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# A NEW RECONSTRUCTION OF THE *SCAENAE FRONS* OF THE THEATER AT ANCIENT MESSENE

# 古代都市メッセネの劇場におけるスカエナエ・フロンスの新たな復元案

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The *scaenae frons* of the Roman Theater at Messene, which was built in the Flavian dynasty, was not a two storied but a three storied building in the Lotus-acanthus and Corinthian style on the 1st story, and the Lotus-acanthus on the 2nd and the 3rd stories. The Ionic capital probably did not belong to the scene building but to the *porticus* on the upper *cavea*. According to the new reconstruction, the height ratio of the 1st story to the 2nd story is ca. 3:2, which is approximately same to the ratio of Vitruvian design.

***Keywords :*** *Roman architecture, theater, scaenae frons, reconstruction, second use*
ローマ建築 , 劇場 , スカエナエ・フロンス , 復元 , 転用

## 1. Introduction

The present paper aims to clarify the problems of the earlier reconstruction of the Roman scene building of the Theater at Messene, and to propose its new reconstruction.[1)] In a previous paper by Iwata (2012), the author make conclusions based on architectural materials discovered in the excavations. 132 architectural blocks which belong to the order of the *columnatio* were adopted for the reconstruction; however, the remaining blocks account for less than 59% in total if the scene building was two storied, and less than 43% if it was three storied.[2)] Thus, it was unrealistic to reconstruct the scene building by using only architectural findings. In addition, three different types of orders including Ionic, Corinth and Lotus-acanthus capitals were excavated, making it difficult to infer the reconstruction, as in most cases only one order per story is adopted in Roman architecture. In the earlier reconstruction, the author reached the conclusion that the scene building is two storied; on the first story, pairs of columns in the niches have Lotus-acanthus capitals, and the columns of the podium between the niches have Corinthian capitals. On the second story, pairs of columns in the niches have Ionic capitals, and the columns of the podium between the niches have Lotus-acanthus capitals (Fig. 1). Nevertheless, it is extremely rare that two different types of orders were adopted on the same story, especially if they were Doric and Ionic orders. When different types of orders were used in buildings with more than two stories in Roman architecture, it was usual to use only one order in the same story. For example, the outer wall of the Colosseum at Rome, which was built in the Flavian dynasty (69-96 A.D.) just like the Messenian Theater,[3)] has the Doric order on the first story, the Ionic on the second and the Corinthian on the third.[4)] This tendency is also clearly seen in the *scaenae frons* of the theaters in other parts of the Empire, especially in Asia Minor.[5)]

The façade of the marble courtyard of the Bath-Gymnasium Complex at Sardis is an exception; it uses different orders for the entablatures on the same story.[6)] This façade has the Ionic order in the central doorway and the Composite order in the neighboring doorways on the lower floor, and on the upper floor, columns with Palm-acanthus capitals in the center with a temple-like pediment and the Corinthian order in the wings. However, even in the case of Sardis, the columns on the podium support the entablature which runs on the same level by using columns of different heights.[7)] This careful treatment might be the expression of intention to keep the horizontal height of entablature even. The earlier reconstruction of Messene did not have this kind of treatment, but made the height of entablatures even by assuming podiums of different heights on the second story (Fig. 1). This unreasonable assumption was caused by the fact that the authors were forced to apply columns of two different heights to the restoration of the second story.

In addition, estimation of the former reconstruction based on the unreasonable hypothesis has caused a lot of problems on fitting the architectural blocks. For instance, it is believed that the Corinthian capitals fit to the highest columns, since both of them have three dowel holes (Iwata 2012).[8)] However, these three dowel holes do not fit with them, because both of them are completely different in their size: There are three round dowel holes on the top of the column (central dowel: 9.4 cm in diameter, side holes: 5.8 cm in diameter), but there are three square dowel holes on the bottom of the Corinthian capital (central hole: 5.6 x 5.2 cm, side holes: 3.5 x 5 cm) instead. Moreover, when we put the Corinthian capital (its bottom diameter is ca. 40 cm) on the column (its upper diameter is ca. 51 cm), it makes a gap of 11 cm. Such a huge gap is not acceptable in general knowledge of Roman architecture. A grooved lead line, which can be observed on the top of the highest column (**3+3a**) indicates the column was reused.[9)]

In this way, the previous paper failed to achieve a reasonable reconstruction due to the forced assumptions and considerations based on the architectural

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materials only. In the case of reconstruction of a building when most of its architectural blocks are missing, like the Theater at Messene, it might be more reasonable not only to use the material sources which have been found from excavations, but also to compare with former studies of scene buildings of Roman theaters in order to make a convincing hypothesis. In the fieldwork at the Theater of 2012, the author found the new building materials that allow a new hypothesis. The architrave-frieze blocks of the *columnatio*, which were reused in the Basilica, have led to a new hypothesis that the *scaenae frons* was a three storied scene building. Based on these new findings and hypothesis, the author will discuss the reconstruction of the *scaenae frons* of the Messenian Theater.

## 2. Architectural remains of the scene building

Excavation on the Messenian Theater began in 1987 by P. Themelis. The south part of the east *parados* was excavated in 1996, and the west parados, the orchestra, the scene building and the west part of the *cavea* were excavated in 1998-2001, and were partly reconstructed.[9] The lower part of *cavea*, the orchestra, and the *analemata* of both *parados* were reconstructed by the excavator.[10] The present author has participated in the fieldwork of the Society of Messenian Archaeological Studies (leader: Dr. P. G. Themelis) as an architectural historian since 2007.[11]

Since the outline of the architectural remains of the scene building was reported in the previous paper, only some important points of the architectural remains will be summarized here.[12] The whole building of the Theater is built on a natural slope inclining from north to south, and faces to the south about 19 degrees clockwise instead of following the town grid.

The Theater at Messene consists of the orchestra, the *cavea* and the scene building. The architectural blocks from the *cavea* and the scene building had fallen down into the orchestra when it was discovered.[13] The present foundation of the scene building, which belonged to the Roman time, had been built on the foundation of the former Hellenistic scene building. The scene building (Fig. 2) is ca. 47 m in length and ca. 15 m in width. The *proscaenium* has two curved niches and two staircases which made it easy to access the wooden stage (*pulpitum*) from the orchestra (Fig. 3). The foundation is ca. 33 m in length and ca. 3.4 m in depth, and still supports the lower part of the first story. This massive foundation is accompanied by three deep niches: a curved central niche in front of the *porta regia*, and two rectangular side niches in front of *porta hospitalia*. Each of three niches has a pair of pedestals supporting columns in front, and a doorway leading to the *postscaenium*. The *postscaenium* is connected to the wing passage, leading to the *versura* and the *aditus maximus*. Fragments of marble slab with vegetable ornamentation and the small holes on the scene building inform us that the whole building was decorated with marble slabs.[14]

Fragments of the inscribed pedestal discovered in and near the east *hospitalia* niche provide important information for reconstruction (Fig. 4).[15] It is considered that the inscription was in honor of the donor who repaired the Theater, probably during the time of Trajan (98-117 A.D.).[16] Themelis, the excavator, incorrectly believed that this pedestal block had

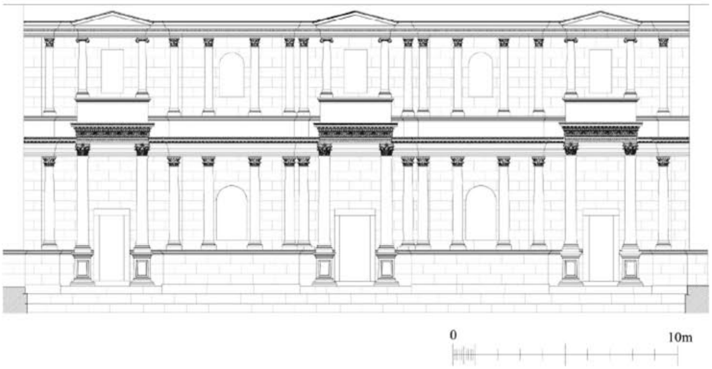


Fig. 1 The former reconstruction of the scene building at Messene (after Iwata 2012, fig. 12)

Fig. 2 Foundation of the Roman scene building looking from the west

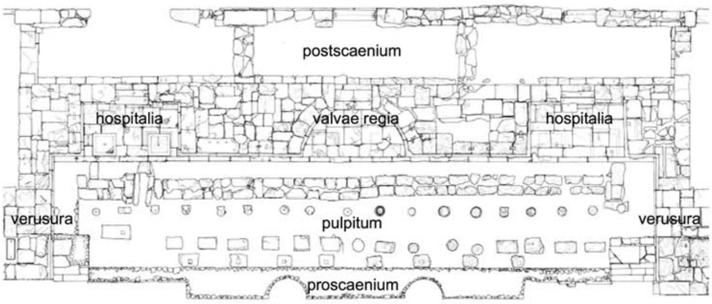


Fig. 3 Plan of the scene building at Messene

Fig. 4 Pair of pedestals from the east hospitalia discovered in the excavation of 2000 (after *Prakt* 2000, pl. 42)

