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RELIGIOUS BATHING MONUMENTS WITH FEMALE DEITY STATUES IN INDONESIA - AN ARCHAEOLOGICAL PERSPECTIVE

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Abstract

This study aims to understand the development of Java-Balinese religious bathing monuments/petirtaan from the point of view of comparative archaeology in particular the structural changes of the fountain system with female deity statues. Firstly, I have divided the major monuments into two categories based on the condition of the spout, and each category was respectively classified into five types according to basic forms. By comparing similar water monuments in Angkor and India, I considered the meaning of the transformation of these monuments during the Central and East Java periods, and hypothetically discussed the birth of female deity statues as fountain spouts.

Keywords: *water architecture, petirtaan, Kunda, female deity statue, fountain*

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INTRODUCTION

As one of the impressive ancient monument, the Java-Balinese religious bathing monuments/*petirtaan* have been found in relatively large numbers. However, until the present, previous studies have focused only on certain monuments without and lack of comprehensive understanding of this kind of monument, and without consideration of similar examples in South Asia or other Southeast Asia. As monumental change of *candi*, *petirtaan* also must have been transformed by new religious information from outside. In this paper, I will consider the chronological stream of these monuments as a whole by using structural classification in comparative archaeology.

Related to folk tales of the Swan-maidan, I have been strongly impressed by the breast-holding female deity statue functioning as a fountain in the Belahan monument of Mount Penanggungan. Although at present I still cannot confirm any real relationship between *petirtaan* and this tale, I will consider this folk tale element in the archaeological analysis, even though it is not easy to identify material evidence related to folk tales. This is because archaeological study should consist of the observation of discovered material facts in both movable artefacts and immovable monuments/structures and the reconstruction of human history through these material findings. In this procedure, folk tales are rarely used as primary argument, because they are not supported by any real facts such as names of persons, places, or dates.

Recent studies of the last 10 years on *petirtaan* show several different approaches. The epigraphic ways on inscriptions related to certain monuments by (Widiah & Kasdi 2018) and [Sadewa & Wisnu 2020] have concentrated on Jolotundo and Belahan, as a continuing study from the Dutch colonial period. Meanwhile as new study field, [Jatomiko et.al. 2016] and [Maurin 2020] focused on present religious activities at the monuments, and the geographical conditions of monuments were discussed by (Saputra 2019) for Simbatan and (Luknanto 2024) for Sumberbeji. Moreover (Geria 2023) considered several monuments of Bali from the point of view for the sustainable water management systems. Also, (Fadhilassari 2021) described the local tales related to monuments in Mojokerto area, while (Prakosajaya 2021) tried to understand the Hindu concept for Derekan. Against such study on each individual monument (Sundberg 2023) is a major work that considers the inner area of Rara Jonggrang of Prambanan as a water architectural system by comparison with Angkor and South India. To fit with my target for a comprehensive understanding of *petirtaan*, those with attached spouts for groundwater, only (Rahadhian et.al. 2015) compiled the structural characteristics for the main study target.

LITERATURE REVIEW

A. Basic studies for certain monuments

A large part of previous studies has mostly concentrated in Jolotundo and Belahan, East Java, as well as Gunung Kawi and Goa Gajah in Bali, dating to the 10-11th centuries related to kingdoms of both areas. Among them the most significant different understandings are the dating of Belahan monument, which still preserves female deity statues as the spout.

Firstly N.J. Krom (Krom 1914) and W.F. Stutterheim (Stutterheim 1934) considered Belahan as the memorial monument of King Airlangga, and dated it to his death in 1049 based on the assumption that the Vishnu statue, found in Trawas, for the original main statue placed between two female deities of Belahan. Even though their opinion is still accepted by the majority until present, because size of the Vishnu statue is larger than the empty space, Th. A. Resink proposed an important contradictory dating to the first half of the 10th century based on his

consideration with the Cunggrang Inscription (929) at 5 km north from Belahan [Resink 1968]. Finally, with art historical close observation on both female deity statues, recently A.A. Munandar distinguished a far different dating in the 14-15th century for them on the brick-made structures of this site, built on top of the stone foundation (Munandar 2011). This argument should be related to the understanding of other important monuments mentioned above, but we have to look at the theories of Krom/Stutterheim or Resink, which did not cover on the other *petirtaan*.

Later, A. Roxas-Lim argued for an important religious combination between caves and bathing monuments in Java, such as Belahan, Simbatan and Sendang Senjoyo (Salatiga, Central Java) [Roxas-Lim 1983]. In this early paper, she already considered Tantrism as a background for the fountain spout emerging from the breast of a female deity statue. It is a good interpretation for both statues and other similar examples, although Sendang Senjoyo has no such statue.

