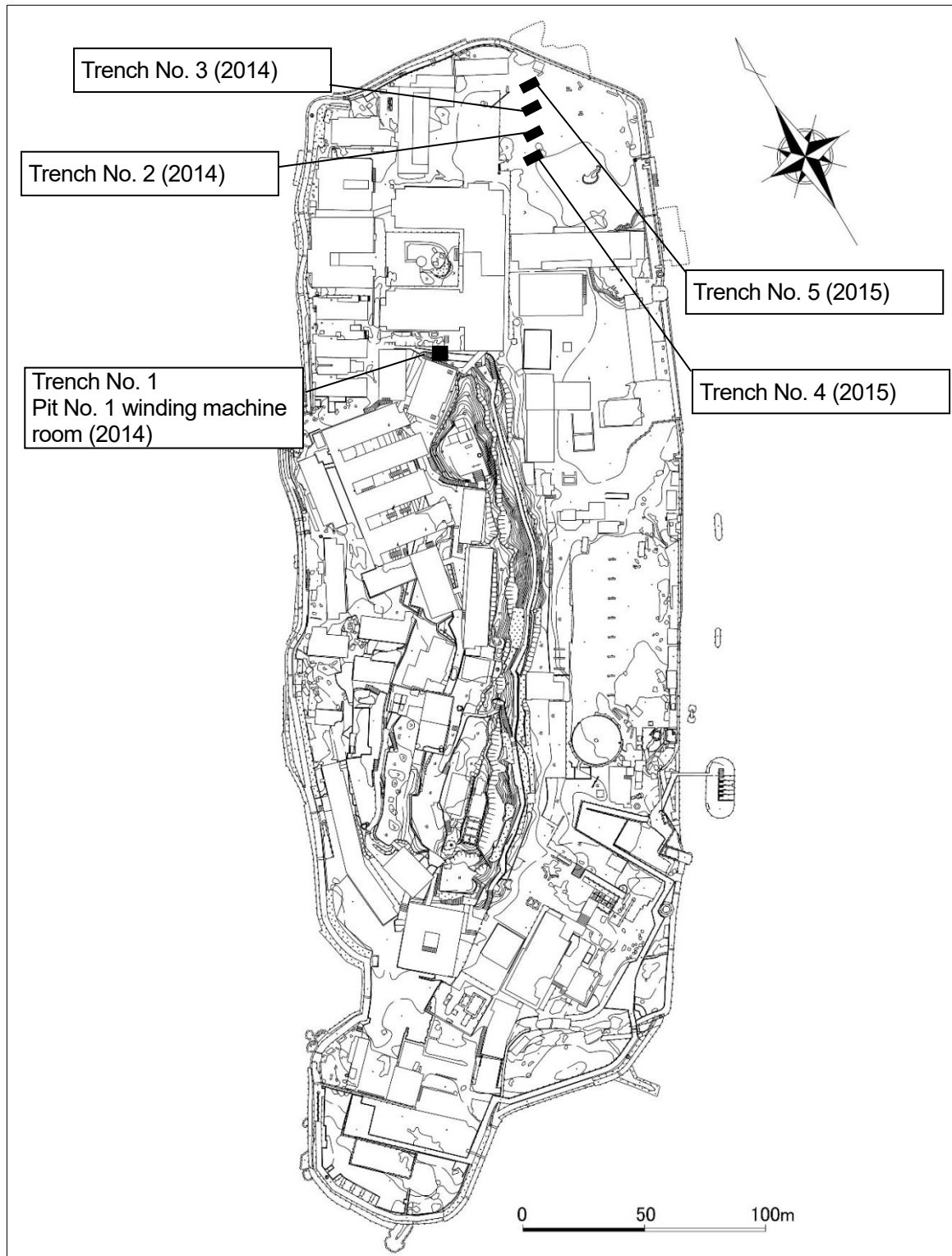


Archaeological excavation report (Survey of underground remains boundaries at the Hashima Coal Mine remains)

For the purpose of examining the production facilities and the seawalls, an excavation study was conducted at the remains of the Pit No. 1 winding machine room in 2014, and a survey to find out whether or not any remains of seawalls were preserved at the schoolyards of the former Takashima Town Hashima Municipal Elementary and Junior High Schools in 2014 and 2015.

