

# philippine studies

Ateneo de Manila University • Loyola Heights, Quezon City • 1108 Philippines

---

## Time Keeping: Philippine Style

Victor Badillo, S.J.

*Philippine Studies* vol. 28, no. 3 (1980) 354–362

Copyright © Ateneo de Manila University

---

Philippine Studies is published by the Ateneo de Manila University. Contents may not be copied or sent via email or other means to multiple sites and posted to a listserv without the copyright holder's written permission. Users may download and print articles for individual, noncommercial use only. However, unless prior permission has been obtained, you may not download an entire issue of a journal, or download multiple copies of articles.

Please contact the publisher for any further use of this work at [philstudies@admu.edu.ph](mailto:philstudies@admu.edu.ph).

## Time Keeping: Philippine Style

VICTOR L. BADILLO, S.J.

The LEDs in Achie Sarabia's quartz watch flashed 16 September 1978, after flashing 7:30 P.M., as he hastened to an awaited ceremony. It was not the Gregorian calendar reckoning which determined that his family be at the Francisco residence in Amparo Village, Novaliches, for the enactment of the *pamanhikan*, the courting ritual where the man's family formally asks for the maiden's hand in marriage, but the rightness of the aspect of the moon then plainly visible over the Sierra Madre mountains. Among Tayabeños, and his mother was one, the propitious time for the *pamanhikan* was a day or two before full moon, when it was still waxing.

When to plant? When to fish or set the trap? When to bury the dead or to offer the yearly sacrifice? Long before ICs (integrated circuits) learned to count fleeting bits of duration, long before Galileo was fascinated by a swinging tabernacle lamp, long before winds filled Magellan's sails, pre-Filipinos had found ways of regulating their lives and their activities. What these were may be gleaned from scattered beliefs, songs, tales, and riddles, gathered from sources from the earliest Spanish chroniclers to current folklorists. Little mention will be made of those with obvious western influence. Moreover since we are studying the practices of widely separated peoples, it would be surprising to find one synthetic view and homogeneous development.

These people were less interested in the nature of time than in the measure of time. Just as length is measured by definite intervals of length taken as standards, so a duration of time is measured by intervals of time. Unlike space measures where an adopted unit of length can be used over and over, in measuring time the standard unit exists concurrently and then is lost. So the search has been for "repeating intervals of time," which fortunately astronomy provides in abundance. Sunrise follows sunrise. Full moon follows

full moon. So they kept time not by mechanical devices but by the available regularities provided by nature as the heavenly bodies executed their appointed motions. As the Psalmist said: the sun knows the time for its setting (Ps. 104:19).

The natural units convenient for daily use are the day, the month, and the year. A more elaborate system can be built using fractions and multiples of these. Among the Tagalogs, the terms used for day and month, *araw* and *buwan*, are the same terms to designate the sun and the moon. This is true not only for the Tagalogs. Not so for the term used for year, *taon*. The passage of a year is not obviously connected with some astronomical body. The term *taon* means the assembling of many, i.e., the assembling of months to make up a year.

### THE DAY

Where does a circle begin? One point is as good as another to start with. In what can be considered a circular flow of time, such as a day cycle or a month's cycle, where one begins is left to our choice. It is convenient to choose an easily determinable point, such as the sun on the horizon or when highest in the sky, or the fully rounded moon on the horizon as the sun is setting. The Hebrews, either on their own or due to borrowing from neighbouring tribes, began the day with sunset. "Evening came, and morning, the first day" (Gen. 1:5). A remnant of this is the Judaeo-Christian Church day beginning with First Vespers. This framework could also serve as justification for the fulfillment of Sunday Mass obligation on Saturday evening. And in the civil plane, Christmas Eve which literally means the evening of Christmas, is kept on the 24th and not on the 25th. On the other hand, up to 1925 astronomers began the day with noon, since they did not wish to change dates during the night which was their working time. With reluctance they conformed to the practice of beginning the day at midnight. For many in the provinces today though, the day begins with cockcrow.