B. Architectural classification of Rahadhian

By new architectural thinking, (Rahadhian *ibid.*) first surveyed almost all *petirtaans* from a wide perspective on the following classification.

type	wall	s. type	locati on	pool	characte ristics	9-10c	11-12c	13-15c
U form	3 side s	TU1	slope	shallo w	2 chamber s	Jolotundo		Penataran B
					no chamber		G.Kawi, G.Gajah, Belahan	Watugede, Penataran A
				deep			T.Empul	
		TU2	flat land riversi de	shallo w		Payak, Kunden, C.Kunti		
				deep		Umbul, Derekan		
rectang ular	4 side s				central tower	Songgoriti	Simbatan	Tikus

This table was made by the author based on Rahadhian et.al.2015

The depth of the pool was classified as under 50 cm as 'shallow', and they considered the central tower as a symbolized structure of Mt *Mahameru*. Recently Candi Songgoriti, Malang, East Java does not retain any pool/spout except the tower with an inner well. Previous studies only focused on certain monuments related to nearby inscription in a simplistic manner, therefore this kind of monumental classification with chronology can be evaluated as the first meaningful point of view for whole *petirtaan*. Unfortunately, they did not mention reasons for the differences among these types, therefore, we should take care of their wide perspective in study of these monuments.

C. Overview on 'Water Architecture' in South Asia of Hegewald

Undoubtedly, the Hindu-Javanese culture was created by the strong influence of South Asian classical religious culture, as seen in religious architecture, *candi*, with Pallava temples of Tamil

Nadu etc. For the understanding of the *petirtaan* in Java and Bali, we should know the basic conditions of various water architectures in South Asia. Julia A.B. Hegewald published an important study because of its wide range of types with long time span for multiple religions of this area, in categorized such as *Ghat*, tank, *Kunda*, well and ornamental pool [Hegewald 1998]. Especially, temple tanks (shallow and large fed by rain water) and *Kundas* (deep and funnel section fed by groundwater) reservoir are suggested monuments for a part of *petirtaan*, and also dense distribution of spouted monuments in Nepal. Her key observation concerns the development of a bastion/platform into a structural form resembling an island within a temple tank.

RESEARCH METHOD

Large parts of previous studies for this kind of monuments were based on documentary facts from several inscriptions related to ancient kingdoms, and all monuments were directly connected to the data from inscriptions. However, except for Jolotundo, Penataran A and Tirta Empul they do not have any written evidence, therefore here without consideration of any documentary elements I will only explain my archaeological structural classification for a chronological understanding of these monuments (following table), especially focusing on the sculptural spout/*jaladwara*, which can be observed in pictures from various publications as seen in the attached figures.

spout	Type	pool	7-10c	10-12c	13-15c
A	A1	single	Derekan, Kunden, C.Kunti A		
	A2	vertical separated	Payak		Penataran A
	A3	vertical combined	Umbul	G.Kawi	T.Waja
	A4	divided	C.Kunti B		
	A5	horizontal combined		T.Empul	
B	B2	single			Belahan I
	B3	vertical separated	Tuk Bimo Lukar	Ngawonggo	W.Gede
	B4	divided			Penataran B
	B5	horizontal combined			P.Yeh Gangga, G.Gajah
	B6	central terrace		Jolotundo, Simbatan, Sumberbeji	Tikus

Next, by comparison with similar examples in Angkor and South India, I would try to consider the basic trend of domestic development and the eternal influence on the change of *petirtaan* except for Songgoriti, which does not have a clear pool and spout. After such study, I would try to discuss preliminary and exploratory meaning of the change of these monuments.

RELIGIOUS BATHING MONUMENTS WITHOUT SCULPTURAL SPOUT (A TYPE)

For basic classification of the bathing monuments without sculptural spout, I would focus on the pool form in each monument.

A. Single pool (A1)

This type consists of a single pool with a rectangular/square plan.

1. Derekan (Semarang, Central Java, 7-9th C. Fig.1)

This is a square plan stone-made bathing monument, constructed with a small empty niche and a short entrance stair made of stones at a narrow flat area in hilly terrain. The pool, of about 1 m depth is filled by natural hot water; however, the condition of the spout is not clear. No direct evidence of dating is available, but only 110 m across the small river, Candi Ngempon (7-9th C.), a Hindu temple, is located.

2. Kunden (Klaten, Central Java, 8-10th C.? Fig.2)

This rectangular stone-made pool with an empty niche is located along a small riverside on flat land. The depth is very shallow and no spout is found; however, a small hole beneath the niche is present. No direct evidence of dating exists, however, 6 km northwest of this monument there is a Hindu temple Candi Merak (9-10th C.).

3. Cabean Kunti A (Boyolali, Central Java, 8-10th C.? Fig.3)

A group of seven stone-made bathing monuments in rectangular plan (4.7*1.7 m¹) is located along a small riverside on the east foot of Mt. Merbabu [Riyant 2005]. Except for monument (B), the other six monuments show almost the same structural style, even though a monument with animal & male relief has an empty niche, whereas no relief and niche are found in the other five monuments of this group. No direct evidence of dating is available, but toward the southwest there are two Hindu temples, Candi Lawang (3 km, 9th C.) and Candi Sari Cepogo (4 km).