An outline of the studies is provided in the following:



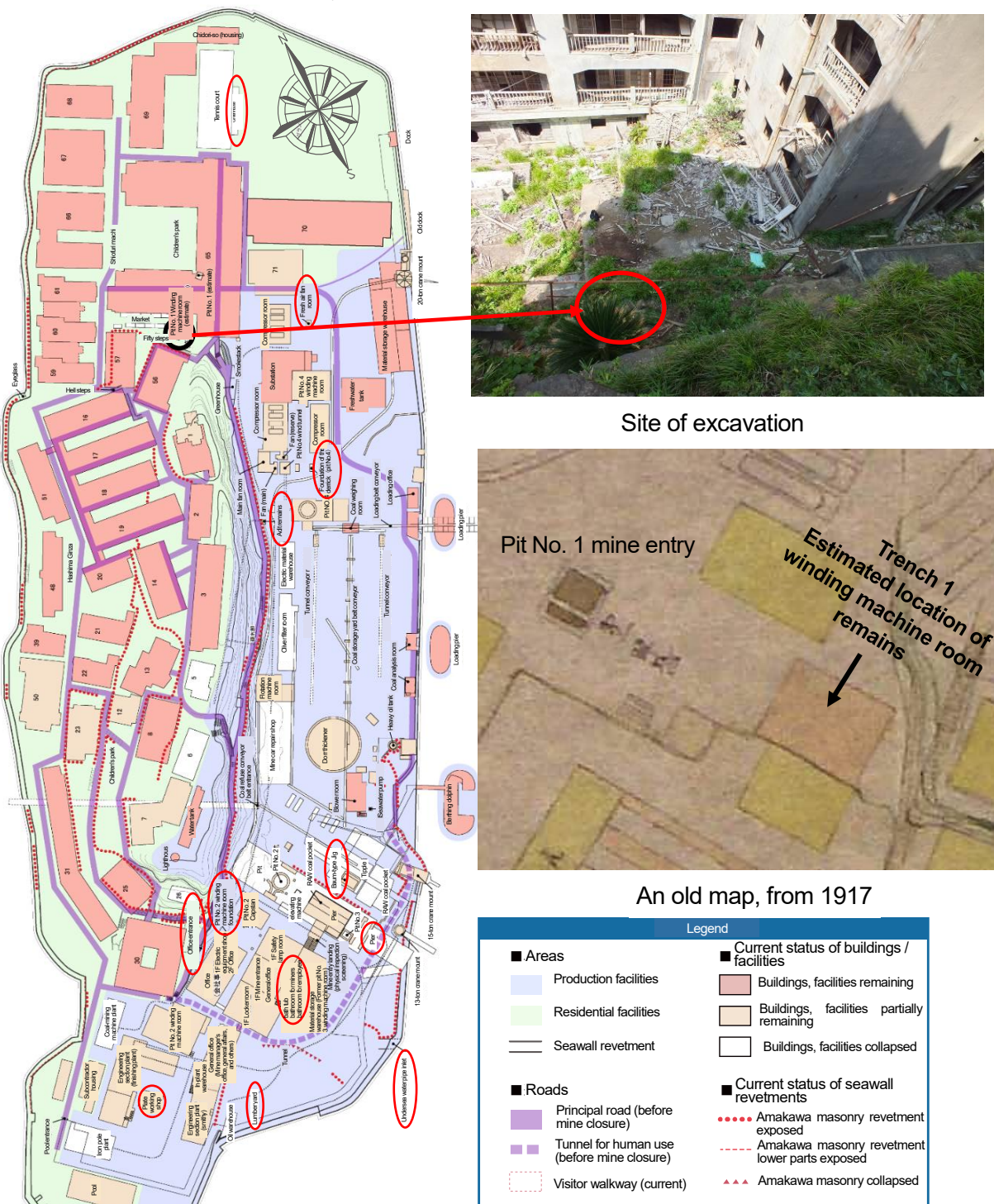
## Appendix 2-2

Figure 2-3-80. Diagram of locations for excavation study

### 1) Pit No. 1 winding machine room excavation

#### a) Outline of survey

Pit No. 1 was a pit shaft that was opened in the early days of the Hashima Coal Mine. Mining was started in 1886, and the mine was closed in 1898. Based on a study of a topographic map of the present day overlaid on an old map, it was estimated that the mine entry was beneath Building No. 65, and it would therefore be not possible to conduct an investigation there. At a location estimated to have been the Pit No. 1 winding machine room, however, several exposed patches of brickwork were observed. An excavation study was therefore conducted to determine whether or not there were any remains of the structure there.





