necessary to desaline the entire wall surface.
- 5) Plastering with combination mortar.
- 6) Reproduction of cornice, pilaster and other architectural decorations.
- 7) Replacement of wooden windows.
- 8) Providing cross bars to the windows with S.S.Rods.
- 9) In this fort, the central portion has got a high roof in the form of 4 domes with a pillar at the centre. On physical examination it is found that since the domes are rectangular in shape, mere brick pinning will not serve the purpose, that is why the tie-rod is used on four sides upto the wall as well as centre masonry pillar. The idea is to transfer the load over the central pillar.

Therefore, it is not possible to suggest the conservation measure without deplastering the dome and physical examination of the given iron rod. It is also clear that the tie-rod is used in the East-West orientation separately for each dome. Its condition also has to be probed before executing the conservation work. Hence, water tightening of the roof for special care has to be taken, otherwise the entire thing may come down within no time.

-Sd-

(K.T.NARASIMHAN)

SUPERINTENDING ARCHAEOLOGIST

## **INSPECTION NOTE AND ARCHAEOLOGICAL PRESCRIPTION**

of Dr. R. Kannan, Ph.D., I.A.S.,  
Commissioner of Archaeology & Museums, Govt. of  
Tamilnadu.

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Name of the Monument : Dansborg castle at Tranquebar  
in Poraiyar Taluk,  
Nagapattinam District.

Date of Inspection : 08.10.2002.

The State Government have allocated a sum of Rs.3.15 lakhs under the XI Finance Commission grants. The state government protected monument of Dansborg castle at Tranquebar was inspected by the Commissioner of Archaeology and Museums along with the Executive Engineer, PWD, Nagapattinam and Thanjavur on 8.10.2002. The estimate prepared by the Executive Engineer, Nagapattinam was not given in advance and it was perused only at the site. It is observed that the bricks at site purchased through the Archaeology are not included in this estimate. The process of excavating the foundation and construction of super structure was explained to the Executive Engineer concerned at the site itself. Hence the estimate may be prepared using the bricks available at site.

A trial trench has already been dug abutting the fallen down portion of the rampart wall. It has shown two offsets up to a certain level and one more level up to virgin soil. The report of the Archaeologist, Thiru Subramanian who conducted the excavation with photographs before the pit was closed to prevent further caving in of the wall due to monsoon may be seen by the E.E.

1. The existing earth of the caved in portion is likely to yield a lot of old bricks. These can be reused wherever possible. This will reduce cost of materials.



2. Stitching of the new bricks to the old wall has to be done very carefully using a well ground combination of mortar with a proportion of 1:1:3 using lime free of salt, which is available only at Pollachi as sourced by ASI. The existing bricks on site may be used for the offsets on the northern side of the wall as per existing archaeological evidence.
3. While using combination mortar, No.12 sieve mesh may be utilised for screening the sand to get nice sand. Serum of Gallnut and Jaggery in 15 kg Per cum in equal proportion is also to be added at the time of work. Some aloe vera juice may be added since it is close to the sea.
4. It may be necessary to go down upto the level of the last two offsets. It may not be necessary to go down to virgin soil as the portion above it is well establised for more than two hundred years.
5. The gate of the castle may be made with teak wood reapers strung together on a teak wood frame on the inner side. This will give the same look and construction as a 17th century AD European castle, which is what it looks like in old pictures and drawings.
6. The weathering course of the arch above the entrance has too many layers resulting in unnecessary head load. The superfluous layers may be removed and water tightening may be done. The removal may be done by a power tool (chipper) to ensure minimum vibration.
7. There is dampness in the vaulted basement portion of the main building of the fort. It is likely that there will be savings due to using the excavated old bricks and the bricks bought and stocked by the State Department of Archaeology a few years ago. These may be utilised for digging a trial trench in the basement (vault) of the main fort structure. This trial trench should be dug under archaeological supervision to avoid the possibility of damage to the foundation. This will

help to find out the ancient drainage and foundation details of the main structure on the western side. The trial trench may be dug at the central portion of the wall sides and not near the pillars to avoid any destabilisation of the ancient structure.

On completion of the above process, we may come to some conclusions on the nature of the rectification work required.

The Government has again sanctioned Rs.35.00 lakhs for the Dansborg Castle for repair work vide G.O.No.232, Tamil Development Culture and Charitable Endowments Department, dated 25.9.2002 for financial year of 2002-2003. For these works, the Inspection Notes of Shri K.T.Narasimhan, Archaeological Survey of India given after careful study of the structure in July, 2001 itself, was handed over on the spot by the Commissioner of Archaeology to the Executive Engineer, Nagappattinam.

It is further instructed that the works identified by him especially the structural work to save the fort main building should be given top priority.

The works identified in addition to those identified by Shri K.T.Narasimhan, Archaeological Survey of India are listed below. These are to be carried out per Archaeological principles. The quality of work should be on par with what has been done on the Old Governor's Residence portion of the castle, which forms roughly half the castle main building.

These are :

1. If any problem is detected by the trial trench in the basement, necessary provision has to be made for excavating the outer side wall and footing/ filleting /grouting should be done, so that future problems will not arise.



2. The enamel protection notice board, Information Board and Name Board as per A.S.I. standard should be erected at the frontage without affecting its view. The matter to be written will be furnished by the Department of Archaeology.
3. Water tank and lavatory found at the inner buildings should be dismantled for reducing its dead load and water seepage. No such structure was contemplated in the original structure as can be seen in the drawings of the period. A Sintex tank can be provided at an appropriate place where the load is completely transferred to the load bearing main wall. This will avoid strain on structures not meant to take such a load.
4. The dummy iron rod found in the inner room for hanging a fan may be removed from the vaulted dome as was done during repairs in the southern side.
5. 1'-00" x 1'-00" hand dressed granite tiled flooring as existing in the main room at present may be provided after removing the cement floors in the halls.
6. Three numbers of septic tanks found in the open yard may be removed with drainage line. They may be the cause for the dampness in the basement.
7. Proper drainage arrangement may be given for draining the water away from the complex, in the unlikely event of no ancient drainage being found.
8. The existing lavatory in the open yard near the southwest corner of the fort wall may be modified with facilities by providing suitable roof but without spoiling the original face of the structure. A sealed septic tank may be provided there so that water does not leak and seep into the surrounding ground. It should be emptied every month.
9. The front face of the rampart wall has longitudinal cracks in

some places. These should be rectified by stitching, grouting, filleting the brick wall as appropriate.

10. Outer drain from the rampart passage platform may also be provided by linking to the drain contemplated above without changing its aesthetic appearance.
11. De-plastering and re-plastering with combination mortar 1:1:3 may be carried out at the outer face of the front rampart wall where necessary. In places, where there is no damage mere chemical cleaning is sufficient.
12. The inner and outer portion of the walls of the halls should be plastered with combination mortar and traditional mortar as has been done in the adjacent rooms of southern side.
13. Doors, windows etc. may be replaced with teakwood and polished with melamine as has been done earlier this year. The wicket gate leading to the sea on the front side may be repaired providing locking arrangements.
14. A small gateway on the eastern side may also be provided with stainless steel as suggested by the ASI.
15. Steps to the seaside are also to be repaired suitably.
16. Documentation at each stage as per the Archaeological principles should be done to counter criticism.

The works can be expected to cost not more than Rs.10-15 lakhs based on the past experience of conserving and renovating the southern portion earlier this year. The excess amount can be diverted to other monuments in urgent need of repair.

Dr.R.Kannan, Ph.D.,IAS.,  
Commissioner of Archaeology and Museums  
Taramani, Chennai-600 113.

GOVERNMENT OF TAMILNADU  
DEPARTMENT OF ARCHAEOLOGY

From

To

Dr.R.Kannan, I.A.S.  
Commissioner (I/c)  
Department of Archaeology  
CIT Campus,  
Taramani, Chennai.113

The Executive Engineer  
Public Works Department (Buildings),  
Construction & Maintenance,  
Nagappattinam.

Lr.No.B1/7001/2003/dt.27.8.2003

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Sir,

Sub: Nagapattinam District - Tranquebar Taluk -  
Tranquebar Danishburg Castle - Inspection notes -  
sent regarding.

I am enclosing herewith the archeological prescription & notes  
for my inspection for the above said monument for your action.

Encl: As said above.

Dr. R. KANNAN, Ph.D., I.A.S.,  
COMMISSIONER (I/c).

Copy to:

District Collector, Nagappattinam  
Curator, Tranquebar/Archaeological Officer, Tanjore  
Jr.Engineer, Tanjore and Chennai.

## **NOTES ON INSPECTION**

Dr. R. Kannan, Ph.D., I.A.S.,  
Commissioner of Archaeology, Agriculture & Museums,  
Govt. of Tamilnadu.

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Name of the Monument : Dansborg castle at Tranquebar  
in Porayar Taluk,  
Nagappattinam District.

Date of Inspection : 03.08.2003

Dansborg castle at Tranquebar was inspected on 3/8/2003 along with District Collector of Nagapattinam, Thiru M.G.Chellapillai, Archl., Technical Consultant & Spl.Gr.Jr.Engineer (H.Q.) of this department.

1. Reconstruction of damaged Fort wall at Tranquebar- Estimate Rs.3.15 lakhs.

The design of the entrance gate for the castle does not suit the requirement. The design is to be revised as per the instructions of the Commissioner at the site inspection and to be sent to Executive Engineer, PWD, Nagappattinam for preparing the gate & fixing the same. Design is enclosed.

Several running cracks were found on the outer vaulted roof of the castle due to the improper mixing of plastering materials. It may also due to over thickness of the plastering. This should be rectified by applying thin wash coat of combination mortar 1:1:5.

2.Restoration of Danish Fort at Tranquebar - Estimate Rs.35 lakhs.

In my earlier inspection note dt.8.10.2002, I have pointed out that



a trial trench may be dug with the help of District Archaeological Officer, Tanjore at the central portion at the basement at the wall sides before coming to conclusions about the nature of work to be carried out at this monument. But this has not been done. This will also determine why there is dampness at the base. Water may have to be drained out.

Similarly I have particularly pointed out that the deplastering & re-plastering of the face of the rampart walls have to be carried out only at the worn out / cracked portions.