B. Vertical separated pool (A2)

This type is formed in a rectangular plan, and has two separated floors at different levels.

4. Payak (Bantul, Yogyakarta, 9th C. Fig.4)

This stone-made pool located along a small riverside in flat land is divided into two parts at different levels, and the deep one (3.1*1.2*0.6 m) is surrounded by stone wall at three sides with a niche, while the shallow pool (3.1*1.9 m) retains only the foundation stones. Besides the found statue of Shiva, which provides the evidence of dating, a stone box with cavities² was also unearthed. At 2.3 km west of this monument, Candi Gampingan, a Buddhist temple of the 8-9th C., is located.

5. Penataran A (Blitar, East Java, 1415 Fig.5)

One of the religious pool in Candi Penataran at the southwest foot of Mt Kelud, the state Hindu temple of the Majapahit Kingdom, is located 60 m southeast of the main shrine of this large temple complex. This approximately square-planed monument has the

¹ All figures of the monuments' plan are measured by the inner floor size.

² Anna Slaczka considered that this box was used for a Hindu ground-breaking ceremony called *garbhanyasa* [Slaczka 2006 pp.282-283].

rectangular deep part on the 1/3 of the eastern and shallow part occupying the rest of the western part with entrance stair. This monument with a dating inscription of 1415 AD, is almost entirely constructed by stones, however the deep part has stone relief panels on three sides, the story of *Tantri Kamandaka*, on the brick layers of foundation.

C. Vertical combined pools (A3)

This type consists of rectangular pools, connected by water ditches.

6. Umbul (Magelang, Central Java, 9th C. Fig.6)

Two stone-made rectangular pools were constructed in the same orientation at a valley on the northwest foot of Mt Merbabu. The upper one (7.5*12.5 m) is filled with hot water, while water in the lower pool (7*8.5 m) is cool. Both deep pools have no niches or spouts, but several Hindu relief stones, which provide the basis of dating, are placed along a side of the upper pool. Therefore, we can easily estimate that in a nearby area of these pools, there was originally a Hindu temple constructed.

7. Gunung Kawi (Gianyar, Bali, 1050-77? Fig.7)

This monument, a famous holy place of the early Bali, consists of three groups of rock-cut *candi*/shrines and caves along the narrow valley of Pekrisan River. In front of both the 5-units group of the left bank and the 4-units group of the right bank, two long rock-cut rectangular pools are constructed on each higher and lower terraces. In the long side of each pool, simple spouts in the same number as the *candi* of each bank are attached. Because of this structural condition, it is easily considered that these pools are directly connected the prayer to each *candi*. A remaining short inscription is related to King Anak Wungsu, and provides the basis for estimated dating (Kempers 1991 pp.150-157), however, no direct evidence has been found here. In front of almost each *candi*, a stone box related to Hindu ceremony was discovered.³

8. Telaga Waja (Gianyar, Bali, Before 14th C. Fig.8)

Under of a sharp river cliff, a total 4 stone-made pools complex can be seen in this monument; the higher one (7*4.2 m) with niches is located in front of a cave, then the middle one (8*6 m) with 10 spouts and a stair stands in front of present shrine, and finally close to the riverside, two long pools with many spouts on both side of the lower stair are located. This monument is identified as a holy spring, recorded in the *Nagarakretagama* (1365) (Kempers ibid. pp.162-163).

D. Divided pool (A4)

This type is consisted of a couple of the same A1-type pools connected by a stone wall.

9. Cbean Kunti B (Boyolali, Central Java, 8-10th C. Fig.9)

³ Slaczka explained almost the same function with finding in Payak [Slaczka ibid. pp.215-216, 309-310, Pl.10].

Among seven monuments of this site, only this stone-made monument shows the same two shallow square pools with an empty niche, separated by the central wall. The small towers on the wall show a few differences from other monuments; however, they can be considered to have the same dating as the Central Java period.

E. Horizontal combined pools (A5)

10. Tirta Empul (Gianyar, Bali, 960/962 Fig.10)

This famous holy water temple has five stone-made pools, that are separately located: two at the higher and three at the lower terraces of the narrow valley of the Pakerisan River. The two long pools at the lower level with 30 spouts are used for common bathing prayer, starting from the left end spout, while the right-end pool at the same direction with a shrine is not open for such prayer. A stone inscription with this temple name dated to the year of 960/962 AD was found about 2 km north (Kempers *ibid.* pp.157-158).

V. RELIGIOUS BATHING MONUMENTS WITH SCULPTURAL SPOUTS (B TYPE)

In this section, I will explain shortly each monument with sculptural spout in the order of previous kind/type number of no-sculptural spout.