Since most of man's activities are in the daytime, it seems most natural to count by days. After so many days, payment of a loan is due. But among the Bukidnons, they reckoned by nights. They would say, "After four nights we shall come to build your house."

Others who have done this were Teutonic tribes in Germany. Their practice survives in the English term fortnight, i.e., fourteen nights. In a faintly similar vein, in 1975 someone in Alaska reckoned the duration of his trip, 320 miles by dogteam, as seven sleeps — a kind of reckoning by nights. Tagalogs do reckon by days (*araw*), but there is an interesting usage that seems to suggest something else. The term for yesterday is *kahapon*, which can be transliterated into "yesterafternoon," i.e., one afternoon ago. While a term for one night ago (*kagabi*) exists, there is none for one *araw* ago. With some consistency the term for "the whole day" is *maghapon*. It can appear in such combinations as *bukas maghapon*, the whole day tomorrow, *kahapong maghapon*, the whole day yesterday. There is a term for "the whole night," *magdamag*, but none for the whole *araw*. This bias for afternoon can be discerned in Bikol, Hiligaynon and Cebuano.

The day was not broken into hours of equal length. There was no need for it. There were specific terms for noon, sunrise and sunset. Farmers would start and finish activities on the basis of the sun's position in the sky, while fishermen would know when to start rowing back to shore by the new position assumed by a star or star group.

Any telling of the hour on the hour would have been by the *Kalaw*. Legend has it that this bird gives the correct time every hour from sunrise to sunset by the number of its high and disagreeable screeches. Similarly, another bird in Bohol, a large hornbill (*Hydrocorax semigaliatus*), was also supposed to call on the hour. This would account for its other name *reloj del monte* (clock of the forest).

#### THE MONTH

In some Filipino towns, the following riddle was proposed:  
There is a woman living in the world today.  
From the time of creation to this moment,  
she has not grown more than four weeks old.

It becomes cumbersome to pile days upon days, so it is convenient to use the period of the moon or lunation which is 29.5 days. In a commercial transaction, the trader from China and the resident of Binondo would agree to meet after so many moons. The regularity

of the same object in the sky was equally accessible to both men though widely spaced apart. As with the day, one was free to choose the starting point: new moon, full moon or other phase.

Today, among the fishing folk in Orion, Bataan, the *basnig* fishermen are not told, "You will get your share at the end of the month, or at the end of the *quincena* (fifteenth)," but "You will get your share *sa liwanag* (when it is bright, i.e., when the moon is full)." They can work when the nights are dark and are then paid their *diario*, but when the full aspect of Cynthia makes fishing difficult, a generous form of profit sharing takes place. They do not always reside in Orion, for they seek the best fishing places between Subic and Lucena, selling their catch and quartering at the nearest shore town at the time. Still they make sure to stay in Orion two *dilims* (periods of darkness) around May for the feast of St. Michael.

Nowadays students find in books four specific phases of the moon: new moon, first quarter, full moon and last quarter. There are names for in between phases like crescent and gibbous. But crescent is applicable over several days and for both waning and waxing moons. Modern Pilipinists have coined the term *gasuklay* (comblike) for crescent. It too applies to both waxing and waning moon. Gibbous is the term used when the moon looks like the hump (gibbous) of a hunchback. This too applies over several days before and after full moon. Unlike other Filipinos who have terms only for new (*katunawan*) and full (*kabilugan*) moon like the Tagalogs, the Bontocs have names for eight phases and have eliminated the ambiguities of crescent and gibbous. From new (*li meng* or *ma a mas*) to full (*fit fi tay og*) the waxing moon has three in between phases: *fis ka na*, *ma no wa* or *ma lang ad*, and *kat no wa na* or *nap no*. While from full to new, the waning moon has three in between phases: *ka tol pa ka na* or *matik pa ka na*, *ki sul pi ka na*, and *sig na a na* or *ka fa ni ka na*. Eskimos recognize and have terms for thirty kinds of snow. This is understandable since such knowledge could mean the difference between life and death. Similarly, the ancient Bontocs may have had needs that demanded precision in knowing and naming the lunar phases.