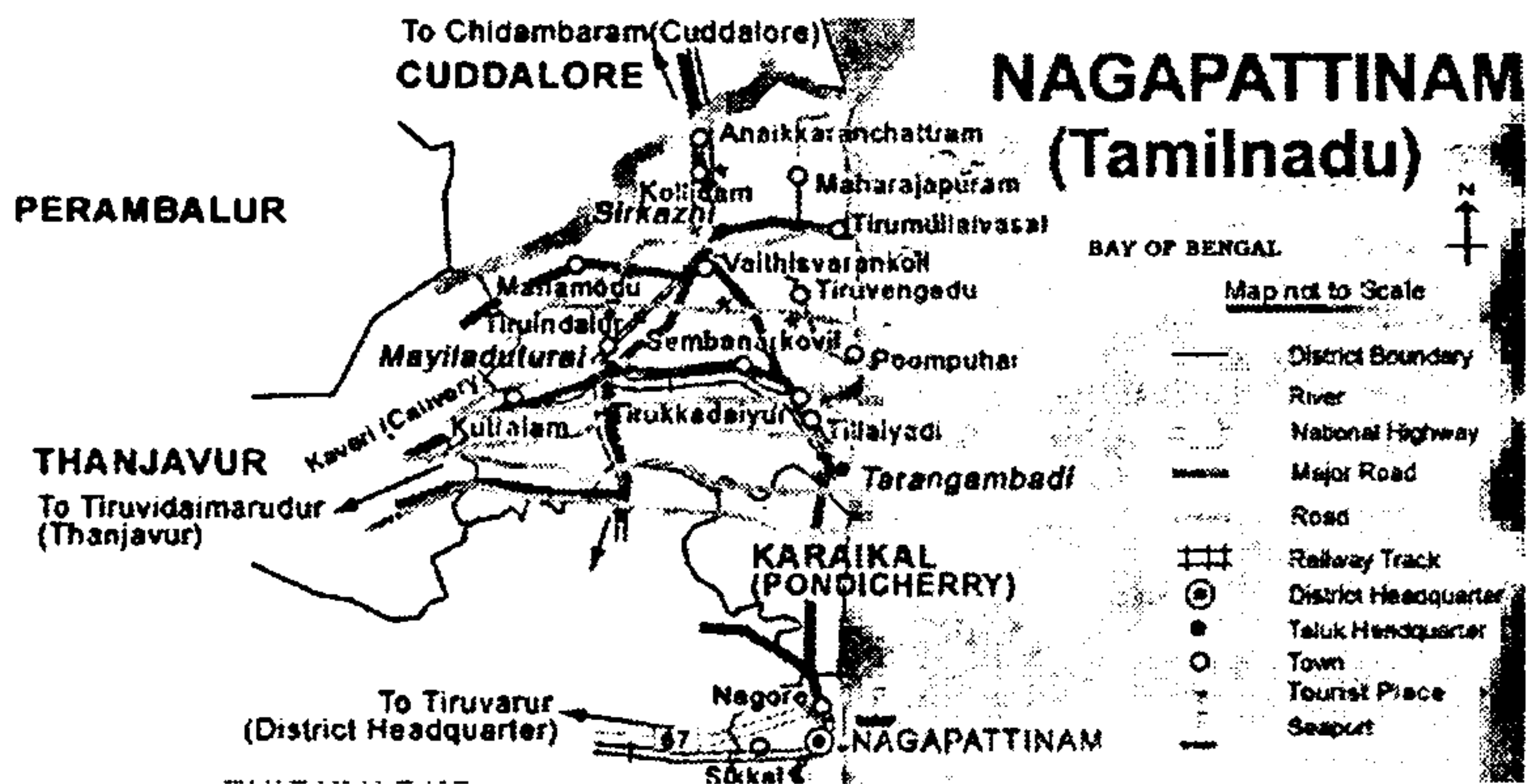
Deplastering except in damaged portions should be stopped at once. But the estimate shows that the entire portion of the wall has to be de-plastered and re-plastered. This will result in unnecessary expenditure and hence this work should be carried out only at the places of the worn out/cracked portions. The savings if any due to this should be utilized for some other needed works with the approval and consent of the Commissioner of Archaeology.

The present drain pipe has been damaged at the wall. Due to this, water flows through the wall. Moss and lichen are formed. To avoid this, a spout with projection may be provided.

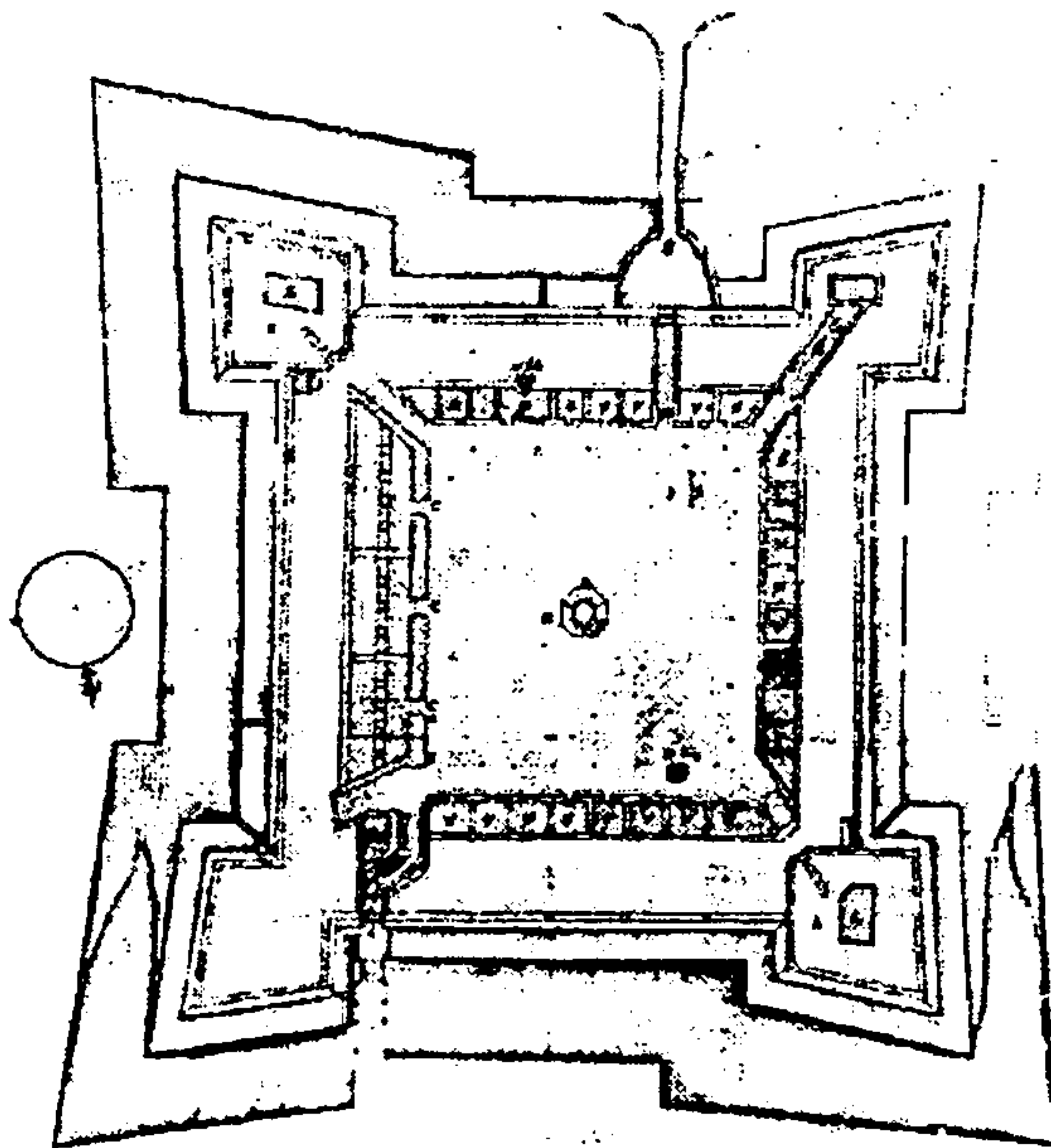
Water leakage from the room has to be examined. Water repellent (Wacker Chemicals or equivalent) has to be used to prevent dampness on the roof & side walls. It is seen that in some of the show cases lighting is not properly provided. Dichroic lighting is to be provided in the show cases. The Curator is to take proper action in this regard. Similarly fused bulbs have to be replaced wherever necessary and the expenditure met out of office contingencies.

Dr. R. KANNAN, Ph.D., I.A.S.,  
COMMISSIONER (I/c)

