Time in rituals of Javanese-Saivism as preserved in Bali

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Abstract. Religion in practice is often associated with ritual in its various modes. Ritual can only be practised after proper time has been set up in advanced. This paper attempts to study times as a system in rituals of Javanese-Saivism tradition as practised in Bali. Library research was conducted to get required data through observing a number of texts belong to Wariga literature. It is found that there is a system of times known as Saka-Bali as applied in calendar system combining Indian solar-lunar system with local Javanese Wuku system. The combination of two systems cause the system becomes complex since the days are not only divided into 12 months in a year and pananggal and panglong of both full moon and new moon in a month, but also into wevaran, ingkel, dauh, etc. in a six month period. The concept “alah dening” shows gradual importance from solar-lunar to wevaran divisions of days, and the method applied in determining proper times. In practice, solar-lunar system is more dominant than the other; however both are complementary in practice. Time is equated with the Ultimate Reality, and hence it is eternal.

1. Introduction
Religion is traditionally often associated with rituals either in its simple or delicate form involving sites / altar, materials used, time for its preparation, numbers of people involve in it, holy person who is in charge for it, deity to be worshipped, and so on. Saivism as a system of religion and philosophy is characterised with various forms of rituals. Being regular or irregular or occasional, ritual performed has a certain meaning or significance for the performer; and its performance is based on time considerations. As remarked by Proudfoot that times is the utmost importance because the calendar coordinates participation in ritual, political, and administrative life, the currency of a shared calendar is a way of delineating the boundaries of sometimes overlapping communities [1].

Javanese-Saivism of ancient Java (approximately flourished between 10th-15th centuries AD) in the present-day Indonesia is of no exception in this regards; and sometimes its rituals are more pertinent than its metaphysics (tattva) or ethics (sasana/sila). In this tradition metaphysics (tattva), ethics (sila/sasana), and ritual (upacara) [2] interwoven into one system in which rituals are outer expressions of faith. People commonly know the religion professed from its outer layers, i.e. ritual in its kinds and complexities; whereas subtle aspect of religion, i.e. metaphysics gets very less attention. For common people ritual is religion; however religion is not always with rituals especially viewed from modern interpretation of religion.

This form of Saiva tradition has a long ritual tradition practised by its followers living not only in Bali but in other provinces. Bali-Hinduism as a religious and spiritual tradition exits in Bali may be given various names in the course of time, like “Agama Tirtha”, “Siva-Buddha”, “Agama Hindu Bali”, “Hindu Dharma”, and so on is basically further development of Javanese-Saivism, when it is looked at from its internal core, viz. metaphysics. It is none but a form of Saivism as it glorifies and
worships Lord Siva as the highest principle and other gods emanated from Him as aspects of Him in its system. The characteristics of it, is an amalgamation of various spiritual and religious traditions of Indian origin and indigenous culture. Nonetheless, Siva Tattva becomes the leading philosophical principle, which brings others working together in one system of religion. The metaphysics (tattva) of this religion is Siva Tattva, its ethics also uses Siva Sasana and other sasana texts of saivite in nature. Hence, the rituals are also of Saiva in nature despite the fact that there are Vedic, puranic, even Buddhist and Tantric elements incorporated in it. In practice, ritual performer tends to be flexible in the expressions as they should consider locality (desa), time (kala), and situational condition (patra).

For Balinese, it is likely no day without ritual in its kinds and complexities. However, masses sometimes are ignorant of the concept of time (kala) and philosophical imports of the rituals practised. As they are not interested in philosophical discussion they just perform it following the priest words or the village authority. Similarly it happens in the case of time (kala); in one way, they are strict in calculating the birth of a baby, for example, and following right times for a ritual, on the other, they are not so familiar with the philosophical principles of times underlying the rituals in relation to place and life on the earth. They might not know whether times is created or becomes parts of world creation or times are as eternal as the Lord Siva. They may not be aware of the system used in determining proper day (subha dewasa) for a ritual. Since the consideration or calculation of time is delicate in relation to complexities of rituals, an attempt to formulate the system of times used, it is necessary in addition to have awareness of time having its significance of philosophical principles.

