Hospital Complexes in Ancient Sri Lanka: An Observational Study of Mihinthale Hospital Complex

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Abstract
The archaeological evidence as well as references in chronicles and literature indicates the existence of lot of hospital monasteries remained in Mihinthale, Anuradhapura, Madirigiriya and Polonnaruwa area in ancient Sri Lanka. The chronicle also refers to the construction of these hospitals. Furthermore, the inscriptions found from Kiribatvehera, Dorabavila, Vessaagiri, Medirigiriya and Mihinthale are given strong epigraphic evidence about the hospitals and dispensaries existence in the island. The designs of these hospital complexes reflect the socio-cultural, economic, professional, and aesthetic priorities prevalent at a given time while it predicates about illness, care and medicinal, patient hood, and medical treatment techniques. The purpose of this study is to review briefly the importance of archaeological layout in the Mihintale hospital complex that existed in Sri Lanka during the period of the Anuradhapura. Several previous publications have dealt with important aspects of ancient health care. The contents of these publications, as well as field observations, sketch drawings, photography and studied artifacts displaying in museum, along with epigraphic and archaeological material, have been utilized for this study in order to provide a broader picture of the archaeological layout in the Mihinthale hospital complex of ancient Sri Lanka.

Keywords: Hospital, Monasteries, Inscriptions, Artifacts, Ancient rulers
1. Introduction
Hospital complexes that existed in ancient Sri Lanka played a key role in providing medical services to the kings and others who lived in ancient periods. Evidently, the inscriptions and historical sources provide insights in relation to the ancient medical services that prevailed in Sri Lanka. As per the historical sources, the medical services were provided to kings and others whenever the need arises to cure range of illnesses. Among the hospital services provided, installations of hospitals, dispensaries, supply of medical equipment and medicines for doctors. The sources further indicate that there were hospitals for monks as well as for national and also for animals. A Hospital (also called Gilanaghara, Gilanasala, Vejjasala, Vedahal, Vedasala andand etc.) is referred to as a place that gives treatment to be healthy after an illness. There are no evidence to prove that hospitals were existed early civilizations of Egypt and Mesopotamia despite their medical systems were older than that of Sri Lanka. The ancient Sinhalese were said to be responsible for introducing the concept of hospitals to the world. Nevertheless, Asoka inscriptions indicate that the treatments were provided to those Indian patients. According to the Fahien, the Chinese monk records show that hospitals were existed in India. The ancient Indian society provides evidence to prove their commitment for the health protection. The Sinhalese medical tradition records back to prehistoric period. Prehistoric people's life always complimented with the environment for the purpose of getting the ability to well manage their personal sanitation. Archaeological evidences have confirmed that the prehistoric humans used to plants for their sanitation. Since the arrival of King Vijaya settlements expanded around in Sri Lanka and they needed health care facilities. In this period, the Kings had to follow different procedures to be able to preserve the health of the ancient people. Archaeological research has found many evidences of the hospital monasteries in several places in our country. The hospital complex has been detected mainly in monasteries. Larger monasteries were founded close to the main cities such as Anuradhapura and Polonnaruwa. According to archaeological research, we found many evidences of the hospital monasteries such as in Mihintale, Anuradhapura, Madirigiriya and Dighavapiyacan be dated to the late Anuradhapura period. The hospital at the AlahanaParivena Complex at Polonnaruwa can be assigned to the twelfth century. However, there is a lack of consensus on the evaluation of the importance of archaeological layout and its’ effect in these hospital complexes. In this backdrop, this paper intends to discuss the significance of layouts of the above mentioned hospital structures with special focus on Mihintale hospital complex. The study was based on the primary and secondary data. Primary data were collected by field observation, sketch drawing, photography and studied artifacts displaying in museums while related facts and relevant information were collected from books, journals, magazines and Archaeological reports as secondary data. The remainder parts of this paper is presented the findings of the study.

2. Literary evidence of hospital monasteries in ancient Sri Lanka
When it comes to written sources, the Mahawamsa, is one of the most historical records of ancient Sri Lanka which gives literary evidences of topic under discussion. Several Sinhalese Kings ruled in ancient Sri Lanka had built hospitals in several places in the country as per archaeological evidence found in this regard. At different time periods, more hospital complexes have been built by the kings and the related historical details are given in table 01.