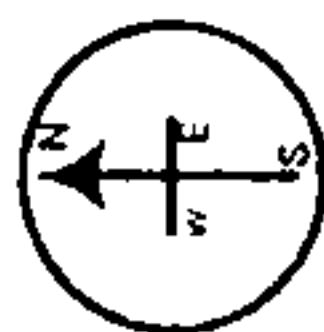




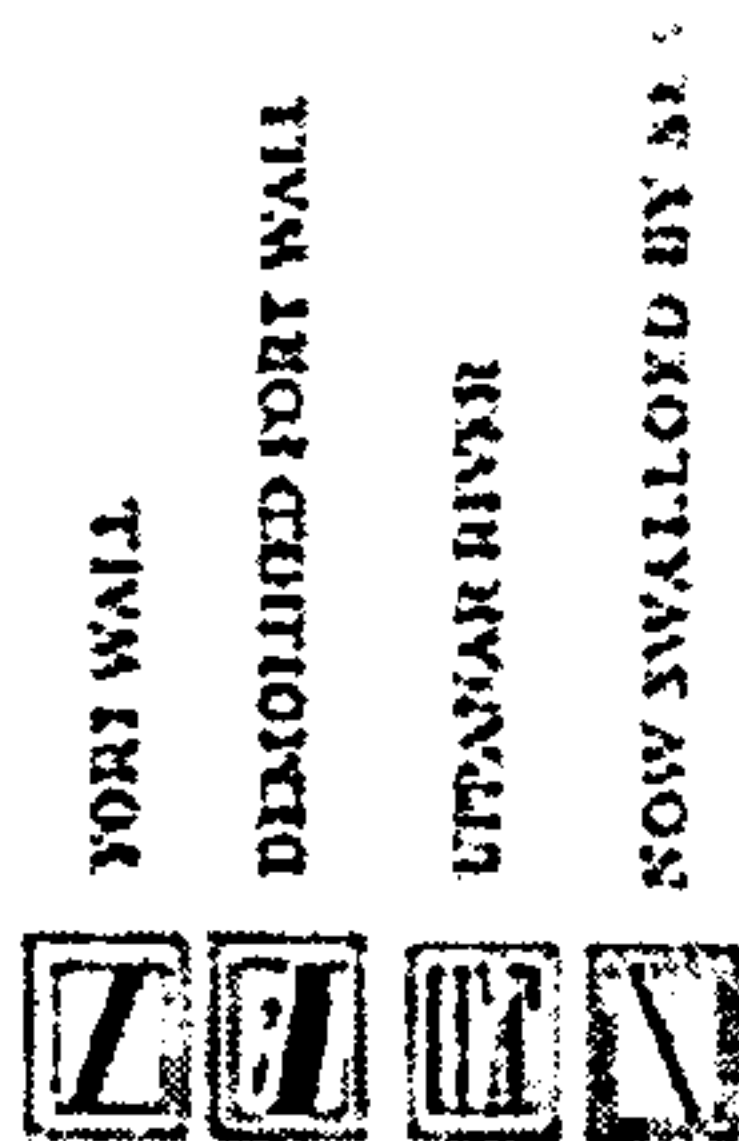
MAP OF TARANGAMPADI



OLD DRAWING OF THE FORT AND THE FORTIFICATION  
SHOWS DANSBORG TO THE LEFT -  
TOWARDS THE BAY OF BENGAL

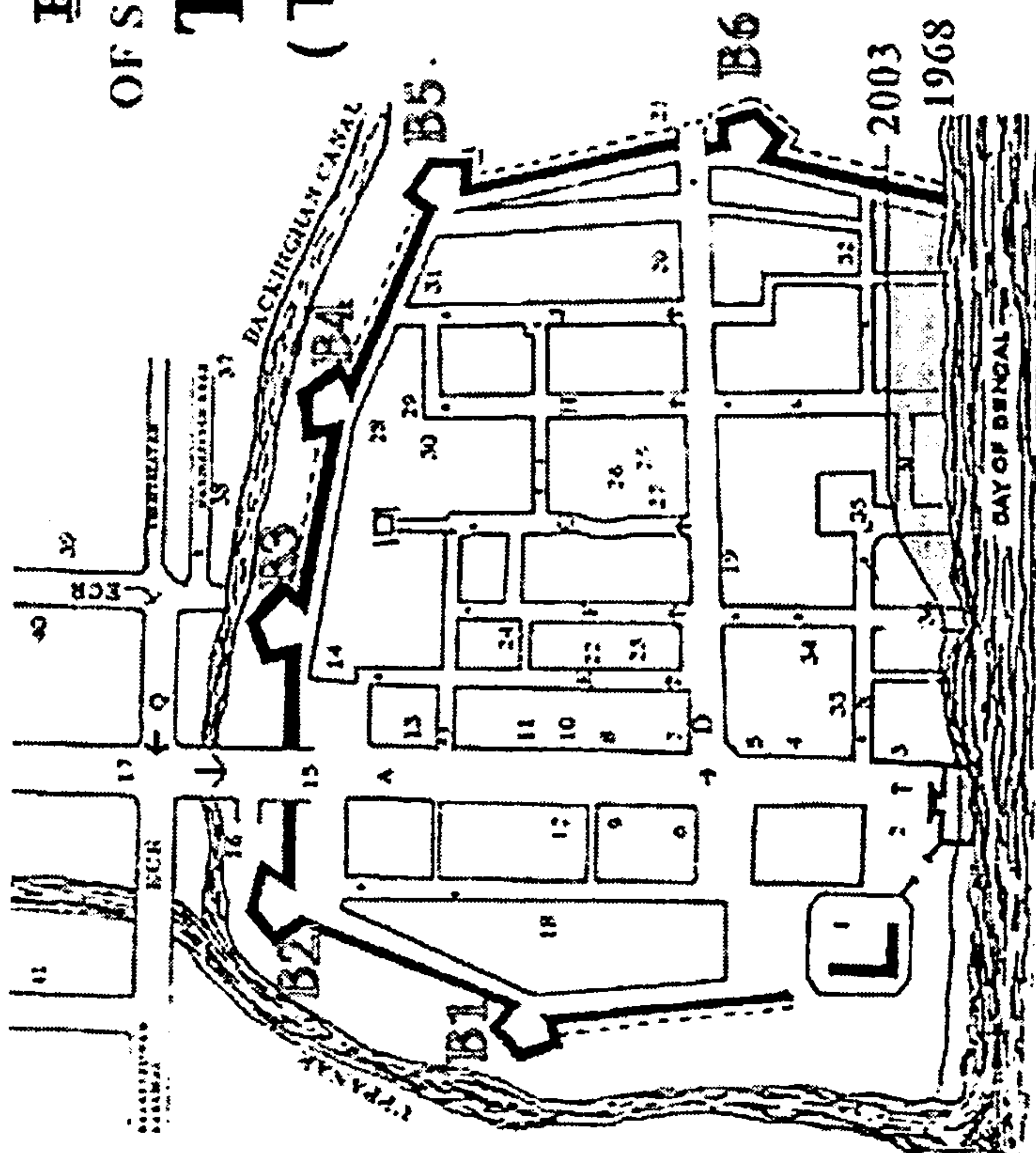


# EXPLANATION OF SYMBOLS USED ON THE MAP OF TRANQUEBAR (THARANGAMPADI)



Art by

M.A. SULTAN,  
Old Student of T.E.L.C. High School,  
Tranquebar. 18.01.1968



TARANGAMPADI FORT

**KING'S STREET "A"**

1. DANS BORG FORT
2. ZIEGENBALG MONUMENT
3. COLLECTOR'S BUNGALOW
4. DANISH GOVERNOR'S BUNGALOW
5. T.E.L.C. TEACHER'S TRAINING INSTITUTE (SITE OF THE COMMANDANTS HOUSE)
6. CHURCH OF SWEDISH MISSION (C.S.M. BUNGALOW)
7. ZION CHURCH
8. T.E.L.C. ZIEGENBALG SPIRITUAL CENTRE
9. NEW JERUSALAM CHURCH
10. ST. THERESA'S TRAINING INSTITUTE
11. ST. JOHN'S PRIMARY SCHOOL
12. ST. THERASA'S CONVENT
13. GOVERNMENT HARIJAN GIRLS HOSTEL
14. ST.THERASA'S GIRLS HIGH SCHOOL
15. CITY GATE
16. LOCAL LIBRARY
17. MONUMENTAL ERECTION

**CHETTY KADAI STREET "B"**

**NEW STREET "C"**

18. ST. THERESA'S DISPENSARY

**QUEEN STREET "D"**

19. INDIAN BANK
20. PLUTCHAV SCHOOL
21. SRI RENUGADEVI AMMAN TEMPLE

**BORGAN STREET "E"**

22. MARY'S GARDEN  
(NOW RETIRED PASTORS QUARTER)
23. PASTFRS TRAINING INSTITUTE  
(NOW T.E.I.C. GRUNDLER BOY'S HOSTEL)

**PERUMAL KOIL STREET "F"**

24. SRI PERUMAL TEMPLE

**ADMIRAL STREET "G"**

25. T.E.L.C. HIGH SCHOOL
26. ZIEGENBALG HOUSE
27. PLACE OF FIRST PRINTING PRESS IN S. INDIA

**MOSQUE STREET "H"**

28. OLD MOSQUE
29. NEW MOSQUE
30. DHURGHA

**MARICAR STREET "I"**

**NAGHUDA STREET "J"**

31. MUSLIM ELEMENTARY SCHOOL

**GOLDSMITH STREET "K"**

**SRI ANGALAMMAN TEMPLE**

32. SRI ANGALAMMAN TEMPLE

**SALANGAIKARA STREET "M"**

(NOW SWALLOWED BY SEA)

