WHEN HE REIGNS, IT POURS: THE USE OF WATER RITUALS AND WATER SYMBOLISM BY THE ROYAL COURT OF BAGAN FROM THE 11TH TO THE 14TH CENTURY

A Thesis Submitted to the Committee on Graduate Studies
In Partial Fulfillment of the Requirements for the Degree of Master of Arts in the Faculty of Arts and Science

TRENT UNIVERSITY
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ABSTRACT

When He Reigns, It Pours: The Use of Water Rituals and Water Symbolism by the Royal Court of Bagan from the 11th to the 14th Century

Raiza S. Rivera Borbolla

This thesis examines the symbolic meaning and significance that the elite attached to water in ancient Bagan. Through the use of ethnoarchaeological, epigraphic, archaeological, and iconographic data, this study examines the role of water as part of rituals performed by the royal court and the ways in which the royalty of Bagan, in particular King Kyansittha, negotiated, appropriated and disseminated water symbolism to fulfill his interests. Data indicates that the symbolic and religious meaning of water was intricately attached to Buddhist concepts of fertility, wisdom, creativity, and protective powers. Evidence suggests that the royalty employed different techniques to appropriate and disseminate water ritualization, including the performance of water rituals that were closely attached to kingship, power, and ruler legitimacy, the promotion of an alliance with creatures capable of increasing rains and fertility, and the use of analogies that compared the properties of water with the virtues of the king.

Keywords: Water rituals, water symbolism, Bagan iconography, water ritualization, Jataka tales, Bagan, royalty, religious ritual, Theravada Buddhism.
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DEDICATION

I know that nothing will bring back the last ten years that we have had to be apart, and I will always wish there was a way to change having to leave everything I knew to pursue a dream that few understood. This thesis is dedicated to you, for the time we spent apart and the pain that was caused by having to say goodbye. I hope that through my work you can understand why I had to leave. The passion, dedication, and effort that I have shown to pursue my dream are reflected in the pages of this thesis. This work is dedicated to you because without your love and support, this thesis, and my dream, would have never been attained.
CHAPTER 1: INTRODUCTION

This thesis examines the symbolic and religious meaning that the elite of Bagan, from the 11th to the 14th centuries, attached to water. This thesis demonstrates that water in ancient Bagan served numerous symbolic and religious purposes. Through the study of water rituals found in the ethnoarchaeological, iconographic, epigraphic, and archaeological data, the role performed by water and meanings attached to water ritualization are identified. The evidence indicates that in ancient Bagan, water may have been perceived as a vehicle which enabled the valuable powers of the Buddha and the Buddhist written texts to be transported to diverse individuals and settings. Some of the purposes of conducting water rituals in ancient Bagan included purifying and protecting palace spaces from evil, summoning supernatural entities, and ratifying donations. The royalty of Bagan, through a negotiation of certain ritual elements, appropriated and negotiated water ritualization and water symbolism to pursue their own interests. This thesis, while drawing on inscriptions and artifacts from the 11th to 14th centuries, focuses on the early period of Bagan, in particular, the reign of Kyansittha. This thesis illustrates that the interests pursued by a particular royal agent, King Kyansittha (r. 1084-1112 CE), through the appropriation of water rituals, may have included strengthening his political legitimacy, satisfying his questionable hereditary credentials, and increasing the social cohesion that was required in Bagan after the conquest of diverse groups by his predecessor, King Anawrahta (r. 1044-1077 CE).

The principal research questions that this study seeks to answer include:
A) What was the religious and symbolic meaning that the elite of ancient Bagan attached to water?

B) In which ways was this religious and symbolic meaning appropriated and disseminated by the royalty at Bagan?

C) What is the relationship that exists between the ethnoarchaeological data from contemporary Bagan and the epigraphic data from ancient Bagan?

D) How can the findings of this research assist in the identification and interpretation of water ritualization practices encountered by future archaeological research?

IMPORTANCE OF WATER SYMBOLISM

From bodily processes to crop cultivation, water serves a vital role in human survival. However, the mundane nature of water makes it an element that is often overlooked in the everyday lives of people. In western societies, water is often perceived as simply a natural resource. Through this thesis, it is demonstrated that in Bagan, past and present, water has important roles that surpass its perception as a natural resource. As a tool for protection, a vehicle to purify and sanctify individuals, an instrument to summon supernatural entities, and a mechanism to provide a ruler with legitimacy and the support of the population, water intertwined the political, religious, and socio-environmental realms of Bagan in intricate manners. The importance of understanding the symbolic and religious meaning of water lies on the fact that water symbolism had substantial repercussions on several social spheres in the ancient kingdom, including politics, water management, and religion. Given that these institutions are poorly
understood during the Bagan period, water symbolism can be used to better understand political concepts of kingship and ruler legitimacy, the creation of water management techniques, and the performance of religious practices that were conducted in ancient Bagan.

**Water Symbolism in Bagan**

A ruler’s divine right to rule, their perceived ability to influence the fertility of the land and prosperity of the kingdom, and their obligation to develop water management techniques that enabled population survival during the dry season are political concepts that were shaped by the symbolic significance that was attached to water by the elite of Bagan. The idea that powers of fertility and purity that increased the prosperity of the kingdom could be infused in the water from reservoirs, through the appropriate system of water collection and distribution, motivated a special concern for the location and construction of water reservoirs across the landscape. Further, the symbolic significance of water also shaped the relationship between Buddhism and animism. Through Buddhist concepts associated with the protective powers possessed by the Buddhist written texts, water was believed to be capable of transporting such protective capabilities into diverse settings. The use of sanctified water became the most efficient way to keep animist forces of evil, responsible for daily misfortune, at bay. The idea that water can be infused with protective powers enabled Buddhist and animist systems of belief to coexist over centuries and become dependent on one another.
THESIS OUTLINE

The purpose of this chapter is to provide an overview of the research questions, and the significance of understanding water symbolism. The following background chapter will introduce concepts that assist in the understanding of the symbolic meaning of water at Bagan, including the way in which the endorsement of Theravada Buddhism by the royal class allowed the symbolic meaning of water to become attached to notions of kingship, ruler legitimacy, and the Buddhist doctrine. This chapter also introduces a literature review of the studies that have focused on the ritual aspect of water in contemporary Myanmar, and studies that have focused on the archaeological evidence to interpret the religious and symbolic meaning that water had in ancient Bagan.

The theory and methods chapter is divided into two sections. The first section discusses the ways in which the anthropological and archaeological study of religion and ritual have been approached by scholars in the past, and the criteria that will be used for the identification of water rituals in the gathered data. The second part of this chapter introduces the major research questions that this study seeks to answer. A description of the procedures that were followed during the interviews and observations in the ethnoarchaeological study, the methods used for the sample selection and analysis of the iconographic and epigraphic data, and a discussion of the strengths and limitations of the methods used in this study, is also presented in this chapter.

The data chapter presents the ethnoarchaeological data on water rituals that were gathered from the observations and interviews conducted in traditional villages in and around the remains of the ancient Bagan urban center. The epigraphic data that were
gathered from inscriptions found near temples and monasteries in Bagan, and the iconographic data depicted in the murals and terracotta plaques found in the temples of Bagan, are also presented in this chapter.

The analysis chapter is divided into four sections, each section highlights a particular dimension of the data sets that address each of the four principal research questions, including the meaning behind rituals, such as water pouring, washing, bathing, and sprinkling; the way in which the properties and symbolic significance of water were appropriated by the royalty through the performance of rituals and associations with water-related creatures; the similarities and differences between water rituals and the symbolic meaning attached to water in ancient and contemporary Bagan; and aspects of the material culture that were identified through the iconographic, epigraphic, and ethnographic data that will assist in the future identification and interpretation of water rituals in the Bagan region. The conclusions chapter provides a brief synthesis of the data that were used to answer the four principal research questions.

CONCLUSIONS

The purpose of this chapter has been to introduce the principal research questions that this study seeks to answer. Further, the purpose of this chapter was to highlight the importance and contributions that can emerge from understanding the symbolic meaning that the royalty of Bagan attached to water, including a better understanding of political concepts of power and kingship, religious beliefs and practices, and the relationship between water symbolism and water management.
CHAPTER 2: BACKGROUND

Water symbolism and water rituals have been scarcely studied for the Bagan Period (11th to 14th centuries CE) (Aung-Thwin 1987:94-95; Hudson 2004:195, 209). However, substantial studies about the nature and purpose of water rituals have been conducted in contemporary Upper Myanmar (Brohm 1963; Spiro 1967). Through an ethnoarchaeology study, the discussion of contemporary religious practices in this chapter serves as a frame of reference from which insights can be gained about the nature of the water rituals that were conducted in ancient Bagan. Additional concepts introduced in this chapter include the endorsement of Theravada Buddhism by the royal class in the early history of Bagan, which allowed water symbolism to become attached to notions of kingship and the Buddhist doctrine. Attention is also given to important aspects of the present-day Buddhist doctrine and animist beliefs in order to distinguish the unique, and at times contradictory, religious and symbolic meaning that has been attached to water in contemporary Upper Myanmar. The final section of this chapter presents a literature review of studies on contemporary water rituals, and an analysis of archaeological studies that have focused on interpreting the symbolic meaning of water in ancient Bagan.

GEOGRAPHY AND IRRIGATION AT BAGAN

Bagan is located in the Dry Zone of Upper Myanmar, near the banks of the Irrawaddy River (Aung-Thwin 1990:1; see Figure 2.0). The aridity and high evaporation rate, which prevent the formation of permanent bodies of water, make the climate of this
region distinctive from the rest of Southeast Asia (Miksic and Goh 2017:51). Rainfalls are distinctly seasonal with the majority falling from May to September (Aung-Thwin and Aung-Thwin 2012:38; Maung Htin Aung 1967:1; Miksic and Goh 2017:51).

Due to the distinct seasonality of the rainfall and the high evaporation rate in this region, water administration in Bagan required the calculated exploitation of small-scale, yet complex, water diversions as well as the use of lakes, ponds, and artificial water reservoirs (Moore et al. 2016:294). The Irrawaddy River was crucial for the emergence and development of Bagan. The Irrawaddy runs through the center of Myanmar, and during the Bagan period, the royalty placed great importance on dominating this river to ensure military control and the proper supply of goods across the kingdom (Hudson 2004:27). The Irrawaddy River also represented a vital component of the water management system of the ancient kingdom. It is believed that Bagan was supplied with water from streams that flowed down from the mountainous Tuyin Range into streams, ponds, and canals that drained into the Irrawaddy (Moore et al. 2016:285). The water level of the Irrawaddy River during the Bagan period likely reached the mouth of the inner-city moat and stored water during the rainy season (Moore et al. 2016:300). Water management at Bagan was also defined by important religious conceptions reflected in the strategic construction of temples along the Irrawaddy riverbank (Moore et al. 2016:294-195), and the presence of carvings inside the Nat Yekan reservoir, a water tank of vital importance to the collection and distribution of water across the plain of Bagan (Iannone et al. 2019a:7).

Notwithstanding the seemingly inhospitable climate of this region, and its inability to cultivate rain-fed crops (Aung-Thwin 1990:5), the Dry Zone possessed an
advantageous geography. Due to the geology, vegetation, and the low elevation of this zone, water remained between the river banks long after the rainfalls had ceased, which allowed blue-green algae, nitrogen-fixation, and photosynthetic bacteria to increase the fertility of the land (Aung-Thwin 1990:5-6). Irrigation works that exploited such advantageous geography enabled the rice paddy to become the main agricultural base of the capital city. The crop surplus allowed Bagan to grow from a fort into a kingdom (Aung-Thwin 1985:114). The construction of monumental buildings, starting as early as the mid-eleventh century (Hudson 2004:207, 250), signaled the emergence of a kingdom which would last until the early 14th century (Iannone et al. 2019a:3; Kan Hla 1977:17).
Figure 2.0. Location of Myanmar and Central Dry Zone (modified from Drury 2017:2).
EMERGENCE AND ROYAL ENDORSEMENT
OF THERAVADA BUDDHISM IN BAGAN

Extensive archaeological evidence from the Pyu, settlements that developed in the Dry Zone after the 2nd century BCE (Hudson 2004:19), in the form of terracotta tablets, and stone and bronze images found in Sri Ksetra, indicate that Theravada Buddhism was practiced in the Dry Zone of Myanmar since the 5th century CE (Hall 2011:202; Ray 2002:53-57, 84; Wheatley 1983:165-198). The royal endorsement of Theravada Buddhism (Aung-Thwin and Aung-Thwin 2012:25; Hall 2011:202; Ray 2002:53-57, 84) was greatly strengthened by King Anawrahta (r. 1044-1077 CE) in the mid-eleventh century. Consequently, the ritual use of water in ancient Bagan was strongly linked to Theravada Buddhist concepts of purity, protection, high morality, and the communication between living creatures and supernatural beings. Encouraged by the Buddhist doctrine, the performance of gift-giving as means of increasing one’s merit, believed to ensure a better rebirth in the afterlife, motivated the elite to sponsor the construction of religious buildings as donations to the Buddhist priesthood, the sangha. Such donations greatly stimulated the economic growth of the kingdom (Aung-Thwin 1985:23, 169). From the rule of King Anawrahta (r. 1044-1077 CE) in the mid-eleventh century, countless temples, monasteries, stupas, terracotta tablets, and stone reliefs of a distinctly Buddhist nature began to appear at Bagan (Ray 2002:82-83).
THE BUDDHIST DOCTRINE

Theravada Buddhism has commonly been interpreted as the pure and pristine form of Buddhism. This view is due to the perception that the Theravada doctrine is composed of the direct teachings of the Buddha that were passed down in the form of the Pali Canon (King 1964:53). Two patterns of orthodox Buddhism exist, one is followed by the monk and one is followed by the layman. The monk is expected to follow the 227 major rules that form the Vinaya Pitaka (King 1964:56). These rules dictate the living and dress habits of the religious authority. In essence (King 1964:57), these rules dictate to live a simple, studious, sober, abstemious, and devout life. The layman, on the other hand, is expected to follow the Five Precepts which prescribe the avoidance of killing, stealing, lying, performing intoxication, and sexual misconduct. Additionally, the layman is expected to abstain from adornment of a personal nature and practice fasting. Private meditation by the layman and the monk is believed to be crucial for the attainment of Nirvana.

Buddhist ideology states that there are thirty-one planes of existence, four are found below and twenty-six are found above the human plane (Nash 1963:287). All the beings that inhabit these planes have attained their rank based on the nature of their deeds (King 1964:62). Different amounts of merit are gained through different types of religious acts, such as the construction of pagodas, providing food to monks, or observing the precepts (Nash 1963:286). The human state provides people with the opportunity to perform good deeds and accumulate merit which leads to the attainment of higher states (King 1964:63; Nash 1963:286). Bad deeds, in turn, create demerit which decreases the
possibility of being reborn into a higher state and increases the chances of rebirth in a lower state. In order to comprehend the religious and symbolic significance of water rituals, it is important to understand that within the Buddhist doctrine, merit is believed to be a “transferable commodity” which can be shared with other living creatures or supernatural beings through the performance of libation rituals (Gombrich 1971:218). As a result, libations constitute water rituals of major importance in Bagan. These rituals involve the pouring of water, after a donation has been performed, on the ground or from one vessel into another with the purpose of sharing merit (Gombrich 1971:208).

The Buddhist Doctrine and Water

The symbolic meaning of water in ancient and contemporary Bagan is largely defined by the role that the paritta recitations have in providing water with protecting and healing powers. These recitations, memorized in Pali, are known by most laymen because they form part of the main curriculum of the monastery school (Spiro 1970:265). Different types of paritta texts, resembling magical spells, are known to be effective in protecting an individual from a range of misfortunes, such as particular illnesses, the dangers of childbirth, and supernatural entities (Spiro 1970:265-268). Another important set of spells used as protection is a group of short texts known as “virtues” which describe the virtues possessed by the Buddha, his teachings (dhamma), and the Buddhist priesthood (sangha) (Spiro 1970:263-264). As stated by Spiro (1970:265), these two types of texts are an essential component of the personal security system of the Burmese.
Additionally, the prominent role attached to sanctified water in ancient and contemporary Bagan is associated with the most crucial moment in the life of Buddha, his battle against Mara before attaining enlightenment. According to this story, a demon named Mara attempted to tempt the Buddha to prevent him from attaining enlightenment (Galloway 2006:90). After failing to tempt him, Mara brought his army of soldiers to fight the Buddha. As a result of his meritorious existences, the Buddha was able to call upon the Earth Goddess and ask for her assistance in defeating such forces of evil. The Earth Goddess wrung out of her hair the water that had been poured, as part of libation rituals, during the meritorious deeds performed by the Buddha in his past lives. This sanctified water defeated Mara and drowned his soldiers (Galloway 2006:91; Hudson 2004:209). The purifying and protecting role of water, reflected through this story, has prominently influenced the meaning and symbolism attached to water in contemporary and ancient Bagan. This story was also prominently depicted in murals from the Bagan period (Bautze-Picron 2003:107, Plate 129, 108, Plate 130, 109, Plate 131, 110, Plate 132). It is interesting to note that, regardless of the great importance of this story to the role attached to water by the Burmese, the Earth Goddess is absent from the Pali Canon. It has been stated that the idea of the Earth Deity probably emerged as a result of a mixture of Brahmanic beliefs and the biography of the Buddha (Guthrie 2004:1-2). Further, the concept of the Earth Deity capable of wringing water out of her hair is unique to Southeast Asia (Guthrie 2004:2).
The Buddhist Doctrine and the Royalty

Related to the concept of merit is the notion of kamma, a belief which states that the social and economic status, misfortunes, and prosperity of an individual are largely the result of past actions (Aung-Thwin 1985:62-63). According to kamma, the merit and demerit accumulated throughout an individual’s past existences determine their present reality. Consequently, members who belonged to the elite or individuals who enjoyed a prestigious status in the kingdom were considered to have earned such position through their merit and good kamma (Aung-Thwin 1985:63).

In ancient Bagan (Aung-Thwin 1985:63), the use of kamma to justify the status quo eventually led to the creation of kammaraja, the belief that the king, because of his privileged position in relation to the rest of the kingdom, possessed the greatest amount of merit. The king, consequently, was the most meritorious non-monk individual. Interestingly, the royalty was able to circumvent the issues associated with the occasional need to shed blood by completing meritorious acts that could redeem such demerit (Aung-Thwin 1985:64). When a king attained power through dishonorable circumstances, such as assassination, as in the case of King Anawrahta (r. 1044-1077 CE) (Pe Maung Tin and Luce 1923:65), he could redeem his legitimacy in two ways. First, through the performance of the abhiseka coronation in which the king was purified and consecrated through a water ritual (Aung-Thwin 1985:50; Dumarcay 1991:19-20; Leider 2005:175). Second, by showing the population his benevolence and care for the well-being of others in the form of donations and construction of religious buildings and
reservoirs (Aung-Thwin 1985:64). Such benevolence, in turn, was an indicator of the superior *kamma* that the king possessed and the right that he had to own the throne.

**THE CAREER AND REIGN OF KING KYANSITTHA (1084-1112 CE)**

Data about water rituals, water depictions, and water symbolism presented in this thesis are associated with a particular member of the royalty, King Kyansittha. This ruler, prominently mentioned in chronicles and inscriptions of Bagan, has been associated with numerous legends and prophecies that have obscured his origins (Luce 1966:53; Luce and Ba Shin 1969:50; Stargardt 1970:289). Epigraphic data indicates that Kyansittha was consistently recognized for his benevolence and devotion to Buddhism (Blagden and Duroiselle 1960:85; Luce and Ba Shin 1969:53, 72), and was particularly tolerant of the cultural and religious practices of the distinct groups that inhabited the kingdom (Aung-Thwin 1985:24).

Before becoming king of Bagan, Kyansittha (r. 1084-1112 CE) served as the cavalry general of King Anawrahta (r. 1044-1077 CE) (Luce and Ba Shin 1969:71; Stargardt 1970:299). Even though the moment in which Anawrahta and Kyansittha became rivals is not known with certainty, it has been stated that Kyansittha was expelled from Bagan possibly due to the conflicts that developed between the feudal Kyause, an important agricultural area northeast of Bagan (Aung-Thwin 1985:101), and the imperial kingdom of Bagan (Luce and Ba Shin 1969:55). After Anawrahta’s son and successor, King Sawlu (r. 1077-1084 CE), was assassinated (Coedés 1968:155), the ministers at Bagan offered Kyansittha the throne (Luce 1966:60; Luce and Ba Shin 1969:52).
According to Luce (1966:55-56), due to his mastery of the Mon language, Kyansittha was likely raised in a Mon environment in Kyause. However, there is much uncertainty as to the nature of his lineage. His mother may have been born in Vesali, a capital city in India (Luce 1966:55-56). A version of his birth states that his father was a naga, a mythical water snake (Blagden and Duroiselle 1960:85; Stargardt 1970:297). Once he became king, he claimed to be an earthly Vishnu avatar who became king as the result of a prophecy of the Buddha stating that he would eventually become a Buddha himself (Luce and Ba Shin 1969:54, 59, 62; Stargardt 1970:295). The consistent attempt of Kyansittha (r. 1084-1112 CE) to relate events in his life and lineage to a fantastic and divine reality is likely related to his need to legitimize his hereditary credentials. His need for legitimacy makes Kyansittha (r. 1084-1112 CE) the royal agent who could benefit the greatest from the use of the symbolic and religious meaning attached to water in Bagan.

THE SPIRIT CULT IN ANCIENT AND CONTEMPORARY BAGAN

Similar to the religious symbolism that became associated with water as a result of the royal endorsement of Theravada Buddhism, animist cults that were practiced during the Bagan period influenced the role that water had within ancient water rituals. Historical accounts state that at the time that King Anawrahta (r. 1044-1077 CE) came into power in 1044 CE, a number of Buddhist and indigenous religious cults were being practiced in Bagan (Maung Htin Aung 1962:1; Ray 2002:150). Among these cults were alchemy, astrology, and Nat worship (Maung Htin Aung 1962:1). Nat worship, the propitiation of spirits who suffered unjust and violent deaths by the crown (Aung-Thwin
1985:32; Brac de la Perriere 2002:32; Brown 1921:89; Spiro 1967:51), was the most widespread religious cult.

In contemporary Myanmar, nats, considered guardians or protectors of a particular domain (Aung-Thwin 1985:32), need to be propitiated and respected to avoid angering them (Spiro 1967:53). Numerous shrines across Myanmar represent the inhabiting location of these spirits. These shrines are spaces of worship which are considered sacred. Propitiation of these spirits allows people to avoid misfortunes, such as illness. Further, the use of water over which Buddhist paritta texts have been recited protects individuals against such animist spirits (Brohm 1963:161; Shway Yoe 1896:73, 233; Spiro 1967:144-203; Vossion 1891:109).

THE COEXISTENCE OF BUDDHISM AND THE SPIRIT CULT

From early times, an indigenous spirit cult that shaped the nature of rituals and practices in Bagan, also referred to as Nat worship, coexisted with Buddhism (Maung Htin Aung 1962:1). The religious and symbolic meaning attached to water in ancient and contemporary Bagan was likely the result of an influence of elements that belong to the Buddhist and animist spirit cult practices. Evidence of the way in which these two systems of belief coexisted in the ancient kingdom is scarce. Nonetheless, in contemporary Myanmar, Buddhist and indigenous religious practices cannot be clearly split into Buddhist and non-Buddhist elements. They coexist as a single syncretized religion in which the spirit cult prevails under an overarching framework formed by Buddhist values (Brac de la Perriere 2009:197; Obeyesekere 1966). As indicated by
numerous interview participants, the use of water that has been infused with the powers of the Buddha and his written texts are the preferred method for keeping evil animist spirits at bay. Consequently, water is an element that often links and brings together Buddhist and spirit cult religious practices. As mentioned, the spirit cult, nonetheless, belongs to an overarching system of Buddhist values in which the Buddha, holding supreme authority and power, remains at the top (Brac de la Perriere 2009:192).

CONTEMPORARY WATER RITUALS

Water ritualization in ancient Bagan has been scarcely examined (Aung-Thwin 1987:94-95; Hudson 2004:195, 209). An analysis of contemporary perspectives on water rituals provides a frame of reference from which insights into the nature of the archaeological record of Bagan can be gained. This section is followed by an overview of the archaeological studies that have been conducted on water ritualization during the Bagan period.

Water as Protection Against Evil Forces

The idea that water can be infused with the power of Buddhist prayers to protect people from harmful nats and evil spirits, such as ghosts, is of central importance to understanding the symbolic role of water within Southeast Asia. Water ritualization in nineteenth-century and present-day Upper Myanmar is a subject that has been extensively recorded (Brohm 1963:161; Shway Yoe 1896:73, 233; Spiro 1967:144-203; Vossion
One such description was written during the late nineteenth century by Vossion (1891), who described the role that prayers and magic spells recited over water have in protecting a house from evil forces. According to Vossion (1891:109), prayers are recited over water held in a common earthen vessel often placed near a house post. Tree leaves are then soaked and used to sprinkle water in all the rooms of the house (Shway Yoe 1896:233). The recitation of prayers over water is also conducted when a house is first built, as part of the house building ceremony (Nan Aung Hlaing 2017:122-124). During this ceremony, Buddhist monks recite prayers over bowls of water mixed with metals or precious stones in order to ensure the safety of the house and its protection against evil forces. Burying these metal and precious stones as offerings under the posts of the house is believed to increase the fortune, well-being, and wealth of the house members (Nan Aung Hlaing 2017:133-135).

Water as Renewal and Good Fortune

Contemporary to Vossion’s work is that of Shway Yoe (1896), whose comprehensive account describes nearly every aspect of the Burman traditional life. As he describes it, the longstanding tradition of the ceremonial head washing is reserved for specific observances, such as those conducted during the Water Festival (Shway Yoe 1896:351). Ceremonial head washing, as later described by Maung Htin Aung (1962:26), is performed to increase an individual’s good fortune (Maung Htin Aung 1962:25). This idea is possibly linked with the desire of gaining merit or paying respects to certain individuals, which is a common element of the New Year celebrations (Shway Yoe
This practice was also conducted by kings in pre-colonial Burma (Leider 2005:175; Maung Htin Aung 1962:37).