1Balagalle 1999: 76

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<table>
<thead>
<tr>
<th>Region</th>
<th>Period</th>
<th>Constructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pandukabhaya</td>
<td>394-307 B.C.</td>
<td>Sivikasala(maternity home) and Sotthisala (hospitals)²</td>
</tr>
<tr>
<td>Dutugamunu</td>
<td>161-137 B.C.</td>
<td>Built eighteen hospitals³ donated medicine to the sick people⁴</td>
</tr>
<tr>
<td>Devanampiyatissa</td>
<td>250-210 B.C.</td>
<td>Built hospital⁵</td>
</tr>
<tr>
<td>Buddhadasa</td>
<td>340-369 A.D.</td>
<td>Built hospitals for blind and cripples⁶ treated patients and animals⁷</td>
</tr>
<tr>
<td>Upatissa I</td>
<td>369-410 A.D.</td>
<td>Built hospitals crippled, blind and maternity home⁸</td>
</tr>
<tr>
<td>Mahanama</td>
<td>410-432 A.D.</td>
<td>Built a hospital⁹</td>
</tr>
<tr>
<td>Datusena</td>
<td>459-477 A.D.</td>
<td>Built halls for patients¹⁰</td>
</tr>
<tr>
<td>Moggalana I</td>
<td>495-512 A.D.</td>
<td>distributed medicines and beds in all the patient of hospitals</td>
</tr>
<tr>
<td>Silakala</td>
<td>522-535 A.D.</td>
<td>gave the salary for people who worked in hospital¹¹</td>
</tr>
<tr>
<td>Dappula</td>
<td>659-662 A.D.</td>
<td>Built hospitals for cripples and blind¹²</td>
</tr>
<tr>
<td>Mahinda II</td>
<td>777-797 A.D.</td>
<td>Built hospital¹³</td>
</tr>
<tr>
<td>Sena I</td>
<td>833-853 A.D.</td>
<td>Built hospital¹⁴</td>
</tr>
<tr>
<td>Sena II</td>
<td>853-887 A.D.</td>
<td>Built hospital¹⁵</td>
</tr>
<tr>
<td>Kashyapa IV</td>
<td>898-915 A.D.</td>
<td>Built medicine houses for epidemic disease¹⁶</td>
</tr>
<tr>
<td>Kashyapa V</td>
<td>915-924 A.D.</td>
<td>Built hospital¹⁷</td>
</tr>
<tr>
<td>Parakramabahu I</td>
<td>1153-1186 A.D.</td>
<td>Built hospital¹⁸</td>
</tr>
</tbody>
</table>

²Vamsatthappakasini 1994: 233  
³Mv 1996: chpt. 32  
⁴Mv 1996: chpt. 32  
⁵Mv1996: chpt. 20  
⁶Mv1996: chpt. 37  
⁷Mv1996: chpt. 37  
⁸ibid  
⁹ibid  
¹⁰Mv1996: chpt. 38  
¹¹Mv1996: chpt. 40  
¹²Mv1996: chpt. 43  
¹³Mv1996: chpt. 49  
¹⁴Mv1996: chpt. 50  
¹⁵ibid  
¹⁶Mv1996: chpt. 52  
¹⁷ibid  
¹⁸Mv1996: chpt. 73
3. Epigraphically evidence of hospital monasteries in ancient Sri Lanka

Inscriptions are said to be the second most fruitful source of information pertaining to early history of medicines in Sri Lanka. Details of ancient kings and their subjects have been recorded on caves, rocks, stone pillars and slabs. Epigraphic evidences also appear in the hospitals and dispensaries existed in the island. According to the inscriptions, some kings have given grants to develop the hospitals. Some of epigraphically evidences are given bellow in table 02.

Table 02: Epigraphically evidence of some ancient hospitals

<table>
<thead>
<tr>
<th>Inscription</th>
<th>King</th>
<th>Indicated text in Inscriptions</th>
<th>Constructions and Cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anuradhapura Malwatuoya Pillar Inscription A</td>
<td>Sena II (853-887 A.D.)</td>
<td>Karana-bimavedhalə¹⁹</td>
<td>Mentioned hospital</td>
</tr>
<tr>
<td>Mihintale pillar inscription No.02</td>
<td>Udaya II (887-898 A.D.)</td>
<td>Sa-giriyaved-ha-l²⁰</td>
<td>Mentioned hospital and administration</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Granted by the king in respect of the land on which the hospital had been located</td>
</tr>
<tr>
<td>Ambagahavava Pillar Inscription</td>
<td>Udaya II (887-898 A.D.)</td>
<td>Pirivatu-bimavedha-la²¹</td>
<td>Mentioned hospital</td>
</tr>
<tr>
<td>Pillar Inscription at eastern gate of Anuradhapura</td>
<td>Udaya II (887-898 A.D.)</td>
<td>MandiligiriVed-ha-lat²²</td>
<td>Containing the certain regulations and concerning the administration</td>
</tr>
<tr>
<td>Kiribat-vehera pillar inscription</td>
<td>Kashyapa IV (898-914 A.D.)</td>
<td>behedge²³</td>
<td>granted a land to hospital</td>
</tr>
<tr>
<td>Puliyan-kulama Fragmentary Pillar Inscription</td>
<td>Kashyapa IV (898-914 A.D.)</td>
<td>Sa-giriyaved-ha-l²⁴</td>
<td>Mentioned hospital</td>
</tr>
</tbody>
</table>

¹⁹Ranawella 2001: Ins. No. 34.1, 93-95 (Karana-bimaavumahavedhala bad kelagamat…)

²⁰Ranawella 2001 : Ins. No. 37.4, 102-103 (Padum pasa avu sagiriya vedhal bima…) (doctors salaries and bonuses, grants, medicine, laws of the hospitals and hospital assistance included in this inscriptions)

²¹Ranawella 2001 : Ins. No. 37.2, 96-98 (Pirivatu-bima maha vedha-la bad lahasugamat magiva…)


²³Karunarathna 2000 : 79-82(behed ge kemiyanat kiya pitathe sita garwa ganuth mise)

²⁴Ranawella 2005 : Ins. No. 121, 135 (Sagiriya ved halat Timbiri pamanuvahi)
| Mihintale Fragmentary Pillar Inscription | Kashyapa IV (898-914 A.D.) | Vedhalat<sup>25</sup> | Mentioned hospital |
| Abhayagiriya slab inscription | Kashyapa V (914-923 A.D.) | Rajvedhala<sup>26</sup> | Mentioned hospital |
| Polonnaruwa council chamber pillar Inscription | Kashyapa V (914-923 A.D.) | Dotipilaknavedhala-t<sup>27</sup> | Mentioned hospital |
| Dorabavila pillar inscription | Dappula IV (924-935 A.D.) | Mahavednapunalnavanat mahakarabapayala<sup>28</sup> | Granted the land to build the hospital |
| Polonnaruwa-sivaDevala Pillar Inscription | Dappula IV (924-935 A.D.) | Agbonavankaruvedhalatab ahaluRatupulaghami<sup>29</sup> | Granted to the hospital |
| Murunkan Pillar Inscription | Dappula IV (924-935 A.D.) | Dandanayaka miripura kiri kasbunavan...baye karavu vedhalat timiri-pamanuva ha...Palutiri-Nehidava<sup>30</sup> | kiri kasubna army commander granted the land in Palutiri-Nehidava Village to built hospital |
| Madirigiriya Slab inscription | Mahinda IV (956-972 A.D.) | Vedhal<sup>31</sup> | built hospital |
| Jethawanarama Pillar inscription | Mahinda IV (956-972 A.D.) | Vedhal<sup>32</sup> | Mentioned hospital |
| Madirigiriya Pillar inscription | Kashyapa V (980-990 A.D.) | Vedhal...<sup>33</sup> | hospital administration |

<sup>25</sup>Ranawella 2001 : Ins. No. 80.29, 249-250 (Pura dasavaka vedhalat perenatti.....)

<sup>26</sup>Wickramasingha 1985 : Ins. No. 5, 22

<sup>27</sup>Ranawella  2001: Ins. No. 48.15, 133-137 (Doti pilaknakala vedhala-t havuru pata buddatsar....)

<sup>28</sup>Ranawella 2004 : Ins. No. 01, 1-3 (Senior Physician punalna granted the land name of karaba-payala to built the hospital)

<sup>29</sup>Ranawella 2004 : Ins. No. 33, 113-115

<sup>30</sup>Ranawella 2004 : Ins. No. 07, 22-25

<sup>31</sup>Wickramasingha 1912 : Ins. No. 6, 246 &Ranawella  2005 : Ins. No. 26, 36-39 (d-halkamiyanvedhalkudingen)

<sup>32</sup>Karunarathna 2000 : 108-117 (gilan ma mulathen vedhal karasaarana mehenigana)

<sup>33</sup>Ranawella  2004 (Ved-halkemiyan (employees of the hospital), Ved-haldasun (serfs of the hospital), Ved-sam-Daruvan(hospital medical executive officers/state physicians) and Ved-hal-bad-gam-bim (villages and lands attached to the hospital), Pirivahanna (Protector))
According to literary sources, it is clear that the ancient medicine activities in Sri Lanka were well organized in terms of elegance etc. which is further confirmed by archaeological evidences found in the various archaeological sites. The evidence found in Mahavihara Complex in Anuradhapura, Thuparama in Anuradhapura, Mihintale, AlahenaPirivena in Polonnaruwa, Maderigiriya in Tamankaduwa near to Polonnaruwa and Dighavapiya archaeological sites prove this aspect. Medicinal trough (BehethOruwa), surgical equipment, medicines storage pots and scales have been found in these sites.

4. Architectural evidence in Mihintale hospital complex

The ancient hospital evidences found only around the monastery complex. W. I. Siriweera, a prominent archeologist has said that these hospitals can be divided into four categories:

(a) Monastic hospitals where in-house treatment was provided for ailing monks for short or long periods
(b) Hospitals where in-house treatment was provided for laymen
(c) Maternity homes
(d) Hospitals where only outdoor treatment was provided

Considerable information on the structure of the medical system that prevailed during this period is available from literary and archaeological sources. Archaeological excavations have revealed that the hospital was quite a complex structure and comprised an outer and inner court, refectory, pharmacy etc.

Mihintale is an archeological site which is 8 miles away from Anuradhapura. Mihintale hospital which was built in 9th century AD. According to the Mahavamsa, King Sena II (853-887 A.D) had built hospital in Chetiya-pabbatha. This is the oldest archaeological evidence available for a hospital we have so far.

The plan of Mihintale hospital complex is interesting. The foundation indicates that the Mihintale hospital was a rectangular building. The size of the hospital is 118.6x97.6 meters. Archaeologists identified number of features in this hospital complex. They are Consulting rooms, Inner verandah, Rooms for hot water baths, Courtyard, Shrine room, Outer court Room and Room for medicinal bath. The main entrance to the building was in the south.

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The plan there had two sections of an outer court and inner court. The inner court entrance facing southern direction. The inner court was surrounded by several rooms, neatly arranged in the form of a square. Around the inner court was a corridor leading to 27 residential rooms for patients. All the rooms were arranged on a high platform. These rooms accommodated the residential patients which were opened into a verandah. All these rooms faced the central courtyard in the middle which was the shrine room. Most probably in the mornings and evenings the resident monks meditated around the image house. Four rooms at the four corners are bigger than other rooms. The medicinal trough is on one of among room. The medicinal trough is on the north eastern room. This room could be entered through a door from the eastern corridor near rooms of the patients as well as from outside the building through a door in the east.

The southern side of the building is the outer court which consists of four rooms: hot water and the steam bathroom, a clinic (consulting room) which is southern of the plan, a room of medicine stores and room for grinding place for grinding medicine. The rooms used for the preparation and storage of medicines were situated in the outer court. The outer court entrance facing southern direction and the room close to the entrance may have been used to examine the patients (Out Patient Dispensary). The large hall in the center was the waiting hall for the patients. Hot bath room was located in the right side of the main entrance. This room has been used to patients for steam and hot water therapy. This room door opened to the outer court large hall. On the left side there had been a room considered as store of medicines and the part of outer court near to the room they used to grinding the medicines. Alms-hall (Dana shalava) located the north of store room. In this hall monks had their meals.
5. Findings in the Mihintale hospital site  
Several significant artifacts were discovered in ancient hospital site. These included medicine grinders, vessels, medical instruments and medicinal trough. Medical instruments found in the hospital site as of good evidence for medical system prevailed at that time. For example, the discovery of granite stone used for grinding of herbal treatment. Pieces of two large vessels (Barani) have been found in excavations at the Mihintale hospital complex. They had been used to store medicines at the hospital. Siriwera said that the large vessels came from middle-east counters. These jars are another evidence of the cultural and trade connections with middle-east countries and Sri Lanka in such an ancient time. Bronze medical instruments and Mortar (used to crush drugs) were found in the site. The oldest archeological evidence we have so far of a hospital is in the ruins of Mihintale. In this site found stone medicinal trough (BehethOruwa, Medicine bath bed). Medicinal trough is one of major item. This is carved in the shape of the human body (unnervingly like a sarcophagus) are built of stone. The length of the medicinal trough is 7 feet and the width is 2 ½ feet. There were methods of treatments to patients by laying the medicinal trough with medicine liquids pour in to it. Those items were found in the site of the hospital. All of those hospital remains were found in the monastery premises. Today, the Buddha image can be seen in every hospital. Ancient hospitals had designed Buddha image middle in the hospital complex. Each hospital had been built with an entrance to a separate external environment. To be able to live healthy, every person should concern about the physical and psychological as well as environmental hygiene. Archaeological evidence indicates that ancient Sri Lankan people lived in good sanitary and healthy condition. Ancient Sri Lanka, elite people, monks and ordinary people have had used the hospitals to get medicine to protect their health. Mihintale is a testimony to the social values of the Sinhalese Buddhists and show the advanced status of the Ayurvedic medical science of ancient Sri Lanka.

6. Conclusion  
The archaeological evidence as well as references in chronicles and literature attests that there was a relatively high level of health care system. The remains of the mihintale ancient hospital complex

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clearly demonstrate the facilities given to the health care of the civilians. It is clearly that all people in ancient Sri Lanka have been treating this hospital.

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**Secondary Sources**