**POST OFFICE STREET "N"**

33. POST OFFICE
34. TOURIST INFORMATION CENTRE
35. SRI. SIVAN TEMPLE

**MASILLAMANI KOIL STREET "O"**

36. SRI MASILLAMANI TEMPLE

**MANIKA PANGU ROAD "P"**

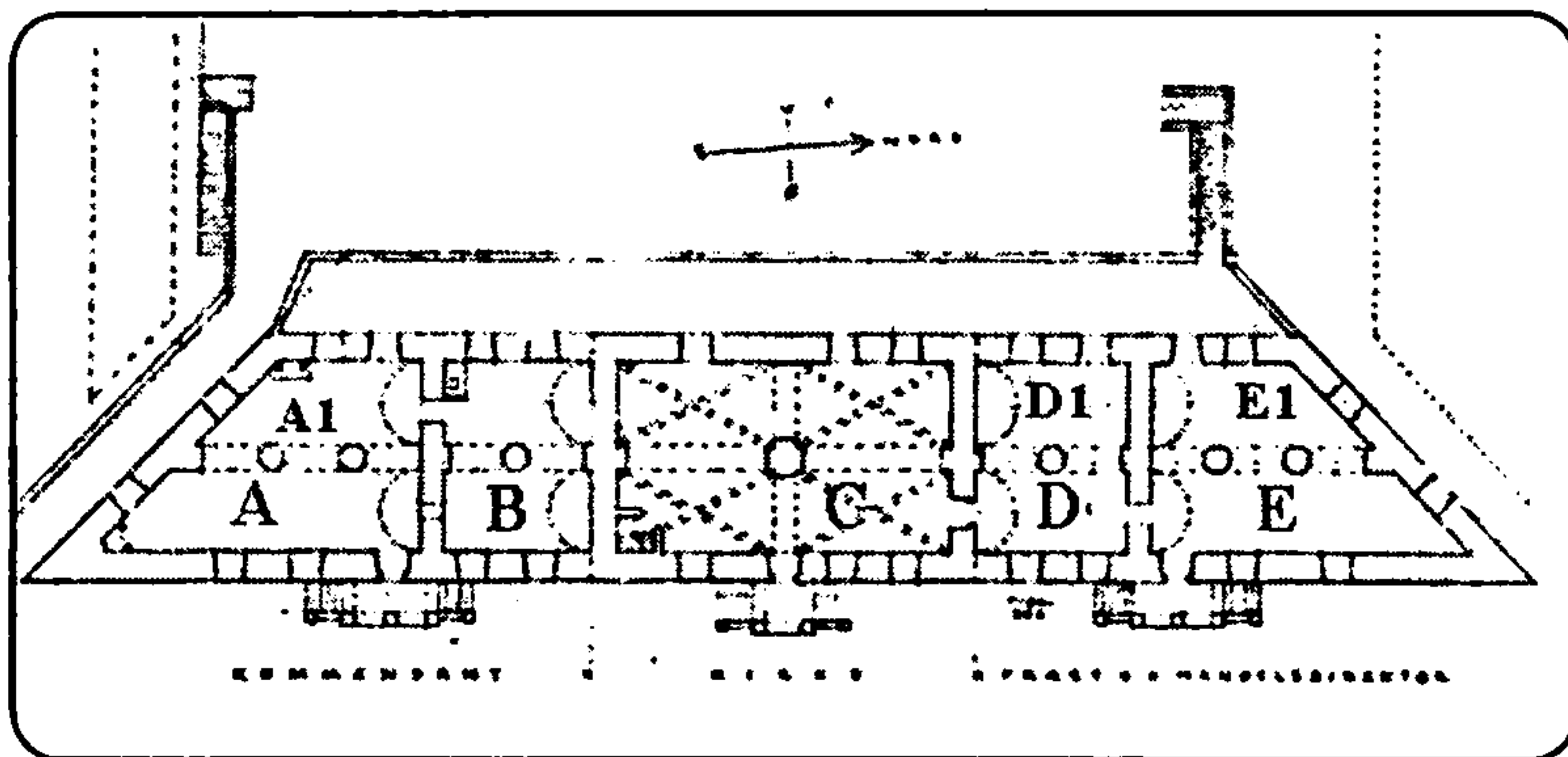
37. GOVERNMENT HOSPITAL
38. T.E.L.C. SHALUM BALAHAR KAPPAGAM