#### THE YEAR

When has a year gone by? How does one tell without looking at

a wall calendar? For one following a pure lunar calendar, like present day Muslims, it is a question of just counting the accepted number of lunations that make up a year. If one makes a knot on a rope or makes a cut on a piece of bamboo every new moon, then a year has gone by after twelve knots or cuts. Then it is time again, for example, for Ramadan, a month of religious fasting. But this is no help to agricultural activities that depend on the seasons. What is needed is a solar calendar. What local solar calendars were worked out will be shown below. For intervals longer than a month certain phenomena recurred with some regularity, phenomena dependent on climate and therefore on the sun.

In places where there is a pronounced division between long periods of no rain and of much rain, the year is made up of the rainy season — dry season doublet. Contrast this with the four seasons in other latitudes. While Ilocanos employ the terms *kalgao* (dry season) and *sibabasa* (rainy season), Tagalogs use *tagaraw* and *tagulan*. However, peoples not satisfied with this broad division make nice distinctions between the different parts of the year in terms of agricultural, biological, atmospheric and other phenomena.

In the Ilocos the year is further divided into six seasons: *Kalgao*, *Duppo*, *Sibabasa*, *Kiring*, *Lawa*, and *Dadarad*. The dry season from January to May is called *Kalgao*. The period from May to June when the rains begin is *Duppo*. The rainy season proper from July to October is *Sibabasa*. The period marking the end of the rainy season is *Kiring*. *Lawa* is the interval November to December. The year is thus divided into five parts, but there is a sixth season, the *Dadarad*, when it does not rain and the days are intensely hot. Some terms are self descriptive and unimaginative, while others like *Kiring* and *Lawa* are quite interesting and will be explained below.

The *Pintados*, the people of the Visayas, divide the year into twelve months, but only seven have names. The first month is determined by the rising of the *Ulalen* (the Pleiades). It is called *Dagankahoy*, when trees are felled in order to prepare the soil. The next is called *Daganenan*, when the wood of these trees is collected from the fields. Next is *Elkilin*, when they burn the fields. The fourth is called *Inabuyan* because of fine calm weather. The fifth is *Kabay*, when they weed the fields. The time to begin harvesting is called *Irarapan*. The last month with a characteristic name is

*Manalulsul*, when the harvesting is completed. As for the remaining months, they pay little attention to them, for during these months there is no work in the fields.

The first month is determined by the appearance of the Pleiades, a group of stars in Taurus, making its evening appearance towards the end of October. It is a memorable sight. Once one has seen it, it is etched in one's memory. It is a group of bright stars so close to each other that at first glance it looks like a little patch of bright cloud. A second look and one sees a clutchful of diamonds, firefolk huddling in the cold, a swarm of fireflies in a silver braid. Amos and Job mention it, calling it *kiyamah*, the Hebrew word meaning heap or herd. The Greeks saw the seven daughters of Atlas and Pleione. By the position of this easily seen Pleiades, the Yakans of Basilan know when to lay their fishing traps (*bubo*).

Both in the literature and in unpublished manuscripts are found attempts to provide local equivalents to the names of the twelve months of the Julian calendar. These are tabulated in the Table. The Julian or Latin names are essentially ordinal numbers, i.e., seventh, eighth, etc. The Lake Lanao names are the Muslim lunar months that differ only in spelling from current worldwide names. By definition, the lunar months are irreconcilable with the Julian or seasonal months, since the lunar calendar year, made up of 354 days, retrogresses through the season. Interestingly there is no trace of the Muslim names in the names of the other regions. Also, there is no trace of the names of the Hindu months.