There has been a meagre research touching only some aspects of it; it is not yet the one conducted to find out or reconstruct time system used in determining ritual despite the fact there many manuscripts elucidating times. In addition to it, significance of times and time system used have not yet understood properly, especially by the elites who use to deal with ritual leaving away common people. As commonly found it these texts concerned, they are not systematic in modern sense, sometimes the things described fragmentary; and hence it needs a research to be conducted for that purpose.

Based on the above background, there are three problems that can be formulated: (1) how is it importance ritual in the tradition of Javanese-Saivism?, (2) what are the systems of times the tradition has in establishing a ritual (yajna)?, and (3) what is the philosophical principles underlying the concept of time in Javanese-Saivism as preserved in Bali?. These questions may not be answered in one-to-one discourse rather giving an elucidation which is supposed to answer them. These questions will be attempted to be solved in the following discussions.

The data used are derived from its textual and living traditions in society. Secondary sources are also used to enrich the data required.

2 Methods

This study uses library research on times as contained in manuscripts called Wariga available in Balinese tradition as the prime sources. There are many texts of times in relation to rituals and also secular activity known as Wariga written in Kawi-Bali and Bali languages available in Bali. Wariga literature basically discusses astronomy and astrology; it is Jyostisha in Indian tradition. Some elements of wariga are sometimes found in other genre of texts. Books on wariga or padewasaan are also used as secondary sources to complete the data found in the texts. These kinds of genre were developed in Bali in the post East-Java Majapahit period in 15th Century AD as indicated by languages usage. The significant number of text available comparing to tutur and sasana texts, show the dynamic of rituals practised since medieval times. These kinds of texts are preserved in public libraries and also in private collections of house known as gerya, puri, jero and other houses in Bali and Lombok. In addition to specific texts about wariga, some points or issues of wariga can also be found in some other genres of texts, like tutur or kanda. These texts belong to ritual literature known as Kalpha Sastra [3]. Some of the texts of Wariga literature are Wariga Bhagawan Garga, Wariga Gama, Wariga Gemet, Wariga Kamulan, Sundari Krimping and so on [4]. These are used as manuals for priest in guiding the masses in establishing a ritual (yajna).
The data found from these texts are collected, arranged, grouped, and analysed to support the objectives of the research. Conclusion was made based on the analysis of the data obtained from various sources.

3. Result and Discussion

3.1. Position of Rituals in Javanese-Saivism

The practice of rituals has its source in what the so-called Kalpa Sastra literature written in Bali-Kawi or Balinese languages [3]. To mention some of them are the texts which are classified into Indik, Plutuk, Kanda, etc. They are manuals that can be used by priest to officiate a ritual (yajna) or any kinds of function related either spiritual/religion or secular in nature. It is huge texts comparing to metaphysics and ethics.

Agastya Parwa text [5] mentions all five kinds of ritual (yajna), viz. (1) ritual for glorifying or worshipping gods, goddess, spirit (Dewa Yajna), (2) ritual for glorifying or worshipping spirit of ancestor or manes (Pitra Yajna), (3) ritual for the well-being of human being like child / children (Manusa Yajna), (4) ritual for glorifying or worshipping spirit of holy person or following his/her instructions/teaching of holy person (Rsi Yajna), and (5) ritual for welfare and harmony with nature (Bhuta Yajna)—altogether known as Panca Maha Yajna (five great sacrifices) [2] as prevalent in this tradition. Each of them has its kinds, division, level of material used, etc. For example, there are around sixteen rituals dealing with life of a human being since inception in womb of mother and cremation or funeral, which involves various materials and plenty of times spent to establish it. With reference to capability, availability of materials used, times and situational constraints, ritual may be divided into three big divisions, viz. (1) Kanista --- using less/least materials, less time spent, or perhaps less number of peoples involve, (2) Madhya --- using moderate materials, time, person involved, and (3) Uttama ---- using huge materials, people, long time spent to prepare it. However, the quality of any ritual does not depend on the quantity of materials length of time used in establishing a ritual but purity of heart, sincerity, total dedication, devotion, and surrendering everything to the worshipper. These are expressed externally and internally by a worshipper.