A. Separated pool (B2)

1. Belahan I & II (Pasuruan, East Java, 10/11/14th C. Fig.11-13)

This monument at the northwest slope of Mt Penanggungan is famous for the impressionable image of two female deity statues, with both hands of the right one are holding her breasts as fountain spout. The pool under the statues is small rectangular (6.4*4.4 m), however, originally at the lower neighboring terrace, another pool had been located (Belahan II, 13.4*9.1 m, Resink 1968), which was already broken. According to the plan figure [Haan 1925], this lower pool was divided into two parts by projected short-wall from both sides, therefore the lower pool can be classified into this type.

The *Bhavacakra* relief stone (Fig.13) with spout, which was estimated by Stutterheim as a chronogram of 1044 AD, was found in this lower pool. Also, an attendant statue spout⁴ was originally stood at next to the female deity statues [Jordaan 2007, Pl.5&6, pp.330, 335]. As mentioned above, the dating of this monument is still under discussion (Munandar *ibid.*, Rahadhian *ibid.* pp.42-44), however, an important element of this monument is position of the spout wall with two female statues of the upper pool, which was constructed at right angles to the slope or the peak direction of the holy mountain Penanggungan. Based on the theory of Munandar, the female spout might be considered to date as the 14th century.

B. Vertical combined pools (B3)

2. Tuk Bimo Lukar (Wonosobo, Central Java, 7-8th C.? Fig.14)

This stone-made monument at a hill cliff in the Dien Plateau is composed of three terraces, which are rectangular shallow pool at the 2nd terrace and the water flows through two Makara-shaped spouts, the evidence of estimated dating, to a rectangular pool of the 3rd terrace, while the empty space of the 1st terrace is estimated as the offering place. Even though many parts are

⁴ [Kempers 1959, Plate 189] Another male statue spout [*ibid.* Plate 190] was also found.

reconstructed by modern technique, this monument, 0.7 km east from Candi Arjuna, still shows basic combination of original style without dating evidence.

3. Ngawonggo (Malang, East Java, 10-13th C.? Fig.15)

Along a small river in the flat land of west of Mt Sumeru, this stone-made monument is constructed as a combined three rectangular pools. Among them the 1st (14.0*3.0 m) and the 2nd (13.6*3.6 m) are respectively separated inside by wall, while the long 3rd pool (8.4*2.8 m) has no any separation wall. The southern wall of the eastern part of the 1st pool is carved 12 human image relief panels with two natural spouts, however, an unknown sculptural spout was also found in separated condition from the original place. Although no direct evidence was found, the characteristics of relief and location of Candi Kidal at 6 km north suggest the early East Java period.

4. Watugede (Malang, East Java, 13-14th C. Fig.16)

At the source of a small river, 1.2 km south from Candi Singosari in the southeast foot of Mt Arujuna, this brick-made monument, composed of two deep rectangular pools, is located. The upper pool (L. 22.5 m) has originally 16 seated female sculptural spouts, placed on the long brick-made wall, while no spouts were found in the lower pool. Water flows from two holes, formed as an animal mouth, which are located under a female statue. No direct evidence of dating exists, however, the sculptural spout and the location suggest a late half of the 13th to the early half of the 14th century.

C. Divided pool (B4)

5. Penataran B (Penataran II, Blitar, East Java, 13-15th C. Fig.17)

At 240 m northeast from the main shrine of Candi Penataran, another bathing monument is located. This stone-made rectangular structure (10.6*5.8 m) is divided into a couple of the same square parts with gates by the center wall, and each part has three Nymphaea bud shaped spouts. Also, on the surrounding wall, 9 *candi* imaged the East Javanese style tower decorations (a large one at the center and 8 small one at each corner) are attached. Different with Penataran A, this monument has no inscription, therefore we can only estimate the dating to suit with Candi Penataran.

D. Horizontal combined pools (B5)

6. Pura Yeh Gangga (Tabanan, Bali, before 1334 Fig.18)

The main shrine complex was constructed at the upper edge of sharp cliff of a river. At a riverside under of the complex, besides several caves, two rectangular narrow brick-made pools with spouts are located. The pool on the upper stream side, surrounded by the inner brick wall with gate in the Candi Bentar style and the outer stone block walls, has three spouts with Naga sculpture. While more five simple spouts are placed in the pool on the lower stream side. Both pools in different religious status are constructed on the same level as Tirta Empul. An inscribed stone with dating is found (Kempers 1991).

7. Goa Gajah (Gianyar, Bali, 14th C.? Fig.19)

This famous site, composed of main cave shrine, pools and other monuments, is located at a riverside. The stone-made bathing pool of this site is located at 8 m from the shrine cave which has an inscription of 1074 AD, and inside this pool (20*7*2.8 m), it is divided into three areas by inner walls. At the long east side of both wide pools, three female deity statues, holding pouring vessel as spout, are standing, while the spout sculpture of the narrow central area has disappeared.

Position of three stairs shows a possibility of the prayer order, that firstly to use the southern pool from south, and next enter to the central and the northern pools from west. An important monumental characteristic is the row of female deities as fountain spouts towards the cave, which are standing at the right angles to the front of the cave. If considering the size of the female deity statues close to real human and total depth with long stairs, in large possibility after the construction of the cave this pool monument was added around the 14th century as like as Belahan I.