**E.C.R. MAIN ROAD "Q"**

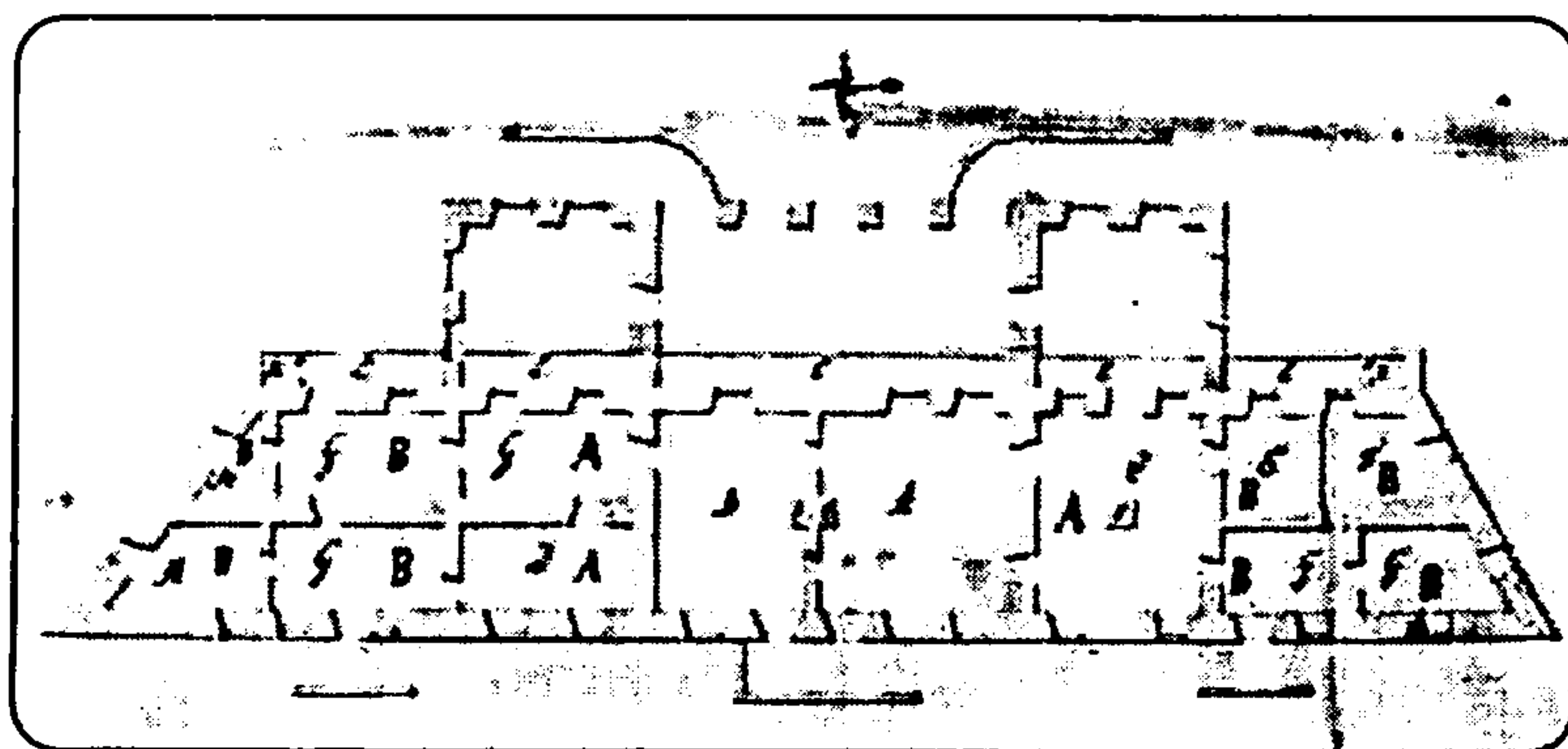
39. HOLY ROSARY CHURCH
40. ROZA WOMEN CENTER
41. TRANQUEBAR RAILWAY STATION

B1 PRINS JORGENS BASTION  
B3 DANMARKS BASTION (INTAKT)  
B5 HOLJTENS BASTION

B2 GYLDENLOVS BASTION  
B4 NORGES BASTION  
B6 LAALANDS BASTION

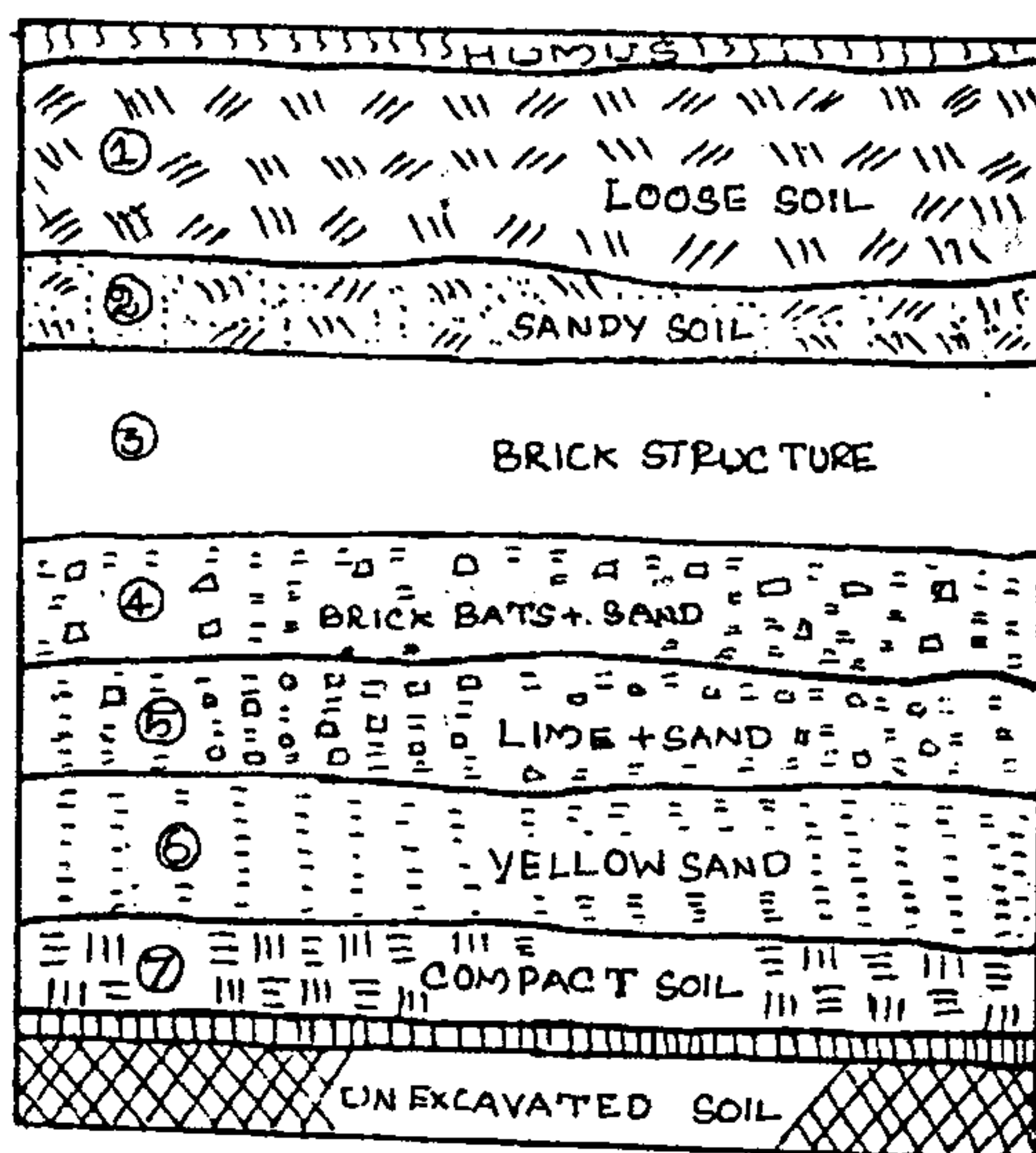


THE PLAN FOR THE FORT DANSBORG

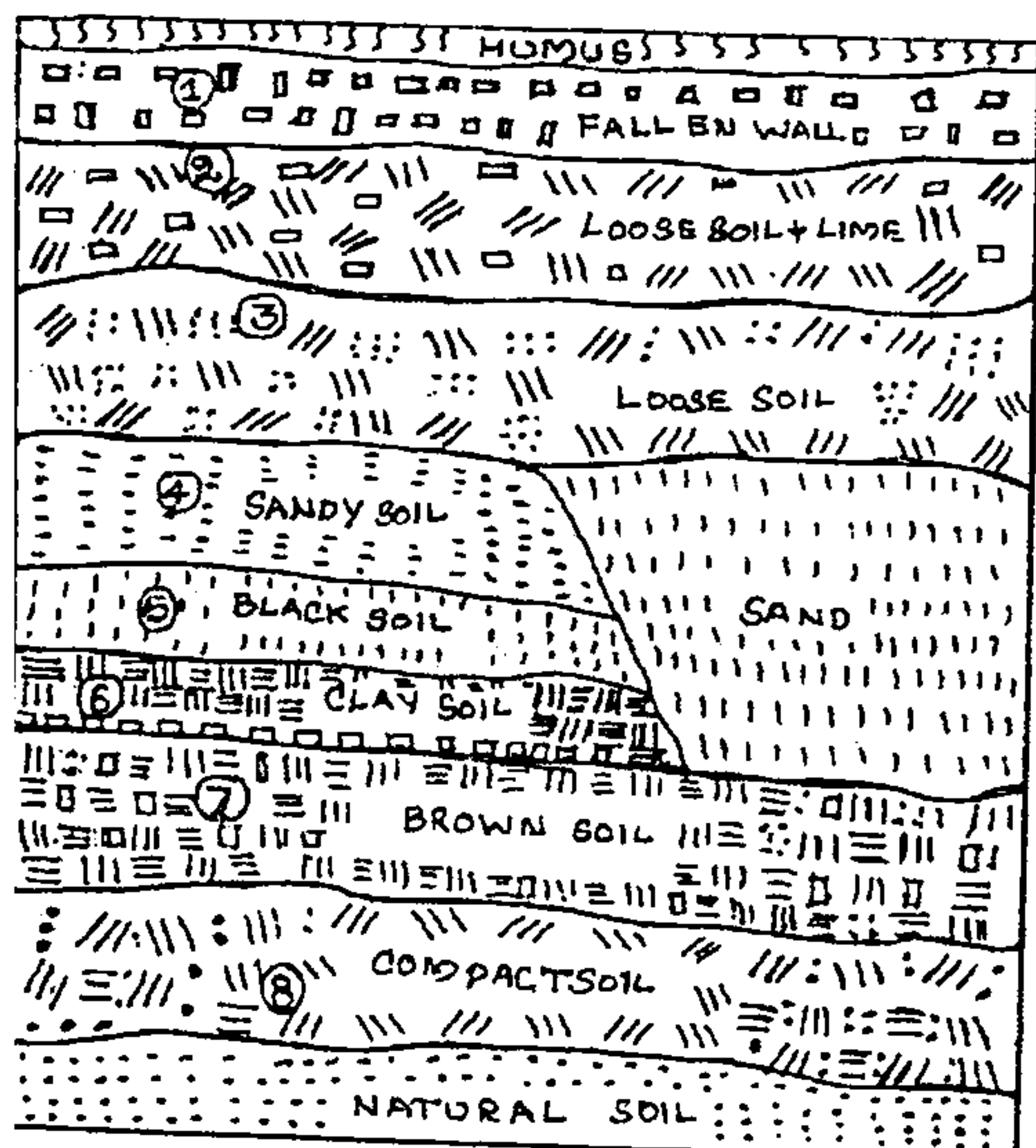


LIEUTENANT MÜHLDOERF'S PROPOSAL FROM 1780 TO  
CHANGE THE FORT DANSBORG