**b) Findings**

At Trench No. 1, remæ Figure 2-3-81. Diagram of Pit No. 1 winding machine room study locations 1  
the area between the two curves also made of bricks, although partially ruined. Each of the arcs formed a part of a cylinder, which was mortared. Inside the larger arc, another, smaller cylinder, which was also laid in bricks, was built. Structures and functions of this brick structure were not yet known. Considering that the bricks used here were those with a thickness of approximately 4 cm, or so-called “konjac bricks,” it is likely that this structure was related to Pit No. 1 winding machine room.



Figure 2-3-82. Trench No. 1. Ground area plan



Photo 2-3-89. Work at Trench No. 1



Photo 2-3-90. Trench No. 1, excavation work completed

## Appendix 2-2

### 2) Survey on presence of remains of seawalls

#### a) Outline of survey

For the purpose of finding out whether or not any remains of the seawalls, which were built in 1899 and subsequently buried underground at the Hashima Coal Mine remains, were presented, a survey was conducted over a period of two years, in 2014 (Trenches No. 2 and No. 3) and 2015 (Trenches No. 4 and No. 5). The locations of the trenches are as shown in Figures 2-3-83 and -84. The survey was conducted manually to determine whether or not remains were presented, and their shapes, if any.

The locations of the trenches to study were determined based on Takashima Coal Mine Survey Report, published in March 2014 (City of Nagasaki, 2014).