E. Pool with central terrace (B6)

This type is formed as a wide pool with the central monumental terrace and the corner chambers. Mainly it was constructed in a square plan with long stairs to the deep pool.

8. Jolotundo (Mojokerto, East Java, 977 Fig.20)

This most famous example of this type without stairs due to the location was constructed at a slope of Mt Penanggungan, and originally consisted of three pools in different levels (Bosch & de Haan 1965). On the mountain side of the highest stone-made pool (15.8*10.8 m), the only structure remains until present, the central terrace, composed of three stepped pyramidal structures (lower 6.8*6.8 m), was constructed, and at each corner of the mountain long side two rectangular chambers (2.9*1.8 m) can be seen. The central terrace has 32 spouts in each level, and especially the 16 spouts in the lowest level are formed as relief panels, carved the *Mragayawati* story. Also, the mountain side wall with the dating scripts of 977 AD, has chambers including simple three spouts, the niches for Naga and Garuda statues are located. A Hindu ceremonial stone casket was found in this pool (Slaczka *ibid.* pp.206-208, 284-286, Pl.3).

9. Simbatan (Magetan, East Java, 10-11th C. Fig.21-23)

This newly restored brick-made monument (13.7*11.1 m) in a flat land is composed of the central chamber (1.7*1.7 m) and two rear corner chambers (4.5*2.1 m) with two side pools (4.2*1.1 m) at the main area, which is attached to the stairs toward the central chamber⁵. All spouts of this monument are highly decorated such as a breast holding female (Fig.21) and two Nymphaea at the central chamber, two Makara with female at both rear chambers and two *candi*-human of two side pools. The upper part of the central chamber was originally decorated by Kala reliefs as common *candi* shrine, and several *Mahameru* stone decorations were used in somewhere of this monument. Several bricks have inscribed characters which suggest estimated dating of 983/995 AD.

10. Sumberbeji (Jombang, East Java, 11-13th C. Fig.24)

This newly found brick-made monument (16.8*12.7 m) in 2019 at a flat land also clearly shows the central terrace (6.0*6.0 m) and two corner chambers (2.9*2.7 m). A Garuda sculptural relief was discovered in a niche at rear wall of the central terrace. Although it has not kept its original position, several Makara shaped spouts were excavated. Found Chinese white porcelain of the Sung period specifically tell us the construction dating.

11. Candi Tikus (Mojokert, East Java, Late 14th C.? Fig.25, 26)

In a flat land of the Trowulan site, this brick monument (15.5*13.5 m) with two corner chambers (3.5*2.0 m) is still retaining the upper structural condition of the central terrace except the top level. This terrace, composed of three-level pyramidal structures (7.8*7.7, 4.8*4.8 m), has a *candi* shaped tower decoration with 8 at the 1st level and 6 at the 2nd level. In total 46 spouts, forming Makara and lotus, are found in this monument such as 17 in the central terrace, 6 of the corner chambers and 23 of the lowest wall of the pool (Sugiyanti, et al, 1994). As Simbatan, the stair is constructed towards the left side of the main terrace. No evidence of dating was found, however, we can estimate the 14th c., the golden age of this site.

DISCUSSION

Concerning these religious bathing monuments, I would consider several factors of the structural meaning.

A. Religious bathing monuments in Angkor and India

In outside of Java and Bali, we can easily find similar monuments in Angkor of Cambodia and South Asian area, especially South India, such as the following examples.

1. West Mebon (Angkor, Cambodia, Middle of 11th C. Fig.27, 28)

Emperors of the Angkor Empire had tried to construct massive rectangular water reservoir/*baray* around the capital as the symbol of their power, and usually the manmade island at the central point of the reservoir with an important temple was formed. Among them West Mebon temple in the West Baray, the largest reservoir, is composed in a far strange style from common Angkor temples.

The square island tank (95*95 m) is surrounded by stone walls with 12 towers, and a square stone-made island (9.6*9.6 m) at the center is connected to the eastern wall by causeway/bridge. In 1936, a large bronze statue of sleeping Vishnu was found on this platform, where also a cylindrical stone pit was also excavated beside a square stone pit at the center. Jacques Dumarçay (1997) considered the former to have functioned as the watching system for water level of the West Baray, while on the latter was found the Vishnu statue which has a fountain from its navel according to Zhou Daguan in 1295/96.

2. Temple Tank of Potramarai (Tamil Nadu, India, 10-12th C. Fig.29)

Julia Hegewald (1998) showed 126 pictures of the tank category, widely distributed in almost South Asia except Central India. In this category the temple tank includes not only Hindu but also Buddhist, Jain and also Muslim tomb buildings constructed at the island of the tank. However, in South India, especially Tamil Nadu and Karnataka the majority belongs to Hindu temples, which had already built in the Pallava period, 7-8th centuries, such as temples in Mahabalipuram or Kanchipuram.