There is a close and tight relationship between metaphysics (tattva), ethics (sasana/sila/niti) and ritual (upacara) --- known as Tri Yoga [2]. Metaphysics is considered the inner strength of this religion; it is subtle truth, pervades or penetrates the principles of ethics and ritual. It is the inner core on which the idea of religion was established. What is expressed in the form of ritual is basically an expression of metaphysics (tattva). In other words, rituals along with its materials used are a three dimension form of metaphysics; or it may be said that ritual is an extension of metaphysics. By nature it should be diverse giving opportunities for the followers to practise their faith. However, the inner spirit of ritual can be traced back to its metaphysics. When principles of metaphysics can only be understood by a sharp mind, ritual, on the other hand, is basically metaphysics, which takes a three dimension form. Rituals can be practised by anyone, and hence it is actually the religion of masses. With this manner, everyone can understand and perform the truth mentioned in metaphysics, be it an intellectual or lay person.

3.2. Time System: Saka-Bali

The Sun and the Moon are two important shining planets, which have a direct influence over the life on earth. Each planet out of the Sun moves around in its orbital line for a period of time. The moving of earth moves around the Sun causes the emergence of sasih (month); whereas the moving earth and the moon together around the Sun causes full moon (purnama), penanggal, panglong, and new moon (tilem). Balinese calendar basically based on the movements of them in multiflorous ways.

There are two systems of times used combining Indian system (called Surya-Candra---solar-lunar) and Javano-Balinese system called Wariga. It uses Saka era in which the beginning of the year started from the year of 79 AD. (78 years in difference from Gregorian system) in which the first month is started in March rather than January. The period of year is calculated based on solar-lunar year so that there are two kinds of year, viz. long year consists of 13 months and short year consists of 12 months.
According to the solar-lunar system (Surya-Candra Pramana) there are twelve months, viz. Kasa, Karo, Katiga, Kapat, Kalima, Kenem, Kapitu, Kaulu, Kesanga, Kadasa, Jyiesta, and Sada. Each month has different number of days. These correspond to Gregorian system of calendar [7].

The system puts the Sun (Surya) as the centre of the universe in which all planets move around the Sun in its orbital path. Thus, the universe is centralized in the Sun; it is the point of concentration for all existences in the world. The moon moves around the earth as long as 365/366 days. Thus, in one year equals to 365 days plus 5 hours, 43 minutes, and 46 seconds. For each month, the period of it is around 30/31 days and Sasih Kawolu (February) its period is 26/29 days. This is called Sasih Surya. As there are remaining some minutes, hours at the end of the calculation (as mentioned above) then it should be accumulated in every four years using system of Pengalantaka, for example, using system of Eka Sungsang to Pon, etc. Pengalantaka means “killing” the rest of time; this cause the period of month is not always 30 days; it can be 28, 29, or 31 days. As mentioned above that the Sun (Surya) is viewed as the centre of the planet movements. It is not only the source of lights for the universe; it is also source of energy. Without sun lights there is no metabolism happened in green leaves of plants. Without energy everything in the universe cannot move or live. All the planets move in its orbit around the Sun, which causes the emergence of months (12 in numbers), while the earth and moon move around its orbit circling the Sun creates the pangan gal (from pangan gal 1 to 15) and panglong system (from panglong 1 to 15). Pananggal is times in two weeks of bright days (sukla paksa) after the new moon (tilem); and Panglong in two weeks of dark times (krsna paksa) after the full moon (pur nama). Penanggal of 14th days is called Purwani of Purnama, whereas Pananggal of 15th days is called Purnama. Similarly Panglong of 14th days is called Purwani of Tilem, whereas Panglong of 15th day is called T ilem (new moon) [8]. Each Pananggal and Panglong ranging from 1 to 15 has a meaning in terms of goodness or badness or in between them. For the other hand, badness is to be avoided.

In addition to these things, it has Dawuh systems. Dawuh means the good/best time to perform an activity in a day. There are three kinds of Dawuh, viz. (1) Da uh Sakranti. The calculation is for 12 hours is divided into 5, so that each dawuh duration is 2 hours and 24 minutes, (2) Panca Dawuh, the calculation is 12 hours is divided into 5 so that each dawuh period is 2 hours and 24 minutes; and (3) Dawuh Kutika Lima, and (4) Asta Dawuh, the calculation is 12 hours is divided into 8, so that each dawuh period is 1 hour and 30 minutes [10]. Sarining Dawuh is the essence from the confluence of Panca Dawuh and Asta Dawuh [10], [11].