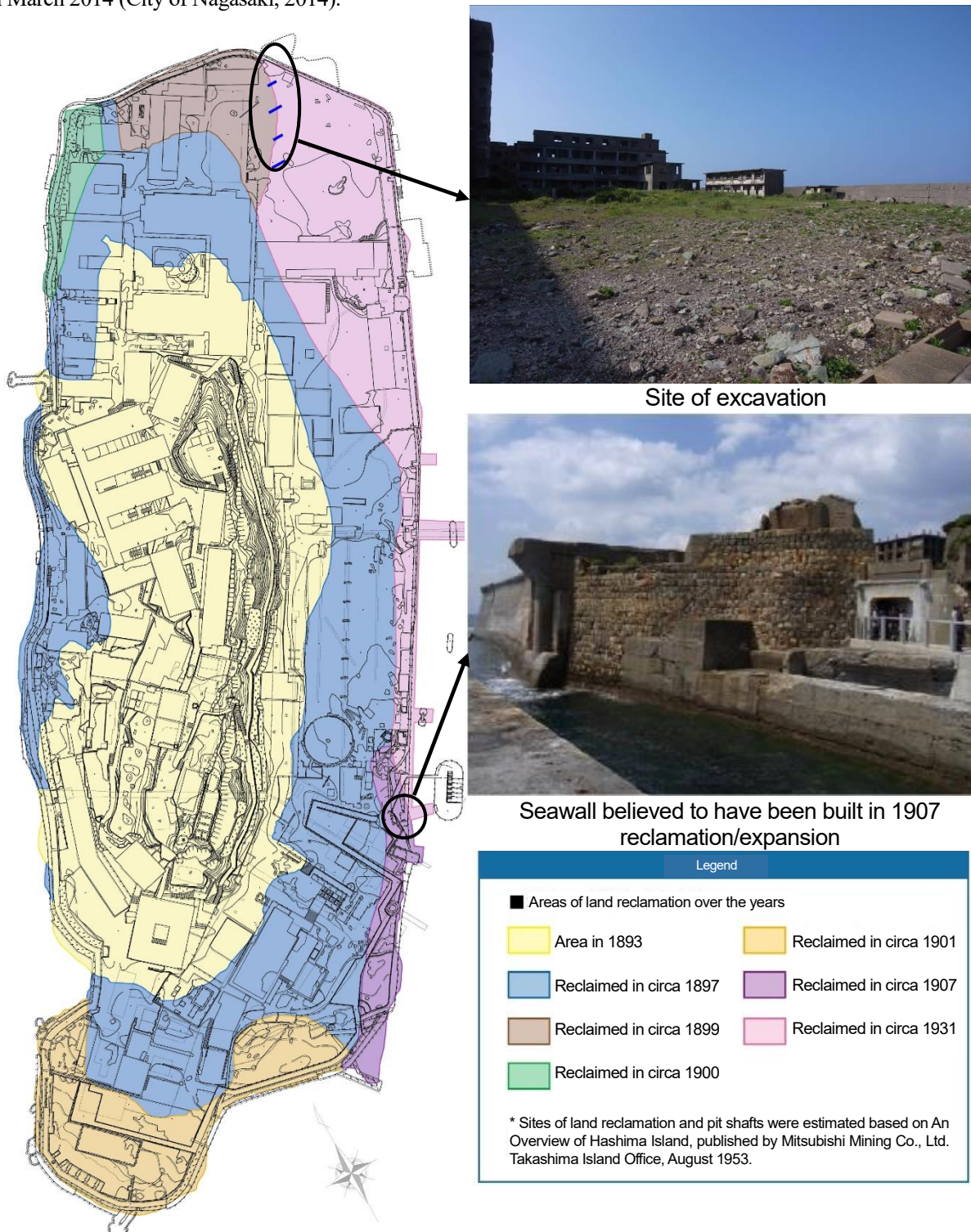


Figure 2-3-83. Diagram of locations for survey on presence of seawall revetments remains



**b) Findings**

At Trenches No. 2 and No. 3, remains of the stone seawalls built in 1899 were found at the locations predicted. There were foundations of buildings above the stone walls found at Trench No. 2, where it was observed that remains of structures from the Meiji to the early Showa eras (the late 19th to early 20th century) were preserved in good condition. As the purpose of the 20014 survey was to determine the locations of stone seawalls, the stone walls were not dug up in their entirety. Nevertheless, three rows of stone walls were observed, in which stones were laid in mortar using the Nunozumi technique. The upper parts were finished in Amakawa, a type of traditional earth mixture that is light orange in color and is often used in this region. Given that the Amakawa-covered parts extended further beyond the estimated counterfort length, it is possible that the Amakawa finish may not have been used only in the stone walls but extended to the ground surface of that time (Figure 2-3-88 and Photo 2-3-111).

At Trenches No. 4 and No. 5, concrete foundations built on brickwork were observed. Given their locations, they are considered to have been the foundations of the former primary school building, whose construction was completed in 1934, after the 1931-32 land reclamation. Although remains of the stone seawall built in 1899, which was the original target of the survey, could not be found definitively, it is likely that they may remain underground, beneath the foundation of the former primary school building. As was the case with the remains exposed above ground, the shaft line of the foundations ran along the topographical features, namely diagonal to the Japanese national coordinate.

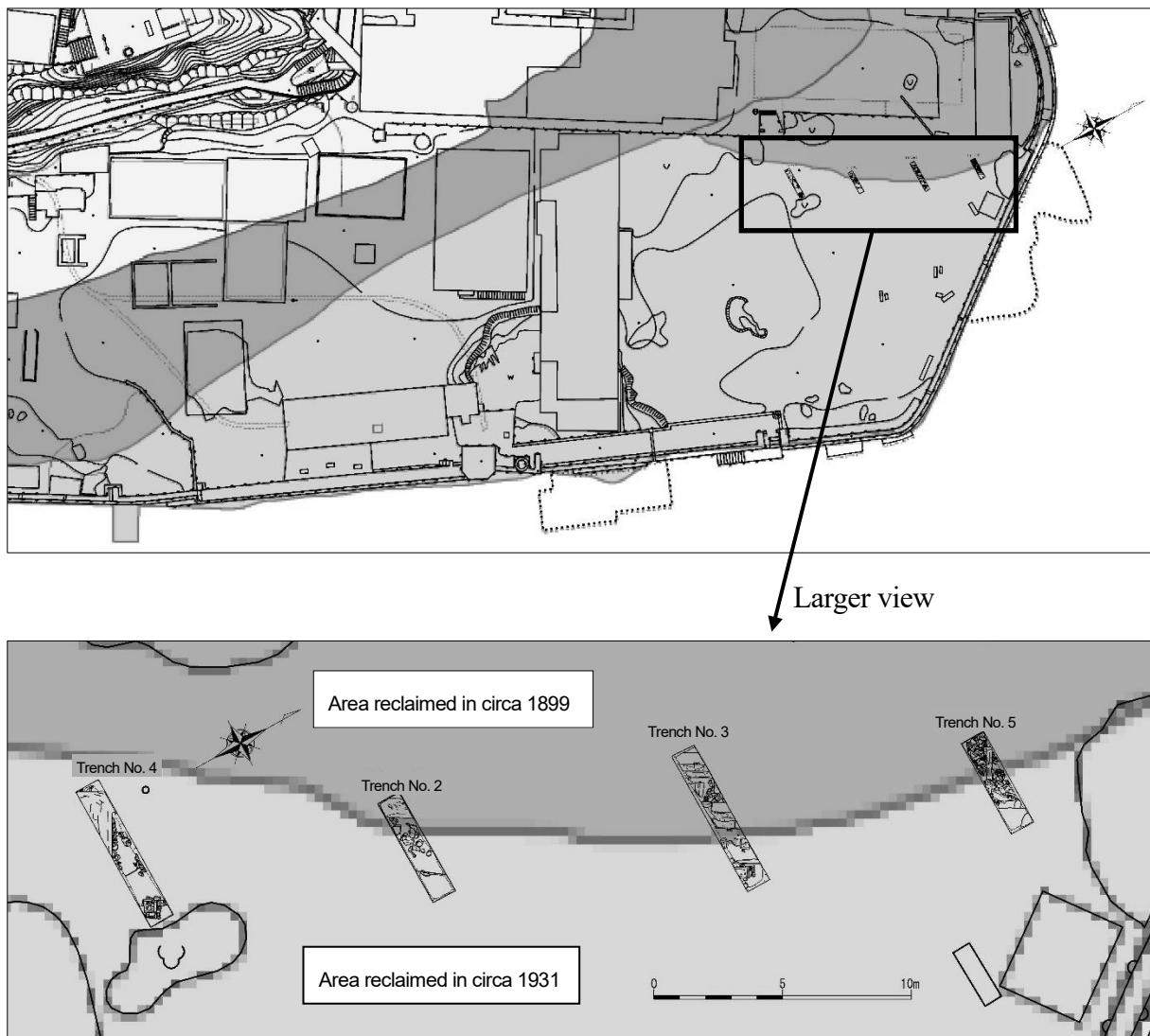
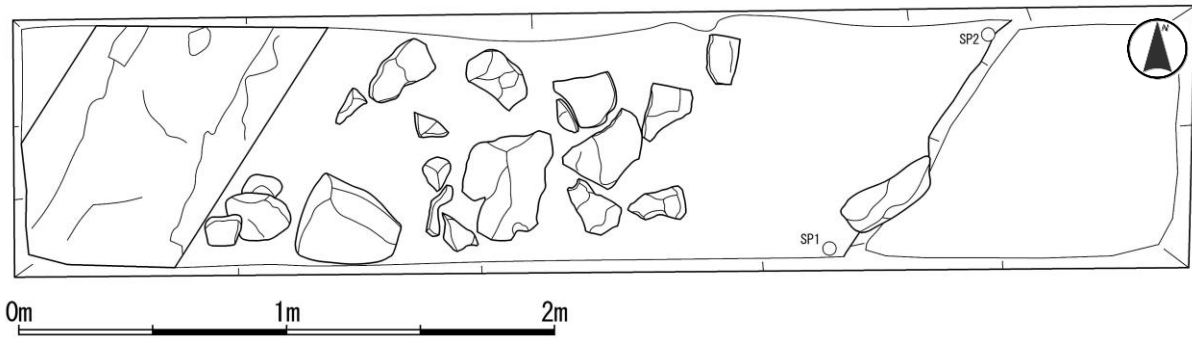
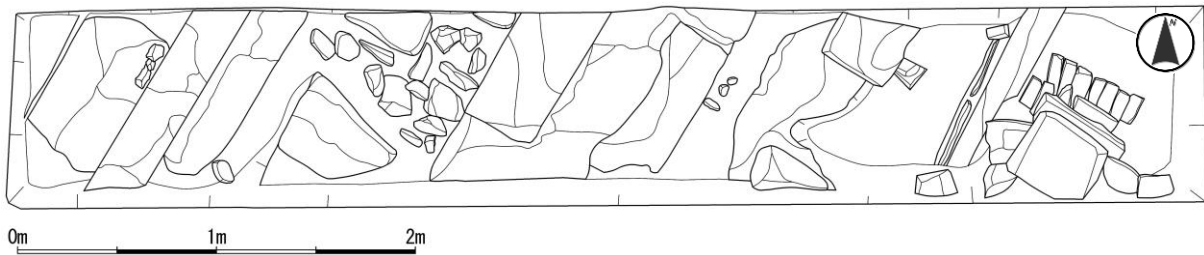