As an example, as shown in the Potramarai tank of Sarangapani Temple (Chola period) in Kumbakonam, Thanjavur. This trapezoid tank (c.107*73 m) is located to the west neighbor of the temple, and at the center a square plan shrine building on a stone-made island (c.8*8m), is constructed. The temple tank is used as the place of religious bathing for both daily prayers and festival, and several tanks have an island with a shrine. At tanks without an island, a temporary prayer place is constructed at the center during the festival, therefore the island of the tank could function as the symbol of holy water.

3. Hulikere Kunda of Halebid (Karnataka, India, 11-12th C. Fig.30)

Hegewald categorized the *Kunda* as a deep and funnel shaped reservoir, fed by groundwater, found in Northwest and the inland of South India or Nepal (98 pictures), while the temple tank is a shallow reservoir and it filled by rain water. Therefore, *Kunda* has usually one or more long stair, and she categorized them into three sub-types. Among them the conduit *Kunda*, usually attached to spouts, is mainly distributed in Nepal, called *Dhunge dhara*, where there is very high level of groundwater.

Hulikere *Kunda* is an example of basic *Kunda* in Halebid, Karnataka, which functioned as the capital of the Hoysala Kingdom, ever ruled wide South India during 11-13th centuries after the Chola. This square plan *Kunda* (20*20 m) of the 11-12th centuries, is one of typical South Indian style, has long stairs on the west side, and 27 niches, half of them in tower style, are located on the upper part of the inside.

4. Pool with spout of Yaganti (Andhra Pradesh, India, 15th C. Fig.31)

The large part of water architecture in India has no spout, while most examples in Nepal show at least one, sometimes many. This condition is caused by groundwater level, and therefore several temple pools in the Western & Eastern Ghats Mountain Range area are exceptional examples in India

The Agastya Pushkarini of Yaganti Temple, 15th C., located on a cliff of mountain, is a rare case of small pool with spout. This rectangular pool (c.5*4 m) has two spouts, a Makara-like spout in front of the shrine building, and at the right short side a Nandi head spout is located. This temple is dedicated to Uma, the wife of Shiva, but two female deity relief at the upper side of this pool are not spouts yet hold small container. Even though it is from different period and has no statue fountain system, this pool might have a relation with the B6 type of Java-Bali⁶.

	Location	Form	Shrine	spout	c. stair	chamber	dating
West Mebon	Inside of reservoir	Square	Island	Vishnu	no	no	Mid 11c
Potramarai	flat land	Trapezoid	Island	no	no	no	10-12c
Yaganti	mountain cliff	rectangular	Side	sculptural	no	no	15c
tank	flat land	variable	Island/side	no	no	no	-
Hulikere	flat land	square	Side	no	long	no	11-12c
Indian <i>Kunda</i>	flat land	square	Side	no	long	no	-
Nepal <i>Kunda</i>	Plateau	square etc.	Island/side	sculptural	short	no	-
B6 type	flat land/mountain	Square etc.	Central	sculptural	long	2 corners	10-14c

⁶ Somehow, Hegewald omitted Yaganti pool in her wide perspective work.

B. Meaning of structural development/change

First, we should understand that the concept of *petirtaan* is mainly distinguished as spouted pool, and therefore, different with Angkor, where are wide tanks, tanks like Segaran Tank in Trowulan, East Java, are not included. With such an assumption, I categorized ten types according to condition of the spout and the total form of *petirtaan* in the pervious sections. If we overview the total cases, it began from the single pool (A1) and due to geographical reasons developed to the separated pool (A2) or the vertical combined pools (A3) during the Central Javad period. The spout in the A3 also changed to the sculptural type (B3) in the same period.

As the next development, the divided pool (A4) and the horizontal combined pool (A5) were created in the transition period from Central Java to East Java. Also, in the later period, both styles had the sculptural spout in the B4 and B5 types. The creation of these types probably means some changes of the religious bathing methods, as can be seen in the present prayer order of Tirta Empul.

The significant change happened in the East Java Period with the creation of the pool with a central terrace (B6), which has almost no relation with the other types, such as the absence of any same type without the sculptural spout. In other words, this style, which needed a tremendous amount of work and techniques of civil engineering, was suddenly created in the latter half of the 10th century. If we consider the condition of India, without doubt this style was basically influenced from the temple tank with island and the *Kunda* in South India; however, the placing of two corner chambers should be related to the A4/B4 and A5/B5 types.

C. Why female deity statue was added?

A large question in the composed elements of the B6 type is the statue spout fountain of the central terrace, which cannot be found in any water architectures in South Asia, including the rich spouted *Dhunge dharas* in Nepal. Besides the B6 type, I could only confirm the same element in above mentioned West Mebon, Angkor. Moreover, because no other similar statue fountains are found on the island of other *barays* or in any monuments of Angkor, I consider that there is a large possibility of the creation and development of this element in Java.