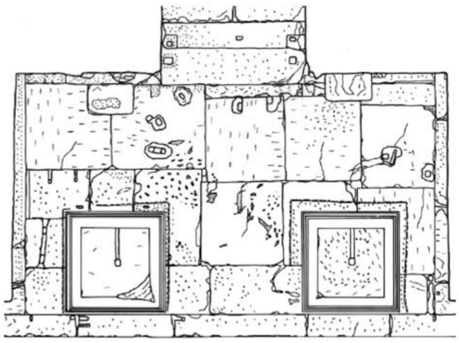

Fig. 5 Plan of the east *hospitalia* niche

supported a statue relating to the inscription (Trajan ?); but there are no feet holes on the cornice of the pedestal, which might have supported the unknown statue. It is preferable to consider this pedestal as having supported the column which would have been standing at the front side of the niche as was common in Roman theaters, because there is a square trace on the top of the cornice of the pedestal.[17] The important point is that the pedestal with inscription was not original even when they were discovered *in situ*. There are square traces on the floor of the east *hospitalia* niche and they are slightly bigger than the bottom size of the pedestal (Fig. 5). The same traces of pedestals can also be observed in other niches. These facts show that the *scaenae frons* was once wholly-reconstructed in the Roman time, and the pedestal with inscription was added at a later period.[18] Moreover, donated inscriptions are usually written in large letters on the fascia of the architrave so the audience may easily read them;[19] however, the inscription of this pedestal is too small to read from the *cavea*. It is likely that this pedestal was placed somewhere in the orchestra or *cavea*, and was moved into the *hospitalia* later.

Fig. 6 Excavation of the orchestra and scene building in 2000 (after *Prakt* 2001, pl. 35)

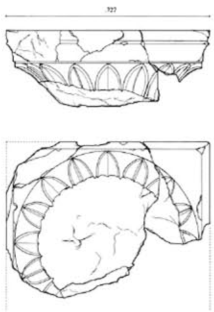

Fig. 8 Lotus-acanthus capital, **T40**

Fig. 9 Trapezoid dosseret of the byzantine Basilica, which is second use from an architrave of the Theater, **B1**

Fig. 7 A mottled red marble shaft after the restoration of 2007, **11+12+1398**

### 3. Architectural blocks of *scaenae frons*

The *scaenae frons* of the Messenian Theatre is made of polychrome marble stone as is usually the case with Roman theaters. It is commonly known that the Roman scene building is made of polychrome marble, especially after the Flavian dynasty.[20] Most of the architectural blocks which were discovered from the excavations of the Theater are marble or granite (Fig. 6). Only a few of the blocks, including base and cornice blocks, are made of limestone, but they cannot be considered to have been repair parts. Since the same limestone was discovered in the east *parados*, these blocks are assumed to have belonged to other buildings and to have been mixed with the architectural blocks of the *scaenae frons* in later years.[21]

#### 3-1. Column base

Twenty-one column bases have been found. All of them have a so-called Attic-type moulding; torus, scotia and torus.[22] Most of them have a square plinth, but two have a cylindrical plinth (**T9**, **T11**). The bases with the cylindrical plinths have small upper diameters.

#### 3-2. Column shaft

There are fifty-one column shafts including fragments which were found in the excavations. Measurements of all these shafts were recorded and twelve of them were drawn. Seven blocks were full-length shafts, and 14 blocks had only the lower part remaining. Fiftheen shafts had only the upper part remaining, and eleven shafts had neither upper nor lower parts. From material point of view, these shafts are categorized into six groups; (1) gray granite, (2) mottled red marble, (3) striped red marble, (4) striped light green marble, (5) gray marble, (6) grained white marble. The shaft heights can be clearly divided into four groups; (1) ca. 4.05 m, (2) ca. 3.5 m, (3) ca. 2.9 m and (4) ca. 2.3 m. The ratio of the lower diameter to the shaft height is 1:7.1-8.1. The higher the shaft is, the bigger the ratio gets. Some fragments were repaired on site by a local craftsman (Fig. 7).

#### 3-3. Column capital

Three types of capitals have been discovered; Ionic, Corinth and Lotus-acanthus.[23] Iwata (2012) reported that there were two different sizes of Lotus-acanthus capitals.[24] However, the Lotus-acanthus capital (**T40**), which was already recorded in our fieldwork of 2009, has a different character from the others (Fig. 8). The lower part of the *kalathos* is missing on this capital, and it has a particularly huge abacus (width 72 cm, height 11.8 cm) on the top. This extremely large abacus guarantees that the diameter of the bottom missing part was also huge. Thus, there are three types of Lotus-acanthus capitals when we focus on their sizes. Two types of Ionic capitals have been also discovered; a normal Ionic capital and four angled Ionic ones. It was reported by a French traveler in the 19th century that one of the Ionic capitals (**1912**) had been exposed on the ground even before the excavations.[25]

#### 3-4. Architrave-frieze

The architrave-frieze blocks are made as one block. Some of them are ornamented and have a twisted strap and an astragal between the three fasciae of the architrave, and lotus and acanthus on the frieze.[26] When there is no trace of column position on the podium, the length of architrave is one of the most clear-cut clues to estimate the column positions and their intercolumniations. Two full-length architraves have been found: one is 1.77 m in length (**325**) and the other one is 2.05 m in length (**960+988**). The existence of these architraves with two different lengths suggests that there are different intercolumniation lengths of on the *scaenae frons*.[27]

Additionally, new architrave blocks (**B1-B7**), which were reused in other buildings, were found in the fieldwork of 2012. Major blocks from the *columnatio* were reused in the three-aisled Basilica, which is located ca. 30 m southeast of the Theater.[28] Apses of the Basilica were built on a late Hellenistic or Roman Tholos. Major part of the building is made of marble, which transported from the Theater. Especially, the inner colonnades were made of second-hand blocks from the *columnatio*, including former column bases, shafts and architraves. The trapezoid dosseret of the colonnade was made from the architrave by cutting it into a short length. The soffit panel of the architrave can still be observed (Fig. 9).[29] The bottom width of the architrave measures 40 cm, and the width of the soffit panel measures 6.8 cm. The ratio of the bottom width to the soffit panel width is 1:0.17. In the center of the ornamented soffit panel, there is a symmetrical palmette. These characteristics are exactly the same as those of an architrave which was found at the Theater (**118**). Moreover, one of the architrave fragments found in the excavations of the Theater is 66 cm in height (architrave height 39 cm; frieze height 27 cm). The bottom of this fragment is missing, but the width is estimated to be about 46 cm from the regular ratio, making it the same size as the new architrave block from the Basilica. Therefore, it is certain that Basilica capitals with soffit panels were diverted from the *scaenae frons*. The rectangular architrave was probably quite easy to reuse as a trapezoid dosseret for the Basilica.[30]

### 3-5. Cornice

In the previous paper by Iwata (2012), the cornice blocks were categorized into two groups from the ornamental point of view.[31] In order to reconstruct the scene building, however, it is preferable to categorize them into three groups judging from the height of the cornice block, because they are clearly different on each story of the *scaenae frons*.[32] These three groups are (1) cornice blocks without ornamentation (cornice height is 23-24.5 cm), (2) cornice blocks without ornamentation (cornice height is 25-28 cm) and (3) cornice blocks with ornamentation (cornice height is 29-32 cm).

## 4. Reconstruction of column

The excavations of the Theater and its surrounding area were completely finished by 2012, so no more new architectural materials will be found in the near future. In order to reconstruct the scene building, then, it might be necessary to compare it with other similar examples which were built in the same period. In this chapter, possible combinations of the architectural blocks will be discussed by comparison.

### 4-1. Base and column shaft

As mentioned above, the heights of column shafts are clearly divided into four groups. Thus, all column shafts including fragments were grouped as follows (Table 1).[33] Group A is the column shaft of av. 2.33 m in height, which includes (**1400+1512**) and others. Group B is the column shaft of av. 2.91 m in height, which includes (**10+34+47**), (**809+1236**) and others. Group C is the column shaft of av. 3.52 m in height, which includes (**3+3a**) and others. Group D is the column shaft of av. 4.06 m in height and others.