**Water as Shared Merit**

Another important use of water takes place during funerary ceremonies (Nash 1963:288, 2007:95-96; Shway Yoe 1896:587-590). Among these funerary practices is the pouring of water, out of a coconut shell, on the cemetery ground (Shway Yoe 1896:584). This libation practice is performed while the chief mourner expresses that the merit gained through the offerings presented in the ceremony will be shared with the deceased (Brown 1915:357, 1921:79; Shway Yoe 1896:588). Pouring water over the ground, a tradition of great significance in the Buddhist doctrine, is seen as a way for the Earth to bear witness to the act of merit that is gained through the funerary ceremony so that “The Earth will bear witness where men may forget” (Shway Yoe 1896:588).

**Water and Rain-Calling**

Over a decade after the publication of Shway Yoe, Brown (1908, 1915, 1916, 1921) published several articles that dealt with different aspects of water ritualization during the early twentieth century. Brown has also described common Burmese rain-making rituals, the most intriguing being the tug-of-war (Brown 1908:145, 1921:97). As explained by Spiro (1967:112), the performance of tug-of-war is associated with the story of a *weikza*, men believed to possess prolonged lives as a result of alchemic and
kabalistic supernatural powers (Brac de la Perriere 2009:205). After a weikza was executed by royal decree during the Bagan period, he became the Mou-Kyaun-Kyawzaw nat. Angered by his unjust death, the spirit of this man decided to stop rainfall. The game “tug-of-war” is believed to entertain this nat; however, the origin and significance of this practice remains to be fully understood (Spiro 1967:112).

One of Brown’s later publications (1921:97) provides an early description of the practice of releasing fish into the river as a form of rain-making. As described by Maung Htin Aung (1933:133-134), this ritual is called the “procession of the king-fish” and it can also involve the making and painting of a fish made of bamboo and paper. This fish would then be taken around the village in a procession with music and dancing. After stopping to pray at the monastery, the fish was released into the river. This is said to be an illustration of the Maccha-Jataka (#75) (Robert 1895:183-185).

According to Maung Htin Aung (1933:134), the idea that bad conduct and neglect of the Buddhist doctrine could lead to droughts has also been illustrated in the Jataka tales which narrate the previous lives of the Buddha. The Kuru-Dhamma-Jataka (#276) (Rouse 1895:251-260), for example, describes how the observance of the Five Virtues by the royalty prevented droughts in the kingdom (Rouse 1895:251-259).

**Water and Fertility**

Important water rituals have also been described in the work of Maung Htin Aung (1962:23-39), who claims that the water rituals associated with the Water Festival likely belonged to an ancient seasonal celebration of the Vernal Equinox as an attempt to
bring the rains (Maung Htin Aung 1962:36). It is also stated that during the last day of the Water Festival, water is slowly poured on the ground while reciting a prayer for good rainfall, harvest, and fortune during the coming year (Maung Htin Aung 1962:24). Water has also been associated with fertility through the performance of rituals, such as the bathing of a Buddha. Pouring water over a Buddha image in front of a tree believed to be inhabited by a nat, was an act performed by female individuals to increase their fertility (Brohm 1963:164).

**Water as Protection Against Sickness**

The idea that water over which prayers are recited can be used to cure a person during times of sickness or to keep away evil spirits had been recorded since early times (Shway Yoe 1896:72, 233-234; Vossion 1891:109). One of the scholars who heavily examined this practice is Spiro (1967:144-156), who analyzed the way in which water can be used to prevent and keep away sickness, heal sickness caused by a spirit, and also expel evil forces within a possessed individual through exorcism (Spiro 1967:175, 180, 185-187, 189). His study indicates that illness is frequently attributed to the work of ghosts, witches, and nats. Illness is often seen as the consequence of failing to provide Nat offerings and to disrespect the taboos that surround a particular Nat shrine. Further, illness can also be the result of witchcraft (Spiro 1967:149). After having established the source of the illness, the religious specialist would often prescribe drinking the water over which Buddhist protective paritta prayers have been recited, wearing an amulet made with string which was sunken in a bowl of sanctified water if minor witchcraft is
suspected, or providing an offering in the form of coconuts, bananas, and flowers to a Nat shrine (Spiro 1967:149-153). In severe cases of witchcraft, the treatment would involve an exorcistic seance (Spiro 1967:154-156). As part of this treatment, a spell is chanted over water. The water is then drunk by the patient or sprinkled over them in order to protect them from further harm from the spirit that is possessing them (Spiro 1967:175).

WATER RITUALS IN ANCIENT BAGAN

Evidence for the performance of some of the discussed water rituals has been found to occur in ancient Bagan. Even though the subject of water ritualization has not been studied extensively for this time period, studies which briefly discuss water rituals indicate that water had an important role in summoning supernatural entities, sharing the merit of good deeds, and protecting living spaces from the harm of animist spirits (Aung-Thw 1985; Dumarcay 1991; Hudson 2004; Stargardt 1970).

Water as Shared Merit

Due to the great importance of libation rituals within the Buddhist doctrine, it is not surprising to find extensive evidence of their performance in ancient Bagan (Blagden and Duroiselle 1960:166-167; Taw Sein Ko and Duroiselle 1919:25-26). These rituals, performed to call upon the Earth Goddess to witness the shared merit of men, have been associated with the construction, by kings, of water tanks, pagodas, and monasteries (Blagden and Duroiselle 1960:166-167). In her work, Stargardt (1970:307-308) mentions
an inscription (1112-1248 CE) associated with King Kyansittha (r. 1084-1112 CE) from the Shwe-hsan-daw Temple (monument #1568) (11th century CE) in which the king expresses his desire to share the merit gained through his acts of benevolence with all living creatures (Blagden and Duroiselle 1960:166). Increased merit would help living beings to achieve a better future rebirth. Pouring water was also performed to call upon the Earth to witness the performance of good deeds (Blagden and Duroiselle 1960:167). The use of red slip libation pots during the performance of water rituals has been depicted in numerous murals from the Bagan period. Libation pots from the Bagan period have also been found at the site of Oteing Taung in Bagan (Hudson 2004:190, 195). The discovery of a great number of libation pots indicates that this location may have been the place where such pots were produced (Hudson 2004:209).

**Water as Protection Against Evil Forces**

Epigraphic evidence indicates that numerous rituals in which water played an important role were aimed at protecting individuals against evil forces, such as the performance of the house building ceremony (Duroiselle 1923:38-45). The idea that water was used for the protection of palace spaces from evil spirits during the Bagan period is mentioned in the analysis of King Kyansittha’s (r. 1084-1112 CE) inscriptions conducted by Stargardt (1970). According to the Tharaba Gate inscription (1093-1102 CE) (Duroiselle 1923:38-45; Stargardt 1970:303), during the house building ceremony of the royal palace, water was held in golden, silver, bronze, and earthenware vessels in front of a monk. The monk then proceeded to recite the *paritta* of blessing, discourses of
the Buddha meant to provide protection against illness or harm (Piyadassi 1975), over containers filled with water. Different places within the complex were then sprinkled with this water, with particular care given to the posts (Stargardt 1970:302).

The Relationship Between Water, Royalty, and Ruler Legitimacy

The practice of the coronation ritual called the abisheka, conducted before a king took office, has been described by Aung-Thwin (1987:95), Leider (2005:175), and Dumarcay (1991:19-20). According to inscriptive evidence, this ritual was conducted during the Bagan period (Duroiselle 1961:79, 139, 143) at the start of a new war, or to increase the wealth of the kingdom (Dumarcay 1991:19; Leider 2005:174-175). It involved the pouring of water from a conch shell while the king was informed of what he should and should not do for the benefit of his people (Leider 2005:175). This act was a warning in which the king was informed of the consequences that would result should he fail to adhere to such requirements. According to Aung-Thwin (1987:95), through the performance of this ritual a link was created between the human king and Sakka, the king of the gods. This ritual also linked the human king with the bodhisatta and the Gotama Buddha. The performance of this ceremony in the Arakan State, which neighbours Bagan, during the 11th century is also mentioned in the chronicles (Pe Maung Tin and Luce 1923:121).
DISCUSSION

Studies indicate that in contemporary Bagan water can be used to help prevent harm and sickness (Shway Yoe 1896:72; Spiro 1967:144-156), protect living spaces through the performance of house building ceremonies (Duroiselle 1923:38-45; Nan Aung Hlaing 2017:122-135), purify, renew, and increase good fortune through the performance of ritual head washing (Shway Yoe 1896:351), and to share merit through the performance of libation rituals meant to call upon the Earth Goddess to witness good deeds (Brohm 1963:164; Nash 2007:95; Shway Yoe 1896:588). These studies also indicate that the recitation of Buddhist texts, such as paritta blessings or the Buddha’s virtues, aimed at requesting assistance through the power of the Buddha, are crucial aspects of ceremonies in which water plays a prominent role to heal the sick, protect the house, and exorcise evil spirits. In these ritual performances, water acts as the vehicle that allows supernatural properties to be transported from the religious authority or practitioner into the patient or devotee, thus protecting, healing, and washing away evil.

This examination indicates that the material residues that are related to water symbolism and rituals within the archaeological record will likely be in accordance with similar Buddhist concepts strongly endorsed by the royalty of ancient Bagan. These concepts are likely to reflect the role that water has had in the Buddhist doctrine as a protecting, cleansing, and purifying agent capable of linking living creatures and supernatural beings. Through this analysis, it is expected that the archaeological record reflects that water rituals, such as the abhiseka coronation, were utilized by the Bagan royalty from early times to convey a sense of legitimacy to the population through the
summoning of supernatural beings, an act which validated the recognition of a king’s claim to the throne. These studies also indicate that the archaeological record may reflect Buddhist perceptions which indicate that increased rains are the result of the royalty’s good morality and adherence to the Five Precepts.

CONCLUSIONS

This chapter has introduced important concepts that assist in the understanding of the symbolic meaning of water. Through concepts of Theravada Buddhism endorsed by the royalty, water in ancient Bagan quickly became associated with notions of ruler legitimacy, purification, and the linkage between living and supernatural beings as a result of the Buddhist concept of shared merit. This chapter also presented contemporary perspectives on water rituals and symbolism, as well as crucial components of the Buddhist doctrine and animist belief systems that assist in the interpretation of ethnoarchaeological data from Upper Myanmar. An analysis of the literature review on contemporary and ancient Bagan indicates that the material culture related to water symbolism and rituals that will be encountered in the archaeological record is likely to reflect Buddhist concepts of water as a cleansing and purifying agent capable of linking living creatures and supernatural beings through the sharing of merit. Overall, these studies indicate that in Upper Myanmar, past and present, water can be interpreted as a vehicle that transports supernatural properties that protect individuals, an element that purifies and renews, and a substance that links and unites devotees with one another as well as with supernatural beings.
CHAPTER 3: THEORY AND METHODS

The theoretical framework presented in this chapter assists in identifying the ways in which the performance of water rituals shaped the relationship between the royalty and the populace during the Bagan period. The first section discusses the ways in which the anthropological and archaeological study of religion, in particular ritual, has been approached by scholars in the past. This discussion is followed by an analysis of the relationship that exists between ritual performance and the creation of power, and the ways in which religious rituals empower but also constrain the power gained by their participants. This examination introduces the framework for the analysis of the interests that were appropriated and promoted by certain royal members through water rituals, the dialogue that these ritual practices forged between social factions, and the negotiation that was established between commoners and the royalty through the performance of water ritualization. The last part of this section, based on the components frequently identified within ritual performances, introduces the definition of ritual that is used to analyze the data that was gathered in this study. The second part of this chapter includes a discussion of the methods employed and the research questions that this study seeks to answer. This discussion also provides a description of the procedures that were followed during the interviews and observations that were conducted at the traditional villages in and surrounding the walled epicenter known as Old Bagan. The methods for the sample selection and analysis of the iconographic and epigraphic data are also discussed. Lastly, an identification of the strengths and limitations of the methods used in this study are presented.
THE STUDY OF RELIGION IN THE ARCHAEOLOGICAL RECORD

The study of religion within the archaeological record is a relatively recent interest that began to expand after the 1990s. This is due, partly, to a reaction to the influence of the processualist thinking that dominated the field of archaeology during the 1960s and 1970s. As part of this movement (Fogelin 2008:1), it was believed that religious beliefs and practices were epiphenomenal. In other words, these beliefs existed as secondary aspects of the life of people in the past, and as a result they did not have an influential effect over the construction of society. Alternatively, some scholars believed that because ritual practices were present in every action performed by social agents in the past, the study of religion and ritual was futile (Hastorf 2001:2).

The paucity of studies on the religious meaning of water is partly the result of the difficulties that are faced by researchers when attempting to examine religion using the archaeological record (Fogelin 2007:58; Kyriakidis 2007:297; Rowan 2012:1). One of the ways in which the study of religious beliefs became more accessible to archaeologists, and which is be the main focus of analysis within this study, is through the examination of rituals. Any emphasis placed by archaeologists on ritual is grounded in the fact that this type of performance leaves material remnants (Kyriakidis 2007:9). Consequently, rituals can be more readily studied by archaeologists than abstract concepts associated with religious beliefs (Fogelin 2007:56). The primacy given to the study of ritual is also based on the belief that ritual has the purpose of enacting the religious concepts that underlay the beliefs held by its performers (Fogelin 2007:57). It is also assumed that, in ritual performance, elements of central importance show constancy
over long periods of time (Kyriakidis 2007:16). As a result, religion can be studied over several centuries through the use of archaeological, ethnohistoric, ethnographic, and historical means (Fogelin 2007:56, 2008:2; Kyriakidis 2007:297). However, this perception does not support the idea that rituals never change. It is widely accepted that religious practices have a dynamic nature, and that historic and ethnohistoric sources need to be studied critically (Kyriakidis 2007:297-298).

The approach to the study of symbolic and religious perspectives in this thesis mirrors the approach that other scholars have taken to the study of religion within the archaeological record. First, this study is based on the assumption that rituals enact the religious perceptions of its performers. Second, the analysis of data in this study supports the argument that central elements within ritual performances show stability over time, but the purposes and contexts in which they are performed are shaped by the social context in which they are perpetuated. As exemplified through this study, the structure, appropriation, and dissemination of rituals are redesigned by the social relations and institutions in which they are performed (Hastorf 2001:3).

Two Approaches to the Study of Religion

Before introducing the framework that serves as the basis for the analysis of data in this study, an overview of the two theoretical approaches that have dominated the study of religion should be introduced. The first of these frameworks is the belief that religious perceptions, through the performance of rituals, are used by the elite as a “subset of ideology” to legitimate and overcome resistance to the rule of the elite by the
creation and promotion of a false consciousness (Fogelin 2007:58, 2008:5). The idea that rituals serve as a form of social control has been prevalent in the study of religion in the fields of anthropology and archaeology. The theoretical framework of this thesis opposes this view. Evidence indicates that ritual may be effective in providing social control in certain social contexts, particularly in societies with high levels of hierarchical organization (Bell 1992:178-182). However, this type of power is too inflexible, too diffused, and highly constrained. As stated by Bell (1992:213), “The traditionalism, authority, and dramaturgy of ritual power can be as fragile as they can be impressive and enduring”. This is due to the fact that a large portion of the authority that emerges from these ritual performances is seen to be closely attached to the position, rather than the authority that the individuals themselves hold (Bloch 1974:65-77; Pye 1985:39-46).

A different perspective, the theoretical approach that is used as part of this study, posits that ritualization can never be effectively used to influence social control if the participants of ritual performances are incapable, to any extent, of generating an individual appropriation of the values or ends of the ritual in which they participate (Bell 1992:223). This theoretical framework sees the performance of rituals as the creation and promotion of a complex set of power relations. Through this set of power relations participants, from religious authorities to followers, are able to negotiate, reject, and appropriate actions, symbols, and beliefs embedded in ritual performances which reflect their own perspectives and interests (Bell 1992:120-122). Through this appropriation and negotiation, all the participants can become empowered by the performance of rituals (Hastorf 2001:6)
THEORETICAL FRAMEWORK

In this study, ritual is understood as a reflection of religious beliefs. Ritual is seen as the medium through which beliefs and actions become incorporated into one performance (Bell 1992:47-48). These religious perceptions, through the performance of water rituals, are seen as the creation of a dialogue of negotiation in which agents appropriate and disseminate religious beliefs and power relations. In the study of ritual within the archaeological context, the attitudes that are expressed through ritualization are rarely explicitly defined. Ambiguity is said to allow ritual performances to exert greater social influence (Hastorf 2001:4). Due to this ambiguity, religious interpretations must be made with caution. The creation of a concise definition of what constitutes “ritual”, therefore, facilitates the identification of religious perceptions and ritual performances in this study.

Components of Ritual

Important components identified in the performance of religious rituals in past and present Bagan include: the creation of binary distinctions between the sacred and the mundane, the construction of hierarchical oppositions between religious authorities and followers, a connection between a ritual performance and the body, and the use of a formal or distinct language.

Binary Distinctions. Ritual performances have the capacity to create oppositional binary distinctions through the assertion of different realities, such as the distinction
between the sacred, and the mundane or profane (Durkheim 1995:414-415). Similarly, within a ritual performance opposition is created between the center, embodied by the religious leader who is capable of establishing a relationship with higher entities (Bell 1992:125-134), and the periphery, constituted by the religious followers.

Hierarchical Opposition. Hierarchical distinctions have been seen as crucial components of the religious ritual (Bell 1992:130; Valeri 1985:134). Through a number of distinct oppositions, the establishment of hierarchies that encourage the perception of systematicity, is effectively accomplished. Through hierarchy, an order that enables the ranking of certain agents and symbols encourages coherence with the hierarchical actuality that exists in the “real world” (Bell 1992:102-104).

Ritual and the Body. An important component of the performance of religious rituals is the role of the body. Through its participation in the structured environment of a ritual performance, the body becomes ritualized and internalizes the principles that are present in the ritual (Bourdieu 1972:89). The ritualized body of an individual, in turn, is able to take control, exert, and appropriate a number of diverse sociocultural situations as a result of this transformation (Bell 1992:99).

Formal Language. A commonly cited component of ritual performances is its use of a distinctive language (Tambiah 1968:175). Formal speech, in particular, can be seen as the way in which a particular deed can come into action (Leach 1966:407). This perception often leads to the belief that the words pronounced during ritual performances are the most important elements of a ritual (Bell 1992:111-112; Tambiah 1968:176). The use of words in a different language can be used by ritual authorities to emphasize the distinction between the mundane and the sacred language (Tambiah 1968:179).
As discussed in the following chapters, the role of the body of royal members, the use of formal *paritta* recitations in Pali, the hierarchical distinctions between the Buddhist, Brahmin, and animist religious specialists and the non-specialists, and the separation between the profane and the sacred reality that was manipulated through ritual performances were critical components that enabled water to be transformed from a simple resource into a powerful element capable of purifying, healing, protecting, and summoning supernatural entities.

**METHODS**

This section introduces the main research questions of this study and presents the methods that were followed to gather and analyze the ethnoarchaeological, epigraphic, and iconographic data. The sampling methods, the types of analyzes conducted in this study, and the limitations that such methods entail are also presented in this section.

The principal research questions that this study seeks to answer are:

A) What was the religious and symbolic meaning that the elite of ancient Bagan attached to water?

B) In which ways was this religious and symbolic meaning appropriated and disseminated by the royalty at Bagan?

C) What is the relationship that exists between the ethnoarchaeological data from contemporary Bagan and the epigraphic data from ancient Bagan?

D) How can the findings of this research assist in the identification and interpretation of water ritualization practices encountered by future archaeological research?
To facilitate the identification of ritual performances, the following categories will be used for the identification of water rituals (Bell 1997:140-170) in past and present Bagan:

A) Invariability of a set of repetitive acts throughout the performance;
B) A public display of actions;
C) Formality characterized by the use of restricted forms of action and speech;
D) Recurrence to the “traditional” in which anachronistic elements are utilized; and,
E) Emphasis on following codes of conduct determining the appropriate behavior that must be followed.

**Ethnoarchaeology Study**

Ethnoarchaeology is a field of study meant to provide insights that can facilitate the interpretation of the archaeological record (Roux 2007:154; Stark 2003:195). Through the use of ethnoarchaeology, archaeologists are able to focus on understanding the way in which individuals in dynamic living systems make sense and transform their cultural realities through the use, creation, and disposal of material culture (David and Kramer 2001:54-60; Hodder 2012:43-54). The examination of dynamic living systems that share similarities with the cultural systems that are responsible for the archaeological elements under investigation enables a more comprehensive understanding of the past (Schiffer 1976:30-31, 33; Stiles 1977:90-91).

The direct historic approach assumes that continuity exists between the archaeological and contemporary data (Hodder 2012:26). In this thesis, the
ethnoarchaeological data will be used to assess the connection and cultural continuity that exists between contemporary and ancient Bagan. Relying on the direct historic approach (Ascher 1961:319; Hodder 2012:28), the historically known, water ritualization in contemporary communities, is first examined. Subsequently, the archaeologically unknown, the water ritualization performed in ancient Bagan, is examined and interpreted. Because numerous factors can account for similarities between two settings, later chapters will examine in detail which aspects of the cultural link that is believed to exist between contemporary and ancient Bagan are similar, which ones are different, and explore the consequences and relevance of such differences (Hodder 2012:36-38).

The archaeological site of Bagan contains over 3,500 monuments within a radius of approximately 50 square kilometers (Figure 3.0) (United Nations Educational, Scientific and Cultural Organization, World Heritage Centre 2019:1, 12). In this thesis, ethnoarchaeological data from contemporary communities near Bagan were used to provide insights concerning the nature of religious perceptions reflected in the archaeological record. Interviews and observations were conducted in ten traditional villages that were selected based on their accessibility and proximity to the archaeological site of Bagan. The ten traditional villages visited include: Thae Pyin Taw Village, Shwe Hlaing Village, Zee O Village, Kon-Sin-Kye Village, Kon-Tan-Gyi Village, Minnanthu Village, Hypauk-Seik-Pin Village, Thuhtaykan Village, East Pwa Saw Village, and West Pwa Saw Village (Figure 3.1).

The interviews conducted in these villages were carried out with the assistance of two local translators who are also trained cultural anthropologists. These translators asked scripted questions to the participants and translated their responses. The translators were
also responsible for establishing first contact and selecting the participants for the interviews. The participants included monks, village heads, and elders. The interviews were conducted predominantly in the home of the participants, and occasionally in the local monastery. The length of each interview was between two and three hours. The age group of the majority of the participants was between 30 and 70 years old, except in one instance in which a young student participated in an interview. The great majority of participants were male. Approximately 20 individuals participated in the interviews.

The questions that were used during the interviews asked the participants to describe important festivities, ceremonies, and everyday activities in which water plays a prominent role. Based on a review of the literature written about religious rituals in Upper Myanmar, several questions asked participants to describe the performance of ceremonies and rituals conducted during the Water Festival, the house building ceremony, rain-calling ceremonies, and ceremonies conducted to cure sickness and witchcraft. The flexible and open-ended nature of the interviews allowed the participants to provide any information that they considered relevant to the understanding of water rituals. The following is a list containing the total number of categories in which water plays a prominent role that formed the basis of the interview questions:

A) The water festival
B) The rain-calling ceremony
C) The house building ceremony
D) Water and sickness
E) Water and witchcraft
F) Water and *nats*
G) Water and funerary rituals

Five questions were consistently asked when a ritual was described by the participants: How is the ritual performed? When is this type of ritual performed? Who oversees the performance of this ritual? What is the purpose of performing this ritual? Are there any offerings provided during the performance of this ritual?

The purpose of the interview questions was to identify, through the statements of the participants and the context of each performance, the underlying views that encouraged the participants to perform such rituals. These questions were aimed at understanding the conditions under which the use of water within each ritual had to occur, the purpose that the use of water within the ritual was believed to have, and the religious beliefs that were transmitted through the use of water within a ritual.

With respect to the observations that were conducted during the ethnoarchaeology study, the types of vessels that are used to bring offerings of water to events, such as ceramic, metal, and plastic containers, were photographed. The types of shrines that are utilized to house Nat spirits were also photographed, as were the offerings that are commonly brought to such shrines, including food, pieces of cloth, bracelets, necklaces, flowers, and ceramic containers. Observations in these villages also included an examination of water sources, such as wells, human-made water reservoirs, and lakes from which the people in the villages extract water for everyday use. Lastly, as part of these observations, a few instances of the performance of libation rituals conducted during some ceremonies were also recorded and photographed.
Figure 3.0. Map of Bagan and location of the walled epicenter known as Old Bagan. Some of the villages visited during the ethnoarchaeology study are also depicted in this map (modified from https://maps-myanmar.com/bagan-myanmar-map).
The study of inscriptions from the Bagan period enabled the identification of rituals performed by the elite in which water played a prominent role. The sample of inscriptions in this analysis include those translated as part of the publication *Epigraphia Birmanica, Being Lithic and Other Inscriptions of Burma* (Blagden and Duroiselle 1960; Duroiselle 1961, 1923; Taw Sein Ko and Duroiselle 1919). Inscriptions from the *Inscriptions of Pagan, Pinya and Ava* by Taw Sein Ko and Forchhammer (1899) were also incorporated into this analysis. The inscriptions used in this study are dated from 1093 to 1281 CE. The total number of inscriptions that were consulted is 107. From these inscriptions, 17 were selected due to their content on water ritualization.

The performance of rituals, in which water is described as an element of central importance, identified in inscriptions include the pouring of water as a way to ratify a gift
and share merit, and the sprinkling of water to purify spaces and protect individuals from evil forces. The connection between increased rains and the benevolence of royals, as well as the construction of water reservoirs by members of the royalty, as donations to the sangha, were also identified in these inscriptions.

With respect to the nature of the sample, the majority of these inscriptions were found inside or in the vicinity of the Bagan temples. Four of these inscriptions represent texts that were written to record the life of the royal court (Blagden and Duroiselle 1960:92, 131, 154; Duroiselle 1923:36). These four inscriptions record important ceremonies, as well as the numerous qualities that the king was believed to possess. In a way, these inscriptions represent a type of “royal propaganda”. The rest of the inscriptions were written with the purpose of marking the donations that were given to the sangha. These donations often consisted of paddy lands, water reservoirs, slaves, and the construction of pagodas, monasteries, and libraries. The authors of these inscriptions include members of the royalty, nobles, wealthy individuals, and members of the sangha.

After the content of these inscriptions was analyzed, the categories that emerged from the data included: the pouring of water as a way to share merit with other individuals and supernatural beings; the connection between good morality and an increase in rains; the link between water, the possession of a high morality, and the ability to defeat evil forces, evil creatures, and misfortune; and the use of water to purify spaces and individuals.
Iconography Study

The temple murals and terracotta plaques from the Bagan period that were selected for this analysis were chosen based on their accessibility, state of preservation, and the presence of water-related imagery, such as water reservoirs, water rituals, and water-related creatures and symbols. Approximately 25 temples were visited. Photographs were taken of murals and terracotta plaques in which water, water-related creatures, or water rituals were depicted. As each photograph was taken, details about the location and time period of the depiction, were recorded and catalogued.

A large portion of the murals and terracotta plaques depicted in large temples, such as the Sula-manig-hpaya (monument #748) (1183 CE), the Ananda-gu-hpaya-gyi (monument #2171) (1105 CE), the Shwe-zigon (monument #1) (late 11th century CE), and the Dhamma-yazika (monument #947) (1196-1198 CE), were sponsored by kings and wealthy individuals who wished to provide large donations to the sangha, to a great extent, to increase their merit and that of other beings. As a result, the religious content of these buildings, predominantly reflected in the depiction of the Buddha or his past lives (Jatakas), is a testimony to the religious purposes that such temples and imagery fulfilled.

Because the majority of the mural depictions and terracotta plaques that are found in the Bagan temples include the depiction of Jataka tales, an analysis of the official 547 stories about the past lives of the Buddha documented in these tales was made alongside the identification of important iconographic elements. In Myanmar, these stories are commonly referred to as the 550 Jatakas. However, the terracotta plaques from the Bagan temples depict only 547 of these stories which are the Jatakas officially recognized in the
Buddhist scriptures (Stadtner 2013:229). When water, water-related creatures, or water rituals were identified in murals and terracotta plaques, the elements in the depictions were correlated to their appearance in the Jataka tales. Throughout this thesis, the names of the Jataka tales that are used to provide context to each iconographic depiction are followed, in parentheses, by their corresponding Jataka number as part of the official 547 tales. Additionally, the names of the temples mentioned in this thesis are followed, in parentheses, by their corresponding monument number according to the *Inventory of Monuments at Pagan* by Pierre Pichard. The iconographic interpretation presented in this thesis was partly assisted by the use of previous iconographic studies of the Bagan temple murals and architecture (Bautze-Picron 2003; Duroiselle 1962; Galloway 2006; Luce and Ba Shin 1969; Pyiet Phyo Kyaw 2017; Rao 2011).

Some authors have interpreted the consistent use of Jataka tales in the architecture of Bagan as an attempt to instruct, through a reflection of the desirable virtues that the Buddha possessed (Galloway 2006:54), and convert the population into Theravada Buddhism (Brown 1997:87-88; Luce and Ba Shin 1969:18). However, Jataka depictions may have been used instead to convey a narrative in which aspects of the life and nature of the Buddha were expressed in conjunction with the architecture and arrangement of features that form part of the monument (Brown 1997:99). This argument is partly supported by the difficult visual access of a considerable number of depictions in murals and terracotta images found in high ceilings in the interior and exterior of the Ananda-gu-hpaya-gyi Temple (monument #2171) (1105 CE). As it will be discussed in the following chapters, this argument supports the idea that the depiction of the Anotatta Lake (Bautze-Picron 2003:116-118), an important sacred lake at the center of the world, at Temple
1148 (13th century CE) was meant to reflect the creation of a microcosm inside the sacred space of the temple, analogous to a reservoir, that housed the Buddha.

Major iconographic elements identified within these depictions include the presence of rituals, such as the pouring of water as a way to ratify a gift and share merit, and the sprinkling of water to pay homage to individuals. The presence of lotus flowers and animals which have been associated with water, such as elephants, makaras, ogresses, and nagas, were also identified. Some of the images utilized in this thesis were obtained during the fieldwork. However, numerous mural images and terracotta plaques that have been photographed and examined as part of other iconographic studies of the Bagan period (Bautze-Picron 2003, 2015; Duroiselle 1962; Pyiet Phyo Kyaw 2017; Rao 2011), were an important addition to the present study.

Archaeological Data

In addition to the analysis of ethnoarchaeological, epigraphic, and iconographic data, this study will incorporate some of the findings associated with the excavation conducted at the Nat Yekan water tank by the IRAW@Bagan Project (Iannone et al. 2019a). This water tank is located on the northern range of the Tuyin-Thetso mountain range and was selected not only for the extensive carved imagery present on its walls but due to its location in the only upland area of the Bagan plain (Iannone et al. 2019a:7). The location of this reservoir in the Tuyin-Thetso range was an indication of the important role that the tank would have played in the collection and distribution of water across the region (Iannone et al. 2019a:8). It is important to mention that, due to the
absence of radiocarbon dating materials during the excavation of the northwestern corner of the tank, the location of the natural spillway of the reservoir, the interpretation of findings was conducted alongside the chronicles (Iannone et al. 2019a:4).

LIMITATIONS

An important limitation of the use of ethnoarchaeological data and the direct historical approach is the fact that an understanding of the archaeological record might be limited by the types of behaviors and relationships that are currently seen in contemporary communities at Bagan. Because some rituals, perceptions, and behaviors related to water that were practiced in ancient Bagan might no longer be practiced in contemporary Bagan, the insights gained from the ethnoarchaeology study may not fully explain water ritualization as seen in the archaeological record (Hodder 2012:36).

Another limitation of the interpretations in this study is the fact that the data analyzed predominantly reflects the perspectives of the elites of Bagan. The perspectives of the commoners and other social factions that might have appropriated religious rituals to fulfill their own interests during the Bagan period are not discussed in the present study. The fact that the perceptions, needs, and realities of villagers from contemporary communities greatly differ from the experiences of the royalty during the Bagan period might also be identified as a limitation. However, the role attached to water by those two distinct groups, the royalty and contemporary villagers, resembles one another in important ways as a result of the influence of three factors: the prevalence of animist beliefs in ancient and contemporary Bagan, the role attached to water by the Jatakas tales,
and the water symbolism conveyed by important stories in the Buddhist doctrine. Animist practices, which identify water as an instrument for protection against evil spirits, shaped the way in which every sector of the population appropriated water rituals. The role that has been attached to water through the Jataka tales, and through important stories in the Buddhist doctrine, such as the Earth Goddess’ assistance to the Buddha to wash away the evil forces of Mara, fostered ideas about water as a purifying and protective element that was advanced from ancient times by Bagan’s royals, and continues to be propagated by contemporary communities. Due to these factors, the insights gathered from the ethnoarchaeology study can successfully provide insights that assist in the identification of future archaeological findings from the Bagan period.

**CONCLUSIONS**

The purpose of this chapter was to introduce the theoretical framework that facilitates the analysis of the data that was gathered in this study. In this study, water ritualization is understood as the negotiation, appropriation, and dissemination of water rituals by the royalty that reflect their own perceptions and interests. Due to the complexity of religious perceptions, the use of diverse methods and types of data allows the subject of religion to be approached through the analysis of contrasting and complementary perceptions reflected through distinct data sets. The discussion of methods presented in this chapter highlighted the benefits and limitations that ethnoarchaeological, iconographic, and epigraphic data bring to the study of religious perceptions in ancient Bagan.
CHAPTER 4: DATA

The purpose of this chapter is to present the data that were analyzed as part of this study. The different sections will introduce the data that was gathered from the ethnoarchaeology study conducted in traditional villages near Bagan, the data from the inscriptions that have been found in temples of Bagan, and the data from the murals and terracotta plaques located inside and outside the temples of Bagan. The final section of this chapter will discuss the findings of the archaeological excavation conducted at the Nat Yekan water tank.

ETHNOARCHAEOLOGY STUDY

The interpretation of ritual material culture as a means to examine belief systems using the archaeological record is a difficult task. However, the use of ethnoarchaeological, iconographic, and epigraphic data can provide researchers with insights into the ritual significance of the material components of religious concepts that were active during the Bagan period (Fogelin 2007:66). The description of important water rituals, ceremonies, and everyday activities in which water plays an important role, as described by the participants in the interviews, allows the identification of the roles that water served, and the interests and perceptions that were appropriated by individuals living in these villages.
The Water Festival (New Year Celebrations)

The water festival is an event celebrated during the month of April. It is believed that every year Thagyamin, the king of the gods, comes down to earth to spend two or three days in the human realm. His departure indicates the beginning of the New Year (Htin Aung 1962:23). Informants emphasized that an important component of this festivity is the recitation of protective texts or payeik paritta by Buddhist monks. During this ceremony, stones, thread, flowers, candles, and in some instances 24 vessels of water representing the 24 Pathara discourses recited during this ceremony, are placed as offerings in front of the monks. Once the offering is arranged, the recitation of paritta texts, aimed at deflecting misfortune and danger, is performed in front of the offerings. According to the participants, the protective powers possessed by the Buddhist written texts are transmitted into the offerings, particularly into the water and stones, during the recitation. It is interesting to note that in modern times the use of ceramic vessels (Figure 4.0) to contain water during the ceremony has been replaced by the use of plastic bottles for which the lid is removed. The ease with which water bottles can be transported has been the major motivation behind this change. It was also stated that the need to remove the lid of the water bottles is due to the fact that the properties gained by the recitation of protective texts can only be accomplished if these properties are directly transmitted from the reciter into the water. The recitation of protective payeik paritta texts is not always conducted by monks. In some of the villages, elders perform the recitation. Occasionally, individuals who follow the Five Precepts, and as a result have a high morality, are the reciters. At the conclusion of the ceremony, the water from the vessels that were placed
as offerings during the recitation are brought back to the homes by the participants, and sprinkled around the house, on the fence of the compound, and then placed next to the image of the Buddha located on the house altar. An important property of this water, as mentioned by participants, is its ability to heal. When a member of the house becomes sick, or when small children cry frequently, this water can be sprinkled on them as a healing treatment. This subject is discussed shortly in greater detail.

Participants emphasized that during the Water Festival it is important to follow the Five Precepts and watch one’s morality by avoiding stealing, lying, killing, performing intoxication, or sexual misconduct (King 1964:57). With the start of the New Year, new beginnings are seen as requiring people to maintain a “pure mind” and to increase their morality. During this festivity, people are also encouraged to pay homage and show respect to their parents, elders, and their mentors by sprinkling them with water with the use of Eugenia leaves.

During the Water Festival, the elder members of the village often visit the monastery to participate in the ritual bathing and the ritual head washing that is performed by volunteers. The donation of clothes and food to the elders and monks is meant to represent an act of kindness that increases the merit of a person and marks the end of the celebration. During this event, the practice of watering the statues of Indra and the ogress located in the village pagoda of Thae Pyin Taw is performed by women with the purpose of increasing the rains during this time of the year.
Rain-calling among these villages is performed in two manners, as the recitation of prayers near the lake, and as “secular rainmaking,” which involves the performance of “tug-of-war” in the village or by the lake. In most villages, these performances take place only during times of drought. After a shortage of water is identified, members of the village invite the monks to recite protective *paritta* discourses by the lake. It was stated that the monks sometimes pray at the location where the water would enter the reservoir. Common offerings that are provided during this ceremony include bananas, coconuts, and tea leaves. It has been stated that, similar to the expectations that surround the New
Year, people are expected to follow the Five Precepts and watch their morality in order to increase the rains. The breakage of the precepts is believed to lead to an increase in droughts. As part of this performance, a fish made of wood, paper, or leaves, is deposited in the reservoir. This practice is said to be associated with Maccha-Jataka (#75) (Robert 1895:183-185) in which the Buddha, when born as a fish, was saved from dying in a dry pool. The king of devas caused a great rain to fall after the Buddha, by an “act of truth”, stated that, due to his good morality, he merited the assistance of supernatural entities to save his kinsfolk from death. In addition to conducting recitation of texts by the lake, during rain-calling ceremonies, the village of Thuhtayka pours water over the Moe-Kaung Buddha found in the Dhamma-yazika Temple (monument #947) (1196-1198 CE) (Figure 4.1). The offerings that are brought to the pagoda during this event include incense stick, candles, and dumplings, all aimed at increasing good fortune.

Participants indicated that the practice of tug-of-war as a way to increase the rains involves a battle between two teams who pull a long rope in opposite directions by a lake, or in the village. It is believed that in ancient times a man was unjustly put to death by the king. After dying, this man became a god and decided to prevent rain from falling as a result of the anger of his death. The performance of tug-of-war seems to appease him.
House Building Ceremony

The performance of this ceremony usually takes place when a house is first built. The practices performed during this event show the lowest variability across the practices of the ten villages that were studied. During this ceremony, if a house is built in a new compound, monks are invited to clear the ground. Once the ground has been cleared, the monks stand in front of a pile formed by wooden posts that are used to build the house. Offerings of water, grass, sandstones, and different types of metals, such as silver, gold, and bronze are deposited inside a water glass to which thanaka, a paste made from ground bark used for cosmetic purposes, is occasionally added. This glass with offerings is placed in front of the monks. During the recitation, the Buddhist monks read protective
paritta discourses believed to prevent misfortune and increase the protection of the household members. Once this recitation has concluded, the first and most important post is erected at the southeast corner of the house. As mentioned by informants, at the bottom of the holes created for the posts, boiled rice, milk, and metals, such as gold or silver, are occasionally deposited as dedicatory offerings before erecting the post. It is believed that the recitation of protective Buddhist texts ensures that evil forces are expelled from the household. Similarly, this recitation provides the household members with protection against future attacks, and fosters overall well-being. It is believed that the failure to comply with this practice can result in the death of the household members. After the posts are erected, the water that was used as an offering during the recitation ceremony, with the use of a branch from an Eugenia tree, is used to sprinkle the house.

After the main (southeastern) post, the most auspicious, has been sprinkled during the ceremony, the glass that contained the offerings of metals is placed near the altar of the house. The water used as offering in this ceremony, similar to the water used as an offering during the New Year recitation, can be utilized to prevent individuals from being attacked by evil forces. Even though the water over which Buddhist texts have been recited by monks is believed to have great properties, any individual can infuse the water with protective and healing qualities by reciting Buddhist texts. These texts can be either protective discourses or the virtues of the Buddha. If, due to illness in the family, more water is required, any member of the household can infuse the water with healing properties by reciting texts over it. However, it was emphasized on multiple occasions that the higher the morality that the reciter has, often measured by the adherence to the Five Precepts, the greater are the properties of the water over which the individual has
recited. Alternatively, a person may choose to attend the local monastery and request a monk to recite prayers over water to infuse them with protective and healing qualities.

**Water and Sickness**

Participants stated that a child who cries frequently is believed to be the victim of a form of illness that results from the attack of a ghost. Water over which Buddhist texts have been recited can alleviate the illness of the child and protect the child from further harm. Women, as children, are also believed to be vulnerable to the forces of evil. This water can also alleviate their sickness and protect them from harm. Some of the ways in which this water is administered include sprinkling it on the head, the lips, or being given to the victim to drink. Alternatively, an amulet that has been sunk in sanctified water can be given to a victim to prevent harm. As stated by informants, when water over which prayers have been recited is given to an individual with the goal of healing or protecting them from harm, the reciter says, “this water is the medicine of the Buddha.”

**Water and Witchcraft**

The practice of witchcraft, as stated by participants, occurs frequently and is identified as being connected to feelings of anger, jealousy, hatred, or failing to follow the Five Precepts. Different sects are known to perform different types of healing rituals. At Kon-Tan-Gyi, the sect known as Mano-mahiddhi utilizes only water, rather than other forms of exorcism, such as hitting or using harsh words, to heal victims. When instances
of witchcraft are considered very dangerous, monks are called to assist in curing the victim. One way in which this can be accomplished is through the use of water over which *paritta* prayers have been recited. In a similar way to which water is used to heal patients who suffer from sickness, the water can be given to a victim as a form of medicine that can cure ailments caused by witchcraft. The water can also assist a witchcraft master in expelling the spirits that are believed to possess a victim. Participants indicated that if witchcraft is believed to cause minor ailments, such as frequent headaches or mood changes, amulets can be used by a patient to gain protective powers. These are commonly given to children in the form of bracelets or necklaces to protect them from evil spirits.

**Water and Nats**

Another way in which water has been associated with supernatural forces is through the propitiation of *nats* or spirits. *Nats* were the victims of violent deaths as humans (Aung-Thwin 1985:32; Brac de la Perriere 2002:32; Brown 1921:89; Spiro 1967:51). The propitiation of these spirits often takes place at square altars located in specific places near villages or water reservoirs. These altars have a quadrangular shape between five and two meters wide (Figure 4.2). They are often constructed with concrete. Inside these shrines are deposited small figures with a human shape that have very pale skin and wear a range of vestments. These figures represent the spirits who inhabit the particular shrine (Figure 4.3), and they are often wrapped in offerings, such as red and white strips of cloth, flowers, and necklaces.
As mentioned by participants, people are expected to follow certain behaviors when they are in close proximity to a Nat shrine to show respect to these spirits and the space that is considered their territory. Some of these behaviors include avoiding the use of foul language, urinating, or spitting near these shrines. Taboos surrounding the reservoirs sometimes guide the way in which water can be utilized, such as using it only for drinking purposes, as it is the case at the Minnanthu reservoir (Figure 4.4). It has been indicated that if respect is not paid to these spirits, people risk angering nats and experiencing the great misfortune and sickness that they are capable of creating.

Offerings brought to Nat shrines during the Buddhist initiation ceremonies or shinbyu, and after a couple gets married, include pancakes, pieces of red and white cloth which are the colours believed to be liked by the spirits, and also fried fish. This last offering has also been stated to be associated with an increase in the powers of fertility of the land among Indonesian farmers, as well as women wishing to conceive (Van Der Kroef 1954:848). It is possible that the custom of bringing fried fish as an offering to a Nat shrine after a wedding ceremony is related to the belief that eating fish can increase the fertility of a couple that has recently married.
Figure 4.2. *Nat* shrine located in the Kon-Sin-Kye village pagoda (photo by the author).

Figure 4.3. *Nat* figures inside a village *Nat* shrine in Kon-Sin-Kye (photo by the author).
Figure 4.4. Dry Minnanthu reservoir at the height of the dry season. This reservoir is believed to be the territory of the nats who inhabit the nearby shrine (photo by the author).

Water and Funerary Rituals

Water has an important role within the funerary rituals of members of these traditional villages. According to informants from Minnanthu and Hypauk Seik Pin, soon after an individual passes away, the body of the deceased needs to be washed. It was also mentioned that as part of the Taw-taing, conducted at the cemetery to request the spirits that inhabit this location for permission to dig a burial for their deceased, a container with water is brought to the cemetery to ensure that the people who attend the funeral are able to ritually wash their hands before returning to their homes. Failure to follow this ritual could increase the amount of deaths in the family or the village. For the duration of the funerary ceremony, a libation ritual aimed at sharing the merit of the event with the
individuals present, the deceased, and other supernatural beings takes place. This libation ritual involves slowly pouring water from one container to another.

Another funerary practice that involves the use of water takes place after the participants return from the cemetery. According to informants from the village of Hypauk Seik Pin and East Pwa Saw, after returning from the cemetery, and before entering the household of the deceased individual, a person must dip their hands in a plastic or ceramic container of water that is placed in front of the house. After this, the person should sprinkle the water around themselves to exorcise the evils spirits and ghost that may have followed an individual back from the burial. A variant of this practice in West Pwa Saw involves pouring water on the roof of the house to exorcise the forces that may inhabit the household after the death of an individual.

**Water Sources**

Given the marked differences in rainfall patterns between the wet and dry seasons, water storage is a major concern that requires careful administration. Information about the ways in which water is stored and distributed by the people living in these traditional villages provides information about the relationship that exists between the villagers and their water sources, as well as insights into future archaeological findings associated with water management in ancient Bagan. The majority of the villages has access to water from large water reservoirs, usually located adjacent to the settlement (Figure 4.5, Figure 4.6). However, these reservoirs do not retain water throughout the dry season. Participants indicated that, with the exception of
Kon-Sin-Kye, the majority of the villages have wells (Figure 4.7). Most of these wells were constructed after 1985, and are often found at accessible locations in the village, monasteries, and schools. Even though wells and pipelines are found in most villages, between two and three at each village, because the government is unable to maintain them, the construction of wells rarely succeeds in assisting the long-term drinking needs of the villagers. Participants indicated that people are still heavily reliant on rain to obtain drinking water. Water scarcity in these villages is common, and villagers often gather funds to purchase water from other communities and to refill wells. It was indicated by participants at Minnanthu and Hypauk Seik Pin that before roads and highways were constructed between the villages, which hindered the existing hydrological system by creating flow barriers, the uninterrupted flow of water allowed the reservoirs to be filled up and water levels maintained for longer periods into the dry season. In order to facilitate water accessibility for drinking and washing purposes, important social spaces, such as schools and monasteries dig their own ponds or build water tanks (Figure 4.8, Figure 4.9). Small ponds are also dug near house compounds to provide drinking water for cattle. Especially during the dry season, water is held in large metal containers (Figure 4.10). It is interesting to note that, in some religious buildings, small water tanks were incorporated into the architecture of the temples. These small reservoirs likely serve mainly ritual purposes (Figure 4.11). Additionally, it is not uncommon to see small water stations throughout rural Bagan (Figure 4.12, Figure 4.13, Figure 4.14). Inside these small concrete constructions, drinking water is stored in large water containers made of clay (Figure 4.15). This arrangement ensures that drinking water is easily accessible to anyone in need.
The ethnoarchaeology study indicates that numerous water-related rituals, such as ritual bathing, sprinkling, and washing are performed during the Water Festival in April. However, water ritualization is present in everyday life as part of water pouring rituals that take place when a donation is ratified, and merit shared. Further, sanctified water is utilized when a house is first built, when sickness occurs in the family, when witchcraft is suspected, and when an individual passess away. These findings indicate that, in contemporary Bagan, water rituals are a vital component continuously present throughout an individual’s lifetime (Table 4.0).

Figure 4.5. Dry Shwe Nat water reservoir located near the Thae Pyin Taw village at the height of the dry season (photo by the author).
Figure 4.6. Dry artificial water reservoir located near Hypauk-Seik-Pin village at the height of the dry season (photo by the author).

Figure 4.7. Well located near main road at Hypauk-Seik-Pin village (photo by the author).
Figure 4.8. Dry brick water tank at the Kon-Sin-Kye monastery (photo by the author).

Figure 4.9. Water pond at the Kon-Sin-Kye monastery (photo by the author).
Figure 4.10. Metal water container at the Thae Pyin Taw monastery (photo by the author).

Figure 4.11. Small ritual water tank built inside the Le-myet-hna-hpaya Temple (monument #447) (photo by the author).
Figure 4.12. Water station with clay water containers inside the Dhamma-yazika Temple (monument #947) (1196-1198 CE) complex (photo by the author).

Figure 4.13. Water stations with clay water containers inside the Thae Pyin Taw monastery compound (photo by the author).
Figure 4.14. Water station next to major road at the Hypauk-Seik-Pin village (photo by the author).

Figure 4.15. Clay water containers on water station at the Thae Pyin Taw monastery (photo by the author).
<table>
<thead>
<tr>
<th>Ritual Category</th>
<th>Water Rituals</th>
<th>Water Symbolism</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Water Festival</td>
<td>Recitation of protective paritta blessings over water containers; sprinkling of the house with sanctified water; sprinkling of parents, elders, and mentors; head-washing of elders at the monastery.</td>
<td>Use of sanctified water to protect against evil forces and misfortune through paritta blessings; use of water to show respect by sprinkling superiors; head-washing to increase good fortune and sharing merit; use of water as a sign of purification and renewal.</td>
</tr>
<tr>
<td>The Rain-calling Ceremony</td>
<td>Recitation of discourses and offerings brought by the lake; following of the Five ?recepts and abstinence of meat or food; reenactment of Buddha as a fish in Maecha-lataka (//75); performance of tug-of-war; pouring of water over Moe-Kaung Buddha at the Dhammayazika Temple.</td>
<td>Use of paritta recitations, good morality, and offerings to increase rainfall; use of a high morality to call supernatural entities to increase rainfall; water pouring over the Buddha to show respect and increase rains.</td>
</tr>
<tr>
<td>The House Building Ceremony</td>
<td>Recitation of protective paritta blessings over water containers; sprinkling of the house with sanctified water; sinking of offerings consisting of metals and thanaka paste in sanctified water.</td>
<td>Use of sanctified water to purify and protect spaces from the harm of evil forces; use of sanctified water to purify the offerings dedicated to the supernatural entities.</td>
</tr>
<tr>
<td>Water and Sickness</td>
<td>Drinking of water over which recitation of protective paritta blessings; use of amulets sunken in sanctified water; sprinkling of sanctified water.</td>
<td>Transferring of the powers of the Buddhist texts into sanctified water to heal sick individuals; use of sanctified water to protect individuals from the harm of evil spirits.</td>
</tr>
<tr>
<td>Water and Witchcraft</td>
<td>Drinking water over which recitation of protective paritta blessings has been performed; use of amulets sunken in sanctified water.</td>
<td>Transferring of the powers of the Buddhist texts into sanctified water to heal and protect individuals from the harm of witchcraft; use of sanctified water to exorcise evil spirits.</td>
</tr>
<tr>
<td>Water and Nats</td>
<td>Propitiation and following of rules to show respect to spirits that guard reservoirs.</td>
<td>Careful use of water sources to show respect and to prevent the anger and harm of nats.</td>
</tr>
<tr>
<td>Water and funerary rituals</td>
<td>Washing of the body of the deceased soon after death; Ritual washing of hands at the cemetery; Water pouring during the funerary ceremony; sprinkling of water over the roof.</td>
<td>Use of water to show of respect to the deceased; use of water to purify individuals from misfortune and protect them against further harm; use of water to exorcise evil spirits from a house; use of water to share merit and increase good fortune.</td>
</tr>
</tbody>
</table>

Table 4.0. Summary of Ethnoarchaeological Data
INSCRIPTIONS FROM THE BAGAN PERIOD

This section presents the data that was gathered from the inscriptions that have been found near temples of Bagan dating from the 11th to the 14th centuries. Inscriptions were used during the Bagan period for two main purposes, to record the donations that were made to the sangha, and to describe important events, and ceremonies that took place in association with the royal court. The examination of water rituals, the contexts in which they were performed, and the roles that water fulfilled in these ceremonies, as reflected through these inscriptions, allowed the identification of the water rituals appropriated by the royalty of Bagan. Such appropriation includes the use of paritta protective recitations over water to protect the royal palace from animist spirits, the performance of libation rituals to share merit after donations that were made to the sangha, and the perception that good deeds can increase rainfall.

Inscriptions from the 11th Century

This inscription was written in 1093 CE. It was found in the Shwe-zigon Pagoda (monument #1) which was built in the last quarter of the 11th century. This inscription has been described as a “royal advertisement” that was meant to provide information about the royal court to the people (Blagden and Duroiselle 1960:92). It is interesting to note that in this inscription several analogies are made between the qualities of the king and the properties of water. The text states that King Kyansitha (r. 1084-1112 CE) possessed a pure morality “which is even as water” capable of washing away sinful deeds.
Blagden and Duroiselle 1960:116). Kyansittha is seen as being capable of washing away, through compassion, “the nasal mucus of all who are sick at heart” (Blagden and Duroiselle 1960:117). The Shwe-zigon inscription (1093 CE) also mentions that, as a result of the great piety of Kyansittha, the kingdom will be blessed with abundance. It is mentioned that throughout his realm “rain shall fall a hundred and twenty times” (Blagden and Duroiselle 1960:126). Another link that is created between Kyansittha and the properties of water concerns the approval that the people would have for the king’s benevolence, which is said to be reflected through sounds of applause that “shall be like the sound of a great rainstorm in the middle of the night” (Blagden and Duroiselle 1960:123). Further, it is stated that his realm “will be as wide as the ocean” (Blagden and Duroiselle 1960:116).

Another relevant 11th century inscription was found in the banks of the Myakan Lake. The date of this inscription is not clearly stated. However, due to the fact that it discusses the donation of a water reservoir to the sangha by King Kyansittha, it likely dates to the time period between 1084 and 1112 CE (Blagden and Duroiselle 1960:131). The name of this water tank is “Mahanirbaan Lak Chuy Khi Riy” (Blagden and Duroiselle 1960:142). According to the inscription, this reservoir was aimed at allowing the population to sustain strenuous cultivation that would free the inhabitants of the nearby communities from famine. This inscription emphasizes the idea that the construction of this tank is the result of the compassion and the benevolence of the king, and his desire to provide “happiness, bliss, and plenty” to the populace (Blagden and Duroiselle 1960:142-143).
Another inscription, similar to the two previous inscriptions, and also connected to the reign of King Kyansittha, refers to important accomplishments that took place during his reign (Blagden and Duroiselle 1960:154). This inscription, dated between 1112 and 1248 CE, was found in the Shwe-hsan-daw Temple (monument #1568) which was built in the 11th century CE. The inscription marks the construction of a water tank that would allow people to make dams and irrigate the land (Blagden and Duroiselle 1960:164). This inscription also details the virtues of the king, how pleased the populace is with his reign, and the benevolence that is reflected through his gifts of pagodas, monasteries, tanks, and consecrating Buddha-statues. The end of this inscription indicates that Kyansittha (r. 1084-1112 CE), as a way to share the merit of such meritorious acts, poured out water “in order that all beings might escape out of Sansara” (Blagden and Duroiselle 1960:166). In this context, Sansara refers to the continuous cycle of birth and rebirth that can only end with the achievement of enlightenment and the attainment of Nirvana.

An inscription believed to date between 1093 and 1102 CE (Duroiselle 1923:3) was found near the Tharaba Gate, in Old Bagan. This text describes a house building ceremony for the construction of King Kynasittha’s (r. 1084-1112 CE) palace in which water plays an important role. The prevalence of different religious specialist throughout the performance of this event is intriguing. Of particular importance is the frequent mention of Brahmin astrologers, who were versed in house building ceremonies, as crucial participants in this event. Some of the rituals that can be identified in this inscription include the recitation of protective discourses. As stated, “Brahman astrologers went and drew water for the reciting of the paritta” (Duroiselle 1923:36).
During this ceremony, it is mentioned that over a hundred gold, silver, and copper vessels were used to hold water during the recitation of texts. The blessing was directed at a particular location within the palace, including important pavilions, such as the four cindrow pavilions, the ablution pavilion, and the jun dal pavilions (Duroiselle 1923:37). An important component of this event was the use of eight conch shells and 4,000 earthenware vessels that were “arranged at the dwellings of the four thousand lords of the sangha who were to recite the paritta outside and throughout the palace” (Duroiselle 1923:37). According to the Tharaba Gate inscription (1093-1102 CE), some of the water vessels made of precious metals were arranged at the western side of the palace, facing the eastern side, in front of the Chief Monk Arahan (Duroiselle 1923:38). During this recitation, 1108 monks were present while the leader of the recitation, Chief Monk Arahan, spoke the paritta blessing. Further, during this recitation, the Chief Monk is said to have held a right-volute conch shell. These conch shells, considered precious due to their rarity, were used throughout Southeast Asia in courtly rituals, such as the anointment of kings in India (Duroiselle 1923:38). After this, it is stated that five locations in the palace were bathed with the water from the gold and silver vessels, likely indicating a type of ceremonial lustration (Duroiselle 1923:39). After washing these five spaces (Duroiselle 1923:41), the Brahmin astrologers brought water to wash, at the auspicious time, the pillars around the palace. These pillars were washed seven times. At 17 locations, the participants provided decorations of plantains, sugarcane, gold, and silver vessels, and conch shells containing water, clean rice, and dunna grass. It has been stated (Duroiselle 1923:47) that this rice offering resembles the tepong tawar of Malay origin, an offering composed of water and fine rice flour utilized during lustration
ceremonies as a way of averting evil forces through its sprinkling, with the use of a bundle of leaves, over consecrated objects. The water used during the ceremony was sprinkled over the holes that had been dug for the pillars. After water was sprinkled and offerings were deposited at a number of locations throughout the palace, during several occasions and at auspicious times, the inscription states that “in each place, they buried gold leaf, silver leaf, and copper leaf” (Duroiselle 1923:50) to form three layers of offerings at the bottom of ten different post holes. After this, the Brahmin astrologers recited, sprinkled, and bound up the wooden posts. The pillars were then erected. After the pillars had been set up, Kyansittha rode an elephant which was accompanied by an additional white elephant (Duroiselle 1923:51), and presents were given to the king (Duroiselle 1923:53). It is interesting to note that the Tharaba Gate inscription (1093 and 1102 CE) indicates the importance of worshipping Narayana (Vishnu) during the performance of this ceremony: “the brahman astrologers who were versed in house-building went and worshipped Narayana in the ancient manner” (Duroiselle 1923:52). The Tharaba Gate inscription (1093-1102 CE) also mentions that a white elephant was used by King Kyansittha (r. 1084-1112 CE) to provide an offering to Vishnu (Blagden and Duroiselle 1960:51). This is followed by a description of a ritual in which water from the gold and silver vessels, five gems, fresh milk, and boiled rice were placed in the holes for the posts (Duroiselle 1923:52-53). The worship of naga also took place as part of this performance. The naga, mythical water snakes often associated with fertility, were offered a decoration of plantains, flowers, and altar oblations (Duroiselle 1923:56). It is possible that this offering is related to the fact that naga are considered guardians of the underground realms. Due to the fact that digging holes to erect posts is considered an
invasion of their ground, they are believed to need propitiation (Duroiselle 1923:56; Galloway 2006:100; Maung Htin Aung 1962:113).

**Inscriptions from the 12th Century**

Another text (19th century) that also records the performance of a house building ceremony is *The Glass Palace Chronicle* (Pe Maung Tin and Luce 1923:4-5). This retrospective chronicle indicates that protective *paritta* recitations were an important component of the building ceremony of the palace of King Thado Jambudipa Dhajaraja of Tagaung (r. 6th century BCE). The chronicle states that during the ceremony a “love-charm to ward off evil” took place (Pe Maung Tin and Luce 1923:5). The nature of the ceremony seems to resemble that of the construction of King Kyansittha stated in the Tharaba Gate inscription (1093-1102 CE). It is stated that gold, silver, and jewels, used as offerings, were placed under and above the posts (Pe Maung Tin and Luce 1923:4-5). The water that was used during this ceremony is said to have been brought by spirits from an important mythological reservoir believed to contain water with great powers, the Anotatta Lake, one of the seven great lakes located at the center of the world (Pe Maung Tin and Luce 1923:5).

A series of 12th century inscriptions record the donations that were given to the *sangha*. The majority of these inscriptions follow a similar pattern. They often begin by indicating the types of donations that are provided. This is followed by the wishes of the donor to share merit with those who protect their donation, and to bring sorrow to those
who destroy it. These inscriptions reflect the consistent performance, from the 11th century to the late 13th century, of pouring water as a way to ratify a gift.

One such inscription referred to as the Mya-zedi Quadrilingual inscription, dating to 1113 CE (Taw Sein Ko and Duroiselle 1919:3-4), was found in the Mya-zedi Pagoda (monument #1320) (reconstructed in the 19th century CE) and is written in Pali, Burmese, Talaing, and Pyu. This inscription was inscribed by Prince Yazakumar, King Kyansittha’s son. The inscription states that King Kyansittha had given his beloved wife three villages of slaves when alive. After the chief queen died, these slaves were given to her son, Prince Yazakumar. This prince, remembering the nurturing that his father, the king, had provided to him, decided to make a golden statue in his honour. The king was delighted with this gift (Taw Sein Ko and Duroiselle 1919:25-26), and in the presence of the Chief Monk and the ecclesiastical dignitaries, he poured water as a way to ratify the gift of his son. The son enshrined the golden Buddha, poured water, and said: “Let this deed of mine be the cause of my obtaining Omniscience” (Taw Sein Ko and Duroiselle 1919:26). The pouring of water was meant to consummate the consecration of the Buddha statue.

Another relevant inscription dates to between 1112 and 1248 CE. It is likely that it was written closer to the earlier date (Duroiselle 1923:69). The royal author of this inscription cannot be identified. This inscription was found in the Shwe-zigon Pagoda (monument #1) (late 11th century CE). It discusses the donation of lands, with the aim of building houses, to a pagoda which is a place of worship formed by a religious building composed of several stories. At the end of this inscription, it is stated that “the exalted
king bowed down and poured out water” (Duroiselle 1923:70). This libation was aimed at calling upon the Earth to witness the act.

Another relevant inscription was written during the year 1183 CE and was found in the Sula-mani-gu-hpaya Temple (monument #748), built in the same year (Taw Sein Ko and Forchchammer 1899:67). The donor in this inscription is King Narapatisithu (r. 1173-1210 CE). The purpose of this inscription was to mark the donation of paddy lands that he provided to the sangha. It is mentioned that during this event, a monk was called to witness the water of dedication being poured to ratify the gift (Taw Sein Ko and Forchchammer 1899:67-68).

**Inscriptions from the 13th Century**

A relevant inscription was written in the year 1207 CE, and was found in the walls of the Khe-ma-wa-ya-hpaya Pagoda (monument #367) (Taw Sein Ko and Forchchammer 1899:56). The founder of this inscription is King Nadaungmya (r. 1210-1234 CE). The purpose of this inscription was to mark the donation of a cave, a library, a monastery, and paddy lands to the sangha. This inscription states that dancing and music were performed in celebration of these offerings. It is also stated that the king, as the drums were beating and the trumpets blowing, poured out the water of dedication in the presence of an assembly composed of monks and ministers. This performance was followed by a statement of the desire of the king to bring suffering to those who destroyed the offering, and to allow those who approve of his offering to “become rulers
of the universe, rich and prosperous men” (Taw Sein Ko and Forchchammer 1899:56-57).

A subsequent inscription was written in the year 1223 CE, and was found in the Le-myet-hna-hpaya Temple (monument #447) (Taw Sein Ko and Forchchammer 1899:103). The donors are Anandathuya, Prime Minister of King Nadaungmya (r. 1210-1234 CE), and his wife. This inscription (Taw Sein Ko and Forchchammer 1899:103-104) details the dedication of slaves, and the construction of gardens, a water tank, and a lavatory for the needs of the monks, at the monastery.

Another relevant inscription was also written in the year 1223 CE. It was discovered in the monasteries located “on the West Bank of the stream” (Taw Sein Ko and Forchchammer 1899:28). The donor in this inscription is referred to as the “daughter of Kyan Thaing.” This inscription documents the dedication of slaves, paddy lands, and water tanks to the sangha. Several monks acted as witnesses during the event. The donor in this inscription also stated that those who destroyed the offering should suffer in “all the eight principal hells” (Taw Sein Ko and Forchchammer 1899:28).

A later inscription was written in the year 1237 CE, and was found near the Shinbinbawdi monastery (Taw Sein Ko and Forchchammer 1899:85). The purpose of this inscription was the dedication of slaves for a pagoda. The inscription mentions (Taw Sein Ko and Forchchammer 1899:85-86) that “the monk Gunati poured out the water of dedication” during the event. A total of six people witnesses the act. The desire of the donor was for those who interfered or destroyed his offering to suffer in hell, and fail to witness the future Buddhas.
A relevant inscription was written in the year 1241 CE, and was found in the Myaukkuni monastery (Taw Sein Ko and Forchchammer 1899:71). The agent of the inscription was Queen Asaw. The purpose of the inscription (Taw Sein Ko and Forchchammer 1899:71-73) was to mark the building of a cave and document its dedication to the sangha by pouring water. The donor indicates her desire to share the merit of her offering and allow beings to escape from samsara, the cycle of rebirth, and attain Nirvana.

Another relevant inscription was written in the year 1248 CE, and was found in the cave of the Itzagawna monastery (Taw Sein Ko and Forchchammer 1899:114). The donor was Kyawzwa, the minister of King Narapatisithu (r. 1173-1210 CE). This inscription (Taw Sein Ko and Forchchammer 1899:114-116) marks the building and dedication of a cave, a monastery, a pagoda, slaves and lands to the sangha. The witnesses of this event included the king and six additional ministers. It is interesting to note that during the performance of this donation, “there was a heavy shower of rain at the time, and there was also an earthquake accompanied by rumbling sounds and the acclamations of the devas” (Taw Sein Ko and Forchchammer 1899:115). This statement was likely seen as a reflection of the welcoming nature of such a meritorious act. Further, this inscription highlights the linkage that was believed to exist between the performance of good deeds and the occurrence of rainfalls.

Another inscription was found at the source of the Wetkyi-in stream, and it was written in the year 1259 CE (Taw Sein Ko and Forchchammer 1899:54). The donor in this inscription was Somingyi, the widow of the Minthalat Prince. This inscription (Taw Sein Ko and Forchchammer 1899:54-55) marks the dedication of slaves, and the building
and dedication of a monastery to the sangha. Regarding the ratification of the gift, it is stated that “and pouring out water jointly with her father, she dedicated the same to the three Gems” (Taw Sein Ko and Forchchammer 1899:55). The three gems are the Buddhist priesthood, the Buddha, and his teachings.

A later inscription dates to 1274 CE, and was found near the Kyunbogan monastery (Taw Sein Ko and Forchchammer 1899:49-50). The donors in this inscription were five revenue collectors. The purpose of this text was to mark the donation of the construction of a pagoda, paddy lands, slaves, and caves. It is stated (Taw Sein Ko and Forchchammer 1899:50) that those who approve the offering can share the merit of this meritorious act, and those who destroy it will burn in hell. There were people witnessing the dedication in the form of a water pouring ceremony after which it is stated “may the king and everyone else obtain a share of my merit, and may I be lifted with omniscience” (Taw Sein Ko and Forchchammer 1899:51).

A subsequent inscription was written during the year 1281 CE, and was found in the northeast corner of the Shwe-zigon Pagoda (monument #1) (late 11th century CE) (Taw Sein Ko and Forchchammer 1899:3). The donor in this inscription was Queen Pwa Saw, the wife of both King Narathihapade (r. 1254-1287 CE) and King Kyawza (r. 1234-1249 CE). The purpose of this inscription was to mark the donation of lands and slaves to the sangha. Regarding the donation, it is stated that “in ratification of the deed of dedication, water was poured on the ground by the queen’s mother” (Taw Sein Ko and Forchchammer 1899:4).

As indicated by numerous inscriptions, libation vessels were used to pour water during the performance of donation ceremonies during the Bagan period. A number of
vessels used during this time period have been displayed at the Archaeological Museum of Bagan (Figure 4.16). Numerous inscriptions indicate that the royalty prominently practiced the use of paritta recitations to protect palace spaces from the harm of evil spirits, and the pouring of water to purifying a donation, thereby calling upon supernatural entities to witness a donation and to share the merit earned by the performance of good deeds (Table 4.1). Given the privileged position of the royalty, supported by notions of kamma indicating that they earned such privileges by performing good deeds in past lives, the royalty, as reflected in these inscriptions, aimed at fulfilling their role as compassionate and benevolent individuals. Through the performance of water pouring rituals meant to share the merit earned through their donation, the royalty’s perceived benevolence by the population of Bagan reinforced their position as righteous holders of privilege.

Figure 4.16. Clay libation vessels from the Bagan period at the Archaeological Museum of Bagan (Iannone et al. 2019c:115, Figure 6.23).
<table>
<thead>
<tr>
<th>Inscription</th>
<th>Year</th>
<th>Water Rituals and Events</th>
<th>Water Symbolism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shwezigon Pagoda Inscription (Duroiselle 1960:112-129)</td>
<td>1093 - 1094 AD</td>
<td>The king possessed a pure morality “which is even as water” that was capable of washing away, through compassion, “the nasal mucus of all who are sick at heart”; Due to his piety and benevolence “rain shall fall a hundred and twenty times”; His approval will be reflected in sounds of applause that “shall be like the sound of a great rainstorm in the middle of the night”; His realm “will be as wide as the ocean”.</td>
<td>Capacity of water to purify; emphasis on the relationship between rains and the performance of good deeds; emphasis on the relationship between the king’s benevolence and piety (as water), and the increased prosperity of the kingdom.</td>
</tr>
<tr>
<td>Myakan Lake Inscription (Duroiselle 1960:138-143)</td>
<td>1084-1111 AD</td>
<td>Water pouring ritual performed to ratify the donation of a water tank by King Kyaumthita.</td>
<td>Use of water to protect an offering, to call upon supernatural entities to ratify a donation, and sharing merit to provide “happiness, bliss, and plenty” to the populace.</td>
</tr>
<tr>
<td>Shwesandaw Pagoda Inscription (Duroiselle 1960:163-168)</td>
<td>1084-1111 AD</td>
<td>Water pouring ritual performed to ratify the donation of pagodas, monasteries, and water tanks.</td>
<td>Use of water to protect an offering, to call upon supernatural entities to ratify a donation, and sharing merit “in order that all beings might escape out of Samsara.”</td>
</tr>
<tr>
<td>Theraha Gate Inscription (Duroiselle 1923:35-68)</td>
<td>1093-1102 AD</td>
<td>Recitation of paritta blessings over water vessels during the house building ceremony; bathing and sprinkling of wooden posts of the house.</td>
<td>Emphasis on the role of water to purify and protect palace spaces from harm.</td>
</tr>
<tr>
<td>The Glass Palace Chronicle (Pe Maung Tin and Luce 1923:4-5)</td>
<td>1829 AD</td>
<td>Recitation of paritta blessings over water vessels containing water from Lake Anottuta during the house building ceremony.</td>
<td>Use of sanctified water to purify and protect palace spaces from harm.</td>
</tr>
<tr>
<td>Myazed Pagoda Inscription (Duroiselle 1919:25-26)</td>
<td>1113 AD</td>
<td>Water pouring ritual over a golden Buddha to consecrate the gift; water pouring ritual over the ground to ratify the dedication of slaves.</td>
<td>Use of water to protect an offering, to call upon supernatural entities to ratify donation, and gain merit to obtain omniscience.</td>
</tr>
<tr>
<td>Short Shwezigon Pagoda Inscription (Duroiselle 1923:69-70)</td>
<td>1112-1248 AD</td>
<td>Water pouring ritual performed to ratify the donation of lands to build houses.</td>
<td>Use of water to protect an offering, to call upon supernatural entities to ratify donation.</td>
</tr>
<tr>
<td>Sulamani Temple Inscription (Forchhammer 1899:67-68)</td>
<td>1183 AD</td>
<td>Water pouring ritual performed to ratify the donation of paddy lands.</td>
<td>Use of water to protect an offering, and to call upon supernatural entities to ratify donation.</td>
</tr>
<tr>
<td>Kemawaya Pagoda Inscription (Forchhammer 1899:56-57)</td>
<td>1207 AD</td>
<td>Water pouring ritual performed to ratify the donation of a cave, a library, a monastery, and paddy lands.</td>
<td>Use of water to protect an offering, to call upon supernatural entities to ratify donation, and to share merit to provide others with prosperity.</td>
</tr>
<tr>
<td>Le-nyet-hma-Hpaya Temple Inscription (Forchhammer 1899:103-104)</td>
<td>1223 AD</td>
<td>Dedication of gardens, a water tank, a lavatory, and slaves.</td>
<td>Desire to gain merit, through the donation of a water reservoir, to allow themselves and other beings to escape from samsara, the cycle of rebirth.</td>
</tr>
<tr>
<td>Monasteries on &quot;west bank of the stream&quot; Inscription (Forchhammer 1899:28)</td>
<td>1223 AD</td>
<td>Dedication of slaves, paddy lands, and water tanks.</td>
<td>Desire to gain merit, through the donation of a water reservoir, to ensure wisdom, truth, charity, diligence, and the desire to become a Buddha in future existences.</td>
</tr>
</tbody>
</table>

Table 4.1. Summary of Epigraphic Findings (Part 1).
<table>
<thead>
<tr>
<th>Inscription</th>
<th>Year</th>
<th>Water Rituals and Events</th>
<th>Water Symbolism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shinbinawdi Pagoda Inscription (Forchhammer 1899:85-86)</td>
<td>1237 AD</td>
<td>Water pouring ritual to ratify the dedication of slaves for the pagoda.</td>
<td>Protection of offering and calling of supernatural entities to ratify donation.</td>
</tr>
<tr>
<td>Myaunkkuni Pagoda (Forchhammer 1899:71-73)</td>
<td>1241 AD</td>
<td>Ritual of pouring water performed to ratify the dedication of a cave.</td>
<td>Use of water to protect an offering, to call upon supernatural entities to ratify donation, and gain merit “to allow beings to escape from samsara”, the cycle of rebirth, and attain Nirvana.</td>
</tr>
<tr>
<td>Itzagawna Monastery Inscription (Forchhammer 1899:114)</td>
<td>1248 AD</td>
<td>A heavy shower and earthquake occurred after the dedication of a cave, a monastery, a pagoda, slaves and lands.</td>
<td>Inscription highlights the relationship between rains and the performance of good deeds.</td>
</tr>
<tr>
<td>Wetyi-in stream Inscription (Forchhammer 1899:54-55)</td>
<td>1259 AD</td>
<td>Water pouring ritual performed to ratify the dedication of slaves and a monastery.</td>
<td>Use of water to protect an offering, to call upon supernatural entities to ratify donation, and to gain and share merit to attain Nirvana.</td>
</tr>
<tr>
<td>Kyumbogan Monastery Inscription (Forchhammer 1899:49-50)</td>
<td>1274 AD</td>
<td>Water pouring ritual performed to ratify the dedication of a pagoda, paddy lands, slaves, and caves.</td>
<td>Use of water to protect an offering, to call upon supernatural entities to ratify donation and share merit.</td>
</tr>
<tr>
<td>Shwezigon Pagoda (Northeast corner) Inscription</td>
<td>1281 AD</td>
<td>Water pouring ritual performed to ratify the donation of lands and slaves.</td>
<td>Use of water to protect an offering, to call upon supernatural entities to ratify donation, and to gain and share merit.</td>
</tr>
</tbody>
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Table 4.1. Summary of Epigraphic Findings (Part 2).
ICONOGRAPHY OF THE BAGAN PERIOD

The depiction of Buddhist imagery was a crucial component of the architecture of temples built during the Bagan period. The majority of the images depicted in the murals and terracotta plaques of Bagan represent the official 547 stories which form part of the literary collection from the Buddhist scriptures known as Jataka tales. These tales about the past lives of the Buddha are a collection of fables in which the Buddha, living the life of different beings, such as a king, an animal, or a villager, has to overcome a series of obstacles. These difficulties are often conquered through the power of virtues, such as wisdom, generosity, endurance, goodwill, and determination. The water rituals identified in this iconographic analysis include: the abhiseka coronation ceremonies, water pouring ceremonies, and ritual bathing and sprinkling. Additional water-related elements identified in this analysis include: shipwrecks, water reservoirs, and water-related creatures, such as nagas which are mythical snakes associated with fertility, makaras which are mythical creatures associated with the dangers of the ocean, ogresses, the guardians of water reservoirs, and elephants, believed to increase rainfall. Lastly, the decorative element of the lotus used in murals and the architecture of temples, and its association with the properties of water, such as purity, is examined.

Water Rituals in Terracotta Plaques

The terracotta plaques that are presented in this section have been depicted in numerous religious buildings that were constructed between the 11th and the 14th
centuries. These include the Ananda-gu-hpaya-gyi Temple (monument #2171) built in 1105 CE, the West Hpet-leik Temple (monument #1031) built in the 11th century CE, the Sula-mani-gu-hpaya Temple (monument #748) built in 1183 CE, the Ant-kyaw-swa (#101) (18th century CE), and the Dhamma-yazika Temple (monument #947) built between 1196 and 1198 CE, among others. The Ananda-gu-hpaya-gyi Temple (monument #2171) (1105 CE), a great accomplishment of King Kyansittha (r. 1084-1112 CE), was completed in the year 1105 CE (Pichard 1992:VIII:152; Stadtner 2013:227). At the Ananda-gu-hpaya-gyi Temple, the terracotta plaques depict the last ten official Jatakas, also referred to as the Mahanipata (#538 to #547), rather than the 547 Jatakas, as is customary at other temples. The last ten Jatakas represent the ten perfections of the Buddha including, generosity, morality, renunciation, insight, energy, patience, truthfulness, resolution, loving-kindness, and equanimity. At the Ananda-gu-hpaya-gyu, these ten Jatakas have been illustrated through the use of 389 terracotta plaques (Stadtner 2013:229).

A common water ritual depicted in the terracotta plaques of the Ananda-gu-hpaya-gyi Temple, is the consecration of the king, a ritual known as abhiseka. This consecration took place when a new king was appointed to the throne. As depicted through these plaques, a Brahmin was often responsible for holding a conch shell from which the consecrated water was poured (Duroiselle 1962:25, Plate 47, 97, Plate 206, 103, Plate 217, 105, Plate 221). This act enabled the king to embody the supernatural entity of Sakka, the king of the gods (Aung-Thwin 1985:95). It has also been claimed that the embodied Vishnu during this important ceremony (Deshpande and Gutman 2018:66-85). Through the performance of this important abhiseka ceremony, supernatural entities
were believed to come down to earth and show their support for the new king. The support shown by Sakka, the king of the gods, assisted the king in gaining the legitimacy that was required to rule the kingdom (Aung-Thwin 1985:63). An illustration of this type of performance is mentioned in the chronicles, during the anointment ceremony of King Thado Jambudipa of Tagaung (r. 6th century BCE). The text highlights the support that supernatural entities, such as the *Naga* King, Brahma, and Sakka showed to the king by attending and validating his ascension to the throne (Pe Maung Tin and Luce 1923:4-5).

The use of sanctified water during the performance of the *abhiseka* coronation was a crucial component which allowed supernatural entities to descend to earth, witness, and validate the new status of the king.

Within the 389 plaques which depict the last ten Jatakas (#538 to #547) at the Ananda-gu-hpaya-gyi Temple (monument #2171) (1105 CE), five depict the consecration of mythical kings, present in the past lives of the Buddha, being performed by Brahmins (Duroiselle 1962:25, 97, 103, 105, 173). The depiction of an individual holding a conch shell is a constant element throughout these plaques. Such is the case, as photographed and documented by Duroiselle (1962), in the consecrations of the mythical King Janaka in the Mahajanaka-Jataka (#539) (Cowell and Rouse 1907:19-38) (Duroiselle 1962:25, Plate 47; see Figure 4.17), the son of mythical King Vedeha in the Maha-Ummagga-Jataka (#546) (Cowell and Rouse 1907:156-246) (Duroiselle 1962:97, Plate 206), the mythical King Candakumara in Khandahala-Jataka (#542) (Cowell and Rouse 1907:68-80) (Duroiselle 1962:103, Plate 217), the mythical King Bhuridatta in Bhuridatta-Jataka (#543) (Cowell and Rouse 1907:80-114) (Duroiselle 1962:105, Plate 221), the Buddha reborn as mythical Prince Vessantara in Vessantara-Jataka (#547) (Cowell and Rouse
and the mythical Queen Maddi also in Vessantara-Jataka (#547) (Duroiselle 1962:173, Plate 383). Conch shells were used to hold gold and oils during the anointment of kings (Pe Maung Tin and Luce 1923:4-5, 112). Conch shells were also used by religious authorities to hold water during the *paritta* recitation of the house building ceremony (Duroiselle 1923:3).

![Consecration of the mythical King Janaka](image)

**Figure 4.17.** Consecration of the mythical King Janaka (Duroiselle 1962:25, Plate 47).

Another ritual which conveys a similar theme is the pouring of water as a form of ratifying a gift. Similar to the consecration ritual, in which water was poured to link the king to supernatural entities, the pouring of water to share the merit gained from a gift is meant to call upon the Earth Goddess to witness meritorious acts (Duroiselle 1923:70; Taw Sein Ko and Duroiselle 1919:52; Taw Sein Ko and Forchhammer 1899:88; Shway Yoe 1896:588). Four terracotta plaques in the Ananda-gu-hpaya-gyi Temple (monument #2171) (1105 CE), depicted in the photographic plates of Duroiselle (1962:145, Plate
Plate 341, 167, Plate 364, 133, Plate 277), show the act of ritual water pouring as a means to ratify a gift. The story told through these plaques is called the Vessantara-Jataka (#547) (Cowell and Rouse 1907:246-305). In this story, the Bodhisatta was born as a prince, and since birth had a strong desire for almsgiving. As a result, he was constantly seeking to give his possessions in alms to others. After giving his elephant in alms, a creature believed to have magical powers which increased rains, the people in his kingdom choose to banish him. These four terracotta plaques illustrate the moments in which, as narrated in the Vessantara-Jataka (#547), the mythical Prince Vessantara pours water on the ground as part of a libation ritual after giving his elephant (Duroiselle 1962:133, Plate 277), his chariot (Duroiselle 1962:145, Plate 302; see Figure 4.18), his children (Duroiselle 1962:159, Plate 341), and his wife in alms (Duroiselle 1962:167, Plate 364).

Another water ritual that has been depicted in terracotta plaques involves concepts of ritual bathing or sprinkling as a way to pay homage or show respect to certain individuals. This ritual is performed within a variety of contexts, such as the one depicted at the Ananda-gu-hpaya-gyi Temple. At this temple, a terracotta plaque depicts the Sama-Jataka (Duroiselle 1962:39, Plate 86; see Figure 4.19) in which the bathing of a child is mentioned (#540) (Cowell and Rouse 1907:19-38). In this story, the Buddha, reborn as child who was miraculously conceived, is taken away by suparnas, beings which resemble nymphs. After his parents bathed him and left home, these suparnas took the child to a cave, bathed him, and adorned him with lotuses before returning him to his home (Duroiselle 1962:39). A similar ritual associated with paying homage involves the washing of feet. The tradition of touching the feet of respected people and elders is
known to have occurred since early times in India as a sign of respect (Rao 2011:1:43).

The image on one of the Ananda-gu-hpaya-gyi plaques (Duroiselle 1962:73, Plate 156; see Figure 4.20) illustrates the Maha-Ummagga-Jataka (#546) (Cowell and Rouse 1907:156-245) in which Amara, the daughter of a merchant that becomes the wife of the Buddha, washes the feet of her parents and the Buddha, reborn as Mahosadha, after she returned from the fields. The willingness of Amara to wash the feet of the Buddha seems to be an indication of her ability to show respect and humility (Duroiselle 1962:72). This attitude was meant to help Mahosadha assess if Amara would be a suitable wife.

Ritual sprinkling is mentioned in the Sama-Jataka (#540) (Cowell and Rouse 1907:38-52). This Jataka states that mythological King Piliyakkha, thinking that Sama was dead, sprinkled water over his body as a way to pay homage to him (Duroiselle 1962:45, Plate 96; see Figure 4.21). A similar sprinkling ritual (Duroiselle 1962:93, Plate 196) is mentioned in the Maha-Ummagga-Jataka (#546) (Cowell and Rouse 1907:156-245) during a marriage ceremony between the Pancala Princess and the mythical King Vedeha near the Ganges River. This ritual, conducted by monks, had the purpose of providing a meritorious blessing to the couple.
Figure 4.18. Prince Vessantara is pouring water after giving away his chariot in alms in Vessantara-Jataka (#547) (Duroiselle 1962:145, Plate 302).

Figure 4.19. The nymphs bathe Saama in Sama-Jataka (#540) (Duroiselle 1962:39, Plate 86).
Figure 4.20. Amara washes the feet of the Buddha in Maha-Ummagga-Jataka (#546) (Duroiselle 1962:73, Plate 156).

Figure 4.21. Piliyakkha pays homage to Sama in Sama-Jataka (#540) (Duroiselle 1962:45, Plate 96).
Water Depiction in Murals

A way to identify water within murals from the Bagan period involves the use of a series of superimposed half circles. These depictions tend to be confined within square shapes indicating the presence of water reservoirs, such as those depicted in Temple 1336 which was built during the 12th century CE (Figure 4.22). An elongated shape signifies a river (Figure 4.23) and a circular shape signifies a lake (Figure 4.24).

The Anotatta Lake in Temple 1148 (13th century CE) (Figure 4.25) is an important mural depiction of water reservoirs from the Bagan period. This lake has been interpreted as a microcosm which mirrors the cosmic waters on top of Mount Meru, the central mountain of the universe from which other mountains and seas originate, from which the Buddha emerged (Bautze-Picron 2003:116). Consequently, the macrocosm represented by Mount Meru, the center of the universe, is replicated at the Anotatta Lake, a microcosm which forms the center of the world (Bautze-Picron 2003:118). It is interesting to note that the emergence of the Buddha from the cosmic water on top of Mount Meru has led to the depiction of the buddhapadas, or the Buddha’s footprints, which depict the cosmic waters at its center, which encompass the entirety of the universe (Figure 4.26) (Bautze-Picron 2003:118-119).

Another depiction seen in murals of the Bagan period that also connects water to an important moment in the life of the Buddha is that of the defeat of Mara’s armies. During this important moment in the life of the Buddha water had a critical purifying and cleansing role. This role is largely responsible for the religious and symbolic meaning attached to water in Bagan, past and present. According to the story, the demon Mara attempted to prevent the Buddha from attaining enlightenment (Galloway 2006:279;
Maung Mya 1914:219-224). The Buddha, to defeat Mara’s armies, called upon the Earth Goddess for help. Due to his numerous meritorious deeds, the Earth Goddess assisted the Buddha by wringing out of her hair all the water that the Buddha had poured as part of the libation rituals in his previous lives. This water drowned Mara’s soldiers and defeated the demon. Depictions of this important moment are seen in numerous temples, such as the Abe-ya-dana-hpaya Temple (monument #1202) built in the late 11th century CE (Bautze-Picron 2003:108, Plate 130), the Loka-hteik-pan Temple (monument #1580) built in the 12th century CE (Bautze-Picron 2003:109, Plate 131, 110, Plate 132), and the Kubyauk-gyi (Wetkyi-in) Temple (monument #298) built in the early 13th century (Bautze-Picron 2003:113, Plate 138). At the Loka-hteik-pan Temple (monument #1580) (12th century CE) (Figure 4.27), on the right side of the central Buddha shrine, Mara is depicted directing his soldiers against the Buddha. On the left side, the Buddha is depicted riding an elephant, and defeated soldiers are shown abandoning the battlefield (Figure 4.28).

Figure 4.22. Water reservoir in mural at Temple 1336 (12th century CE) (photo by the author).
Figure 4.23. River in mural at Temple 1336 (12th century CE) (photo by the author).

Figure 4.24. Lake depiction in a mural at the Sula-mani-gu-hpaya Temple (monument #748) (1183 CE) (photo by the author).
Figure 4.25. Anotatta Lake mural depicted in Temple 1148 (13th century CE) (Bautze-Picron 2003:117, Plate 142).

Figure 4.26. Buddhapada depicting lake at its center at the Let-put-kan Temple (monument #711) (1241 CE) (Bautze-Picron 2003:116, Plate 141).
Figure 4.27. Mara’s armies attack the Buddha in mural at the Loka-hteik-pan Temple (monument #1580) (12th century CE) (Bautze-Picron 2003:109, Plate 131).

Figure 4.28. Buddha on elephant defeating Mara’s soldiers in mural at Loka-hteik-pan (monument #1580) (12th century CE) (Bautze-Picron 2003:110, Plate 132).
Water Symbolism and the Depiction of Animals and Mythical Creatures

Another important depiction in the iconography of the temples of Bagan is the use of animals to convey a variety of themes, several of which are related to water. An important use of this kind of depiction is the portrayal of elephants and their ability to increase the rains. Depictions of the elephant owned by the mythical Prince Vessantara, believed to increase rains, are found in several terracotta plaques from the Ananda-gu-hpaya-gyi Temple (monument #2171) (1105 CE) depicted in the photographic plates of Blagden and Duroiselle (1960:131, Plate 273-275, 133, Plate 276-278). These depictions illustrate the Vessantara-Jataka (#547) (Cowell and Rouse 1907:246-305). Of great relevance to this study is the depiction of a libation ritual in which Prince Vessantara pours water on the ground to ratify his gift after agreeing to give his elephant to the Brahmins from Kalinga. This terracotta plaque illustrates the moment in which Prince Vessantara holds the trunk of the elephant and pours water over the ground (Duroiselle 1962:133, Plate 277; see Figure 4.29). Also associated with elephants and rains is the Kakkata-Jataka (#267) (Rouse 1895:233-235), depicted on a plaque in the West Hpet-leik Temple (monument #1031) (11th century CE) (Figure 4.30), in which the claw of a crab defeated by the Buddha, reborn as an elephant, is used as a drum by Sakka to call upon rain (Francis and Thomas 1916:211-267).
Figure 4.29. Vessantara ratified the white elephant gift in Vessantara-Jataka (#547) (Duroiselle 1962:133, Plate 277).

Figure 4.30. Terracotta plaque of Kakkata-Jataka (#267) at the West Hpet-leik Temple (monument #1031) (11th century CE) (photo by the author).
Another creature that has been heavily associated with water in Bagan is the ogress. According to Pyiet Phyo Kyaw (2018:63-64), the ogre motif, also known as kirttimukha, is occasionally depicted carrying female deities and might be associated with concepts of time and fertility. The important role as a guardian of water reservoirs and protector of the life-giving qualities of freshwater possessed by this female creature is a common theme across Southeast Asia (Andaya 2016:246). The association between water and ogresses, and their perception as protectors, is largely the result of the role that has been attached to these creatures in the Jataka tales, some of which have been depicted in terracotta plaques (Rao 2011:1:40-41). In Jataka tales, the ogresses, also called bhilu, are often depicted as guardians of bodies of water who frequently deceive others. They are capable of disguising themselves as any individual, often to fulfill malignant purposes. Nonetheless, ogres and ogresses are also seen as capable of becoming followers of Buddhism who abandon evil after witnessing the teachings of the Buddha (Robert 1895:26). Important depictions of ogresses in Jataka tales include the Devadhamma-Jataka (#6) (Robert 1895:23-26), the Nalapana-Jataka (#20) (Robert 1895:54-56), the Tayodhamma-Jataka (#58) (Robert 1895:144-146), and the Maha-Ummagga-Jataka (#546) (Cowell and Rouse 1907:156-245). In these stories, the ogress often asks individuals to solve difficult obstacles in an attempt to eat them. One of these stories, the Nalapana-Jataka (#20) (Robert 1895:54-56), depicted in terracotta plaques from the West Hpet-leik Temple (monument #1031) (11th century CE) (Figure 4.34), and the Dhammayazika Temple (monument #947) (1196-1198 CE) (Figure 4.35), involves an ogress who ate any creature which approached her lake. Thirsty monkeys avoided the lake, but the Buddha, reborn as a monkey, decided to stand up to the ogress (Robert 1895:55). Due to
his wisdom, and the ten perfections that he possessed, the Buddha was able to blow canes hollow, and access the water by using the canes as straws. The other monkeys were able to drink water from the lake without risking their lives. In the Devadhamma-Jataka (#6), the Buddha, who was reborn as the son of a mythical Benares king, rescued his siblings after they were kidnapped by an ogress who guarded a water reservoir. This ogress asked the Buddha to answer a difficult question to release his brothers (Robert 1985:23-27). Due to his wisdom and creativity, the Buddha was able to answer the question and convince the ogress to release the two princes that she had kidnapped. Similarly, in the Maha-Ummagga-Jataka (#546) (Cowell and Rouse 1907:156-245) an ogress turned into a woman, and claimed to be the mother of a child that she wanted to steal. As illustrated by this Jataka depiction (Duroiselle 1962:61, Plate 131), as a result of the wisdom that the Buddha possessed, reborn as Mahosadha, the king reveals who is the true mother of the child. It is interesting to note that the architects of Bagan also incorporated the ogresses’ role of protection and capacity to avert evil to the external architecture of numerous temples. Depictions of ogresses are commonly found on the walls and pillars of Buddhist temples from the Bagan period (Rao 2011:I:40) (Figures 4.31, 4.32, and 4.33).
Figure 4.31. A depiction of ogress outside the Kubyauk-nge Temple (monument #1391) (1198 CE) (photo by the author).

Figure 4.32. Ogress averting evil at the door pillars of the Kyauk-ku-umin Temple (monument #154) (12th century CE) (photo by the author).
Figure 4.33. Ogress depiction on the exterior of the Maha-bodhi-hpaya Temple (monument #1670) (13th century CE) (photo by the author).

Figure 4.34. Terracotta plaque of ogress and monkeys at the reservoir from Nalapana-Jataka (#20) at the West Hpet-leik Temple (monument #1031) (11th century CE) (photo by the author).
Another creature associated with water which is often found in the imagery of Bagan is the *makara*, a mythical sea monster depicted in India as early as 350 BC (Robins and Bussabarger 1970:38). It has been stated that this creature resembles a species found in the Indian Ocean, *Crocodilus porosis* (Robins and Bussabarger 1970:38). This mythological creature possesses parts from different animals, including a crocodile, a lion, the scales of a fish, and occasionally the trunk of an elephant. Different body parts tend to be emphasized within different depictions (Robins and Bussabarger 1970:39-41). The role of *makaras*, as illustrated through the architecture of Bagan, greatly resembles that of ogresses. They inhabit the waters and are often depicted as protectors (Rao 2011:1:39). Their crocodile-like features, often incorporated into the architecture of Bagan (Figure 4.36), are meant to convey tenacity and power. Carvings of them are found on top of the main entrances and on top of the windows of numerous
Buddhist temples. Possible *makara* depictions are also found in temple murals. However, it is difficult to ascertain whether the creature depicted is, in fact, a *makara* due to the state of preservation of many murals.

It is interesting to note that the depiction of a crocodile resembling a *makara* was also found on the northwest corner of the Nat Yekan water tank located on top of the Tuyin mountain range in Bagan (Iannone et al. 2019a:22). This creature is carved on the northwest corner near the floor of the water tank (Figure 4.37). Two possible identifications of *makaras* have also been found in a mural from the Ka-ma-kyayang-u- hpaya Temple (#2003) (18th century CE) (Figure 4.38), and in one from the Ant-kyaw-swa (#101) (18th century CE) (Figure 4.39). In both instances, the ocean creatures are located in the lower half of the painting. Both of these depictions involve shipwrecks in which the passengers are depicted in praying positions. In both instances, sailors are depicted on their knees while looking up at the sky. It is interesting to note that, according to Spiro (1970:264-265), the recitation of an ancient text named “the perfect Buddha” is believed to save sailors from shipwrecks. It has been suggested by some authors that *makaras* are used to convey the fear and sorrow that is brought with the unwelcoming possibilities, and antagonistic qualities, of water, and the creatures which lurk in the waters (Darian 1976:30-34). It is possible that the mythical *makara* creatures depicted in both murals are seen as being responsible for the shipwreck. These depictions might consequently illustrate the need to possess a good morality to avoid the misfortunes of the ocean.
Figure 4.36. *Makara* at the top of a window at the Naga-yon-hpaya Temple (monument #1192) (late 11th century CE) (photo by the author).

Figure 4.37. *Makara* carved on the northwest corner of the Nat Yekan water tank (Iannone et al. 2019a:30, Figure 38).
Figure 4.38. Shipwreck depiction at the Ka-ma-kyang-u-hpaya Temple (#2003) (18th century CE) (photo by the author).

Figure 4.39. Shipwreck depiction at the Ant-kyaw-swa (#101) (18th century CE) (photo by the author).
The idea that the misfortunes of the ocean can be avoided by those who possess a good morality is also illustrated in the Suparaka-Jataka (#463) (Rouse 1901:86-90) depicted in a terracotta plaque from the West Hpet-leik Temple (monument #1031) (11th century CE) (Figure 4.40). In this Jataka, the Buddha, reborn as a blind man, was asked to sail a ship due to his great qualities as a captain. After sailing for several months, the crew encountered different mythical oceans. The sailors went through the Khuramala Sea, an ocean made of diamonds in which fish with the body of men with sharp snouts swam around. Then, they encountered the Agimala Sea made of gold, and the Dadhimala Sea made of silver (Rouse 1901:86-89). After passing through other seas, a great storm arose. The blind captain asked his crew to bathe him in scented water. He then stood at the front of the ship and stated that he would save his crew by performing an “act of truth”. The blind man directed his speech to the sky and spoke about his great morality and the fact that he had never taken a life (Rouse 1901:90). He asked for assistance from supernatural deities to help save his ship from destruction. A supernatural entity witnessed this act and saved the crew as a result of the captain’s high morality.

Another depiction of a shipwreck is illustrated in a terracotta plaque at the West Hpet-leik Temple (monument #1031) (11th century CE) (Pyiet Phyo Kyaw 2017:11) (Figure 4.41). In this story, the Mahajanaka-Jataka (#539) (Cowell and Rouse 1907:19-38), the Buddha was reborn as the son of a Queen who had to run into hiding after the king was killed. The prince, having found out his origin and right to the throne, decided to embark on trade to gather enough funds to claim back his kingdom (Cowell and Rouse 1907:20). Once in the ocean, a violent storm destroyed the ship and the crew, except for the prince, was eaten by ocean creatures (Cowell and Rouse 1907:22). The deity
Manimekhala stated in her heavenly realms that those who possess the virtues, such as those of the prince, and respect their mothers like him, should not perish in the ocean. After having survived by holding on to a mast, the goddess saved the prince (Cowell and Rouse 1907:23).

It is interesting to note that the belief that good morality and adequate propitiation could help sailors prevent harm from evil forces, and be of assistance in calling supernatural deities for protection in case of misfortunes faced when sailing, is also depicted in *The Glass Palace Chronicle* (Pe Maung Tin and Luce 1923:83-84, 90, 115). The chronicles indicate that, to prevent his crew from being harmed by *nats*, the spirits of men who suffered unjust deaths by the crown, King Anawrahta (r. 1044-1077 CE) asked for the construction of a place of spirit worship at the Hsutaung-pyi Temple (monument #1319) (13th century CE) (Pe Maung Tin and Luce 1923:84).

![Image](image_url)

**Figure 4.40.** The Buddha reborn as the blind sailor and his crew from Suparaka-Jataka (#463) at the West Hpet-leik Temple (monument #1031) (11th century CE) (photo by the author).
Lastly, another iconographic element relevant to the understanding of water symbolism are nagas. As previously mentioned, these creatures are frequently associated with water, fertility, and the capacity to influence the forces of nature (Bloss 1973:37). It is interesting to note that numerous Jataka tales, such as the Samkhapala-Jataka (#524) (Cowell and Rouse 1907:84-91), the Bhuridatta-Jataka (#543) (Cowell and Rouse 1907:80-114), and the Vidhurapandita-Jataka (#545) (Cowell and Rouse 1907:126-156) indicate the close relationship and alliances that existed between nagas, the Buddha, and members of the royalty (Bloss 1973:37-42). However, one of the only naga depictions that are found in Bagan is in the Naga-yon-hpaya Temple (monument #1192) (Figure 4.42), sponsored by King Kyansittha in the late 11th century.

**Animal Carvings at the Nat Yekan Water Tank.** Two additional naga depictions in Bagan include carvings found inside the rock-cut reservoir known as the Nat Yekan water tank which is located on the northern region of the Tuyin-Thetsoe mountain range (Iannone et al. 2019a:7). The construction of this water tank, which was used as a
sandstone slab quarry (Iannone et al. 2019c:10; Pe Maung Tin and Luce 1923:109) to build the Shwe-zigon Pagoda, likely dates between the late 11th century and the early 12th century (Iannone et al. 2019a:14). Its construction coincides with the reign of King Kyansittha (r. 1084-1112 CE) (Iannone et al. 2019a:17). The carved animal depictions on the walls of the tank (Iannone et al. 2019a:22) include a naga and two hamsa birds on the east wall (Figure 4.43), a water lizard on the southwest corner (Figure 4.44), a makara and a naga-Buddha image (Figure 4.45) on the northwest corner, and two fish on the south wall (Figure 4.46). In addition to these animal depictions, carvings of a water labyrinth and three sets of stairs, two on the east wall and one in the northwestern corner, were found inside the Nat Yekan water tank. The naga-Buddha depiction located on the northwest corner of the tank illustrates the meditation of the Buddha by the Nagaraja lake (Iannone et al. 2019a:22; Marcus 1965:187) soon after he attained enlightenment (Galloway 2006:287; Maung Mya 1914:219-224). The Naga King, to allow him to continue his meditation, protected the Buddha from a torrential storm by spreading his hoods over him (Bloss 1978:169). The carvings at the Nat Yekan have been associated with notions of purity, fertility, and protection. Given the role of water as a vehicle that transported powerful properties, it is possible that the powers associated with the Buddha were also believed to be transferred into water through carvings. The modification of the spillway may be an indication that powerful properties were infused into the water, by the naga-Buddha depiction, as it flowed across the carving and exited the reservoir. The significance of this carving will be discussed in detail in the following chapter.

It is interesting to note that the prominent depiction of bird carvings inside the Nat Yekan might be associated with King Kyansittha’s love for winged creatures (Luce and
Ba Shin 1969:57). The Shwe-hsan-daw inscription (1112-1248 CE) indicates that Kyansittha (r. 1084-1112 CE) believed that the power of loving-kindness attracted and maintained the birds on the roof and in the vicinity of his palace (Blagden and Duroiselle 1960:167). This idea is reflected in the Suvannahamsa-Jataka (#136) (Robert 1895:292-294). Kyansittha (r. 1084-1112 CE) called these birds “Dharma Birds” (Luce and Ba Shin 1969:64).

**Figure 4.42.** Naga depiction at the Naga-yon-hpaya Temple (monument #1192) (late 11th century CE) (photo by the author).

**Figure 4.43.** Naga and hamsa birds’ carvings on the west wall of the Nat Yekan water tank (photos by Gyles Iannone).
Figure 4.44. Water lizard carving on the southwest corner of the Nat Yekan water tank (photo by the author).

Figure 4.45. Naga-Buddha carved on the northwestern corner of the Nat Yekan water tank (photo by Gyles Iannone).
The Water Labyrinth

Most of the carvings found inside the Nat Yekan water tank depict animals, such as birds, *nagas*, fish, and a crocodile. However, the most intriguing of these carvings is a large labyrinth depicted on the western wall of the tank (Figure 4.47). It is interesting to note that the depiction of this labyrinth is also found inside the Le-myet-hna-hpaya Temple (monument #447) built in 1223 CE. The presence of water waves throughout the painting indicate that water is a central component of the labyrinth, and likely, to its meaning (Figure 4.48). According to Iannone et al. (2019a:22), the carved labyrinth at the Nat Yekan might represent the tank “with a thousand bends in the bank, and a hundred bathing ghats” that Mahosadha sponsored as stated in the Maha-Ummagga-Jataka (#546) (Cowell and Rouse 1907:159). Labyrinths have also been associated with concepts, such as impenetrable protection, and the custody of individuals who possess important qualities, including wisdom, purity, and morality (Brooke 1953:463-467). Inside the water tank, the carved labyrinth has a round depression close to its center, similar to a
depression at the center of the actual water tank (Iannone et al. 2019a:22). In the water tank, this central shaft is meant to hold a long pole that can help individuals assess the water levels of the tank at different times throughout the year (Iannone et al. 2019a:19) (Figure 4.49). In addition to measuring water levels, this central pillar possessed important symbolic purposes. As seen in the reservoirs of nearby villages, such central pillars are topped with carvings of lotus buds (Iannone et al. 2019a:19). These carvings are symbolic of the connection between these poles and notions of purity and fertility (Iannone et al. 2019a:19), and are associated with the lotus’ ability to remain pure and blossom up “through the mud and the water” (Ward 1952:137). The significance of this concept will be discussed in the following chapter.

Figure 4.47. Labyrinth carving on the west wall of the Nat Yekan water tank (photo by the author).
Figure 4.48. Labyrinth depicted at the Le-myet-hna-hpaya Temple (monument #447) (photo by the author).

Figure 4.49. Central depression temporarily marked by a bamboo pole at the center of the Nat Yekan water tank (photo by the author).
Lotus Depictions

An important element which can be identified in the murals of the Bagan temples is the extensive use of floral decorations, in particular, lotus flowers. The connection between the lotus and water can be attributed to the origins of the universe during which, out of the cosmic waters, Vishnu was created. From his navel, a lotus gave birth to Brahma (Snodgrass 2018:204). Similarly, when the Buddha was conceived, out of the cosmic waters, a lotus grew up to the heaven of Brahma (Snodgrass 2018:205). The lotus has been associated with numerous aspects of the Buddha, including the wisdom that allowed him to achieve Nirvana, and the life force associated with his birth (Ward 1952:144-146). It is said that when he was a child, a lotus flower bloomed in the seven places where he touched the earth for the first time (Ward 1952:140). The lotus flower was also associated with properties of purity, likely the result of its self-cleaning properties (Koch and Barthlott 2009:1487). This flower symbolizes spiritual purity, fertility, and heavenly realities (Rao 2011:1:147).

It is interesting to note that a clear association exists between the depiction of the lotus flower and the portrayal of royal power. In a document known as “The Questions of King Milinda,” a Buddhist text which records the dialogue between a king and a Buddhist sage, the sage states:

“Just, O King, as the lotus, though it is born in the water, and grows up in the water, yet, remains undefiled by the water (for no water adheres to it); just so, O King, should the strenuous Bhikshu, earnest in effort, remain undefiled by the support that he receives, or by the following of disciplines that he obtains, or by fame, or by honor, or by veneration, or by the abundance of the requisites that he enjoys. This, O King, is the first of the qualities of the lotus that he ought to have” (Rhys-Davids 1890:115).
This text emphasizes the need for the king to possess the qualities of the lotus, such as remaining distanced from worldly things (Ward 1952:138). This text reflects, as do numerous inscriptions from the Bagan period, that the king was expected to be capable of exercising qualities such as self-control. The lotus flower was the ideal analogy for the desirable state of a king, a state which would allow him to achieve the wisdom of enlightenment (Ward 1952:137-138). A crucial component of this ideal state was purity, and the capacity of a royal member to maintain such a state through piety as a result of the association that existed between the king and the Buddha (Aung-Thwin 1985:48).

A common way to depict lotuses in temple murals is in the form of medallions, and within the dress print patterns of certain royal figures (Bautze-Picron 2015:102). Lotus medallions (Figure 4.50) often formed diamond-shaped figures that covered the walls and ceiling spaces in numerous temples and pagodas, such as the Ant-kyaw-swa (#101) (18th century CE) (Figure 4.51). Additionally, lotuses are often found as backgrounds to the portrait of a central shrine (Bautze-Picron 2003:149) as seen in the Loka-hteik-pan Temple (monument #1580) (12th century CE). Medallions are also occasionally found in the external architecture of some temples, such as the Kyauk-ku-umin Temple (monument #154) built in the 12th century CE (Figure 4.52). Decorative frames and bands made of lotus flowers are sometimes found on the edges of the windows of some temples, such as the Abe-ya-dana-hpaya (monument #1202) (late 11th century CE). It has been suggested (Bautze-Picron 2003:148) that in some circumstances, these bands may have been used to identify a particular space as a lotus pond (Figure 4.53 and Figure 4.54).
The iconography of the Bagan period indicates that three major ritual performances, such as the *abhiseka* coronation, the pouring of water after a donation, and the bathing and sprinkling of individuals were frequently performed by the royalty. These rituals were meant to purify and show respect to individuals, call upon supernatural entities to witness the king’s ascension to the throne, and purify and ratify donations. The iconography also reflects that the painters and architects of the Bagan period incorporated numerous water-related elements into the temples, including ogresses and *makaras* as protectors of sacred spaces, elephants and lotuses as reflections of the powers of the Buddha, and *nagas* as the carriers of the forces of nature. These iconographic elements communicate the importance of creating an analogy between the properties attached to water, possessed by the Buddha, such as purity and creative power, and those attached to the royalty, and the temples that they sponsored.

*Figure 4.50.* Lotus medallions in the ceiling at Temple 1336 (12th century CE) (photo by the author).
**Figure 4.51.** Lotuses covering the ceiling at the Ant-kyaw-swa (#101) (18th century CE) (photo by the author).

**Figure 4.52.** Decorative lotus medallions at the Kyauk-ku-umin Temple (monument #154) (12th century CE) (photo by the author).

**Figure 4.53.** Decorative frames of lotuses at the Sula-mani-gu-hpaya Temple (monument #748) (1183 CE) (photo by the author).

**Figure 4.54.** Decorative bands of lotuses at the Sula-mani-gu-hpaya Temple (monument #748) (1183 CE) (photo by the author).
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<td>-</td>
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<tr>
<td>bathing**)</td>
<td></td>
<td>173, Plate 382 and Plate 383)</td>
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<td>**Pouring water to</td>
<td>-</td>
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<td>ratify a gift</td>
<td></td>
<td>Ducoselle (1962:144, Plate 302, 159, Plate 341, 167, Plate 364, 133,</td>
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<td>Ducoselle (1960:131, Plate 273-275, 133, Plate 276-278), and terracotta</td>
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**Table 4.2.** Summary of iconographic findings (part 1).
<table>
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<tr>
<th>Ritual</th>
<th>Depiction</th>
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<tr>
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<td>-</td>
<td>The naga</td>
<td>Altar depiction at the Naga-yan-bpaya Temple (monument #1192) and carving at the Nat Yekan water tank.</td>
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<tr>
<td>-</td>
<td>The naga-Buddha</td>
<td>Carving at the Nat Yekan water tank.</td>
<td>-</td>
<td>Protection provided by the mythological naga to the Buddha as a result of the unique alliance and close relationship that existed between them.</td>
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<tr>
<td>-</td>
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<td>Carving at the Nat Yekan water tank.</td>
<td>Savannahrmsa-Jataka (#136)</td>
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<td>-</td>
<td>The lotus</td>
<td>Ceiling painting at the Aphogyi Phayar Pagoda and Temple 1336, decorative frames and bands at the Sula-man-gu-bpaya Temple (monument #748), and the external architecture of the Kynul-ka-umin Temple (monument #154).</td>
<td>-</td>
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<td>-</td>
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</table>

Table 4.2. Summary of iconographic findings (part 2).
ARCHAEOLOGICAL FINDINGS FROM THE NAT YEKAN WATER TANK

The Nat Yekan water tank is located on the northern section of the Tuyin mountain range. The findings of the hydrological modelling that was conducted by the IRAW@Bagan Project at the Nat Yekan reservoir during the 2018 field season indicate that this tank was of crucial importance in the collection and redistribution of water across the plain of Bagan from the 11th to the 13th century (Iannone et al. 2019a:29). Findings indicate that the Nat Yekan water tank was used as a sandstone slab quarry (Iannone et al. 2019a:10; Pe Maung Tin and Luce 1923:109) to build the Shwe-zigon Pagoda during the reign of King Kyansittha (r. 1084-1112 CE). This quarry was transformed into a water tank likely during the late 11th to the early 12th century (Iannone et al. 2019a:14). Excavations conducted above the naga-Buddha depiction, on the northwest corner of Nat Yekan (Iannone et al. 2019a:13, 28), indicate that the natural bedrock was culturally altered to create a chokepoint above the spillway of the tank. The sandstone bedrock in this corner of the water tank, which was symmetrically cut down by approximately 1 m, was modified in order to align the flow of water with the carved naga-Buddha depiction. This alteration was likely an attempt to redirect the water flow to pass over the naga-Buddha depiction as it exited the water tank.

As previously mentioned, the discovery of a round hole (20 cm in diameter) that was carved at the center of the reservoir and one half of a stone pillar base, which likely held a pole used to measure water levels (Iannone et al. 2019a:19), has been associated with notions of purity and fertility (Ward 1952:138).
It is interesting to note that several iconographic and functional elements within the Nat Yekan tank are symmetrically aligned. These elements include the lower section of the reservoir’s rock-cut enclosure wall, the stairway located on the northwest wall, the altar located inside the tank, the carved naga-Buddha, and the spillway of the tank (Iannone et al. 2019a:24). This has led Iannone et al. (2019a:24-25) to suggest that the northwest corner of the tank functioned as a rock-cut spillway which directed water across the naga-Buddha image as it exited the water tank into the Mya Kan Reservoir situated at the base of Mount Tuyin. It is possible that the purpose of this flow pattern was to sanctify the water as it flowed out of the reservoir (Iannone et al. 2019a:24, 31). This blessing may have been aimed at increasing the powers of purity, fertility, and prosperity believed to be transported in the water collected in this water tank (Iannone et al. 2019a:24, 26, 29). These findings highlight the important symbolic role that the carved imagery inside the Nat Yekan water tank, a crucial node of collection and redistribution of water for the city, served during the Bagan period (Iannone et al. 2019a:29).

CONCLUSIONS

The ethnoarchaeological data presented in this chapter indicates that water in contemporary Bagan is used to purify, pay homage, call upon supernatural entities, and protect individuals from harm and illness. Through the analysis of epigraphic and iconographic data, it was possible to identify the crucial role that water had in ancient Bagan as part of the summoning of supernatural entities to validate the coronation of the
king. Similarly, the inscriptions highlight the use of the properties of water to describe the abilities and legitimacy of the king, as well as the importance given to the relationship that existed between the king, elephants, and nagas. Lastly, the iconographic and archaeological data from the Nat Yekan water tank provide insights into the role that water-related carvings, conveying concepts of purity, fertility, and protection, had in increasing the valuable properties that could be transported by the water that was distributed across the Bagan plain once it exited the sacred Nat Yekan reservoir.
CHAPTER 5: ANALYSIS

The purpose of this chapter is to analyze the data that is used to address the four major research questions that this study seeks to answer:

A. What was the religious and symbolic meaning that the elite of ancient Bagan attached to water?

B. In which ways was this religious and symbolic meaning appropriated and disseminated by the royalty at Bagan?

C. What is the relationship that exists between the ethnoarchaeological data from contemporary Bagan and the epigraphic data from ancient Bagan?

D. How can the findings of this research assist in the identification and interpretation of water ritualization practices encountered by future archaeological research?

WHAT WAS THE RELIGIOUS AND SYMBOLIC MEANING THAT THE ELITE OF ANCIENT BAGAN ATTACHED TO WATER?

As stated in Chapter 3, the interpretation of water ritual performances in this study is understood as the enactment of underlying beliefs by its participants (Bell 1992:47-48). This approach enables the identification of the roles that were attached to water, and the ways in which ritual performances were appropriated and utilized by royals at Bagan to fulfill their own interests.
The Water Pouring Ritual

An important water ritual identified in the epigraphic and iconographic data is the pouring of water on the ground. This act was performed when an individual provided a gift or a donation to the sangha or to another individual. In ancient Bagan, this ritual performance had multiple purposes, including to make sacred that which was considered mundane, including donations and individuals. Through this act of consecration, the donor aimed to protect a donation against a number of harms. As part of this protection, an individual often chose to share the merit earned through the donation with those who protected and valued the offering, and warn about the severe consequences that could result from harming the donation (Taw Sein Ko and Forchhammer 1899:28, 50, 85). The act of pouring water on the ground was also performed to call upon the Earth Deity to witness the performance of a donation. Epigraphic data indicates that, even though these purposes were frequently intertwined, each of them had clear consequences that were independent from one another.

Water Pouring to Consecrate a Gift. The act of pouring sanctified water believed to have supernatural properties, infused into it through the recitation of prayers, allowed an object to become purified and sacred. In this manner, a donation that had been transformed from a mundane object to a sacred one was now worthy of belonging to the sacred sangha, the Buddha, or an animist supernatural deity. Consequently, the water used to consecrate a donation was sometimes referred to as “water of dedication” (Taw Sein Ko and Forchhammer 1899:56-57, 67, 85-86). An example of this purpose can be seen during the performance of the house building ceremony (Duroiselle 1923:50).
During this performance, the act of pouring water that had been blessed through the *paritta* recitations over mundane objects, such as gold, silver, and copper leaves, turned these items into sacred gifts worthy of being dedicated to the *naga* guardian of territories. The pouring of water with the purpose of consecrating objects, and occasionally individuals, is prominently stated in the inscriptions. It is frequently stated that the donors of an offering pour water as they indicate their wish to dedicate their gifts to the Three Gems, the *sangha*, the Buddha, and his teachings (Taw Sein Ko and Duroiselle 1919:25; Taw Sein Ko and Forchchammer 1899:4, 54-55, 71). Because a donation was often made by individuals with the goal of increasing their merit, it is likely that once the donation was consecrated, the offering was seen to belong to the earthly *sangha*, as well as the sacred Buddhist cosmology.

*Water Pouring to Protect a Gift From Harm.* Given that the purpose of pouring water over a gift was to make it sacred, one of the ramifications of making a donation sacred was to protect it from the harm of the mundane. In the inscriptions which record donations from the Bagan period, it is often stated that after the performer pours out the water on the ground, the consequences faced by those who fail to respect the donations are severe. Statements, such as “those who destroy the offerings should burn in the innermost hell” (Taw Sein Ko and Forchchammer 1899:3-4), and “May those who destroy our offerings live short and ignominious lives and fail to behold any of the coming Buddhas” (Taw Sein Ko and Forchchammer 1899:84), are frequently made. The positive consequences of supporting the sacred donations which belong to the Three Gems include being able to share the merit gained with others and assisting them in achieving Nirvana (Taw Sein Ko and Forchchammer 1899:49-51).
Water Pouring to Gain and Share Merit. Gaining merit was one of the greatest concerns of Buddhist devotees because it is believed that merit assures an individual a better rebirth in their future lives (Aung-Thwin 1985:169). The desire to earn merit encouraged individuals to frequently donate resources for the construction of temples, pagodas, monasteries, paddy lands, water tanks, and slaves (Aung-Thwin 1985:169). The royalty, in particular, was expected to donate in greater amounts and to share their merit with those who lacked the economic resources to do so. Sharing the merit earned through a donation, which was a good deed in itself allowed the merit earned through a donation to be multiplied. The performance of a libation ritual with the goal of sharing merit enabled individuals to express the reward which they sought to gain through such merit. These rewards often consisted of being able to behold a future Buddha or inhabit heavenly realms, as devas or nats which were believed to enjoy many pleasures, before achieving Nirvana (Taw Sein Ko and Forchchammer 1899:117, 120, 126-127, 131).

Water Pouring to Consecrate Kings. In addition to consecrating donations, water pouring was also performed to consecrate individuals, such as kings. Because the ascension to the throne by a king resembled the moment in which the Buddha attained enlightenment (Aung-Thwin 1985:51, 1987:95), pouring water during this important moment was aimed at accomplishing two goals. First, this ritual turned the king into a sacred entity who was expected to reflect, through deeds and actions, the qualities of the Buddha, such as wisdom and purity. Second, it called upon supernatural entities to witness, sponsor, and legitimate the new status of the king. The pouring of water to consecrate kings is prominently seen in three terracotta plaques from the Ananda-guhpaya-gyi Temple (monument #2171) (1105 CE) (Duroiselle 1962:25, Plate 47, 97, Plate
206, 103, Plate 217, 105, Plate 221). The depictions in this temple, built during the early 12th century, include events narrated in the Maha-Ummagga-Jataka (#546) (Cowell and Rouse 1907:156-245) and the Vessantara-Jataka (#547) (Cowell and Rouse 1907:246-305). It has been indicated that other members of the elite, such as the heir of the king and four chief ministers, were also consecrated during such events (Aung-Thwin 1985:50).

During the abhiseka consecration, water gathered from a number of important rivers in the region was sanctified and placed in the center of a plaque that had the engravings of twelve designs considered to be auspicious (Aung-Thwin 1985:49-50, 1987:95). This water was utilized to bathe the king and purify the palace (Dumarcay 1991:19-20). By transforming the king from a mundane into a sacred entity, the pouring of water enabled the king to become the receptacle of the sacred deity, Sakka (Aung-Thwin 1985:50). This subject is discussed in more detail in the following section.

As depicted in terracotta plaques at the Ananda-gu-hpaya-gyi Temple (monument #2171) (1105 CE), an important element that was used by Brahmins during the consecration of a king was a right-voluted conch shell (Duroiselle 1962:25, Plate 47, 27, Plate 105, 97, Plate 206). Due to the rarity of this species, which are native to the coasts of India, the turbinella pyrum conch shell was highly valued and considered sacred (Hornell 1942:113). The right-voluted conch shell was also used for the anointment of kings in India (Hornell 1942:114-115), and occasionally used as a trumpet to scare away evil spirits (Rao 1985:3). Within the Buddhist ideology, the sound of the trumpet became a representation of the teachings of the Buddha (Beer 2003:171).
Conch shells were also an important component of the water rituals performed during the *paritta* recitation of the house building ceremony (Duroiselle 1923:3). In India, conch shells and five metals were buried before erecting a house to increase the good luck of the household members (Hornell 1942:116-117). Given the similar symbolic meanings associated with these conch shells in Hindu and Buddhist contexts, and the similarity of the settings in which they were performed, it is possible that conch shells were also buried and used as offerings in ancient Bagan. Due to the fact that conch shells symbolized the protective powers of the speech of the Buddha, it is possible that the pouring of water, using a conch shell, in addition to allowing the king to become sacred and to embody the Sakka deity, was also aimed at providing the king with the protection of the power of the Buddha against evil forces.

*Water Pouring to Call Upon Supernatural Entities and Ratify a Gift.* In addition to consecrating a gift, the act of pouring water enabled an individual to request the presence of supernatural entities who could ratify the donation (Duroiselle 1962:133, Plate 277, 145, Plate 302, 159, Plate 341, 167, Plate 364). It was believed that supernatural entities would witness the good deed that the offering of a donor represented, and in turn, provide the donor with the benefits of this act, such as merit (Shway Yoe 1896:588). This idea is likely connected to a story in the life of the Buddha in which the Buddha called upon the Earth Goddess, Vasundari, to drown Mara’s armies in the water that he had poured as part of good deeds from his past lives (Galloway 2006:279; Maung Mya 1914:219-224).

The desire to call upon the Earth is often expressed by donors throughout the donation inscriptions of the Bagan period (Duroiselle 1923:70; Taw Sein Ko and
Duroiselle 1919:52; Taw Sein Ko and Forchchammer 1899:88). An inscription from 1242 CE indicates the “the guardian Nat of the earth was called upon to witness the act” (Taw Sein Ko and Forchchammer 1899:88-89). Similarly, an inscription from 1248 CE indicates that a donation made by the minister of King Narapatisithu (r. 1173-1210 CE) caused rain and an earthquake: “There was a heavy shower of rain at the time and there was also an earthquake accompanied by rumbling sounds” (Taw Sein Ko and Forchchammer 1899:114-115). The rumbling of the earth, as stated in this inscription, was likely seen as an indication of the good nature of the deed that had been performed.

Ritual Washing, Bathing, and Sprinkling

Iconographic and epigraphic data indicates that ritual bathing, washing of feet, and sprinkling is performed to show respect to important individuals. It is interesting to note that it is always the Buddha, as various personages in previous lives, who is shown respect, reverence and paid homage through the bathing, sprinkling, and washing of his feet by his subordinates, including kings and supernatural deities. This is seen in numerous depictions of the Vessantara-Jataka (#547) (Cowell and Rouse 1907:246-305) from the Ananda-gu-hpaya-gyi Temple (monument #2171) (1105 CE) (Duroiselle 1962:72, Plate 156, 39, Plate 86, 44, Plate 96).

It is interesting to note that in contemporary Bagan the practice of sprinkling, washing, and bathing, was stated by interview participants to be an important component of ceremonies conducted during the New Year Water Festival. The purpose of sprinkling,
bathing, and washing in contemporary Bagan is again believed to indicate the reverence
and respect that individuals owed to their superiors.

Water to Defeat Evil and Other Dangers

The use of sanctified water to defeat evil and a number of dangers is perhaps one
of the most prominent roles that have been attached to water in contemporary Bagan. As
seen in the previous chapter, through the recitation of Buddhist *paritta* protection prayers,
water can be used to keep evil spirits at bay. The Buddhist doctrine dictates that karma is
responsible for all types of misfortune, including sickness. However, as stated by Spiro
(1967:3-4), the belief in spirits that are capable of harming and creating illness in
individuals who fail to propitiate them has its roots in animist systems of belief.

Ethnographic data indicates that, while animist beliefs provide the explanation for the
everyday suffering that is often left out of the Buddhist doctrine (Brac de la Perriere
2009:190-191; Nash 1963:291; Spiro 1967:4), Buddhist texts provide the protection
against misfortune and illness that is caused by such evil spirits (Spiro 1970:265).

Because sanctified water plays such an important role in the Buddhist and the
animist worlds, identifying the syncretism between these systems of belief during the
Bagan period can help to better understand the role of water in ancient Bagan. It has been
indicated that evidence for the worship of *nats* in ancient Bagan does not exist (Stadner
2013:37). However, the worship of spirits of an animist nature during the Bagan period
can be identified through a number of sources, in particular, the “Glass Palace
Chronicles” (Pe Maung Tin and Luce 1923:84-85, 97), and the Tharaba Gate inscription
The role of water in protecting individuals against evil spirits in ancient Bagan is also illustrated in the Tharaba Gate inscription (1093-1102 CE). Protective paritta prayers were recited during the performance of the house building ceremony are seen as an important component during the ceremony for the construction of a palace dedicated to Vishnu that was sponsored by King Kyansittha (r. 1084-1112 CE) (Aung-Thwin 1985:36; Duroiselle 1923:44). The recitation of paritta by the Chief Monk Arahan was meant to sanctify the water contained in numerous vessels that is used to wash and sprinkle important spaces and pillars within the palace (Duroiselle 1923:35-39). In addition to purifying the palace spaces and pillars, the water from the vessels was aimed at protecting the royal palace from a number of ailments, evil forces, and spirits (Dumarcay 1991:19-20; Duroiselle 1923:39). Further evidence indicating that these offerings were meant to propitiate animist spirits is supported by the statement that, during the construction of this palace, a full day was dedicated to the worship of “the Lord of the Great Mountain”, one of the thirty-seven nats (Maung Htin Aung 1962:112-113). Propitiation of these spirits was required because the violent or unjust death of individuals who became nats made members of the royalty worrisome of the potential dangers that such spirits could cause (Aung-Thwin 1985:32; Brac de la Perriere 2002:32; Brown 1921:89; Spiro 1967:51).

A similar use of water as a protective agent is described in the chronicles (Pe Maung Tin and Luce 1923:4-5) through the building of a palace dedicated to King Thado Jambudipa Dhajaraja of Tagaung (r. 6th century BCE). In this legendary event, a jar of jewels was placed over the central pillar as an offering during the recitation of a prayer, possibly a paritta, referred to as a “love-charm to ward off evil” (Pe Maung Tin and Luce
The examination of the Tharaba Gate inscription (1093-1102 CE) indicates that by sanctifying a donation, an individual, or a space, the agent meant to protect it from harm. These texts indicate that the role of water as a form of protection against angry or evil spirits in ancient Bagan may have been as important as in contemporary Bagan, and it was likely a crucial form of protection used to prevent harm during everyday life.

The idea that sanctified water and the good morality of an individual can result in protection from evil through the assistance of supernatural entities is likely associated with the story about the Buddha’s defeat of the demon Mara. This defeat was the result of the Buddha’s good morality (Galloway 2006:279; Maung Mya 1914:219-224). This idea is reflected in a terracotta plaque from the West Hpet-leik Temple (monument #1031) (11th century CE) illustrating the Suparaka-Jataka (#463) (Rouse 1901:86-90). After requesting his crew to bathe him with scented water, the Buddha, in an “act of truth” (Rouse 1901:90), was heard by a supernatural deity that provided him with protection from the shipwreck. Similarly, the chronicles indicate that the angry spirits of men who died unjust deaths attempted to cause misfortune to sailors (Pe Maung Tin and Luce 1923:83). However, the assistance of supernatural entities like Sakka is often provided to royal sailors, such as King Alaungsithu (r. 1111-1167 CE), as a result of their good morality (Pe Maung Tin and Luce 1923:90, 115).

**Saltwater and Freshwater Creatures**

An important distinction that is made in the iconographic depictions of Bagan is the contrasting nature between ocean or saltwater and freshwater creatures. Iconographic
analyses indicate (Andaya 2016:241-243; Lloyd-Smith and Tagliacozzo 2016:231) that water creatures associated with saltwater or sources of moving water, such as oceans, differ significantly from creatures associated with still and freshwater sources, such as lakes and man-made water reservoirs. According to Andaya (2016:241-242), the creatures associated with saltwater and oceans have often been equated with the kinds of dangerous forces and turbulent waters that create shipwrecks and might lead to death by drowning. In contrast, the nature of freshwater, in particular, that from clear, still-water sources is often associated with concepts of fertility, creativity, and the life-source for crops, vegetation, animals, and humans (Andaya 2016:244). Creatures associated with freshwater sources are frequently depicted as the protectors of a valuable resource (Andaya 2016:245). These distinctions can be clearly identified in the iconography of Bagan. In two murals depicting shipwrecks, including those located in the Ant-kyaw-swa (#101) (18th century CE), and the Ka-ma-kyaw-u-hpaya Temple (#2003) (18th century CE), ocean creatures resembling *makara* seem to lurk the waters of each of these shipwrecks. The sailors in these murals are depicted in praying positions, possibly attempting, with the use of sanctified water, to get the assistance of a deity who can help them from drowning, as reflected in the Suparaka-Jataka (#463) (Rouse 1901:86-90), and the chronicles (Pe Maung Tin and Luce 1923:83-84, 90, 115). It is possible that *makaras* in these depictions, associated with the unwelcoming possibilities that lurk in the waters (Darian 1976:30-31), were used as an illustration of the dangers associated with the oceans. The praying position of men, as depicted in these murals, highlights the importance of maintaining a high morality as a way to defeat such dangers.
Another creature that has been associated with water, freshwater in particular, is the ogress whose role within the Buddhist ideology is illustrated several Jataka tales (Robert 1895:23-26, 54-56, 144-146, 156-245). In these tales, ogresses are shapeshifters who guard water reservoirs. Before being able to drink water, individuals must come up with creative solutions to defeat the obstacles that have been imposed on them by the ogresses. Their depiction in these tales indicates that ogresses had a role as guardians of the purity and life-source represented by the freshwater of reservoirs. This is supported by their depiction as guardians in the external architecture of the Bagan temples. These tales also indicate that access to reservoir and the freshwater itself was associated with wisdom and creativity which were the virtues required to solve difficult riddles. In the Jataka tales discussed above, wisdom and creativity are virtues often possessed only by the Buddha.

**IN WHICH WAYS WAS THE RELIGIOUS AND SYMBOLIC MEANING OF WATER APPROPRIATED AND DISSEMINATED BY THE ROYALTY OF BAGAN?**

The following section is divided into four segments, each includes a discussion of a distinct element through which the elite appropriated and disseminated the religious and symbolic meaning of water in ancient Bagan. These segments include an examination of the use of water during the *abhiseka* coronation ceremony and the legitimacy that the royalty gained by the incorporation of Hindu and Brahmanic elements in the performance of water rituals, particularly rituals related to the anointment of the king. A discussion of
the way in which the qualities of the king were associated with the properties of water and the lotus flower is also incorporated in this section. The relationship that existed between water creatures, such as elephants, makaras, ogresses, and the royalty is also examined. Lastly, the connection that existed between the creation of water reservoirs and kingly legitimacy is analyzed in this section.

**Water Pouring to Consecrate the King**

The most frequent water ritual that was depicted in the iconographic and epigraphic data is the pouring of water to consecrate, protect, share merit, and call upon supernatural entities to ratify a gift or an individual. The *abhiseka*, or consecration of the king, was an important ceremony through which the symbolic meaning of water associated with the ritual pouring of water was appropriated by the elite. Depictions of the Vessantara-Jataka (#547), in the form of terracotta plaques in the Ananda-gu-hpayagy Temple (monument #2171) (1105 CE) (Duroiselle 1962:24, Plate 47, 172, Plate 382, 97, Plate 206, 103, Plate 217, 105, Plate 221), indicate that a royal consecration had to be performed before a king could officially take office. As indicated by Aung-Thwin (1985:49-50, 1987:95), the *abhiseka* ceremony was the means through which the king became a sacred receptacle capable of embodying Sakka, the king of the gods on earth. Bathing the king with sanctified water turned the king into a purified and sacred agent. Once purified, the king became a worthy sacred receptacle which could house Sakka (Aung-Thwin 1985:50). Through the pouring of water, Sakka was called upon to descend from his heavenly realm and embody the king (Aung-Thwin 1987:94-95). After this
ceremony was completed, the king attained a new status and legitimacy. The king, believed to be the earthly representation of Sakka, was now able to rule his palace or earthly Tavatimsa heaven (Aung-Thwin 1985:47-50). The use of water within such an important event allowed not only the king but also other members of the royalty, such as the queen and the heir to the throne, to transition from a mundane to a sacred role.

Interestingly, due to Burmese concepts of kingship, such as the kammaraja (Aung-Thwin 1985:62), it was believed that kings and royalty earned their position of power as a result of their numerous meritorious past deeds. The kings of Bagan were, as a result, expected to be the most meritorious individuals among their people. The concept of kammaraja, however, in addition to legitimizing the power of a king based on his good kamma, could also be used to legitimize a king who attained power in an illegitimate manner. It was believed that even if a king gained power by non-meritorious acts, such as by assassination, he could become a legitimate ruler through a divine intervention in which a deity supported the king as a ruler (Aung-Thwin 1985:63). The concept of kammaraja, as manipulated by the Burmese, could easily turn the illegitimacy of a king into legitimacy through the intervention of Sakka during the abhiseka (Aung-Thwin 1985:64). Given that the political base of Myanmar, and in Southeast Asia as a whole, was often unreliable (Winzeler et al. 1976:624), such kingly legitimacy was crucial to the attainment of power. The abhiseka and kammaraja concepts of ruler legitimacy enabled the use of water during the abhiseka coronation ceremony to become a crucial element which allowed the king to become accepted as a legitimate ruler. The chronicles provide further indication of the crucial role that the intervention of deities had within the performance of the abhiseka. The importance of the anointment ceremony is illustrated in
the chronicles which describe the coronation of King Thado Jambudipa of Tagaung (r. 6th century BCE), and the importance of the support provided to the king by supernatural entities, such as the Naga King, Brahma, and Sakka during such event (Pe Maung Tin and Luce 1923:4-5).

Hindu and Brahmanic elements were commonly incorporated into the royal court of Bagan (Aung-Thwin 1985:34; Maung Htin Aung 1962:1-4). As reflected by the Maha-Ummagga-Jataka (#546) and the Vessantara-Jataka (#547), depictions at the Ananda-guhapaya-gyi Temple (monument #2171) (1105 CE) (Duroiselle 1962:25, Plate 47, 27, Plate 105, 97, Plate 206), and the Tharaba Gate inscription (1093-1102 CE) (Duroiselle 1923:3), Brahmans were important participants in water rituals conducted by the royalty. Brahmans were holders of the sacred right-voluted conch shells and were responsible for gathering the water blessed by the paritta recitation before the construction of the royal palace, as indicated in the Tharaba Gate inscription (1093-1102 CE) (Duroiselle 1923:37-68). The incorporation and perpetuation of Hindu and Brahmanic elements in the rituals of the court life were based on the political interests of the royalty (Aung-Thwin 1985:35). These interests likely included the increase of ruler legitimacy through the use of the status associated with Hindu and Brahmanic beliefs. This idea is illustrated in the Shwe-zigon Pagoda inscription (1093 CE), which indicates that the sponsoring of the building of a palace to Narayana, or Vishnu, was performed with the goal of recreating a Tavatimsa heaven on earth for King Kyansittha to rule (Maung Htin Aung 1962:112-113). Kyansittha, who claimed to be the earthly avatar of Vishnu, as predicted by a prophecy of the Buddha (Aung-Thwin 1985:36; Blagden and Duroiselle 1960:114-115; Stargardt 1970:294), aimed at recreating Vishnu’s inhabiting place on earth as Vishnu’s
earthly counterpart. Through the construction of this important palace, Kyansittha (r. 1084-1112 CE) could solidify his claim to be the earthly Vishnu, and thus the ruler of heaven on earth (Aung-Thwin 1985:36).

It is likely that the levels of reliance on Hindu and Brahmanic elements among the royalty of Bagan differed across kings. Kyansittha, in particular, may have used Hindu and Brahmanic elements to a greater extent in order to increase the social cohesion of his reign (Stargardt 1970:307), as well as to enhance the legitimacy and status of his rule, which was particularly concerning for him due to the questionable hereditary credentials that he possessed (Luce 1966:53; Luce and Ba Shin 1969:50). The perceived need for a heavy reliance of King Kyansittha on Hindu and Brahmanic elements to justify legitimacy during his reign make him the royal actor which could benefit to a greater extent from the use of the symbolic meaning of water to reaffirm his capabilities as a ruler.

**Water and Lotus Analogies to Describe the Qualities of the King**

Another important use of the symbolic meaning of water by the royalty of Bagan is the comparison between the qualities of the king and the properties of water. The description of King Kyansittha (r. 1084-1112 CE) in the Shwe-zigon Pagoda inscription (1093 CE) depict him as the possessor of properties which resemble those of water and, as a result, make him a suitable ruler (Blagden and Duroiselle 1960:112-130). This inscription describes Kyansittha’s capacity to cleanse sin and purify the kingdom (Blagden and Duroiselle 1960:116-117). It is also stated that, as a result of his virtues, the
praises that he will receive in applause will sound like “a great storm in the middle of the night” (Blagden and Duroiselle 1960:123). Similarly, his realm “will be as wide as the ocean” (Blagden and Duroiselle 1960:116). These analogies were likely meant to increase the legitimacy of the king.

The Shwe-zigon Pagoda inscription (1093 CE) also states that an abundance of rains and crops would result as a consequence of the king’s benevolence and high morality (Blagden and Duroiselle 1960:122). As discussed in the following sections, the idea that good morality and benevolence in the form of generous donations can increase rains and prevent droughts has been depicted in the Vessantara-Jataka (#547), and an important inscription (1248 CE) found at the Itzagawna monastery (Taw Sein Ko and Forchhammer 1899:114-115). A strong charisma and personality have been seen as important components of successful Burmese kingship politics (Aung-Thwin 1985:65-67). In the case of Kyansittha (r. 1084-1112 CE), inscriptions frequently emphasize how deeply concerned he was for the well being of all creatures (Blagden and Duroiselle 1960:166). Such claims may have served to advertise Kyansittha as the possessor of desired royal qualities that assured the population of Bagan an abundance of rains and the prevention of droughts. The advertised benevolence of the king would indicate the population that large donations by Kyansittha would benefit the kingdom.

Another way in which certain royals compared their qualities with the properties of water is through an association with the lotus flower, given its connection to notions of purity, fertility, wisdom, and heavenly realities (Rao 2011:1:147). The lotus flower was believed to represent outstanding qualities that the Buddha possessed, and properties that were seen as desirable in a king. These desirable qualities included the capacity to
maintain a high morality and wisdom, and the ability to distance oneself from worldly things (Rhys-Davids 1890:115). Evidence for the association between the royalty and the depiction of the lotus flower can be identified during the coronation ceremony of the king. During this coronation, a wooden throne made from a Bodhi tree, the sacred tree where the Buddha attained enlightenment (Sorensen 2012:3), was painted with numerous lotus flowers (Aung-Thwin 1985:50). The concept of kammaraja (Aung-Thwin 1985:62-63) dictated that during his ascension, the king resembled the Buddha as the individual with the greatest morality among his people. The coronation of the king was consequently seen as a political counterpart of the Buddha’s enlightenment. The depictions of lotus flowers, which illustrate the virtues possessed by the Buddha, in the throne of the king strengthened the connection that existed between the new status of the king and the enlightenment of the Buddha; a new sacred status which both individuals obtained through their past meritorious acts (Aung-Thwin 1985:51, 1987:94-96).

Prominent lotus flower depictions across the temples of Bagan may illustrate the similarities that existed between the wisdom, purity, and life-force symbolized by the lotus flower, which were qualities also possessed by the Buddha and the royalty, and the sacredness and purity of temples, which resembled the purity and sacredness of water reservoirs. Given that the religious temples were often sponsored by members of the royalty, believed to have earned their position above others as a result of good deeds, the numerous lotus depictions may have become the way in which the presence and virtues of purity and sacredness associated with the royalty, through the depiction of lotuses, could be indirectly asserted by their sponsors.
The Relationship Between Water Creatures, Temples, and the Royalty

Evidence indicates that Bagan’s royalty had an important relationship with a number of creatures associated with water. The role of water creatures, such as ogresses, as depicted in Jataka tales, involved guarding water sources associated with purity, sacredness, and fertility. Only by solving riddles that required someone to possess virtues, such as wisdom, purity, and creativity, was an individual able to access the reservoir. It is interesting to note that temples and sanctified water shared numerous similarities including purity and the ability to avert forces of evil that the Buddha possessed. Bautze-Picron (2003:118) supports the idea that through the depiction of the Anotatta Lake, the sponsors of Temple 1148 (13th century CE), depicted an earthly microcosm which encapsulated the central sacredness symbolized by this temple. It is possible that temples, as microcosms, were seen as holders of the purity and valuable powers associated with the cosmic waters from which the Buddha first emerged. The idea that temples and water reservoirs shared numerous similarities is strengthened by the frequent depiction of ogresses in the external architecture of the Bagan temples. These creatures had an important role as guardians of reservoirs which mirrored their role as guardians of the purity and sacredness of temples. The depiction of ogresses in these temples illustrates the idea that access to the sacred and pure space which confines the Buddha, as illustrated in Jataka tales, can only be accessed through the virtues of wisdom and a high morality. Further, rather than being seen simply as the protectors of that which belonged to the Buddha, ogresses may have been seen as the protectors of the sacredness
and purity of the temples, some of which belonged to the royalty, who like the Buddha, also possessed a sacred status that resulted from their meritorious past deeds.

The relationship that existed between elephants and the royalty was frequently highlighted throughout South Asia and Southeast Asia. Due to their rarity, white elephants, in particular, were regarded as valuable and sacred (Feudge 1874:153). Some of the most important qualities associated with white elephants in the Bagan period were rains, fertility, and wisdom. These qualities are reflected in the Nidanakatha-Jataka, the introductory tale to the Jataka stories (Jayawickrama 1990:50). In this story, the elephant is said to have a very special place among animals that is similar to the unique place that the Buddha has among humans (Young 1999:23). This story highlights the idea that the king, as the Buddha’s earthly counterpart, deserved to ride the unique animal which represented the Buddha’s counterpart in the animal world. The Kakkata-Jataka (#267) and the Vessantara-Jataka (#547) also document a connection between elephants, thunder, and rains. These tales emphasize the idea that due to its unique status; the elephant possessed the morality required to increase the rains. Similarly, due to his unique morality and status, the king possessed the right to exert control over the rain and fertility that the elephant was capable of increasing. The capacity to exert control over the rains and fertility was a highly valuable trait that likely enhanced the social standing and legitimacy of the king.

Other important water creatures which developed a close relationship with royalty, as reflected in the Jataka tales and the chronicles, were nagas, mythical beings frequently associated with the earth, water, and fertility (Andaya 2016:245; Bloss 1973:49, 1978:169). This relationship often developed in the form of alliances between
kings and *nagas* (Maung Htin Aung 1962:111). *Nagas* were often seen as the protectors or guardians of territories, the Buddha, and his relics (Andaya 2016: 245; Bloss 1973:49, 1978:169), and were believed to require propitiation when the posts for a new building were dug (Galloway 2006:100; Maung Htin Aung 1962:113). Evidence for the royal propitiation of *nagas* by Kyansittha during the Bagan period is seen in the Tharaba Gate inscription (1093-1102 CE), which describes the building of the palace to Vishnu. This royal palace was sponsored by King Kyansittha (r. 1084-1112 CE) (Duroiselle 1923:56-57; Luce and Ba Shin 1969:70). This inscription indicates that these supernatural beings were worshipped through a number of offerings that included plantain decorations, flowers and altar oblations that were consecrated through the sprinkling of sanctified water (Duroiselle 1923:56-57). Given their close relationship with the royalty, the propitiation of *nagas* in ancient Bagan, in particular during the construction of the palace of King Kyansittha may have been seen as the maintenance of an important alliance that would ensure the king the protection of his territory. It is interesting to note that King Kyansittha was greatly interested in reviving and increasing the worship of the *naga* cult during his reign (Blagden and Duroiselle 1960:125; Maung Htin Aung 1962:112-113). Kyansittha (r. 1084-1112 CE) claimed to have been sheltered by a *naga* when he was hiding from his rival, King Anawrahta (r. 1044-1077 CE) (Maung Htin Aung 1962:113; Pe Maung Tin and Luce 1923:108), and he sponsored the construction of the Naga-yon- hpaya Temple (monument #1192) (late 11th century CE) to honour the location where he was sheltered by such *naga* (Maung Htin Aung 1962:113; Pe Maung Tin and Luce 1923:108).
Additional depictions of *nagas* associated with Kyansittha are found on the walls of the Nat Yekan water tank. The significance of these carvings will be discussed shortly. The interest shown by Kyansittha in maintaining a relationship with *nagas* might be an indication of the desire of this king to support his status and increase his legitimacy by promoting the idea that his relationship with *nagas* would bring crop abundance and protection to the kingdom (Blagden and Duroiselle 1960:125).

**The Construction of Water Reservoirs**

Due to the fact that the amount of resources required to invest in the construction of waterworks was substantial, the population heavily relied on the elite, especially the king, for the construction of such works. As reflected in the chronicles and inscriptions, the construction of water reservoirs, wells, canals, and dams by the royalty was seen as an indication of the benevolence and the concern for the well-being of the people possessed by the king (Blagden and Duroiselle 1960:142-143; Pe Maung Tin and Luce 1923:65, 96, 156). This perceived benevolence increased their merit and strengthened their legitimacy by supporting the idea that kings were the most meritorious individuals among their people (Aung-Thwin 1985:63-65). Due to the arid conditions of the area, adequate water management in Bagan was of great importance to the success of the crops and survival of the population. Evidence indicates that the water management system in Bagan, rather than relying on an intense modification of the landscape, was heavily reliant on the use of natural slopes, diversions, and depressions that allowed rainfall runoff to accumulate at strategic locations across the landscape (Moore et al. 2016:294-296). This idea has been
strengthened by recent hydrological modelling and archaeological findings (Iannone et al. 2019a). These findings indicate that the Nat Yekan water tank, used from the 11th century to the 13th century (Iannone et al. 2019a:14), was of primary importance in the collection and distribution of water in the region (Iannone et al. 2019a:25). Numerous iconographic elements associated with water, in particular, the water labyrinth, the naga-Buddha, and the makara may have intended to increase the properties of the rainfall water that was collected in this reservoir.

The depiction of waves in the water labyrinth inside Nat Yekan reservoir, also found in a mural from the Le-myet-hna-hpaya Temple (#447) (1223 CE), indicates that water is an important component of its meaning and might represent the tank that Mahosadha sponsored (Iannone et al. 2019a:22), as stated in the Maha-Ummagga-Jataka (#546) (Cowell and Rouse 1907:159). Given the association of labyrinths with concepts of impenetrable protection, and the custody of individuals with unique qualities, such as purity, wisdom, or great morality (Brooke 1953:463-467), this labyrinth may have been aimed at signifying the protection that an individual can gain through the possession of virtues, such as purity, wisdom, and a high morality possessed by the Buddha. It is possible that the labyrinth depicted within the water tank is meant to illustrate and permeate the water with the protection that the practice of virtues, such as wisdom, creativity, and purity can provide to an individual. Its location inside the Nat Yekan water tank could be an attempt, by the royalty, to infuse the water with protective qualities, provided by the Buddha, against misfortune and evil forces.

Another important element inside the water tank is the carved depiction of a naga-Buddha in the northwest corner of the reservoir. The naga-Buddha imagery, also
referred to as the Muchalinda-Buddha, was rarely used in ancient Bagan (Karlsson 1996:198). A possible interpretation of this image is that abiding to the law of the Buddha allowed the forces of nature and deities to be tamed (Bloss 1973:46-47). As a result of the power that the *nagas* possessed to influence the forces of nature, such as water and fertility (Bloss 1973:37), the close relationship and alliance that existed between *nagas* and kings (Bloss 1973:37-42), and the analogy that existed between the king and the Buddha (Aung-Thwin 1985:51, 1987:95), the *naga*-Buddha depiction illustrates the alliance that existed between the king and the *naga* in ancient Bagan. This depiction may represent the idea that the virtues of the Buddha or his earthly equivalent, the king, can control the forces of nature, such as rains, and fertility that are possessed by the *naga* (Bloss 1973:37). In this manner, the powers of the *naga* would be tamed and controlled by the king for the well-being of the community (Bloss 1973:40, 175), and transferred into the water that exited from this reservoir into the Bagan plain.

The findings of the excavation conducted on the northwest corner of the Nat Yekan water tank (Iannone et al. 2019a:13, 28), above the *naga*-Buddha depiction, indicate that the natural spillway of the tank was modified to align with the carved depiction, likely as an attempt to redirect the flow of water to pass over the *naga*-Buddha depiction as it exited the water tank. Rituals such as the house building ceremony indicate that valuable properties of protection and purity, the powers of the Buddha, can be infused into water through *paritta* recitations. It is possible that these powers were also believed to be transferred into water through carvings. The modification of the spillway may be an indication that the properties infused into water by the depiction were significant.
The construction of the Nat Yekan likely coincides with the construction of the Mya Kan reservoir during the reign of King Kyansittha (r. 1084-1112 CE) (Iannone et al. 2019a:7). Multiple elements in the tank, such as the water-related carvings (Iannone et al. 2019b:172-199), the modification of the spillway that redirected the water flow across the naga-Buddha image (Iannone et al. 2019a:24), the symbolic meaning associated with the water lily pillar (Iannone et al. 2019a:19), and the fact that this reservoir represented a crucial collection and distribution node that supplied water across the Bagan plain (Iannone et al. 2019a:25, 29), indicate that, through his participation in the construction of the Nat Yekan water reservoir, Kyansittha may have sought to claim control over the increased powerful properties, such as purity, fertility, and prosperity possessed by the water supply of this reservoir, and further legitimize his position by claiming control over the ability to benefit the population with great crop abundance and increased well-being (Iannone et al. 2019a:31).

**Use of Water Symbolism for Ruler Legitimacy and Social Cohesion**

It has been stated in this thesis that the symbolic and religious meaning attached to water was appropriated by the royalty of Bagan to fulfill their own interests. During the Bagan period, climatic changes associated with the Medieval Climate Anomaly which lasted from 900 to 1300 CE, and resulted in increased rains, shorter dry seasons, and an even annual distribution of rainfall (Lieberman and Buckley 2012:1064-1065), would have allowed the royalty of Bagan to successfully employ water rituals and water symbolism to claim an ability to increase rains as a result of their legitimacy as rulers.
After the end of the Medieval Climate Anomaly, increased droughts would have likely discouraged rulers from employing water symbolism to claim to possess the ability to cause rainfall. In the case of Kyansittha (r. 1084-1112 CE), given his questionable credentials to the throne, the appropriation of water symbolism through a number of rituals, analogies, and relationships with water-related creatures likely provided, to some extent, the legitimacy that he required. Kyansittha may have benefitted from the climatic changes that took place during his reign. Increased rainfall would have been likely attributed by the population to his legitimacy as a ruler. Aung-Thwin (1985:24), Stargardt (1970:307), and Luce and Ba Shin (1969:72) have argued that the religious tolerance and incorporation of multiple belief systems into the royal court life during Kyansittha’s (r. 1084-1112 CE) reign is a reflection of the need that Kyansittha saw for increasing social cohesion and uniting the diverse traditions, such as animism, worship of the Naga cult, Hindu and Brahmanic customs that were practiced by distinct groups within the kingdom. Some authors have stated that during the reign of King Anawrahta (r. 1044-1077 CE) strict religious persecution was conducted to solidify the establishment of Theravada Buddhism (Maung Htin Aung 1962:2-3; Stargart 1970:291-292). However, firm evidence to support this claim does not currently exist. If this were the case, it is possible that the religious tolerance exhibited by King Kyansittha (r. 1084-1112 CE) was required to ensure that the numerous groups and territories conquered under Anawrahta’s reign could be successfully integrated into a single kingdom. The utilization of a number of diverse religious practices by King Kyansittha to unify the kingdom, however, does not contradict the argument that some of these religious practices, particularly those related to water symbolism, were also utilized by Kyansittha to legitimize his rule. Through the
appropriation of diverse customs and religions King Kyansittha, in addition to increasing the social cohesion by enabling religious tolerance in Bagan, likely strengthened the legitimacy of his reign by increasing the support provided to him by a great number of distinct groups within the kingdom.

WHAT IS THE RELATIONSHIP BETWEEN THE ETHNOARCHAEOLOGICAL AND THE EPIGRAPHIC EVIDENCE?

The following section addresses the relationship that exists between the ethnoarchaeological and the epigraphic data that was gathered as part of this study. The purpose of this section is to identify the associations created between the practices that were performed in ancient Bagan and those which are performed in contemporary Bagan. The subjects that are discussed in this section include: the Buddhist and animist components of the performance of water rituals that are seen in ancient and contemporary Bagan, the ways in which the practices from ancient and contemporary Bagan differ from one another, and the way in which these differences influence the interpretation of the data. This discussion also incorporates an analysis of the role that Buddhist written texts have in the perpetuation of ritual practices over time.

Similarities Between Ancient and Contemporary Water Rituals in Bagan

Consecrating, Sharing Merit, and Calling Upon Supernatural Entities. An important ritual in which water was used in a similar manner in ancient and contemporary
Bagan is the pouring of water with the purpose of consecrating, protecting, sharing merit, calling upon supernatural entities, and ratifying a donation. In contemporary Bagan, the practice of pouring water is crucial for the ratification of a good deed, particularly during the performance of Buddhist ceremonies in which large donations are required, such as the initiation ceremony or shinbyu (Nash 2007:95), and funerary rituals (Brown 1915:357, 1921:79; Shway Yoe:1896:588). During these ceremonies, the pouring of water also has the purpose of calling upon the Earth to witness and ratify such acts and to ensure that the Earth will remember what humans may forget (Shway Yoe 1896:588). In ancient Bagan, inscriptions documenting donations made to the sangha indicate that water was frequently poured after each donation in order to protect an offering, to share the merit with those who respected and increased the donation (Taw Sein Ko and Duroiselle 1919:25), to ratify a gift (Taw Sein Ko and Forchhammer 1899:4, 71, 54-55, 67), and to call upon supernatural deities to witness the good deed (Taw Sein Ko and Forchhammer 1899:88-89, 114-115).

Another practice that shares similarities between ancient and contemporary Bagan is the use of water to pay homage and show respect to an individual in the form of washing, sprinkling, and bathing. However, this act was performed as part of different ritual practices in past and present Bagan. The use of water to pay homage to elders and respected individuals in contemporary Bagan is conducted during the performance of the New Year festivities and includes the head washing performed on elderly individuals at the monastery. During this festivity people also lightly sprinkle water over the shoulders of authority figures, such as teachers and parents. Depictions illustrating the use of water for ritual sprinkling and bathing in ancient Bagan can be seen in a number of terracotta
plaques from the Ananda-gu-hpaya-gyi Temple (monument #2171) (1105 CE)
(Duroiselle 1962:39, Plate 86, 45, Plate 96, 73, Plate 156). Sprinkling and washing of the Buddha in these depictions was meant to be an indication of the respect and reverence that individuals and supernatural beings had for him.

Relationship Between Rain and Good Deeds. The belief that good deeds increase rains and bad deeds create droughts is prominently held in contemporary Bagan. When a drought is suspected, a rain-calling ceremony is arranged with the assistance of Buddhist monks who recite Buddhist prayers near a water source. Numerous donations are made to the monks and to supernatural entities. Similarly, individuals in contemporary communities are sometimes asked to maintain good morality and avoid eating meat in preparation for this ceremony. Unfortunately, there is little evidence indicating that rain-calling in ancient Bagan was practiced in a similar manner. However, in ancient Bagan, the idea that good deeds increased rains is identified in an inscription (1248 CE) found at the Itzagawna monastery (Taw Sein Ko and Forchammer 1899:114-115). This inscription states that an intense rainstorm began after a large donation was made to the sangha. An inscription from the Shwe-zigon Pagoda (1093 CE) also indicates a connection between the benevolence and the high morality of the king, and the increase in rains that will occur throughout the kingdom as a result (Blagden and Duroiselle 1960:122-126). Further, the idea that good deeds lead to increased rains was also depicted on a terracotta plaque (Duroiselle 1962:133, Plate 277) from the Ananda-gu-hpaya-gyi Temple (monument #2171) (1105 CE) documenting the Vessantara-Jataka (#547). Even though evidence for ancient rain-calling ceremonies was not found, the belief that good deeds, high morality, and an increased number of donations were likely
to increase rains, was prevalent in ancient Bagan. It is possible that individuals in ancient Bagan, aiming to increase rains, believed that their morality had to stay high. An increased number of donations may have also been seen as an effective way to end droughts.

*The House Building Ceremony.* The ethnoarchaeological data indicates that the house building ceremony was performed in a similar manner in ancient and contemporary Bagan. During the ethnoarchaeology study, this ceremony showed the greatest amount of homogeneity across the ten villages. As indicated by the Tharaba Gate inscription (1093-1102 CE) (Duroiselle 1923:3), the construction of the palace dedicated to Vishnu by King Kyansitta (r. 1084-1112 CE) required the use of water from a number of locations to be placed in vessels of gold, silver, copper, and conch shells in front of the monks for recitation. In contemporary Bagan, water is carried by the members of the household and is placed in ceramic containers or plastic bottles in front of monks. The monks then perform the *paritta* recitation, and only Buddhist monks are invited to witness this ceremony. In contemporary Bagan, once the recitation in front of the water vessels has been concluded, the water is used to sprinkle a number of spaces around the house. The sprinkling of the pillars is particularly important. In ancient Bagan, the Tharaba Gate inscription (1093-1102 CE) mentions that the recitation of prayers is followed by the “bathing” of pillars and spaces in the palace (Duroiselle 1923:61). In contemporary Bagan, it is indicated that boiled rice, milk, and the water over which prayers were recited, are mixed with a number of metals, such as gold and silver, occasionally in the form of bracelets, and deposited in the post holes dug on the ground. In ancient Bagan, the Tharaba Gate inscription (1093-1102 CE) states that offerings were placed at 17
purified locations. The making of these offerings included the deposition of gold, silver, and copper that was bathed in water blessed by the *paritta* recitation inside the post holes (Duroiselle 1923:50-51). Due to the fact that propitiation to *nagas* was required every time that holes were dug in the earth (Galloway 2006:100; Maung Htin Aung 1962:113), depositing offerings of metals in the post holes in ancient Bagan was likely aimed at providing an offering to the *nagas*. According to the participants that were interviewed, the *naga* cult is no longer practiced by people in contemporary Bagan. Participants indicated that the placement of offerings inside the post holes is performed simply to increase the luck of household members.

Due to the purifying and protective nature of the *paritta* recitations (Spiro 1967:144-156, 1970:265), the performance of the house building ceremony in contemporary and ancient Bagan indicate that water was utilized as a way to purify certain spaces and pillars in the house. Similarly, this water, and the positioning of offerings throughout the palace (Duroiselle 1923:37) and contemporary houses, was used to protect these spaces from the harm associated with the forces of evil, including animist entities, such as ghosts and *nats*.

*Sickness and Healing.* In contemporary Bagan, it is believed that if evil spirits are not respected or adequately propitiated, they can cause great misfortune to individuals, particularly in the form of sickness (Spiro 1967:144-156; Vossion 1891:109). Water that has been sanctified with the power of the Buddhist texts is used by individuals to protect and heal themselves from the attacks of animist forces of evil, such as ghosts or *nats*. The water over which prayers have been recited, in addition to propitiation to the angry spirits, is used as a form of medicine to heal the sickness that has been caused by evil
spirits. However, the idea that evil spirits can cause sickness, and sanctified water can heal this sickness, goes against the Buddhist doctrine which states that the suffering of an individual is only the result of their own kamma (Nash 1963:286; Spiro 1967:3-4). The outcome of misfortune in Buddhism cannot be changed through propitiation. Even though there is no clear indication that sanctified water was used to heal individuals in ancient Bagan, an inscription (1301 CE) found at the Sudaungbye monastery may provide some evidence to support the idea that sickness was believed to be caused by an animist spirit. This inscription records a donation previously made from Queen Pwa Saw. It states that King Kyawzwa (r. 1287-1300 CE) had fallen ill. To alleviate his sickness, the queen decided to provide an offering of 3,000 palm trees (Taw Sein Ko and Forchchammer 1899:142-143). Given that offerings cannot change the consequences of kamma, it is possible that this donation was performed as a way to counteract the effects that the angering of an evil spirit may have caused (Taw Sein Ko and Forchchammer 1899:142). This inscription may indicate that propitiation to cure sickness may have taken place. If the practice of animist propitiation in ancient Bagan to heal sickness did occur, it is possible that the use of sanctified water was also utilized as a form of medicine to cure the ailments caused by these spirits.

Differences Between Ancient and Contemporary Bagan Water Rituals

Evidence of numerous water rituals that are practiced in contemporary Bagan cannot be found in ancient Bagan. These rituals include the performance of water-related festivities, such as the Kason tree watering festival and the festivities associated with the
New Year Water Festival. Similarly, evidence for the role of sanctified water in curing and exorcising evil spirits from victims of witchcraft, a practice of great concern among contemporary communities in Bagan, cannot be found in ancient Bagan. Even though the belief in witches and the practice of black and white magic has been recorded in the chronicles (Pe Maung Tin and Luce 1923:84, 98, 114), evidence for the use of water to assist in the performance of witchcraft cannot be found in the epigraphic and iconographic data. It is possible that given the royal’s endorsement of Theravada Buddhism, the mention of the use of water within the context of witchcraft and other religious cults was avoided in the inscriptions. Given the Buddhist nature of the temple depictions, murals, and terracotta plaques sponsored to increase the merit of donors, it is not surprising that the use of water as part of animist and other religious cults is not found in such sacred Buddhist settings. However, it is possible that the performance of ancient water rituals associated with animist practices might be found in non-sacred spaces in ancient Bagan, such as commoner settlements.

The appropriation of water symbolism by the royalty was aimed at fulfilling the needs, purposes, and perceptions that this social group possessed during the Bagan period. Because the needs and perceptions of the commoners of ancient Bagan likely differed greatly from those of the royalty, once the royalty ceased to exist, the water rituals that reflected their interests also changed. Even though the festivities and context of rituals performed in ancient and contemporary Bagan greatly differ from one another, the role of sanctified water in the ancient kingdom and in contemporary Bagan resembles one another. For example, the sprinkling of water during the Water Festival in contemporary Bagan is used to pay homage and show respect. The use of water in
exorcisms has the goal of purifying the soul of the victim and protecting them from future harm. In ancient Bagan, the use of water to pay homage was used in the form of feet washing and sprinkling over the body of a deceased. The use of water to purify and protect an individual from harm was performed during the bathing of royals during the *abhiseka* coronation ceremony. The evidence does not indicate that the practices of ancient and contemporary Bagan have remained static over time, but it indicates that the meaning attached to water in ancient and contemporary Bagan fulfilled similar purposes, and was utilized as part of distinct rituals aimed at highlighting the interests of each of its performers.

**The Role of Buddhist Texts and Stories of the Buddha**

As mentioned in previous chapters, one of the reasons why water has been perceived as an element which provides protection against evil forces might be related to an important story of the Buddhist doctrine: the Buddha’s defeat of Mara’s armies with the use of the water that the Earth Deity wrung out of her hair (Galloway 2006:279; Maung Mya 1914:219-224). Through this narrative, water, and the high morality that accompanied the frequent pouring of water as part of the meritorious acts of the Buddha, may have influenced the perception of water as a crucial component against the defeat of forces of evil. Further, the use of important Buddhist prayers over water have allowed this element to be perceived as the vehicle which enables the powers of the Buddha to be transmitted. The three prayers or spells that are believed to have great protective effects over water include the *tham-bouktei*, the *virtues*, and the *paritta* prayers. These written
texts have been preserved for centuries as the central components of many Buddhist ceremonies. The *paritta* was frequently mentioned in the inscriptions, and by the participants of the ethnoarchaeological study, to have great protective powers against a number of everyday misfortunes (Spiro 1970:265). The story about the defeat of Mara which is integral to the life of the Buddha, in addition to the powers of *paritta* prayers in the form of written texts, likely encouraged the role that sanctified water had to protect individuals to be maintained over time.

The Role of the Buddhist Doctrine and the Incorporation of Animist Beliefs

It has been stated that the attainment of enlightenment and the eternal end of suffering are largely seen as distant and often unattainable ends to most Buddhist devotees (Nash 1963:291). Aspects of the Buddhist doctrine, such as its greater concern with the afterlife and the future attainment of enlightenment, may neglect concerns of the present existence. This is supported by the fact that the Buddhist doctrine dictates that the suffering of an individual is the result of karmic consequences that are unchangeable in the immediate future (King 1964:62). Animist beliefs, however, are capable of explaining everyday misfortune and have the capacity, through propitiation, to provide believers with a way to alleviate immediate suffering (Brac de la Perriere 2009:190-191; Nash 1963:291). Through animist beliefs, illness and misfortune, rather than being the result of karmic consequences of past deeds that cannot be alleviated or escaped, are seen as being caused by evil spirits, such as *nats* or ghosts, that were disrespected or inadequately propitiated (Spiro 1967:4). The focus of the Buddhist doctrine with the future rather than
the present existence may explain the prevalence of religious practices that supplemented Buddhism in different contexts, such as Taoism in China and Hinduism in the Sinhalese kingdoms of Sri Lanka (Spiro 1967:2). The emphasis of the Buddhist doctrine on achieving enlightenment rather than ameliorating the everyday misfortunes of individuals may have encouraged animist beliefs to be incorporated into the practices of ancient and contemporary Bagan. This incorporation of animist beliefs, in turn, likely promoted the symbolic meaning of water as an element which could provide protection and heal the victims of the misfortune caused by such animist spirits.

**HOW CAN THESE FINDINGS ASSIST IN FUTURE ARCHAEOLOGICAL IDENTIFICATION AND INTERPRETATION OF WATER RITUALIZATION?**

The purpose of this section is to identify which aspects of the material culture can assist in the interpretation and identification of water management and water ritualization in future archaeological excavations. The ethnoarchaeology study provided important insights about the ways in which individuals in contemporary Bagan store, distribute, and maintain their water sources. An important feature is the presence of water stations that provided drinking water to by-passers stored in clay water containers. These stations will likely be found in the archaeological record in locations, such as large frequently transited roads that cut across villages, and in close proximity to important social spaces and buildings, such as large temples and monasteries. Further, the creation of small artificial ponds to gather drinking water from the rains, and the presence of large containers for drinking water stored near important social spaces, such as monasteries,
schools, farms, and important populated and accessible spaces in the village, are particularly relevant to future excavations.

As indicated by numerous inscriptions, the use of libation vessels made of clay was common during the Bagan period. These vessels are likely to be found in spaces in which the ratification of gifts took place, or near spaces in which the performance of important events required the sharing of merit or summoning of supernatural entities.

Some inscriptions indicate that the material culture frequently associated with water rituals performed in ancient Bagan include offerings that were used during the performance of the house building ceremony. As stated in the Tharaba Gate inscription (1093-1102 CE), gold, silver, and copper leaves mixed with sanctified water were deposited, as offerings, in the post holes excavated to erect the pillars of the palace of King Kyansittha (r. 1084-1112 CE) (Duroiselle 1923:50). Similarly, gold, silver, and copper vessels were used to carry the water that was sanctified during the paritta blessing. The identification of gold, silver, or copper elements in post holes or metal vessels used to hold sanctified water in the archaeological record would be an indication of the ritual construction of a building of important religious significance. These metal offerings could also be found in the form of bracelets or necklaces, which are the types offerings deposited, by traditional villagers in contemporary Bagan, in the post holes of a new house. During the ancient house building ceremony, conch shells held an important symbolic meaning due to their association with the power that the speech of the Buddha possessed to keep evil forces at bay. These conches, rare and valuable, had the role of holding the water that was sanctified during the paritta recitation that took place during the abhiseka coronation and the house building ceremony. The discovery of such conch
shells in the archaeological record may provide evidence for the performance of a ceremony of important religious significance, such as the consecration of a king or the building of the royal palace (Hornell 1942:117).

Due to the important role that water had in purifying, increasing fertility, and protecting individuals against forces of evil through the powers of the Buddhist written texts and a high morality, the discovery of carvings depicting important symbols related to the properties of water within water reservoirs, such as the carvings at the Nat Yekan water tank, may continue to be found in the archaeological record.

The data also indicates that certain royal actors in ancient Bagan, such as King Kyansittha, employed water symbolism and water ritualization to increase their legitimacy. It is possible that a heavy reliance on water symbolism and water ritualization is identified in the constructions, inscriptions, waterworks, and donations that King Kyansittha sponsored.

Lastly, future archaeological evidence may strengthen our understanding of the perceived relationship that existed between good deeds and rains in ancient Bagan. It is possible that during times of drought individuals in ancient Bagan sought to maintain a high morality. As a result, times of drought might have encouraged kings and other members of the royalty to increase the amount and nature of their donations. The need to increase donations may have been stimulated by the discontent that the elite may have faced from the commoners if the lack of benevolence or low morality of the royalty was seen as the cause of droughts. Due to the loss of revenue that would have resulted from a drought, more significant donations would have been difficult to maintain and may have potentially had significant economic consequences for the ancient kingdom.
CONCLUSIONS

This chapter examined the ways in which individuals in ancient Bagan utilized water as part of religious rituals aimed at consecrating offerings, ratifying donations, calling upon supernatural entities, and sharing the merit gained through donations with other beings. In addition, the analysis of data indicated that the important roles that were fulfilled by sanctified water included paying homage, showing respect, and protecting individuals against evil forces and misfortune. This chapter also assessed the similarities and differences that likely existed, based on the available evidence, between the performance of water rituals in ancient and contemporary Bagan. This analysis indicates that even though the religious rituals performed in past and present Bagan differ, the symbolic and religious meaning attached to water has been maintained over time. Likely contributors to the maintenance of the symbolic meaning of water include the persistent and popular stories about the Earth Deity and her power to wring water out of her hair to defeat evil. These stories are integral to the Buddha’s life story and attainment of enlightenment. Another contributor to the maintenance of the symbolic meaning of water is the role of important written texts in providing protection against everyday dangers, such as protective paritta. The present analysis indicates that water symbolism was prominently used by King Kyansittha (r. 1084-1112 CE), likely to increase the social cohesion of his kingdom, and strengthen the uncertain legitimacy that resulted from his questionable hereditary credentials.
CHAPTER 6: CONCLUSIONS

The purpose of this chapter is to provide a brief synthesis of the theoretical framework, methods, and data that were employed to answer the four major research questions of this thesis. This chapter also discusses the implications that the findings of this study have for the understanding of power, ruler legitimacy, and religious practices during the Bagan period. Additionally, this chapter explores areas of future research that inform our understanding of the relationship that existed between water, religious beliefs, and the royalty. In this thesis, the symbolic meaning attached to water by the royalty was studied through an analysis of the context and the roles fulfilled by water as part of water ritual performances. Ethnoarchaeological data provided insights into archaeological findings and facilitated the comparison between rituals conducted in ancient and contemporary Bagan. Four major questions were answered through the use of inscriptions from the Bagan period, iconographic depictions from murals and terracotta plaques from Bagan temples, and archaeological data from the excavation conducted at the Nat Yekan.

THE RESEARCH QUESTIONS

What was the Religious and Symbolic Meaning that the Elite Attached to Water?

During the performance of water rituals in ancient Bagan, water was likely seen as an unparalleled element which, once infused with the powers of the Buddha’s speech, could defeat any kind of danger encountered by a devotee with good morality. The
powers of religious specialists played an important role in the performance of water rituals. However, water may have represented the conduit which enabled the powers of the Buddha to be transferred into non-religious specialists. Rather than requiring a monk to provide a blessing, individuals with limited knowledge of the Buddhist doctrine could possess valuable powers that enabled them to purify and protect themselves, their surroundings, and their offerings. By cultivating good morality, individuals gained the right, through the use of sanctified water, to request the intervention of supernatural entities to ratify and witness their offerings and to assist them during times of misfortune. As reflected in numerous Jataka tales, water was often associated with creatures, such as makaras and ogresses. In mural depictions, makaras reflected the dangers and misfortunes of the turbulent waters of the oceans. Ogresses were seen as guardians of water in reservoirs, a valuable source that was seen as an element which provided purity, and was a source of wisdom, and great fertility.

In Which Ways was the Religious and Symbolic Meaning of Water Appropriated and Disseminated by the Elite at Bagan?

The royalty of Bagan likely benefitted from the climatic changes that were caused by the Medieval Climate Anomaly during the Bagan period (Lieberman and Buckley 2012:1064-1065). These climatic changes may have facilitated the royalty’s appropriation of water symbolism and water rituals. Important water rituals appropriated by the royalty include the abhiseka coronation in which the use of water, as a result of kammaraja concepts, was a crucial element which enabled the new king, regardless of
their perceived legitimacy, to become a legitimate ruler. The pouring of water in this ritual allowed the deity Sakka to embody the king and provide the support that enabled the king to officially take office.

Evidence indicates that King Kyansittha may have aimed at gaining legitimacy through the use of water symbolism and water ritualization. As stated by the Shwezigon Pagoda inscription (1093 CE), the king strove to associate the qualities that made him a suitable ruler with the properties of water. For example, it was stated that his good morality was capable of washing away sin. As a result of his good deeds, he would receive praise in the form of applauses that would sound as great storms, and his kingdom would be as wide as the ocean. More importantly, his great benevolence would increase rains in the kingdom and crop abundance. The royalty also aimed at promoting their relationship with elephants and, during the reign of Kyansittha (r. 1084-1112 CE), nagas. Elephants, greatly valued by the royalty, were believed to increase rains and possess a status similar to the Buddha. With respect to nagas, mythical snakes believed to possess powers that increased rains and the fertility of the land, Kyansittha claimed to have been fathered and protected by one, and aimed to bring back their worship. Promoting the close relationship that the royalty had with these beings indicates the royalty’s desire to display their ability to control the forces of nature to increase rains and crop abundance.

The construction of water reservoirs by kings was also an illustration of the desire that the royalty had to control the forces of nature. The construction of waterworks demonstrated to the population the benevolence and care that the king had for the well-being of his people. This further legitimized the ruler in the eyes of the population and increased their support and following. The depiction of water-related carvings in the Nat
Yekan reservoir indicates that this tank was likely a physical and symbolic attempt by the royalty to control the forces of nature, increase the fertility of water, and enhance its protective powers for the population of Bagan. The naga-Buddha depiction in this tank might symbolize the alliance that existed between the Buddha-king and the naga, and the capacity that this king had (Blagden and Duroiselle 1960:125), as a result of his good morality and wisdom, to control the powers possessed by the naga.

The depiction of makaras and ogresses in the architecture of numerous Bagan temples might indicate the desire of the royalty to protect such sacred spaces. Ogresses, associated with concepts of time and fertility, may have also been seen as protectors of temples and would have been effective symbols used to indicate to the population that the Bagan temples, like water reservoirs, were sacred and pure spaces that resembled microcosms, and that they were guarded by supernatural entities that protected what belongs to the Buddha and the king. Through the appropriation of water symbolism in the performance of water rituals that King Kyansittha accomplished, his interests in strengthening his legitimacy, satisfying his questionable hereditary credentials, and increasing the social cohesion required in Bagan after the conquest of diverse groups by his predecessor, King Anawrahta (r. 1044-1077 CE), may have been attained.

What is the Relationship that Exists Between the Ethnoarchaeological Data from Contemporary Bagan and the Epigraphic Data from Ancient Bagan?

The examination of ritual practices in Bagan indicates that, except for the house building ceremony, rituals in ancient and contemporary Bagan do not resemble one
another. The preservation of the house building ceremony is likely the result of the crucial importance that this ritual has for the purification and protection of the living space of individuals. The comparisons between past and present water rituals indicate that the symbolic and religious meaning associated with water in ancient Bagan greatly resembles that of contemporary Bagan. The use of water to sprinkle, bathe, and wash individuals and spaces is performed in different contexts as part of different rituals, but the roles of sanctified water across different rituals carry a similar purpose and meaning. Such roles are likely the result of the perception that the recitation of *parittas* protective prayers, crucial ancient texts used by Buddhist devotees to provide protection, are capable of transferring protective powers into water. Further, the protective role of sanctified water indicates that this element had the capacity, in past and present Bagan, to bring together two systems of belief in which the power of the Buddha’s speech was used by individuals to purify and protect themselves against evil spirits, animist in nature, believed to cause daily misfortune in their lives.

**How can These Findings Assist in Future Archaeological Identification and Interpretation of Water Ritualization?**

The findings from the ethnoarchaeology study indicate that future archaeological excavations are likely to encounter small artificial ponds used to gather drinking water from rainfall, and large containers used for storing drinking water near important social spaces, such as monasteries, schools, farms, and important populated and accessible spaces in the village. The presence of water stations that provided drinking water to by-
passers using clay water containers are expected to be found in the archaeological record near locations, such as major and frequently transited roads that cut across villages, as well as in close proximity to important social spaces and buildings, such as recurrently visited temples and monasteries.

The findings of the present thesis also indicate that offerings deposited during the performance of rituals, such as the house building ceremony, performed during the construction of houses and palaces, are strong indicators of water ritualization in ancient Bagan. This includes the finding of gold, silver, and copper metal leaves, and the discovery of metal objects inside the holes dug to erect wooden support posts. Differences in the value of offerings would provide an indication of the socioeconomic standing of the ritual performers. The discovery of libation vessels or conch shells in the archaeological record would also indicate the performance of water rituals. Given the important role that water had as a purifying and protecting element that could increase the fertility of the land, the further identification of water imagery in water reservoirs is likely to occur, in particular, as part of temples, pagodas, waterworks, and inscriptions sponsored by King Kyansittha (r. 1084-1112 CE).

Evidence for the relationship that existed between good morality and rains, and a failure to follow the Five Precepts and droughts, indicates that royal agents may have been more inclined to increase their morality and benevolence in the form of donations when the need for rains arose. During periods of sufficient rainfall such offerings would have confirmed to the population the capabilities of the royalty to control the forces of nature. Times of drought might have, in contrast, indicated to the population that the benevolence and legitimacy of the king were insufficient to increase the abundance and
well-being associated with rains. As a result, larger, more generous donations by the royalty may have been required during such difficult times. If this was the case, it is possible that these donations may have provided a substantial constraint to the economic well-being of the kingdom.

FUTURE RESEARCH

A significant number of studies have focused on understanding the utilitarian aspects of water and water management in Southeast Asia. The examination of the symbolic and religious meaning of water has also been studied in settlements such as Angkor, a place in which the symbolic meaning of water led to a significant transformation of the landscape. However, extensive landscape transformation is not always indicative of the symbolic importance that a settlement attached to water. The importance attached to water in the Dry Zone of Central Myanmar was significant, as it was in numerous places in Southeast Asia, and water ritualization was utilized in numerous ways by the royalty of Bagan.

A better understanding of settlement patterns in ancient Bagan will allow future researchers to examine the relationship that commoners had to their water sources. This will also inform the ways in which other sectors of the population, such as commoners, performed and appropriated water rituals. Further research could also help elucidate the role that water ritualization had in the administration of water sources, and the role that symbolic and religious concepts associated with water may have played in providing status to authorities that could claim control over reservoirs, which might have resulted in
increased water management centralization. Alternatively, further research might indicate whether the religious and symbolic meaning of water assisted in the decentralization of water sources. As seen in contemporary Bagan, individuals respect and care for water partly due to the belief that spirits guard reservoirs and harm those who use water for inadequate purposes. In efforts to foster respect for reservoirs, which constitute a common resource pool, symbolic and religious perceptions enable decentralized forms of water management to be maintained. Further study of water symbolism and management in ancient Bagan could also indicate if a similar situation existed in the ancient kingdom.

CONCLUSIONS

Through the use of ethnoarchaeological, epigraphic, iconographic, and archaeological data, this thesis has examined the role that the elite of classical Bagan attached to water. Sanctified water had an intricate relationship with the royalty. The role of water as a purifying and protective agent, as well as a vehicle which allowed individuals to summon supernatural beings, fulfilled numerous purposes for royal agents, including the demonstration of the king’s suitability to the throne through the association of the capacities of the king and the properties of water; the promotion of an alliance between water-related creatures, such as nagas, to inform the population of their ability and right to control the forces of nature; and the construction of water reservoirs believed to increase the properties of fertility and purity of the water that was distributed across the Bagan plain to inform the population of their benevolence and capacity to increase rains. The evidence presented in this thesis indicates that the appropriation of water
symbolism and water ritualization enabled the royalty to strengthen their legitimacy and increase the social cohesion of the kingdom during the formative phase of the Bagan Empire. The association of ogresses and makaras with fertility, and their depiction as guardians of the pure and sacred at the entrances of temples reinforced the symbolic resemblances that existed between temples and water reservoirs, and strengthen the idea that these creatures protected what belonged not only to the Buddha, but also to the royalty.

The data indicates that water rituals in contemporary and ancient Bagan greatly differ from one another. However, the role of water across past and present ritual performances was maintained. Future archaeological investigations of water ritualization should focus on the identification of material culture, including objects used to sanctify water, such as metal and ceramic vessels, objects used to perform water pouring rituals, such as libation vessels, and objects used as offerings during such performances, including metal leaves, jewelry, and conch shells. Future research will allow researchers to examine the way in which water ritualization was appropriated by the commoners, and the way in which the symbolic and religious meaning of water may have been utilized to centralize or decentralize the management of water reservoirs in ancient Bagan.
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Valeri, Valerio

Van Der Kroef, Justus

Vossion, Louis

Ward, William E.

Wheatley, Paul


Young, Serinity