We should note that the fountain spout in Jalotundo is relief panel or *linga* like sculpture, but the female deity statue was newly created in Simbatan. The female deity fountain can be separated 1. spout in holding the pouring vessel (Goa Gajah and the left of Belahan I) or 2. the breast (Simbatan and the right of Belahan I), and the latter is more developed⁷. However, why it happened firstly in Simbatan⁸, Magetan, where is apart from the core area of the East Java period along the Brantas River? To answer this question, firstly we should note that the finding of the Palebuhan copper plate Inscription (927) in Gorang Gareng, 3.5 km southeast, the Kawambang Kulwan Inscription (991) in Sendang Kamal 10.2 km north and Candi Sadon Hindu Temple (11-

⁷ At least, we have two other female deity statues in the pose of holding breast fountain: a small statue found in Sadon, Sarangan, Magetan (not in the original place, Roxas-Lim 1983) and a large statue in Jodiapan, Malang (Malang City Museum).

⁸ The spring/Sendang of Jaka Tarub tale is located in Widodaren, Gerih, Ngawi (web information of Prasasti Palebuhan with Jaka Tarub and Maryant 2004.), 19 km north-northwest from Simbatan. This a typical Swan-maiden tale was written as the ancestor story of the Mataram Sultanate in Babad Tanah Jawi, and this spring is believed as the sacred place of female deity.

13th C.) 16.2 km west-northwest from Simbatan; however, both inscriptions do not mention any relation with Simbatan monument.

Therefore, we have no comparable archaeological evidence for understanding of the creation of the female deity fountain in the B6 type. However, if we consider that similar fountains were also attached in the B2 type (Belahan I) and B5 type (Goa Gajah), this element is not an exclusive element for the B6, but might be a common one. Moreover, as seen a Mount Mandara statue in C. Tikus⁹, probably the impressionable statue with breast fountain was created in relation with the *amrita/amerta*, an elixir, of the Ocean of Milk/*Kshira Sagara* in the *Samudra Manthana* epic. As a possibility, I would consider that, together with information of temple tank/shrine island and *Kunda* from South India, the belief of *amirta* was deeply accepted by Javanese. The main character of the epic is Vishnu, who acted as the moderator for the churning by the *asuras* and *devas*, and transformed into a female deity Mohini, the distributor of *amrita*. In fact, a statue of Mohini with hanging *amirta* vessel remains at Airavateshwara Temple (12th C.), Kumbakonam.

In this point, the theory of Aurora Roxas-Lim understood *petirtaan* monuments in combination with shrine caves during the development of Tantrism, especially in the East Java period (Roxas-Lim 1983). Indeed, among above mentioned monuments, four monuments in Bali and Belahan I¹⁰ are combined with caves. Also, the *Bhavadakra* relief stone of Belahan II is certainly related to Tantrism. However, there are no caves around Simbatan, and we should pay attention that no female deity fountain was found in either Hindu and Buddhist Tantric images including Dakini, a naked body female deity.

CONCLUSION

The *petirtan* was already originally created the proto/early style in the Megalithic Period in Indonesia, and similar water monuments continued to be constructed after the Hindu-Java period, such as Taman Sari in Yogyakarta. Rather the royal Sunyaragi garden of the Cirebon Sultanate, West Java, has a square pond (33*28 m) with bridged island.

For total understanding of this monument, I tried an archaeological monumental classification with chronology, as a result, the outline of its local development with external influence can be illuminated. However, the detailed procedure of the creation of the female deity statue fountain remains unclear from material evidences, but this study suggests a possible connection with the strong belief in *amrita/amerta*, the elixir in Java. Also, a next study is needed on separated statue fountains together with the original monuments.

⁹ A Mount Mandara statue similar to that of Candi Tikus was once found in Ampelgading, Malang (Trowulan Museum).

¹⁰ About 440 m north from Belahan I or behind of the two statues wall, a shrine cave had been found, and it was entered into the wide religious complex of Belahan (Haan 1925).