It is not difficult to find combinations of the column shaft and the base. The upper diameter of the base is the same as or larger than the bottom diameter of the column shaft. In this way, the column base of each group is summarized as follows. Group A is the column base of 39 cm in its upper diameter, which includes (**T9**) a cylinder plinth. A similar example of a column base with a cylinder plinth in the upper story can be seen in the second story of the Market Gate of Miletus.[34] Group B is the column base of 44 cm in upper diameter, which includes 10 base blocks. Group C is the column base of 49 cm in upper diameter, which includes 5 base blocks. Group D is the column base of 59 cm in upper diameter, which includes 3 base blocks. All of the bases in Groups B to D have rectangular plinths.[35]

### 4-2. Capital and column shaft

Although Ionic capitals were found in the excavations of the theater, it is necessary to examine whether they belong to the *scaenae frons*. In the previous paper (Iwata 2012), one of the Ionic capitals was adopted on a column shaft of 2.3m in height.[36] The Ionic capital has a volute which is hanging below the canal, so it is adoptable only to a column shaft whose top diameter is smaller than the bottom diameter of the Ionic capital. The bottom diameters of the Ionic capitals are ca. 40 cm (**11085**), 37 cm, 36 cm and 35 cm. The only column shafts which could have been used with these capitals belong to group A (the top diameter of which is av. 30 cm) or group B (the top diameter av. 37 cm) (Table 1). In the case of group A, the ratio of the lower diameter to the column height is 1:7.36. In the case of group B, when the Ionic capital (**11085**, bottom diameter 41 cm) is set on the column shaft (**809+1236**), the ratio of the lower diameter (38 cm) to the column height (3.34 m) is 1:8.14. However, both of these are too low to be considered a normal proportion for the Ionic column. For example, the ratio of the lower diameter to the column height in the Ionic column from the North porch of Erechtheion at Athenian Acropolis is 1:9.35, and in the Ionic column from the external column of the Temple of Apollo at Didyma is 1:9.74.[37] Both of them are more slender than our column. Moreover, the ratio of the lower diameter to the shaft height in other blocks which remain in total height, is calculated as 1:7.1-8.1. These facts mean that the column shaft of the *scaenae frons* was not meant for an Ionic capital but for a Corinthian or Lotus-acanthus capital. Thus, the Ionic capital is not adoptable to the order of the *scaenae frons*. It is preferable to say that the Ionic capital was used in the *porticus* behind the upper diazoma on the top of the upper *cavea*.[38] The fact that one of the Ionic capitals was exposed on the ground before the excavations could support this estimation.[39]

**T40** seems to be the biggest of the Lotus-acanthus capitals. The lower part of **T40** is missing, but it is possible to estimate the height and the bottom

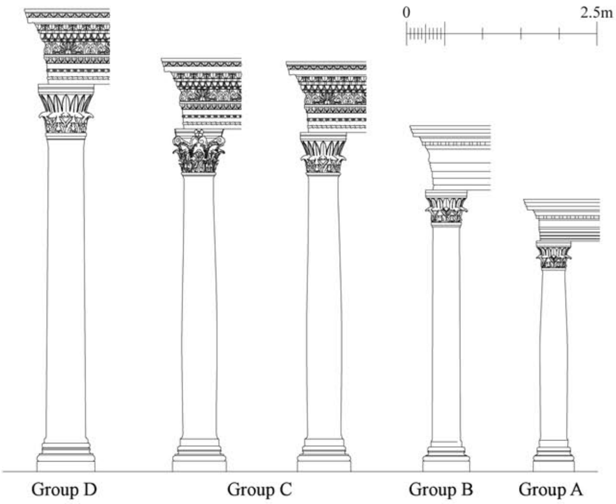


Fig. 10 The column groups

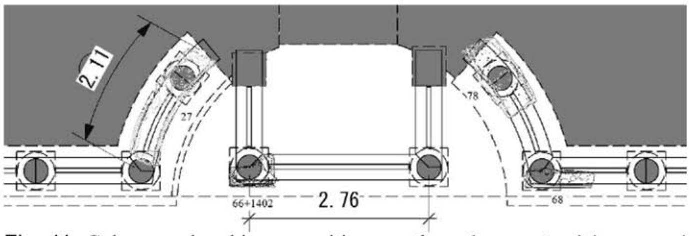


Fig. 11 Column and architrave positions on the *valvae regia* niche, second story

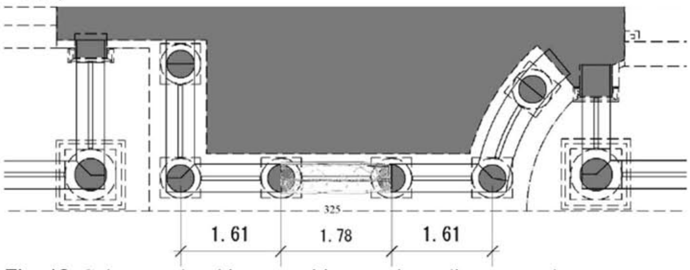


Fig. 12 Column and architrave positions on the podium, second story

diameter of the capital from the ratio of each element. The average ratio of the bottom diameter to the abacus width in other Lotus-acanthus capitals is 1:1.47, so the bottom diameter of **T40** is estimated to be ca. 49 cm. In the same way, the ratio of the abacus height to the capital height in other capitals is 1:5.75 on average, so the height of **T40** is estimated to be ca. 65 cm (Table 1).

Now it is possible to consider the combination of column shaft and capital. The capital is adoptable when its bottom diameter is the same as or smaller than the top diameter of the shaft. In this way, the following groups are realized. Group A is the Lotus-acanthus capitals with bottom diameters of av. 31 cm. Group B includes three Lotus-acanthus capitals with bottom diameters of av. 37 cm. Group C is a combination of the Lotus-acanthus capitals and the Corinthian capitals with bottom diameters of av. 41 cm. Group D is the Lotus-acanthus capital with a bottom diameter of 49 cm.

### 4-3. Column groups

Summing up, the column combinations can be grouped as follows (Fig. 10): Group A is Lotus-acanthus order. The height of the column is 2.93 m and the ratio of the column height to the lower diameter is 8.88. Group B is also Lotus-acanthus order. The height of the column is 3.69 m and the ratio of the column height to the lower diameter is 10.42. Group C includes Corinthian and Lotus-acanthus orders. The height of the column is 4.33 m and the ratio of the column height to the lower diameter is 9.84. Group D is Lotus-acanthus order. The height of the column is 5.10 m and the ratio of the column height to the lower diameter is 9.80. The ratio of the reconstructed column height to the lower diameter is between 8.9 and 10.4, which is the same as the common proportion of the Corinthian order from Hellenistic to Roman times.[40)]

These four groups of columns do not lead to the conclusion that the *scaenae frons* had four stories. No four storied *scaenae frons* has ever been discovered. Even so, two different-sized columns are occasionally adopted for one story.[41)] That is to say, group D is adoptable for the paired columns of the niches and group C is for the *columnatio* on the podium between the niches. Such a solution can be seen in the *scaenae frons* of other major theaters which remain in good condition; the Theater-Stadium-Complex at Aizanoi, the Theater at Bosra, the Theater at Sabartha, the Theater at Palmyra and the Theater at Augusta Emerita.[42)]

## 5. Reconstruction of the plan

Since the traces of a pair of columns remain on the surface of *valvae regia* and *hospitalia* niches, it is clear that there had been two columns in each niche. On the other hand, there is no trace of the *columnatio* on the podium between niches. In this case, we can estimate the column position from the architrave length, because the full length of the architrave is the same as the axial intercolumniation of the *columnatio*. The curved architrave (**27**) is 2.10 m in length. The arch of (**27**) is a part of a circle with a radius of ca. 2.5 m, which can be calculated from the chord length between both ends of the lower fascia and the length of the perpendicular bisector to the chord down from the center of the arc. The radius of the *valvae regia* niche is also ca. 2.5 m, so (**27**) is the architrave which was used in the *columnatio* along the east side of the *valvae regia* niche. Since the length of (**27**) is ca. 2.1 m, the second column stands about 2 m from the front of the podium. The right part of another curved architrave (**78**) is missing, but the remaining left part has the end face of the block. Thus, (**78**) was used in the *columnatio* along the west side of the *valvae regia* niche. The corner architrave (**66+1402**) is most well preserved block with ornaments. The left front corner of (**66+1402**) is at a right angle, so this architrave block was on the east column of the pair of *valvae regia* or *hospitalia*, or otherwise on the corner of the west side of *hospitalia*. The entablatures of the niches are connected to the paired columns and the pilasters. The corner architrave (**68**) has a curved edge on the left front, so it was on the corner column of the west side of the curved *valvae regia* niche. In this way, the architrave and column positions on the niches and the podium could be identified (Fig. 11). All the architrave blocks discussed here (**27**, **78**, **66+1402** and **68**) are av. 60 cm in height, so they belong to the second story. Since the *valvae regia* niche of the first story has a semicircular shape judging from its foundations, the central niche of both the first and second