In addition to solar-lunar system, the performance of rituals or actions uses Javano-Balinese calendar or also called Wuku. The Wariga system divides the days into 32 wukus; each wuku consists of seven days (one week), viz. Redita (Sunday), Soma (Monday), Anggara (Tuesday), Buda (Wednesday), Wrehaspati (Thursday), Sukra (Friday), and Saniscara (Saturday). The wuku from the beginning are Sinta, Landep, Ukir, Kulan tir, Tol u, Gumbreg, ....Watugunung (30 in numbers). Each wuku has its position in the quarter of the universe, urip (value in numbers), colour, deity, weapon, position / location in macrocosm. Wuku known as Rangda Tiga and Wuku Tan Paguru should be avoided in giving/granting padewasaan (good/bad days) for ritual performance [10], [11] as they cause undesired/bad effects.

In addition to wuku, there is Wewaran system in which times are divided from Eka Wara until Dasa Wara. Eka Wara consists of one day only; Dwi Wara consists of two days, and so on until Dasa Wara consists of then days. Each days of the respective wewaran has urip (value), which symbolises with numbers ranging from 1 to 9, character and deity [10], [11].

These are two basic systems used in determining time of ritual either domestic or public. In the Wariga system there are some other important systems incorporated, like Watek (watek Madya or Watek Panca and Watek Alit or Watek Catur), Ingkel (Ingkel Awuku and Ingkel Adina), etc. To determine Watek Madya is through summing up the urip of Panca Wara + the urip of Sapta Wara and then is divided by 5, and the rest of it has a particular meaning. Watek Alit is through the summing up
the urip of Panca Wara + the urip of Sapta Wara and then is divided by 4; the rest has a particular meaning. Ingkel is usually tells us prohibition within 7 days (known as wuku). Ingkel Adina is prohibition usually for only one day [10]. These things should be considered in details for the success of a ritual performed.

A close observation of the system prevalent in this tradition shows that the solar-lunar system is given higher priority or importance in the application rather than Wuku system. It is perhaps Wuku system was developed based on solar-lunar system or they are independent each other but in the course of time they were combined and complementary in nature to form a new system of calendar called Saka-Bali calendar, i.e. times system which combines Indian solar-lunar (Surya-Candra Pramana) and Javanese Wuku system, which was developed in ancient Java. It is used conjunctionally in determining the proper time (subbha dewasa) of a ritual (yajna) or secular activity since the happening of ritual or yajna temple ceremony (piodalan) was based on both lunar-solar and wuku systems.

In its application there are rules of the games as each division of times in both systems have meaning, value or significance in life. For a priest h/she should have system that guides him/her in applying the systems. The concept of “alah-dening”; as mentioned below shows the graduation of importance or domination of solar-lunar system (Surya-Candra Pramana). It commences from the least important to highest important shows that the progress should be started from outer or less important to the most important one culminating in the decision of proper/right time. It is of the fact that these two important planets have great effects to human life in on earth. It is perhaps due to this fact, stalwarts of Javanese-Saivism in ancient Java did creation to add the system by considering time in more details, not only using year system but it was broken into two periods, viz. two halves of six months each half which consists of 30 wukus. They incorporated Wuku or Wewaran system in which days are divided into wuku and wewaran; also ingkel, dawuh, and still many others. These things cause the system very complex, each has a particular meaning and significance that should be understood well by the priest who will grant proper day for constructing a ritual.

To learn it requires some knowledge of mathematics even astronomy since it deals with planets and calculation. In this regards Marayana opines that from his long research on Balinese calendar, even though it is mentioned in sastras (literature) of wariga, really speaking, it contains elements of mathematics, in which in determining aspects which is mentioned in Balinese calendar, even though it was based on fixed mathematical calculation. Similarly in studying mathematical calculation, it is used as a guideline in a systematic manner, which can give right calculation in its application. From geographical aspect, it will position the movement of month (sasihi) of calendar, and the position of end year of calendar. Meanwhile aspect of religiosity will position the influence of good-badness of day (ala-ayuning dewasa) as the basis of “dewasa” [9]. With this view as remarked by Proudfoot that dates found in literature from later Java and Bali, and later manuscript charters from Bali and Lombok, are more varied in form, and depart further from the Indic model in superficial ways: for instance, they more frequently use the Javanese method of naming months by number rather than by the sanskritic names that were invariably found in the old chancery dates. Nevertheless, behind these and other changes, the fundamental shape of the Indic calendar persisted [1]. This in line with the view of Bastakoty that mathematics plays a vital role in astrology. Correct recording of time and place of birth is very essential, otherwise every calculation goes wrong. Therefore, it is not be an exaggeration to mention here that the religion and astro-science are interwoven and require a new dimension of tremendous research work on this important subject [9]. As this is a complex system of determining times including hours, day, week, month, and year, there should be a coherence system of times. As the manuscripts do not give us a systematic treatment of system in modern sense, attempt to reconstruct the times system especially used in rituals is utmost importance. With this way, the time system is more details, accurate with reference to diversity of human condition and character.
3.3. The Usage

The ritual activity can be divided by two divisions, (1) Padewasan Sadina (regular calendar) and (2) Padewasan Masa (irregular calendar). Padewasan Sadina: determining good/proper day for daily ritual. The guide lines that can be used in this regards are the considerations of Tri Wara, Sanga Wara, and Ingkel, Wewatekan, and Dauh. All of these deal with detail of times in days. Padewasan Masa: periodic Padewasan or core padewasan. The guideline is that it should consider month (sasih), tanggal/panglong, wuku, wewaran (including ingkel + wewaran) and dawuh, and then it is added with padewasan which comes out from the confluence of some formulation of wariga, like Ayu Nulus, Dawuh Ayu, Mertayoga, and so on.

Since there are many divisions of times both in solar-lunar system and wariga system, what is the importance amongst these divisions of time? As per the rule, pananggal, panglong and sasih are given higher importance than wariga system. In this regards there is a guide line says: Wewaran alah dening wuku, wuku alah dening penanggal/panglong, penanggal/panglong alah dening sasih, sasih alah dening dawuh, dawuh alah dening Sang Hyang Trayo Dasa Saksi. [Wewaran is relegated by wuku, wuku is relegated by penanggal/panglong, penanggal/panglong is relegated by sasih, sasih is relegated by dawuh, and dawuh is relegated by Sang Hyang Trayo Dasa Saksi.] Sang Hyang Trayo Dasa Saksi consists of Aditya (the Sun), Candra (the Moon), Anila (wind), Agni (fire), Apah (water), Akasa (sky), Prettiwi (earth), Atma (Sang Hyang Dharma), Yama (words), Ahas (secret), Ratri (night), Sandya (twilight), and Dwaja (morning) [11]. In here “alah dening” means overshadowed or relegated by (the higher/greater). For example, “pananggal/panglong alah dening sasih (pananggal / panglong is relegated by month (sasih)”. When the day is to be used as the cremation function for the dead determined with reference to pananggal/panglong is considered good/best after consulting the value (urip) of each pananggal/panglong, but the sasih is found bad for cremation, then the pananggal/panglong should be relegated by the sasih. The proper/right sasih should be selected. The formulation starts from the lower importance to higher one. In calculation, a priest will give importance to the solar-lunar system rather than wuku system. However, in practice local or village tradition sometimes become a serious consideration in granting a good / proper day (subha dewasa) to a follower, especially related to cremation ceremony.

It is believed that right or proper time of a ritual will yield required results (puhya), on the other hand, wrong time of a ritual will cause undesirable even dangerous result (papa). It is very often some undesirable conditions happen in the post of ritual is to be evaluated or checked from day/time (subha dewasa) used to establish a ritual. Materials used and money spent for a ritual is nothing when time is not considered in advance. This tradition puts time as the utmost important in performing ritual.

3.4. Why times?

As mentioned above, no ritual without definite time is to be performed. This is obvious when a ritual belongs to irregular (naimitika yajna) or based on a certain desire (kamya yajna). Why time (kala) is so important in performing a ritual (yajna)? It is acknowledged that the concept of time differs in different tradition. Prasad remarks that the concept of time was never considered in isolation, because it is impossible to conceive of time independently of the allied concepts of Being and becoming, change and causality, and so on. This explains why we get different conceptions of time in the Vedanta, Upanisads, Puranas, and the various philosophical schools of Samkhya-Yoga, Nyaya-Vaisesika, Mimamsa, Vedanta, Jainism, and Buddhism, and why time is treated differently as real or unreal, subjective or objective, primary or secondary, physical or psychological, creator or created, interiorized or exteriorized, substantial or attributive, empirical or a priori, and so on [10]. The highest principle known as Siva is viewed as the originator of time (kala), and hence he is called Bhatarana Kala (Lord of Time) depicted in frightening character. Goudriaan after studying Balinese prayers of stuti and stava said that there are some manifestations of the Lord Siva. One of them is as Time (Kala). He points out to a Panca Vara Mantra, which assigns each day of the traditional five-day week to one of the five: Isvara, Brahma, Mahadeva, Visnu, and Siva, i.e. those who in the above list belong to four main directions and the centre. This suggests a close parallel between the Great
God’s presidencies over both Space and Time [11]. He exists in time as well creating in time and sustaining the created in duration of times. Some mythological descriptions of Lord (Bhatara) Kala like in Kala Purana text show that he is the authority of time. He has the right to kill anyone when h/she goes out on improper or critical time, e.g. in mid of the day. The conjunction of night and day called dawn (sandhi kala), of morning and noon called mid of the day, and of morning times and night called twilight (ngedas lemah/galang kangin), are crucial times for human being in the world. These times are considered risky time to start or commence an activity especially going out from house and walking on the street. For safety, one is suggested to do prayer or worship known as Sandhya Puja; and since these are three times of worship in a day, it is then called Puja Tri Sandhya.

Siva is the originator, maintainer, and deluder of the universe. The creation, maintenance, and delusion of the world happen in frame of times. He creates times and he is in and out of times. From empirical point of view he is in times meaning that He and other creations exist in the frame of time. However, from trans-empirical world, he is freed from time bound; he is eternal, the highest and absolute reality. It perhaps in the process of creation, time is created first before the others came into existence, like place, creatures, etc. In other words, everything created requires times to be created, exist and deluded. If time was not the first thing created, the others are likely impossible to be created or exist. Like place, time is a principle in which the other is possible to exist. It informs us that everyone as the created creature living in the world afraid of time as none can exceed or compete with times. Times process continuously without any break or disturbed by any activity done in the world. Therefore, time is eternal while the world of reality including human beings is transitory. With view, the concept of desa (place), kala (time), and patra (condition) prevalent in Balinese tradition has its philosophical basis.

The movement of planet in the universe is in time frames. There are thousands of outer sky objects which have its own effect to human life on earth. Human being used to look at these shining planets due to their importance and significance in life. They are given character of divinity as the light shows its meaning. Details division of time can be more objective to portray the character of human beings, animals, and plants even natural objects on earth.

4. Conclusion
Ritual is indispensible aspect of the religion of Javanese-Saivism. Ritual is an extension of metaphysics and ethics. The practice of religion is coloured by performance of various rituals as per the time calculation; some of them performed regularly, some others occasionally either individually or in groups. Rituals are performed in times and its duration depends on the kinds of rituals. It is only after time is set up in advance, the preparation and practice of ritual can be accomplished. The right choice of times can yield success or happiness of the performance of a ritual; on the contrary, it can cause misfortune even dangers. In addition to time, a ritual should consider place (desa) and situational condition (patra).

The time system of Saka-Bali used in this tradition combining solar-lunar system originated from India and Wuku system created by the stalwarts of ancient Java. It is harmonious blend of the two systems without losing any significance in both systems. With this system the division of time is more detail but complex giving more opportunities for the performer with reference to place, time, and condition.

As ritual exists in time, time is considered eternal. The Ultimate Principle called Siva is equated with Time (Kala) when He rules the universe. Considering proper time for ritual is basically worshipping Him in times as he pervades times and in form of times.

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