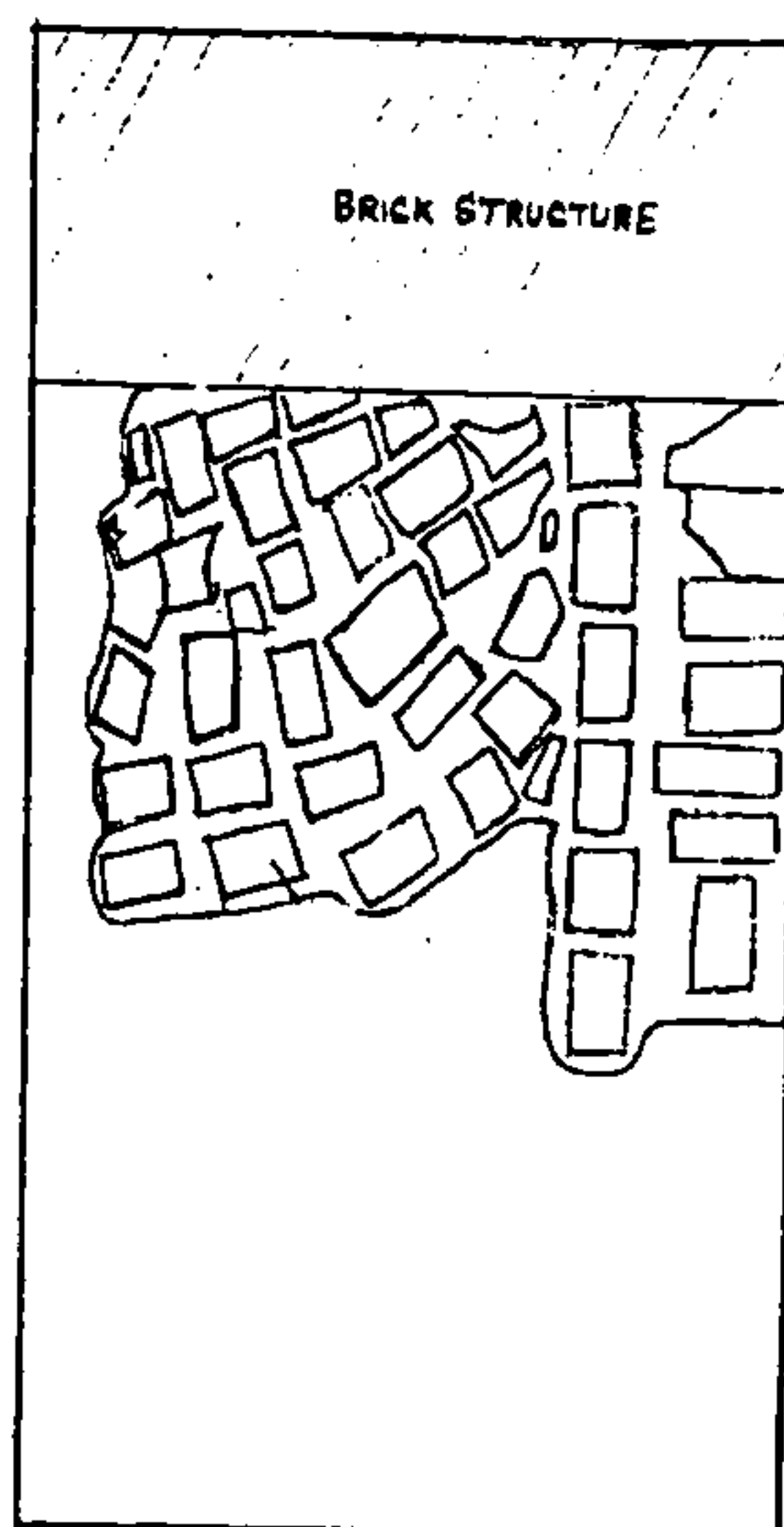




NORTHERN SECTION TGI-1

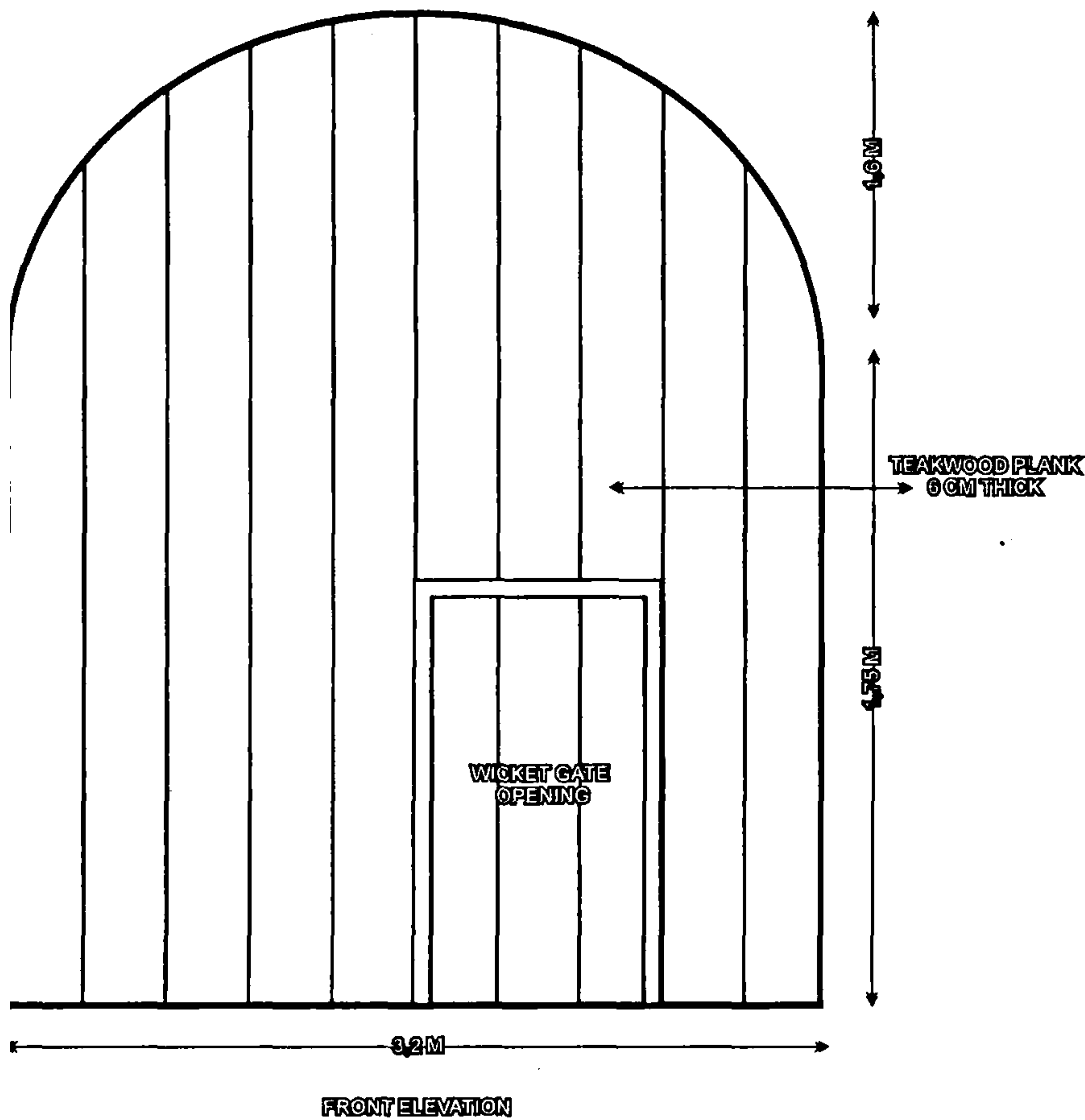


EASTERN SECTION IN TGI-2



TGI-2 PAVED BRICK

PLAN OF THE PROPOSED  
ENTRANCE GATE FOR THE DANISH FORT  
AT TARANGAMPADI







Full and front view of Tarangampadi fort





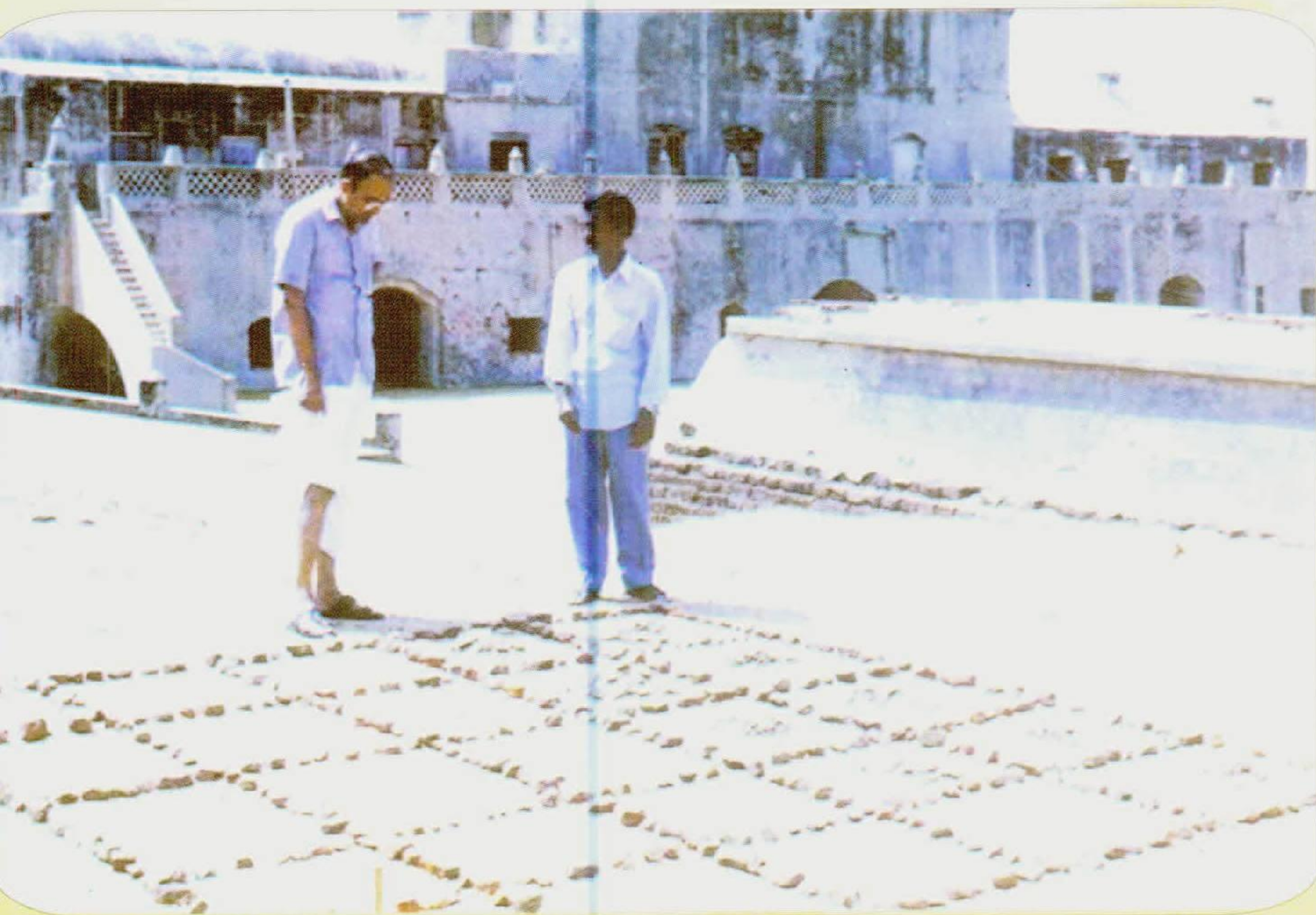
Dr. R. Kannan, Ph.D., I.A.S., Commissioner of Archaeology, Museums and Agriculture, viewing - mound of earth at the caved-in portion, stacks of old bricks are seen