The feature that characterizes a period in the Ilocos is either the flowering of a tree, the appearance of a fish, or some other phenomenon. The main natural phenomenon occurring in the month is taken to be the index of that month. Since the *sagat* (molave) flowers in January, that time of the year is called *panagsabong ti sagat* (the flowering time of the *sagat*). From the Table one sees seven months characterized by a flowering of a plant or tree. In February the fish *tudding* appears. In March the spiny weed *salsal-put* is in abundance. October is the time for showers (*bisibis*). There is a spell of several days in the last week of October which is considered essentially unlucky. This period is known locally as the *Kiring*. It may be related to *Kiling* on the same line to the right in the Table. *Lawa* means plenty, for in December the first harvests start, and soon there will be plenty of leisure too. Unlike some modern rice varieties that can be certified to ripen in 120 days or

### Provisional Distribution of Months<sup>1</sup>

	<b>Ilocos</b>	<b>Lepanto Bauco</b>	<b>Igorot</b>	<b>Buguias Sagada</b>	<b>Pangasinan</b>	<b>Panay</b>	<b>Lake Lanao<sup>2</sup></b>
Jan	Sagat <sup>3</sup>	Luya	Libtong	Tiyagew	Kailuam	Ulalong	Mokaron
Feb	tudding <sup>4</sup>	Ledew	Atong	Bakakew	Kadasig	Dagangkahoy	Sapar
Mar	salsalput <sup>4</sup>	Upok	Panlitonan	Dulsok di lusong	Karamay	Daganen	Rabiu ala wala
Apr	Kitakita <sup>3</sup>	Bakekew	Bekas	De-am	Kaptangan	Kiling	Rabiu ala kil
May	Banaba <sup>3</sup>	Litkiti	Deam		Talabit	Hinabuyan	Diamadil a wala
Jun	Adauay <sup>3</sup>	Kiang	Adug		Lislis	Kabay	Diamadil a aker
Jul	Akal <sup>3</sup>	Oao	Hoa-o		Pawik-pawik	Hidapdapon	Radiub
Aug	Kamadoyong <sup>3</sup>	Panaba	Peppas		Mamawal	Labadlubad	Saabban
Sep	Walo <sup>3</sup>	Tiway	Tioay	Kiling	Biskeg	Kangorosol	Ramalan
Oct	bisibis <sup>4</sup>	Adug	Tikey	Adog	Dita	Bagyobagyo	Sawal
Nov	Kiring	Kiling	Kiling		Pakayari	Panglot nga diotay	Dulukaiida
Dec	Lawa	Batutang	Esek		Oyamo	Panglot nga daaku	Dulukadi

1. To be used only in conjunction with the text.

2. Muslim names of lunar months. No correspondence is possible with the months of the Julian solar calendar.

3. This is preceded by the phrase *panagsabung ti*. January would be *panagsabung ti Sagat*, "time for the flowering of the sagat (molave) tree."

4. To be supplied is the prefix *panag*. Thus February would be *panagtudding*, "time for the *tudding*" *Tudding* is one type of fish.

in 99 days, seasonal rice whether planted early or late ripens only in December.

While the Ilocano names of months abound in trees, those of the Mountain Province abound in birds. What birds do, depends on the seasons. Thus when it is too cold in China, birds there migrate to warmer climes. The Mountain Province rides astride the migration lanes. Before the introduction of the Julian calendar, and even until now, birds have served as reference points for specific times of the year. *Bakekew* is the wild dove and is the name of a month. The *Kiling* is a bird, a month and a typhoon. Typhoons can pass the Mountain Province any month, but those that pass in November are the strongest. A November typhoon that lasts a day and a night is called *kiling*. For after the typhoon, the bird is heard calling, "Kiling, kiling . . .," and at no other time. This might explain the association of bad luck with *Kiring*. One reason for applying the tag Provisional to the Table is the need to pin down more precisely the names of the birds. There is a rich variety of peoples in the Mountain Province so that the same bird can have different names. There need not be too close a correspondence between these local names and the Julian months. If it served the purpose of determining when to plant or to hunt, that was enough.

The constancy of the tilt of the earth's axis as it makes its annual journey around the sun is the cause of climatic changes or seasons, and of everything that is affected by season: monsoons, typhoons, no rain, migration of birds, flowering and fruiting time, etc. Thus these cyclic changes provide markers in the flow of time for telling the solar year. The more direct way is by the use of the stars. Some practices involving the use of the Pleiades were shown above. The Bagobos of Davao used the stars too. