

Report of the archaeological excavations at the Wakakusa Garan, the Horyuji temple in 1968 and 1969

The Agency of Cultural Affairs carried out archaeological excavations at the Wakakusa Garan in the Horyuji Temple in 1968 and 1969. This research examined the structures of underground foundations at the main hall and pagoda platforms that have been firstly revealed by Dr. Mosaku Ishida in 1939. The underground foundation of the main hall platform was irregular rectangular shape measuring 22.00 — 22.80 meters (east to west) by 19.05 — 19.95 meters (north to south). The underground foundation of the pagoda platform measured 15.90 meters (east to west); however, the southern part was not uncovered due to a restriction of the excavation area. The pagoda was located to the south of the main hall, and the axis of two buildings was in west oblique direction for 23°05'43" — 25°02'06" from the north-south direction determined by the Japanese Geodetic Datum 2000. The axis corresponded to the plan of the lower archaeological feature of the Hokkiji temple and the Sujikaimichi road in the Ikaruga region, but not corresponded to the plan of the lower archaeological feature of the Tohin Garan in the Horyuji temple.

Upper structures of the platforms such as exterior stones of the platform were lost due to disturbance in a later period. No archaeological features of auditorium or ambulatory were found. The existence of yellowish-brown soil that was added for ground leveling (referred as “the 2nd additional soil” in the main text) concentrated to the north of the main hall suggests the extent of the temple area. The elevations of the original ground were constant in the most parts of the site. This implies that the ground was carefully prepared for the temple construction.

The excavations revealed the construction order of the main hall and pagoda by examining the stratigraphy: First, the ground was leveled. Second, the main hall underground foundation was prepared and the platform was built. Third, the yellowish-brown soil was added for ground leveling again. Finally, the pagoda underground foundation was prepared and the platform was built. It appeared that rammed earths of the main hall platform were covered by a yellowish-brown soil; however, this soil was not identical to the additional soil for ground leveling. The main hall platform was built before the addition of the yellowish-brown soil since the rammed earths for the underground foundation and the raised platform were identical and uniform. Many roof-tiles were dumped in the drainage ditch SD 7040 that surrounded the main hall platform. This ditch was dug before the addition of the yellowish-brown soil. The roof-tiles in the ditch were discarded during

the construction of the main hall building. Therefore, the ground leveling by the yellowish-brown was carried out after the finishing of the main hall construction, and finally exterior of the platform was finished. Many roof tiles were obtained from the ditch including the round eave tiles in the monopetalous lotus 3Bb and 3C styles, the flat eave tiles in the hand-made arabesque 206A, 206C, 206D, 207A, and 210A styles. These roof-tiles date back to the period around AD 601 when the Ikaruga palace construction was started.

Scattered gravels were observed around the main hall platform, which has also been recognized during the excavation in 1939. They were not associated with the Wakakusa Garan, since some pottery of the 16th century were associated with the gravels and some Gaki pottery that date back to the 14 — 15th century were obtained from a pit that was filled by the gravels.

The yellowish-brown soil buried the lower part of the main hall platform, and the pagoda underground foundation was prepared by excavating the yellowish-brown soil. The depths of both underground foundations were approximately same.

The excavation did not revealed any features of depression to settle the pagoda foundation stone. The existing foundation stone was over 1.36 meters high. Given that the top of the stone was exposed on the ground floor of the platform, the height of the platform was estimated to have been more than 1 meter. The raw material of the pagoda foundation stone was gneissoid biotite granite which is widely distributed around the site.

No roof-tiles were associated with the archaeological feature of the pagoda; however, the round eave tiles in the monopetalous lotus 6C and 6Da styles and the flat eave tiles in the hand-made arabesque 208 and 209 styles were assumed to have been used for the pagoda, since they were obtained around the pagoda. These roof-tiles date back to around AD 620.

The history of the site after the abandonment of the Wakakusa Garan has been unclear, since there were few archaeological features that belong to a later periods. Many blacksmith artifacts including bellows tuyeres, smelting wastes, and fragments of furnace wall were obtained from the later deposit including charcoals in the units 1 — 10 and 11. Some pottery that may date back to the late 7th century was also obtained from the deposition. This deposit may be associated with the destruction of the Wakakusa Garan.

Concerning about the article of Tenji 9 (AD 670) in the Nihon Shoki, there has been long dispute

among many researchers since the Meiji era (AD 1868-1912) whether the Horyuji temple was destroyed by fire and rebuilt or not. No examples of roof tiles showing evidence of re-firing were obtained; however, in terms of other archaeological evidence, we can extract the conclusion that the Wakakusa Garan was the original Horyuji temple that was destroyed by fire. In the meantime, there still have been many unsolved questions about the reconstructed Saiin Garan. The analysis of dendrochronology revealed that the timber for the main pillar of the five-tiered pagoda in the Saiin Garan dates back to AD 594, which is prior to the construction of the Wakakusa Garan. Future studies will focus on the transition from the Wakakusa Garan to the Saiin Garan.

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