Archaeologists inspecting the trench



Archaeologists looking at the trench



The pottery yard





Archaeologist T. Subramanian at the trench



TGI-2 Northern Section





View of the floor



TGI-2 Southern Section



Porcelain ware with figure





Rampart wall before conservation



Rampart wall after conservation





Sea view of Masilamani Nathar Temple-2002 before it was fully damaged by the sea





View of Masilamani Nathar Temple with wharf in foreground

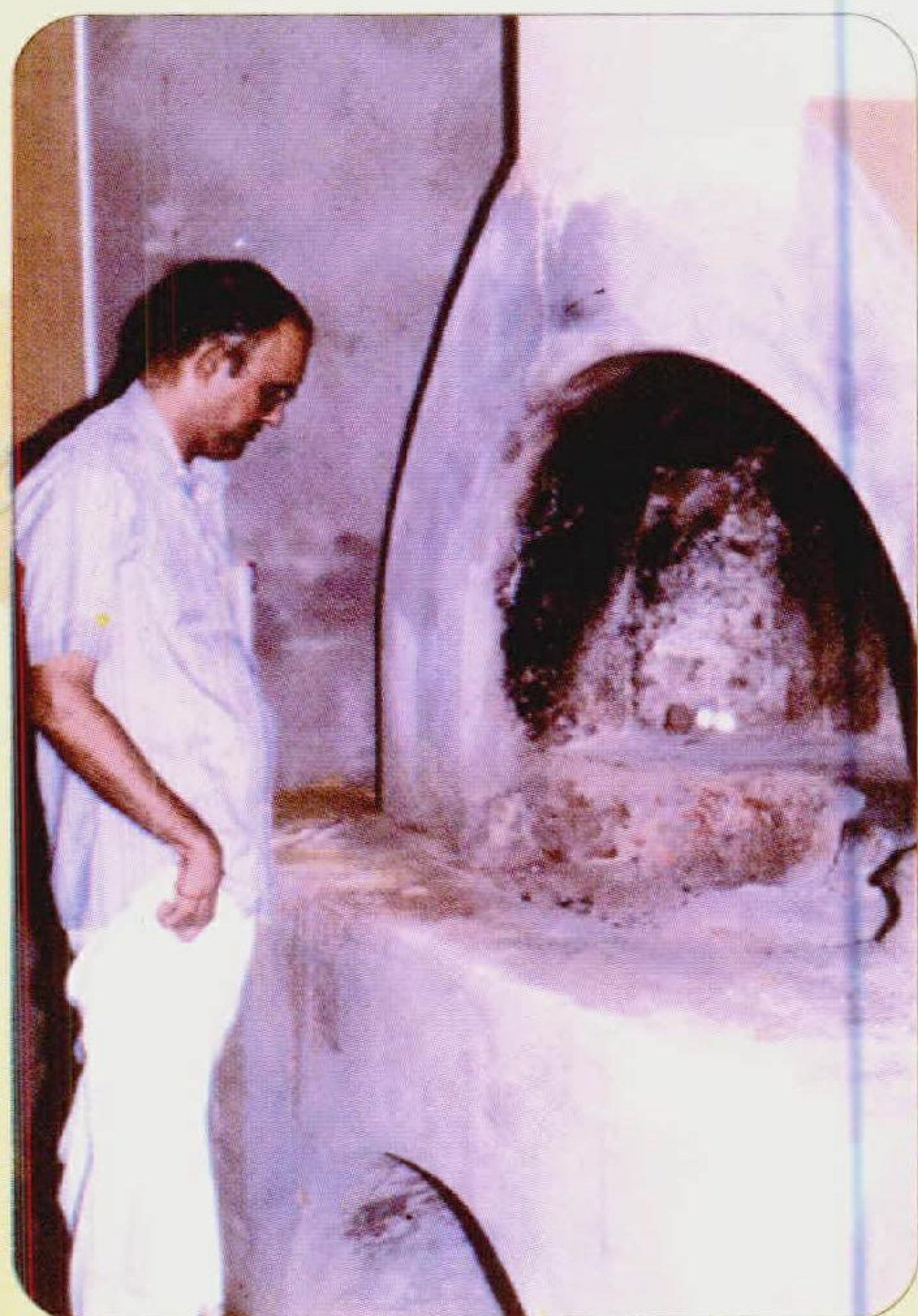


View of Masilamani Nathar Temple

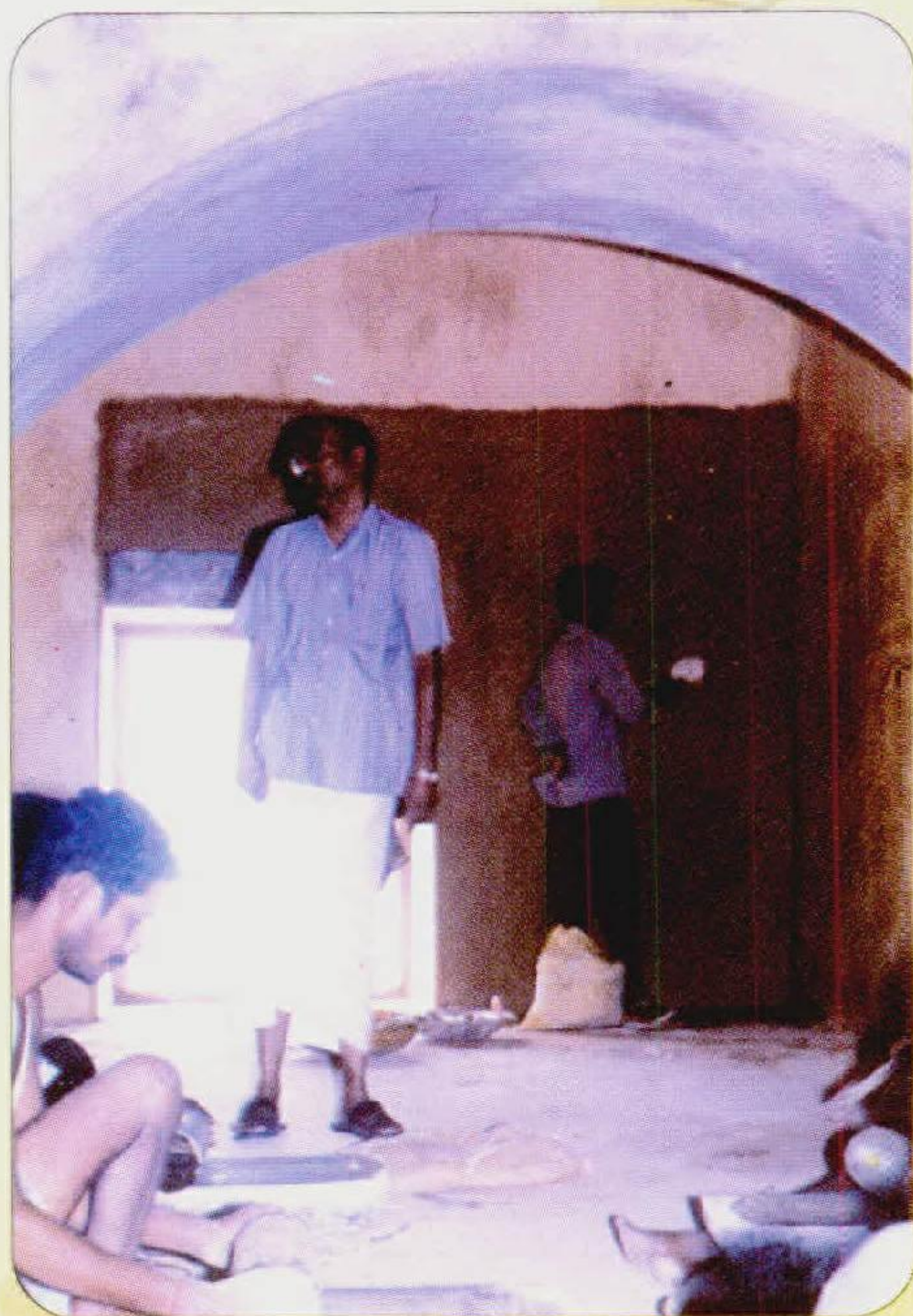




Conservation work at Tarangampadi Fort - June 2002

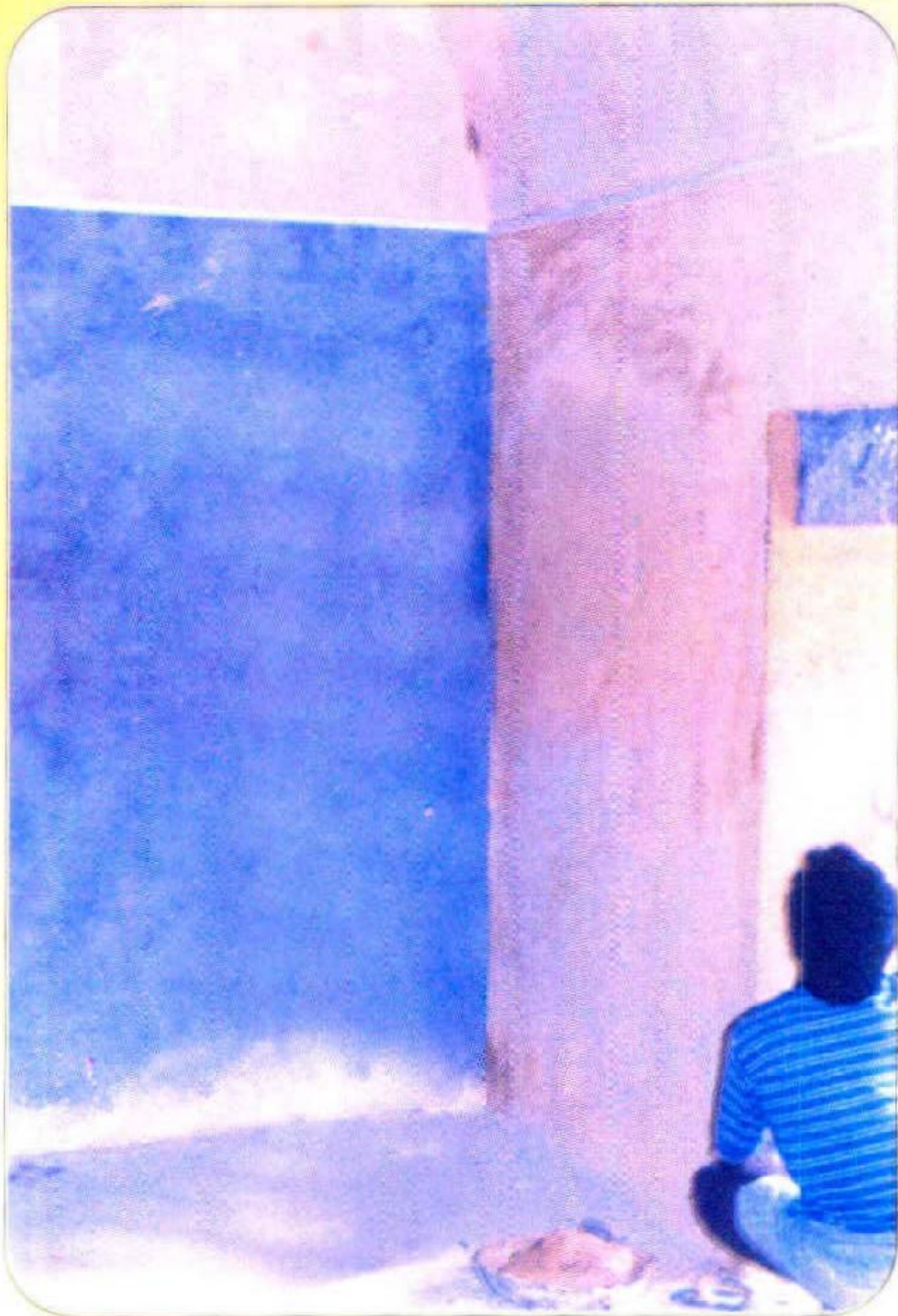


Dr. R. Kannan, Ph.D., I.A.S.,  
inspecting the chimney being finished - May - 2002