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Figures



Fig.1 Derekan



Fig.2 Kunden



Fig.3 Cabean Kunti A



Fig.4 Payak



Fig.5 Penataran A
Waja



Fig.6 Umbul



Fig.7 Gunung Kawi



Fig.8 Telaga



Fig.9 Cabean Kunti B
Belahan



Fig.10 Tirta Empul



Fig.11 Belahan



Fig.12



Fig.13 Belahan



Fig.14 Tuk Bimo Lukar



Fig.15 Ngawonggo



Fig.16 Watugede



Fig.17 Penatran B



Fig.18 Pura Yeh Gangga



Fig.19 Goa Gajah



Fig.20 Jolotundo



Fig.21 Simbatan

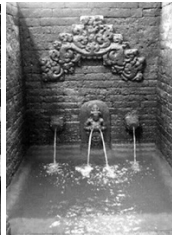


Fig.22 Simbatan

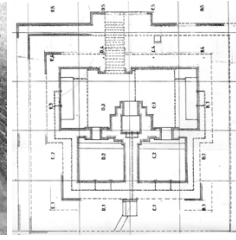


Fig.23 Simbatan

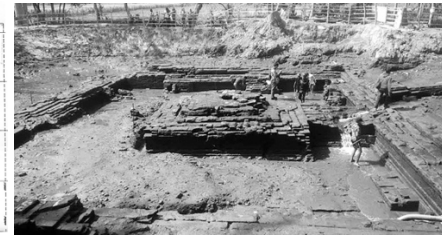


Fig.24 Sumberbeji



Fig.25 C.Tikus

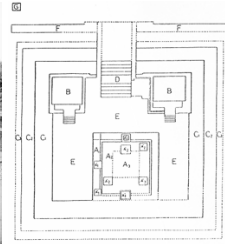


Fig.26 C.Tikus



Fig.27 West Mebon



Fig.28 West Mebon



Fig.29 Potramarai



Fig.30 Hulikere



Fig.31 Yaganti

Appendix of figures

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1	Derekan	A1	7-9c	close view	Wikimedia Commons	Petirtaan Derekan.jpg
2	Kunden	A1	8-10c?	side view	Wikimedia Commons	Situs Petirtaan Kunden.jpg
3	Cabean Kunti A	A1	8-10c?	panorama	Wikimedia Commons	Situs Petirtaan Cabean Kunti di Boyolali.jpg
4	Payak	A2	9c	panorama	Wikimedia Commons	Situs Payak 1.jpg
5	Penataran A	A2	1415A D	side view	Wikimedia Commons	261 Pond (40387767312d).jpg
6	Umbul	A3	9c	panorama	Wikimedia Commons	Umbul Temple, bathing area, 2014-06-20.jpg
7	Gunung Kawi	A3	1050-77AD?	side view	Wikimedia Commons	Bali - Gunung Kawi (2025) - img 28.jpg
8	Telaga Waja	A3	Before 14c	side view	Wikimedia Commons	WIKITIRTA - TELAGA WAJA 1.jpg

9	Cabean Kunti B	A4	8-10c	panorama	Rahadhian 2015	p.53
10	Tirta Empul	A5	960/962AD	close view	Wikimedia Commons	Pura Tirta Empul Bali 20120828b.jpg
11	Belahan I	B2	14c?	side view	Wikimedia Commons	041 Fountain Figures, Candi Belahan (25543837107).jpg
12	Belahan I	B2	14c?	fountain	Wikimedia Commons	043 Goddess, Candi Belahan (40371201232).jpg
13	Belahan II	B2	10-14c	Bhavacakra	Wikimedia Commons	044 Kala, Candi Belahan (40415504711).jpg
14	Tuk Bimo Lukar	B3	7-8c?	close view	Wikimedia Commons	Petirtaan Tuk Bima Lukar di Wonosobo.jpg
15	Ngawonggo	B3	10-13c?	panorama	BPCB Jawa Timur	
16	Watugede	B3	13-14c	close view	Rahadihan 2015	p.64
17	Penataran B	B4	13-15c	close view	BPCB Jawa Timur	
18	Pura Yeh Gangga	B5	Before 1334	close view	Wikimedia Commons	013 Tirta and Pond, Pura Yeh Gangga, Baruitiri, Bali photograph by Anandajoti Bhikkhu.jpe
19	Jolotundo	B6	977AD	panorama	Wikimedia Commons	Candi Jolotundo.jpg
20	Goa Gajah	B5	14c?	side view	Wikimedia Commons	Goa Gajah Fuopntain.jpg
21	Simbatan	B6	10-11c	panorama	Dep.Penerangan	
22	Simbatan	B6	10-11c	central fountain	BPCB Jawa Timur	
23	Simbatan	B6	10-11c	plan	Rahadhian 2015	p.69
24	Sumberbeji	B6	11-13c	panorama	Wikimedia Commons	Situs sumberbeji.jpg
25	Candi Tikus	B6	late 14c?	panorama	Wikimedia Commons	Bathing Tank. Trowulan, Java 1345.jpg
26	Candi Tikus	B6	late 14c?	plan	Sri Sugiyanti 1994	Lampiran 2
27	West Mebon	t. island	mid 11c	island	the Author	
28	West Mebon	t.island	mid 11c	Vishnu	Wikimedia Commons	National Museum of Cambodia (12106034116).jpg

29	Potramara i	tan k	10- 12c	island	Wikimedia Commons	Potramarai kulam Kumbakonam.jpg
30	Hulikere	<i>Ku nda</i>	11- 12c	panorama	Wikimedia Commons	Kalyani (temple tank) in Hoysala style at Hulikere.jpg
31	Yaganti	s. po ol	15c	upper pool	Wikimedia Commons	15 th century Yaganti Umamahesvara temple, Andhra Pradesh India - 86.jpg