**Table 1** Measurements of the order of the *scaenae frons* (m)

3rd story (group A)

| | | | | | | |
|---|---|---|---|---|---|---|
| cornice | cornice height | width of projecting | dentile width | bottom width | ornamentation | n. of data |
| | 0.24 | 0.18 | 0.07 | 0.56 | N | 6 |
| architrave-frieze | height of block | height of architrave | height of frieze | bottom width | top width | n. of data |
| | 0.29 | 0.18 | 0.11 | 0.39 | 0.33 | 3 |
| capital | capital height | abacus height | abacus width | bottom diameter | type | n. of data |
| | 0.38 | 0.07 | 0.47 | 0.31 | Lotus-acanthus | 2 |
| column shaft | column shaft height | top diameter | upper diameter | lower diameter | bottom diameter | n. of data |
| | 2.33 | 0.28 | 0.30 | 0.33 | 0.36 | 8 |
| base+plinth | height of block | plinth height | moulding height | plinth width | top diameter | n. of data |
| | 0.22 | 0.08 | 0.14 | 0.56 | 0.39 | 1 |

2nd story (group B)

| | | | | | | |
|---|---|---|---|---|---|---|
| cornice | cornice height | width of projecting | dentile width | bottom width | ornamentation | n. of data |
| | 0.26 | 0.21 | 0.06 | 0.55 | N | 8 |
| architrave-frieze | height of block | height of architrave | height of frieze | bottom width | top width | n. of data |
| | 0.60 | 0.34 | 0.26 | 0.40 | 0.53 | 9 |
| capital | capital height | abacus height | abacus width | bottom width | type | n. of data |
| | 0.46 | 0.08 | 0.55 | 0.37 | Lotus-acanthus | 3 |
| column shaft | column shaft height | top diameter | upper diameter | lower diameter | bottom diameter | n. of data |
| | 2.91 | 0.33 | 0.37 | 0.38 | 0.40 | 12 |
| base+plinth | height of block | plinth height | moulding height | plinth width | top diameter | n. of data |
| | 0.29 | 0.12 | 0.18 | 0.59 | 0.44 | 10 |

1st story, podium (group C)

| | | | | | | |
|---|---|---|---|---|---|---|
| cornice | cornice height | width of projecting | dentile width | bottom width | ornamentation | n. of data |
| | 0.31 | 0.21 | 0.06 | 0.67 | Y | 10 |
| architrave-frieze | height of block | height of architrave | height of frieze | bottom width | top width | n. of data |
| | 0.66 | 0.69 | 0.27 | 0.45 | | 5 |
| capital | capital height | abacus height | abacus width | bottom width | type | n. of data |
| | 0.51 | 0.08 | 0.61 | 0.41 | Corinthian, Lotus-acanthus | 5 |
| column shaft | column shaft height | top diameter | upper diameter | lower diameter | bottom diameter | n. of data |
| | 3.52 | 0.40 | 0.43 | 0.44 | 0.49 | 18 |
| base+plinth | height of block | plinth height | moulding height | plinth width | top diameter | n. of data |
| | 0.30 | 0.12 | 0.18 | 0.65 | 0.49 | 5 |

1st story, niche (group D)

| | | | | | | |
|---|---|---|---|---|---|---|
| cornice | cornice height | width of projecting | dentile width | bottom width | ornamentation | n. of data |
| | 0.31 | 0.21 | 0.06 | 0.67 | Y | 10 |
| architrave-frieze | height of block | height of architrave | height of frieze | bottom width | top width | n. of data |
| | 0.66 | 0.69 | 0.27 | 0.45 | | 5 |
| capital | capital height | abacus height | abacus width | bottom width | type | n. of data |
| | 0.65 | 0.11 | 0.73 | 0.49 | Lotus-acanthus | 1 |
| column shaft | column shaft height | top diameter | upper diameter | lower diameter | bottom diameter | n. of data |
| | 4.06 | 0.46 | 0.51 | 0.52 | 0.57 | 6 |
| base+plinth | height of block | plinth height | moulding height | plinth width | top diameter | n. of data |
| | 0.39 | 0.14 | 0.25 | 0.82 | 0.59 | 2 |

stories might have been semicircular too.

Furthermore, the architrave block (**325**) is rectilinear and both ends have two clamp holes each. The form of this architrave shows that there was a colonnade, which was straight for least three spans. Since no architrave more than 2 m in length has been found, such a colonnade must belongs to the *columnatio* on the podium between the *valvae regia* and *hospitalia* niches, which measures ca. 6 m. (**325**) is 1.77 m in length. Thus, the column position and the axial intercolumniations were calculated as shown in figure 12. The architrave block (**960+988**) is also rectilinear and has two parallel clamp holes on both ends. Naturally (**960+988**) was used in the colonnade with three spans, but the length of (**960+988**) is ca. 2.1 m, which is slightly longer than (**325**). Here, (**960+988**) is ca. 29 cm in height instead of ca. 60 cm as in (**325**). As we have already seen in the section of the architrave-frieze block, there are three different block heights (66 cm, 60 cm and 29 cm). These facts mean that the column positioning of the first and second stories is different from the one of the third story. Such treatment can be seen in the Theaters at Ephesos and Aizanoi.[43] Therefore, the architrave (**325**) was somewhere on the *columnatio* on the third story.

From the above discussion, the plan of the *scaenae frons* could be reconstructed. At the same time, the architrave plan of the *scaenae frons* was also reconstructed (Figs. 13, 15). There was no *columnatio* on the wings, because the foundation is not wide enough to support such a high elevation. The small curved niches which were reconstructed in the previous paper are not acceptable here, because no such trace or fragment was found.[44]

## 6. Reconstruction of the elevation

Except for a few cases, it is very rare that enough architectural blocks to reconstruct a whole scene building are discovered in excavations.[45] When we cannot find enough architectural materials, it is useful to compare with other examples and to find a general rule which is effective for reconstruction. In the case of the Theater at Corinth, where not so many architectural blocks were found, Stillwell focused on a specific point in order to solve the problem: This point was the general rule or tendency that the bottom width of the architrave is the same as the upper diameter (not the top diameter) of the column shaft supporting it.[46] When Stillwell reconstructed the *scaenae frons*, the architrave and cornice were the key blocks for the reconstruction of the elevation. According to Stillwell, the combination of the column and the architrave can be determined by the relation of the upper diameter of the shaft and the bottom width of architrave. In the Theater at Corinth, the column shaft with 50.7 cm in upper diameter corresponds to the architrave with 50 cm in bottom width. They belong to the first story. The column shaft with 40 cm in upper diameter corresponds to the architrave with 38 cm in bottom width. They belong to the second

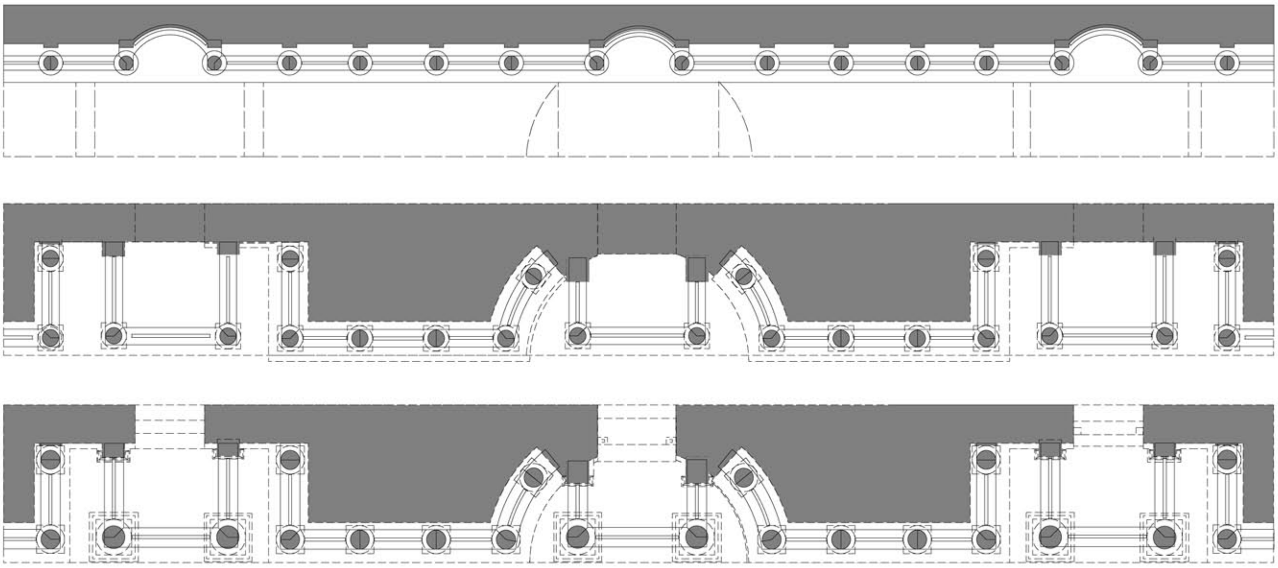

Fig. 13 Reconstructed architrave-frieze plan of the *scaenae frons* (*above*, third story; *middle*, second story; *below*, first story)

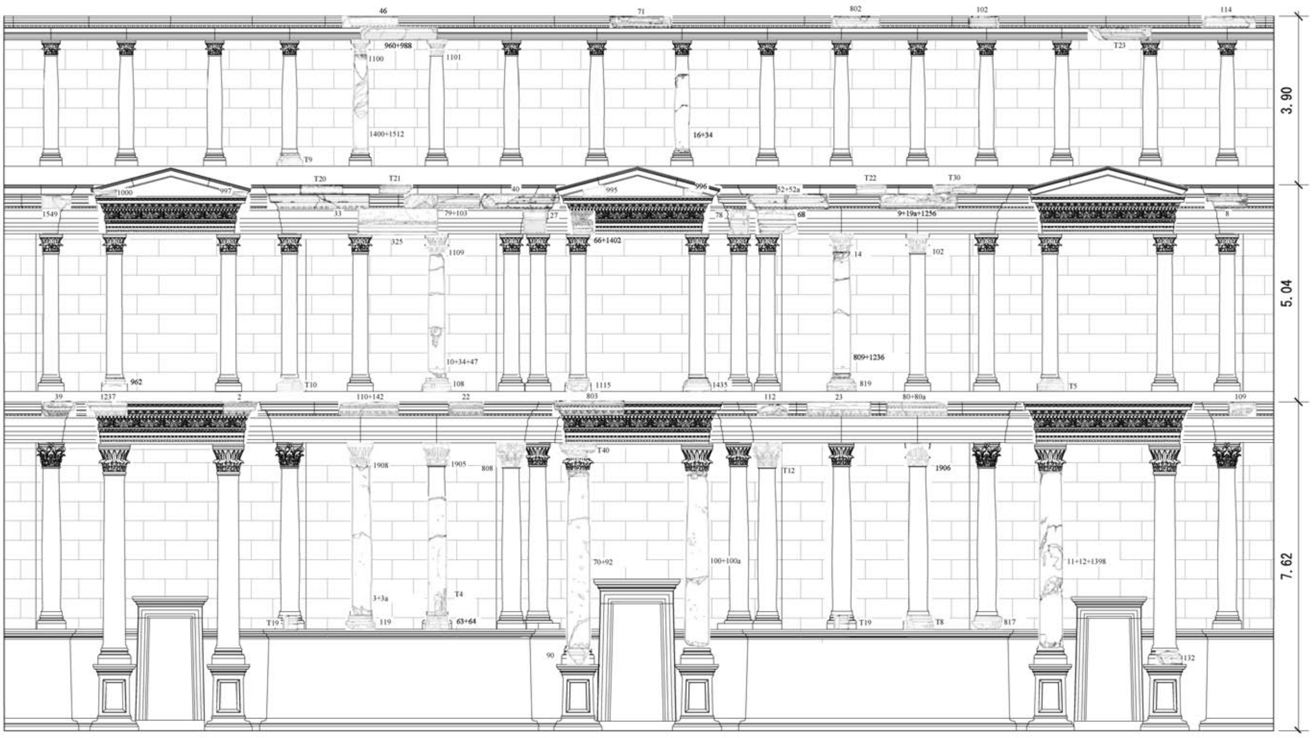


Fig. 14 Reconstructed elevation the *scaenae frons* with blocks

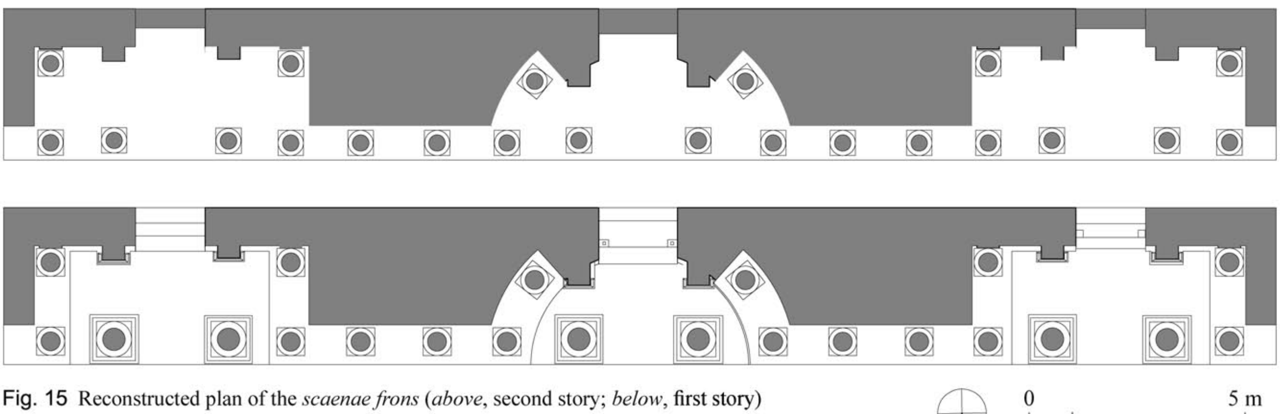

Fig. 15 Reconstructed plan of the *scaenae frons* (*above*, second story; *below*, first story)

story. In the same way, the column shaft with 31.5 cm in upper diameter corresponds to the architrave with 31.5 - 33 cm in bottom width. They belong to the third story. The Cornice was categorized into three types according to its height. The cornice of the first story is 27 - 28 cm, that of the second story is 32 - 33 cm, and that of the third story is 36.7 cm high.

This tendency is also clear in other *scaenae frons* of Roman architecture in the Greek world. Here we take a look at two buildings from the Flavian dynasty, which is the same construction period as the *scaenae frons* of the Theater at Messene.[47)] The *scaenae frons* of the Theater at Sparta, which has an architectural inscription of Vespasian (78 A.D.) on the architrave fascia, has a column upper diameter of 45 cm, and an architraves bottom width of 46 cm.[48)] As for the so-called "Captive's façade" at Corinth, the column shaft of the ground story is ca. 58 cm,[49)] and the bottom width of the architrave is av. 57 cm.[50)] The column shaft of the second story is ca. 45 cm,[51)] and the bottom width of the architrave is av. 46 cm.[52)] In the same way, the upper diameter of the column shaft and the bottom width of the architrave are practically the same size in these buildings. We cannot say this tendency is found in all Roman buildings, but this is probably the best way to determine the combination of the column and the architrave when there are not enough excavated materials to do so.

Stillwell's solution is effective for our problem in Messene. The upper diameter of the column from group A, which belongs to the third story, is av. 28 cm. The group of architrave blocks which have a bottom width of av. 33 cm (four blocks) might be adoptable here. The upper diameter of the column from group B, which belongs to the second story, is av. 33 cm. The group of architraves with a bottom width of av. 38 cm (seven blocks) might be adoptable here. The upper diameter of the column from group C, which belongs to the first story (podium), is av. 41 cm. The group of architraves which have a bottom width of av. 40 cm (five blocks) might be adoptable here. The upper diameter of the column from group D, which belongs to the first story (niche), is av. 46 cm. The group of architraves with the bottom width of av. 47 cm (five blocks), which include secon used blocks discovered from the byzantine Basilica, might be adoptable. In this manner, the architrave blocks can be reconstructed for all three stories of the *scaenae frons*.[53)]

It is presumed that the third story had neither niches nor podium, but the columns were standing directly on the floor. The architrave and the cornice from the third story were finished smoothly on their backside, so that the entablature directly touched the back wall. Some cornices which belong to the third floor (**15**, **71**) have a shallow curve. This could mean that there were some shallow niches behind the *columnatio* (Fig. 13).

The cornice blocks can be categorized into three groups from their front height. The first group has cornices of 23 - 24.5 cm (av. 24 cm) in front height (five blocks). This group has no ornamentation and it is finished smoothly on the top. In addition, there are no corner blocks from this group. Thus, this group is adopted on the third story (group A), in which there are no niches. The second group has cornices of 25 - 28 cm (av. 26 cm) in front height (nine blocks). The second group also has no ornamentation, but includes some corner blocks (**8**, **33**, **40** and **50+52a**). Therefore, the second group corresponds to the second story (group B). The last group has cornices of 29 - 32 cm (av. 30 cm) in front height (six blocks). The last group has ornamentation and includes some corner blocks (**2**, **39** and **1237**). Therefore, this group corresponds to the first story (groups C and D).

A sima was adopted only on the second story. The entablature of the first story needed to support the second story floor. The top of the cornice blocks on the third story was finished very smoothly, so it is doubtful if they had supported sima blocks. It is considered that the sima was adopted on the second story, and naturally so was the pediment. Following these discussions, the reconstructed elevation of the *scaenae frons* was drawn as the figure 14 shows.[54)]

## 7. Summary and conclusion

By the new analysis of the reconstruction of the *scaenae frons* of the Theater at Messene, it has become more apparent that the scene building was not two but three storied. Four types of columns, four types of architrave-friezes and three types of cornices have lead this conclusion. The first story has Lotus acanthus and Corinthian capitals on the *columnatio*, the second and third stories have Lotus-acanthus capitals on the *columnatio*. The Ionic capital probably did not belong to the *scaenae frons*. As a result, the first floor is 7.62 m in height, the second floor is 5.03 m in height and the third floor is 3.90 m in height, making the reconstructed *scaenae frons* ca. 16.5 m in total height, which is even higher than ca. 12 m of the previous reconstruction (Fig. 16).[55)] The height ratio of the first story to the second story is ca. 3:2, which is approximately same to the ratio of Vitruvian design (V, 6, 6).[56)] The same ratio can be seen in the *scaenae frons* of the Theater at Ferentium and of the Theater at Iguvium; however, most *scaenae frons* do not have a ratio of 3:2 but 4:3 or ever bigger.[57)]

The new reconstruction also gives enough space for the statuary, which can be now placed on the niches of the second story. There is no doubt that the wings of the scene building of Messenian Theater were also three storied. The façade of the wing parts were decorated with not *columnatio* but pillars, because the width of the wall (ca. 1.6 m) is too narrow to place a column and to support the upper structure. The scene building seems to correspond to the *cavea*, because the third story of the *scaenae frons* and the *porticus* behind the upper *cavea* are approximately on the same level (ca. 14-15 m from the orchestra). Nevertheless, it does not look like the *cavea* was reformed into a steep slope. Judging from the architectural remains, it is estimated that the first story of the scene building was contiguous with the lower *cavea*, but the second and third stories were structurally independent. It is estimated that ends of the lower *cavea* were supported by the wall of *skenotheke* at the east *analemata* and by the buttressed wall at the west *analemata*. On the other hand, there was no practical *analemata* on both ends of the upper *cavea*, but there were slopes instead, which were added in Roman time in order to give audience access.

The top of the scene building was possibly covered by a sloping wooden roof for acoustic purpose.[58)] In this case, however, it was necessary to raise the wings of the scene building higher than the height of three stories, and there would have been a problem in terms of stability. All these problems were more or less caused by remodeling the Greek theater into Roman fashion. Even so, it is almost certain that the Messenian Theater had never reached to the sense of enclosure like that of theater buildings in Italy.

## List of the Figures

Fig. 1, Drawing by C. Iwata; Fig. 2, Photo by J. Ito; Figs. 3 and 5, Drawings by Architectural Mission of Kumamoto University to Messene; Figs. 4, 6, Photos by P. Themelis; Figs. 7-16, Photos and drawings by the author.

## Abbreviations

***Academic journals***

| | |
|---|---|
| *AA:* | *Archäologischer Anzeiger* |
| *BSA:* | *Annual of the British School of Archaeology at Athens* |
| *JdI:* | *Jahrbuch des deutschen archäologischen Instituts* |
| *JRS:* | *Journal of Roman Studies* |
| *Prakt:* | *Πρακτικά της εν Αθήναις Αρχαιολογικής Ετειρείας* |

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| Kleiner 1968: | G. Kleiner, *Die Ruinen von Milet*, Berlin, 1968. |
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| Stillwell 1952: | American School of Classical Studies at Athens, Corinth; Results of Excavations Conducted by American School of Classical Studies at Athens (1932- ); Corinth, vol. 2, R. Stillwell, *The Theater*, Princeton, 1952. |
| Strocka 1981: | V. M. Strocka, *Das Markttor von Milet*, Berlin, 1981. |
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| Ward-Perkins 1983: | J. B. Ward-Perkins, *Roman Imperial Architecture*, 2nd ed., Penguin Books, Middlesex, 1983. |


## Notes

1) Iwata 2012.
2) The percentages could be even lower than these, if we presume that the number of 132 blocks include fragments from the same blocks.
3) Dating of the scene building of the Messenian Theater: Yoshitake 2013.
4) Ward-Perkins 1983, p. 71, pl. 32.
5) The *scaenae frons* of the Theater at Aizanoi (Ionic on the first story, Corinthian on the second and the third story; Rohn 2008, Tafel 116); *scaenae frons* of the Theater at Aphrodisias (Ionic on the first story, Corinthian on the second story; N. de Chaisemartin, "Mission Française d'Aphridisias. Aperç sur les recherches en cours," Anaolia Antiqua 6, 1998, pp. 203-225); *scaenae frons* at of the Theater Ephesos (Ionic on the first story, Composite on the second and the third story; H. Hörmann, "Die Römische Bühnenfront zu Ephesos," *JdI* 28/29, 1923/24, pp. 257ff); *scaenae frons* of the Theater at Hierapolis (Composite on the three stories; Kadıoğlu 2006, p. 369); *scaenae frons* of the Theater at Milet (Ionic on the first story, Corinthian on the second story; Kleiner 1968, pp. 69-70, Abb. 43-49); *scaenae frons* of the Theater at Nysa on the Maeander (Corinthian on the first and the third story, Composite on the second story; Kadıoğlu 2006, Beilagen 5 and 6); *scaenae frons* of the Theater at Perge (Corinthian on the first story, Composite on the second story, Figural on the third story; Öztürk 2009, Beilagen 5, 6 and 8); *scaenae frons* of the Theater at Selge (Ionic on the first story, Corinthian on the second story; A. Machatschek and M. Schwarz, Bauforschungen in Selge, Vienna, 1981, pl. XIV; Sear 2006, fig. 27); *scaenae frons* of the Theater at Side (Ionic on the first story; Composite on the second story; Corinthian on the third story; Kadıoğlu 2006, p. 383); *scaenae frons* of the Theater at Stratonikeia (Doric on the first story, Schmuck on the second story, Corinthian on the third story; Mert 1998).
6) Jones 2000, p. 114, fig. 6.8. There is also an exceptional scene building of the Theater at Segesta, which is reconstructed by Bull as a two storied building, Doric below and Ionic above; however, there is a discussion about his restoration. Buckler said Bull's Ionic order belonged to the stage; the scene building had a single Doric story. C. Buckler, "Two Sicilian Skenai: A Modified View," *AA* 1992, pp. 277-293; Sear 2006, p. 190, fig. 18.
7) Yegül 1986.
8) Iwata 2012, p. 1972, fig. 8.
9) Furthermore, the groove on the top of the podium foundation was interpreted as a hook hole in the previous paper, and it was assumed to have held the cornice of the podium. (Iwata 2012, p. 1973, photo 3) Nevertheless, such an example has not been known in Roman theaters, and no cornice block which fits this groove has been discovered. There is no reason to have attached the cornice to the podium, because the cornice had a flat shape, and is structurally stable. It is probable that these grooved poros stones are from the east Hellenistic *analemata*, which was built before the *skenotheke*.
10) P. G. Themelis, *Prakt* 1986, p. 78; *id*., 1987, pp. 73ff; *id*.,1988, pp. 45ff; *id*., 1989, p. 91f; *id*., 1996, pp. 153ff; *id*., 1997, pp. 85ff; *id*., 1998, pp. 102ff; *id*., 1999, pp. 76ff; *id*., 2000, pp. 76ff; *id*., 2001, pp. 64ff; *id*., 2002, pp. 22ff; *id*., 2003, pp. 26ff; *id*., 2004, p. 28f; *id*., 2005, pp.39ff; *id*., 2006, pp. 32ff; *id*., 2007, pp. 24ff; *id*., 2008, pp. 33ff.
11) This project is also collaboration work with Prof. Dr. J. Ito of Kumamoto University and his students, and they have been performing architectural fieldwork since 2008.
12) Iwata 2012, pp. 1968-1971.
13) P. G. Themelis, *Prakt* 1986, fig. 3; *id*., 1987, p. 75.
14) Fragments of marble slabs; Themelis 2010, pls. 32-33.
15) P. G. Themelis, *Prakt* 1998, pp. 102-103, pls. 42α-β; *id*., 1999, pp. 76-78; *id*., 2000, pp. 78-82, pls. 42-46.
16) P. G. Themelis, *Prakt* 1998, p. 102f; *id*., 1999, p. 76f; *id*., 2000, pp. 78ff; *id*., 2001, p. 65f. The donor who repaired the scene building is estimated as Klaudios Saithidas, more

precisely, Tiberios Klaudios Saithidas Kailianos I, who was one of the Helladachos and the archbishop of the emperor. He belonged to the Saithidas family in their prime time. This inscription stretches the imagination that the statue supported on this pedestal was probably Klaudia Phronteine, the mother of Tiberios Klaudios Saithidas Kailianos I and the granddaughter of Tiberios Klaudios Phronteinos I. (Müth 2005, p. 86f.; Yoshitake 2013, p. 485, fn. 4.)

17) Yoshitake 2013.
18) Dr. Yoshinobu Hayashida (Prof. of Miyakonojo National Collage of Technology) pointed out that the pedestal with inscription (**9625**) could have been reuse. Hayashida indicated that the inscription was scribed on the surface of the pedestal, on which there had been no inscription originally. In fact, the inscribed surface has been carved ca. 1 cm into the inside of it and the central part is deeper than the sides.
19) The donor inscription of the theater was usually presented on the architrave of the *scaenae frons* like ones of the theaters at Ephesos, Miletus, Aphrodisias, Hierapolis, Troy, Athens and Sparta. (Sturgeon 2004, p. 44)
20) For example, The *scaenae frons* of the Theater at Ephesos. (H. Hörmann, "Die Römische Bühnenfront zu Ephesos," *JdI* 28/29, 1923/24, pp. 257ff.)
21) Thus, the estimated limestone pediment block (?), which was adopted for the reconstruction in the previous paper, might be set aside. (Iwata 2012, p. 1971) This flat limestone block is 2.11 m in length and 1.05 m in depth, and it cannot be a part of the pediment because the pediment is usually made from thin triangular blocks. It may be a flat pediment block for a part of ceilings. Nevertheless, ceiling blocks are put on the architrave or on the frieze, which levels are lower than the one of pediment. Thus, the shape of this limestone block is neither for the pediment nor the ceiling. In addition, the minimum axial intercolumniation of the niche is 2.65 m (east hospitalia, first story), so that the length of the limestone block (2.11 m) is too short for the pediment. Thus, there is no place to adopt this limestone block as a part of the pediment of the *scaenae frons*.
22) Yoshitake 2013, p. 485f.
23) Yoshitake 2013, pp. 486ff.
24) Iwata 2012, p. 1972.
25) Blouet 1831, p. 36c.
26) Yoshitake 2013, p. 489.
27) In the previous reconstruction, a full-length architrave block (**325**) was disregard for some reason. (Iwata 2012, p. 1973)
28) It is not clear in which period the Basilica was built; but it might be not later than 6th century, when the quarrying of stones from the Theater was stopped, and had been continuously in use at least 7th century A.D., before the Christian tombs began to build on the south part of the building. P. G. Themelis, *Prakt* 1998, pp. 106ff, pls. 50γ-52α; *id.*, 1999, pp. 81ff, pls. 52α-β; *id.*, 2000, pp. 83ff, fig. 2, pls. 48α-49γ; *id.*, 2008, p. 40f, pls. 37α-39β.
29) P. G. Themelis, *Prakt* 2000, p. 82, pl. 48α. A similar trapezoid dosseret was also discovered from the Basilica. P. G. Themelis, *Prakt* 2001, pl. 50α.
30) Blocks of two table legs near the Apses of the Basilica are also reuse of the architrave blocks: Both of them are accompanied with ornamented soffit panels. The width of a soffit panel measures 6 cm, so the original bottom width is estimated to be ca. 35 cm (1:0.17).
31) Iwata 2012, p. 1970f.
32) In the Theater at Corinth, the cornice height of the 1st story is 36.7 cm, of the 2nd story is 32-33 cm, of the 3rd story is 27-28 cm. (Stillwell 1952, pp. 99-105.) In the Theater at Ephesos, the cornice height of the 1st story is 31 cm, of the 2nd story is 25 cm. (Heberdey 1912, pp. 58-59)
33) A fragment of marble fluted column shaft might not belong to the *scaenae frons*. 6 fragments of columns are too destroyed to measure their diameters (**24+58+62**, **951**, **99**, **1409**, **1561** and **T24**).
34) Strocka 1981.
35) It is supposed that the column base (**53**) of 66 cm in upper diameter supported a huge column of ca. 6 m in height; however, such a shaft or fragment has not been discovered until now.
36) Iwata 2013, p. 1974, fig. 8.
37) The lower diameter of the Ionic column is 0.817 m and the height of it is 7.635 m in the porch of the Erechtheion at Athenian Acropolis. The lower diameter of Ionic column is 2.022 m and the height of it is 19.70 m in the external column of the Temple of Apollo at Didyma. (Dinsmoor 1950, pp. 339-340)
38) Seven fragments of marble Ionic capital were found from the Theater at Corinth. These fragments were well created, but Stillwell carefully excluded them from his reconstruction of the *scaenae frons*, and judged they belonged to the *porticus* behind the upper *cavea*. (Stillwell 1952, pp. 102, 120, fig. 94, plate VI) Cf. Tuscan *porticus* in the *cavea* of the Theater at Bosra. (Mukdad 2001, plan 15-c, planche XIV; Sear 2006, pl. 101)
39) Blouet 1831, p. 36c.
40) The ratio of the column height to the lower diameter of Corinthian order from Hellenistic Roman time is between 9.5 and 10.5. (Jones 2000, pp. 222-223)
41) The *scaenae frons* of the Theater at Bosra could be four storied, but the architectural blocks of upper story are too scanty to assert so.
42) Aizanoi: Rohn 2008, Tafel 116; Bosra: Mukdad 2001, plan 5a; Sabartha: Caputo1959, Palmyra: The scene building probably had never been finished. Caputo 1959, pp. 172-176, pl. 61; Sear 2006, pl. 111; Augusta Emerita: Sear 2006, fig. 21.
43) Such exceptional cases can be seen in the Roman theaters in Asia Minor. cf. Ephesos: H. Hörmann, „Die römische Bühnenfront zu Ephesos," *JdI* 28/29, 1923/24, pp. 275ff; Nysa: Kadıoğlu 2006.
44) Iwata 2012, figs. 9-12.
45) Heberdey 1912.
46) Stillwell 1952, pp. 99-105.
47) Yoshitake 2013.
48) A. M. Woodward, "Sparta. The Theater: Architectural Remains," *BSA* 30, 1928/30, pp. 151-254, esp. p. 200, fig. 12-1.
49) Stillwell 1941, pl. III; Strocka 2010, pl. 8.
50) Stillwell 1941, pp. 64-66.
51) Stillwell 1941, pl. IV; Strocka 2010, pl. 38.
52) Stillwell 1941, pp. 78-79.
53) The error of groups C and D are less than 1 cm, but of the groups A and B are 5 cm. This is probably caused by ancient restorations. Sometimes the third story was added in later renovation like the Theater at Ephesos. H. Hörmann, „Die römische Bühnenfront zu Ephesos," *JdI* 28/29, 1923/24, pp. 275ff.
54) It may be necessary to consider the relief panel here, because it related to the height of the each story The podium of the *scaenae frons* of the theater was sometimes decorated by marble relief panels. As it is well known, the *scaenae frons* of the Theater at Corinth was decorated by a relief panel of the Gigantomachy on the first story, of the Amazonomachy on the second story and of the Herakles on the third story. (Sturgeon 1977; Sturgeon 2004, pp. 9ff) No such a relief panel has been reported from the excavations of Messene, so a flat floor slab (24 cm in height) is adopted for the present reconstruction. Such a floor slab can be seen in the façade of the Market Gate of Miletus. (Strocka 1981) There are many examples of three storied *scaenae frons* without podium on the second story in Asia Minor: the Theater at Nysa on the Maeander, (Kadıoğlu 2006, Beilagen 5-6) the Theater at Aphrodisias, (N. de Chaisemartin, "Mission Française d'Aphridisias. Aperç sur les recherches en cours," *Anaolia Antiqua* 6, 1998, Abb. 6) the Theater at Stratonikeia, (Mert 1998, Abb. 18) the Theater at Aspendos. (Lanckoronski 1890, Tafel 27) The adoption of the relief panel to the *scaenae frons* probably depended on the function required for each theater. Such an application of reliefs between podiums in the second story recalls the relief from the Theater at Corinth (Sturgeon 1977) and the Sebasteion at Aphrodisias. (R. R. R. Smith, "The Imperial Reliefs from the Sebasteion at Aphrodisias," *JRS* 77, 1987, pp. 88-138)
55) In the previous paper, it is estimated that the height of the *scaenae frons* was approximately the same height with the *cavea*; however, Messenian Theater has no basilica which connects the scene building and the *cavea*, so that it is not necessary to keep the same height. See note 58.
56) Vitruvius, V, 5, 6; *Vitruvius, The Ten Books on Architecture*, trans. by M. H. Morgan, New York 1914, (reprinted in 1960), p. 148; Jones 2000, p. 34f, fig. 2.5, fn. 6.
57) Ratio of the height of the lower story to the height of the middle story in the theaters with three-story *columnatio*: 1: 0.86 (Arausio); 1:0.75 (Bostra); 1:0.76 (Leptis Magna); 1:0.96 (Nysa on the Maeander); 1:1.06 (Perge); 1:0.80 (Sabartha). Ratio of the height of the lower story to the one of the upper-story in the theaters with two-story *columnatio*: 1:0.98 (Aphrodisias); 1:0.78 (Aspendus); 1:0.73 (Augusuta Emerita); 1:0.72 (Bilbilis); 1:0.75 (Carthago Nova); 1:0.62 (Ferentium); 1:0.73 (Gerasa South); 1:0.69 (Iguvium); 1:0.83 (Thugga); 1:0.86 (Volaterrae). cf. Sear 2006, p. 35, tables 3.12-13; Kadıoğlu 2006, pp. 363-386.
58) It is probably that the roof was prepared for acoustic purpose. cf. Sear 2006, p. 8.

**和文要約**

本稿の目的は、過去のメッセネ劇場のローマ時代の舞台建物の復元案（前稿案）の問題点を指摘し、調査資料と既往研究を慎重に検討して、より妥当な復元案を提示することである。前稿案では、劇場の発掘から出土した建築部材に基づき建設当初の姿を推定した。しかし発見された部材は少なく、また舞台建物に属していない可能性が高い部材が含まれていた。とくに、３種類の柱頭が出土したことが復元推定を困難にさせた。前稿案では、一階列柱にコリント式とロータス・アカンサス式の２種類の柱頭を、二階列柱にロータス・アカンサス式とイオニア式柱頭の２種類の柱頭をそれぞれ載せ、高さの異なる円柱をニッチに配置して、二階の軒で高さを揃えた。その結果、一階の軒高は揃っていない。ローマ劇場のスカエナエ・フロンスとして、このような処置は一般的ではない。また、前稿案では最も高いタイプの柱身とコリント式柱頭が一致すると信じられているが、その根拠である３つのダボ穴は、大きさや形がまったく異なるなど実際には一致せず、ディテールの納まりにも無理が生じている。こうした無理な復元案に到ったのは、十分な根拠がないのまま２層という前提にこだわった結果であり、結果として妥当な復元案を導くことに失敗している。完全な復元が不可能なほど建築部材が現存していない場合、無理に現状部材から推定するよりも、類似した先行研究から仮説を導いて推論する方が有効である。こうした中、筆者が 2012 年に行った現地調査で、他の建物に転用されたスカエナエ・フロンスの部材が見つかり、劇場のスカエナエ・フロンスは前稿の結論に２層ではなく３層の可能性が高いことが判明した。

スカエナエ・フロンスからはイオニア式、コリント式、ロータス・アカンサス式の３種類の柱頭が出土した。前稿では、このうちロータス・アカンサス式柱頭は、大小２種類に分類することが出来るとしている。しかし、すでに 2009 年の調査で実測したロータス・アカンサス式柱頭（T40）は、特別に大きなアバクスを持ち、この柱頭の底面直径が他の柱頭よりもはるかに大きかった。つまり、ロータス・アカンサス式柱頭は大きさに着目すれば３種類はあったことになる。さらに、スカエナエ・フロンスの部材の大半は、劇場から約 30m 南に建つ三廊式バシリカに転用された。とくに、身廊の列柱に使われている台形の第二柱頭はアーキトレイブを短く切り取って直方体にしたもので、その底面幅の寸法からアーキトレイブ・フリーズは３種類あった可能性が極めて高い。

また、イオニア式柱頭の一部は劇場の発掘で発見されたものだが、スカエナエ・フロンスには属さず、上部客席の背後の列柱廊に用いられていた可能性が高い。確かに、イオニア式柱頭は一部の円柱（グループ A と B）と接触面の大きさが一致しなくはない。しかし円柱下部直径に対するイオニア式柱頭と礎盤とを含む円柱高さの比は、1：7.36 または 1：8.14 となり、プロポーションが極端に低い。また、完全な形が残っている柱身の下部直径に対する柱身高さの比は 1：7.1 ～ 8.1 の範囲である。このことはイオニア式柱頭ではなく、むしろコリント式やロータス・アカンサス式柱頭を載せるための柱身であった可能性を示唆している。

新しく得られた部材寸法とこれまでの一次資料を精査した結果、円柱の組合せは以下の４通りに分類できることが判明した。すなわち、グループ A は、ロータス・アカンサス式オーダーで、円柱高さは 2.93 m、下部直径に対する円柱高さの比は 8.88 である。グループ B は、ロータス・アカンサス式オーダーで、円柱高さは 3.69 m、下部直径に対する円柱高さの比は 10.42 である。グループ C はロータス・アカンサス式とコリント式オーダーで、円柱高さは 4.33 m、下部直径に対する円柱高さの比は 9.84 である。最後にグループ D はロータス・アカンサス式オーダーで、円柱高さは 5.10 m、下部直径に対する円柱高さの比は 9.80 である。

コリントの劇場のスカエナエ・フロンスを復元したスティルウェルによれば、スカエナエ・フロンス立面の復元は、アーキトレイブ・フリーズとコーニスが決め手である。円柱とアーキトレイブとの組合せは、円柱上部直径とアーキトレイブ底面幅の関係で求めることが出来る。コーニスはその正面高さから３種類に分類が可能である。この傾向は、メッセネの劇場のスカエナエ・フロンスと同じフラウィウス朝の２つの建物ースパルタの劇場のスカエナエ・フロンスとコリントの「捕虜のファサード」にも妥当する。同じ方法でメッセネの円柱グループ（A ～ D）とアーキトレイブとの組合せを分析したところ、以下のような結果になった。3 階のグループ A に対応するのは高さが平均 29 cm、底面幅が平均 33 cm（4 個）のアーキトレイブ、二階のグループ B に対応するのは高さが 59 ～ 62 cm（平均 60 cm、9 個）、底面幅が 36 ～ 41 cm（平均 40 cm、9 個）のアーキトレイブ、一階のグループ C と D に対応するのは高さが平均 66 cm、底面幅が 44 ～ 46cm（平均 45 cm、5 個）のアーキトレイブである。コーニスは正面の高さによって３種類に分類できる。3 階のグループ A に対応するのは、高さが 23 ～ 24.5 cm（平均 25 cm、5 個）の装飾のないコーニス、二階のグループ B に対応するのは、高さが 25 ～ 28 cm（平均 26 cm、9 個）の装飾のないコーニス、一階のグループ C または D に対応するのは、高さが 29 ～ 32 cm（平均 30 cm、6 個）の装飾のあるコーニスである。

以上のことから、当初は 2 層と考えられていたスカエナエ・フロンスが、より正確には 3 層の可能性が高いことが明らかになった。高さの異なる 4 タイプの円柱と、高さの異なる 3 種類のアーキトレイブ・フリーズ、および高さの異なる 3 種類のゲイソンから、メッセネ劇場のローマ時代のスカエナエ・フロンスは 3 階建てであり、一階がロータス・アカンサス式とコリント式オーダー、二階がロータス・アカンサス式オーダー、3 階がロータス・アカンサス式オーダーであったと考えられる。その結果、ポデュウムを含めた各階の高さは一階が 7.62 m、二階が 5.03 m、3 階が 3.90 m となり、全体の高さは先の復元案の約 12m からさらに高く、約 16.5m となった。一階高さと二階高さの比は約 3:2 で、ウィトルウィウスの比や、フェーレンティウムやイグヴィウムの劇場の比に近い。

スカエナエ・フロンスが 3 層であるならば、翼部を含む舞台建物全体もおそらく 3 層であった。スカエナエ・フロンスの三階と、客席上部の背後にある列柱廊とはほぼ同じ高さ（オルケストラから約 14 ～ 15 m）にあるので、舞台建物と客席の間には一定の関係があるように見える。しかし、客席がローマ風の急傾斜に造り替えられることはついになかった。そのため、舞台建物の一階部分は客席下部と一体になっていたが、二・三階部分は構造的に独立していたと思われる。舞台建物の頂部には、斜めの木造屋根があった可能性があるが、バシリカがないメッセネでは構造的に困難が生じただろう。いずれにせよ、メッセネのローマ型劇場では、イタリアの劇場建築に見られるような強い閉鎖性はおそらく実現しなかった。

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