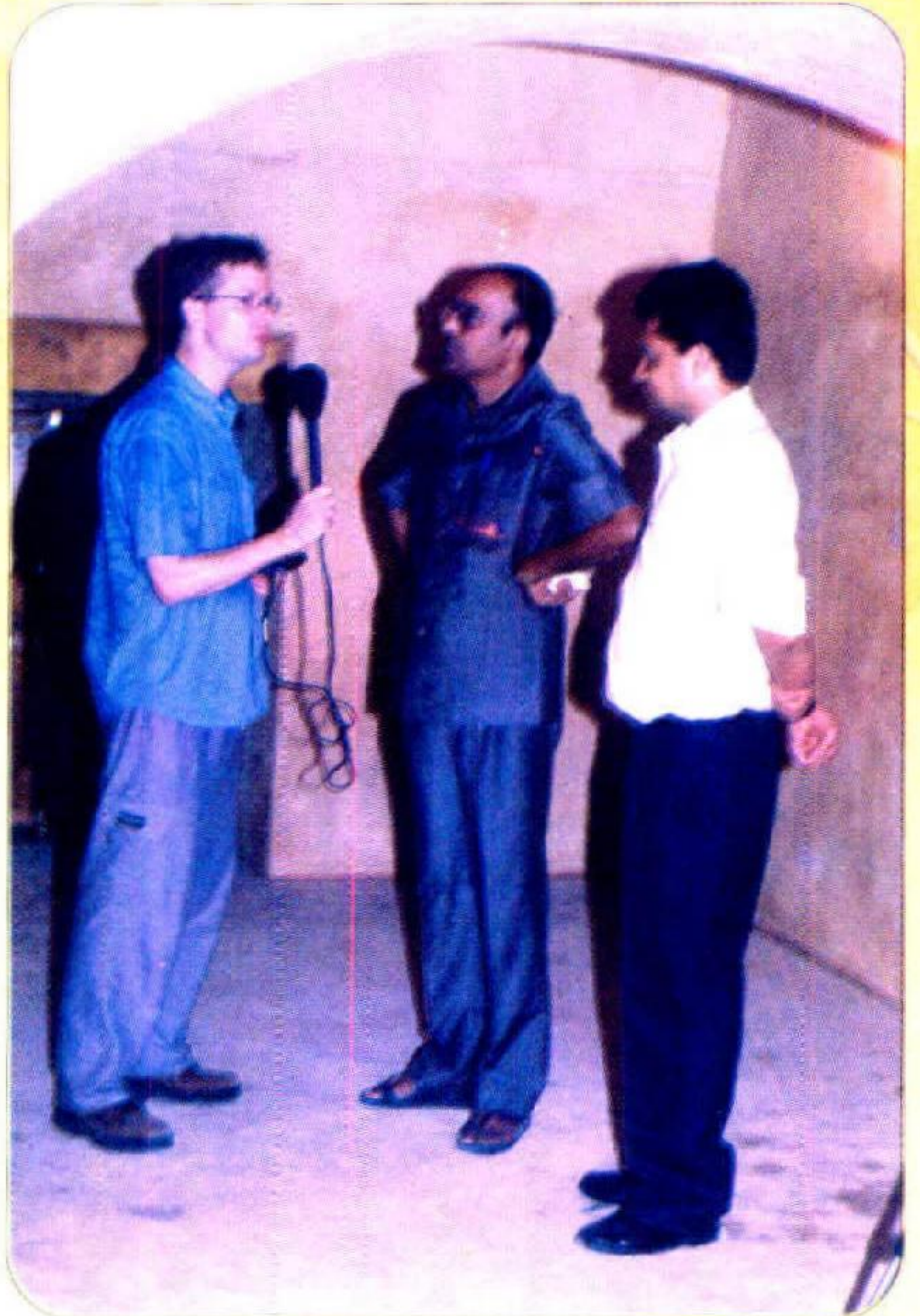


Plastering work in progress - lime being ground  
in traditional grinding stone - May - 2002





The fine polished plastering  
with yellow ochre finish  
(Moghul type plaster) in progress  
June 2002



B.B.C. Reporter Mr. Charles Havilland interviews  
Dr. R. Kannan, Ph.D., I.A.S., Commissioner of Archaeology  
and Museums on the day of inauguration.  
Thiru Sudeep Jain I.A.S. Dist. Collector, Nagappattinam looks on.

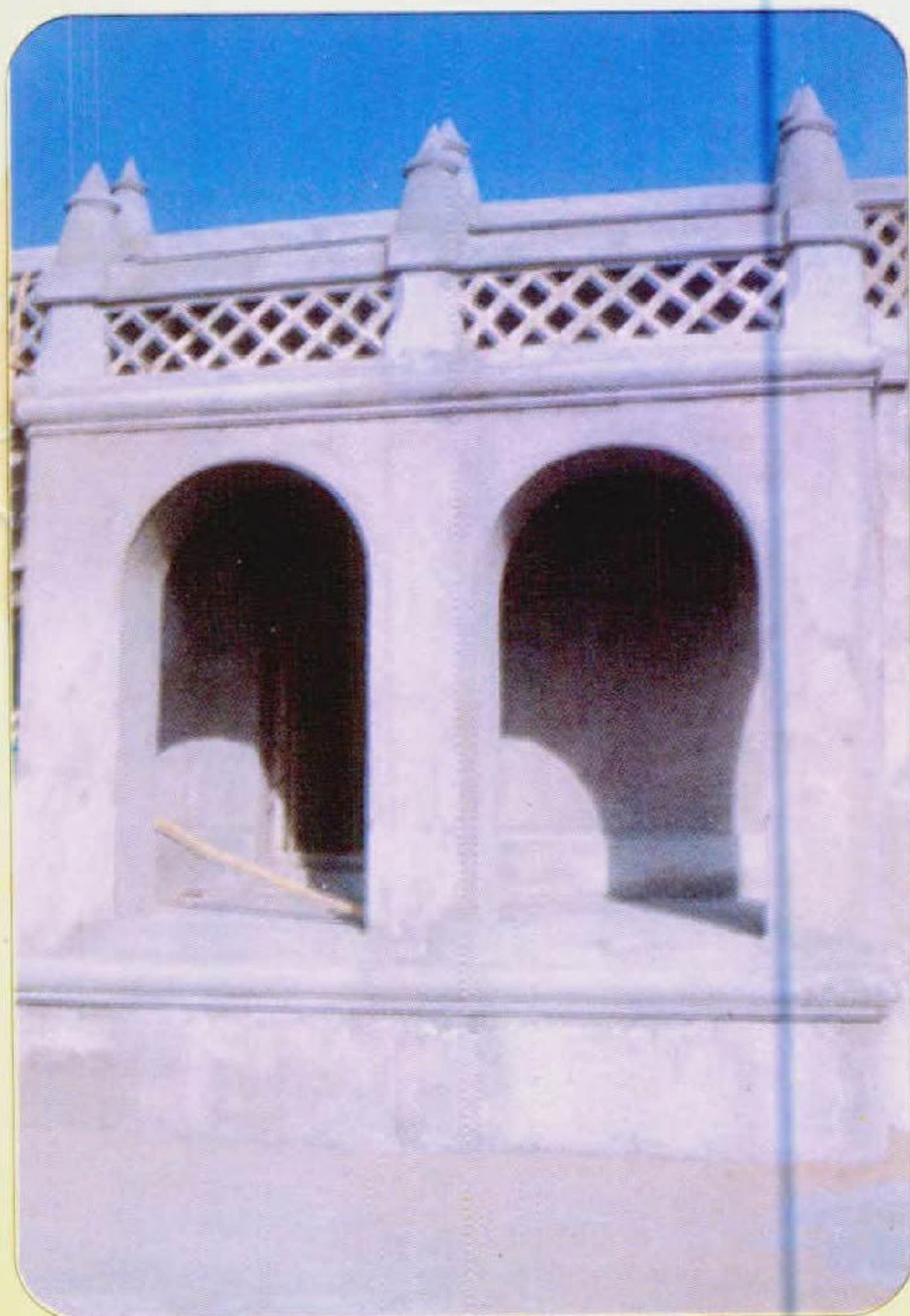


Dansborg - After conservation with antique finish lighting - July 2002





Tarangampadi Fort (Southern Side) - after conservation - July 2002



Tarangampadi Fort - after conservation - July 2002



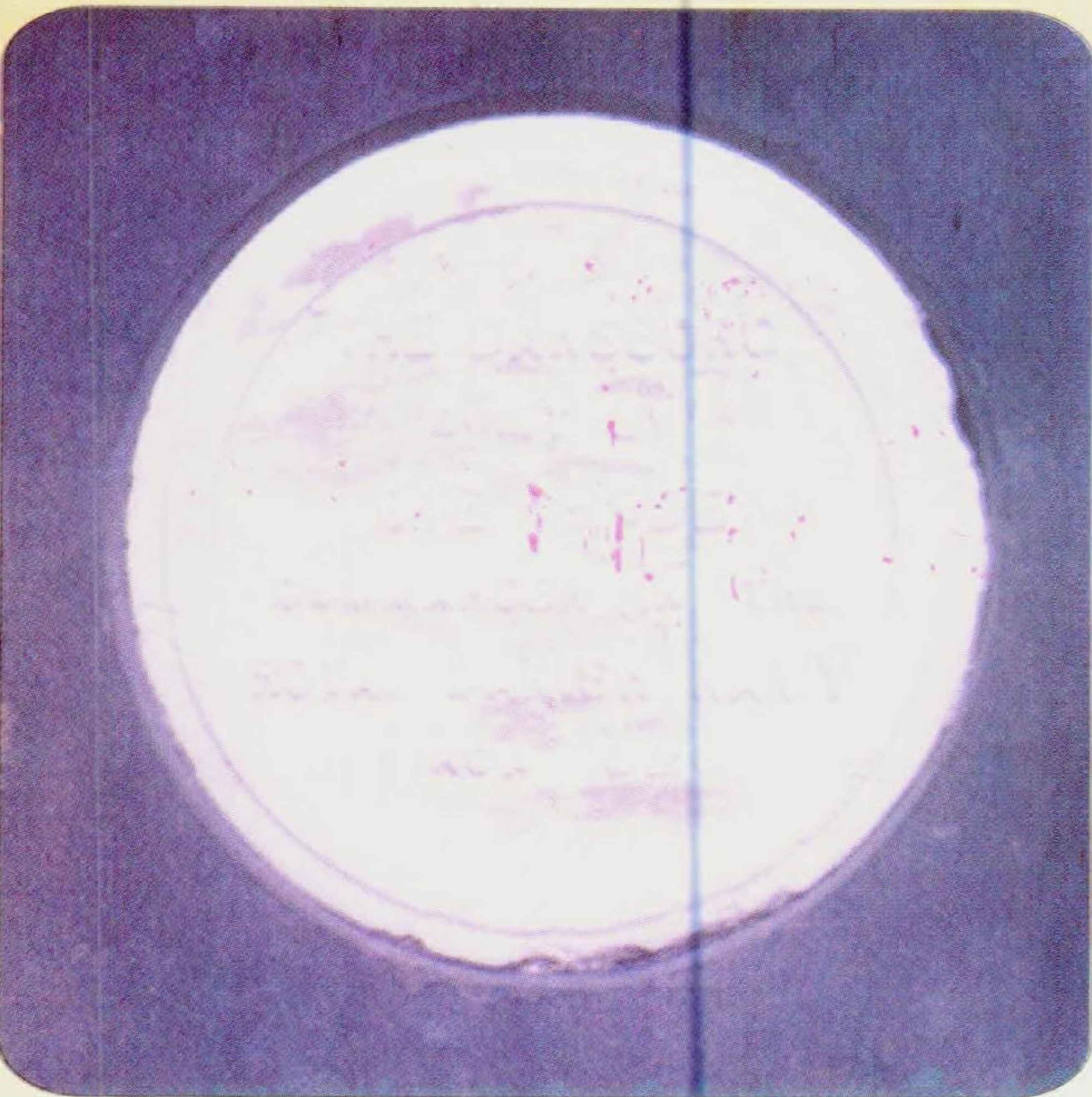


Crack in the arched portion being stitched with a copper clip.



Making a groove to place the copper clip before pouring lead to stitch the cracked roof.





Commemoration tablet of  
Dansborg  
- before conservation



Commemoration tablet of  
Dansborg  
- After conservation





A view of the conserved and restored rooms