Figure 2-3-84 Locations of trenches (Composite of maps showing areas of land reclamation over the years)

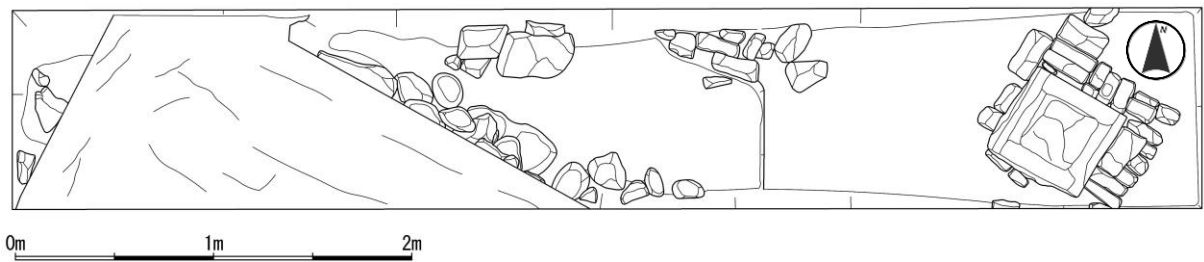
## Appendix 2-2



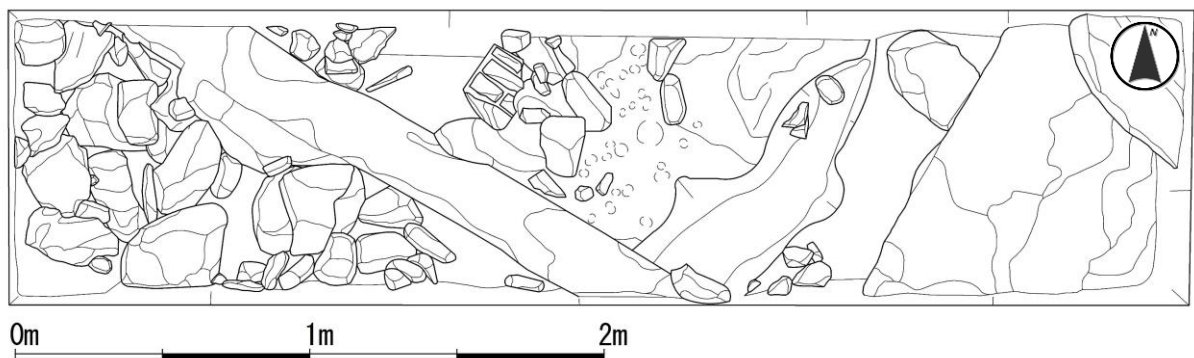
Trench No. 2



Trench No. 3



Trench No. 4



Trench No. 5

Figure 2-3-85. Ground area plans of trenches

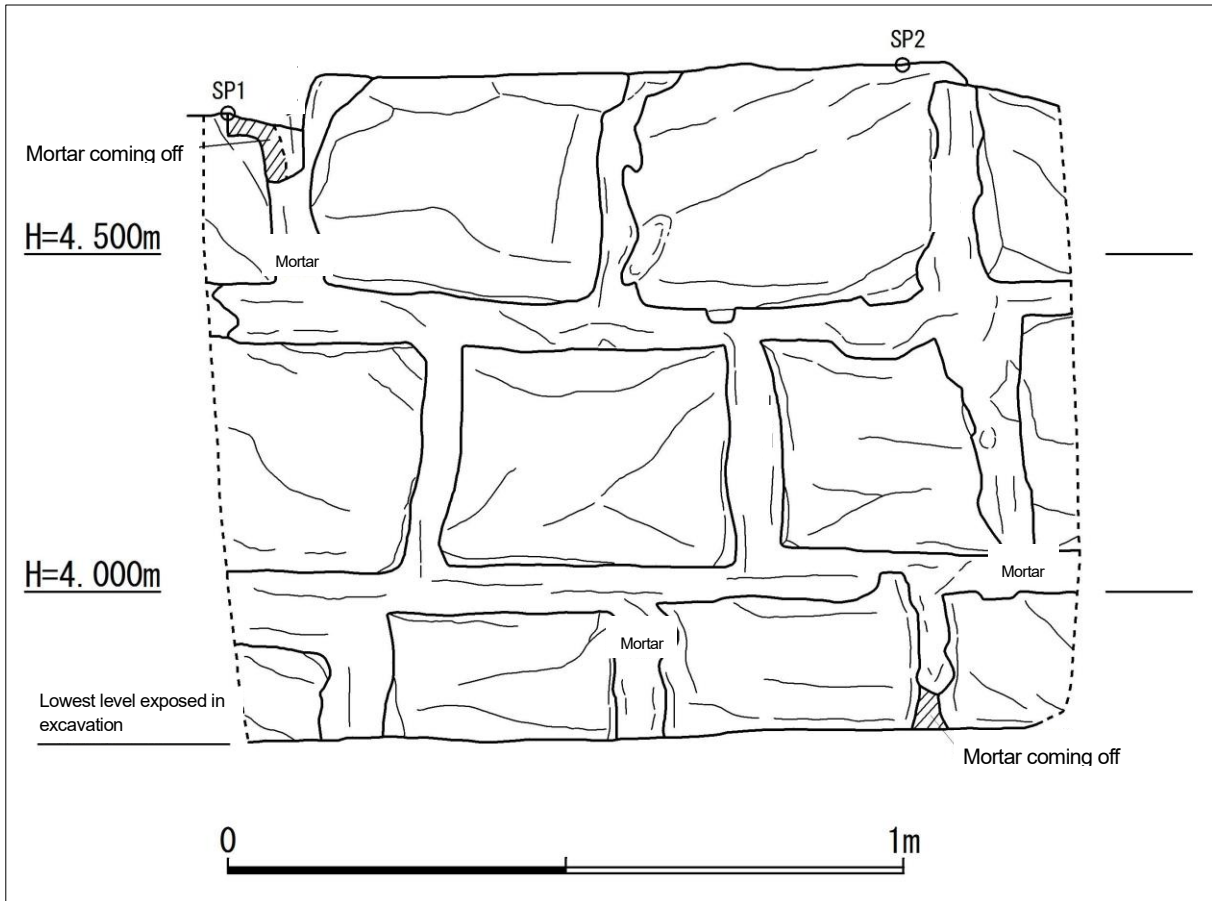


Figure 2-3-86. Elevation plan of former seawall revetment (Trench No. 2)

**c) Unearthed items**

A total of 51 items were unearthed from Trench No. 4, including bricks, roof tiles, hardware, and porcelains. One unearthed items of note was engraved pieces of a roof tile that appear to bear the letters "上 吉武." The engraving is believed to indicate the name of the manufacturer that created the roof tiles.



Photo 2-3-91. Unearthed items



Photo 2-3-92 Unearthed items (engraved roof tile)



## Appendix 2-2



Photo 2-3-93. Trench No. 1, excavation work completed



Photo 2-3-94. Trench No. 2, stone seawall



Photo 2-3-95. Trench No. 3, excavation work completed



Photo 2-3-96. Trench No. 3, remains of foundation



Photo 2-3-97 Trench No. 4, excavation work completed



Photo 2-3-98. Trench No. 4, remains of foundation



Photo 2-3-99. Trench No. 5, excavation work completed



Photo 2-3-100. Trench No. 5, soil layers



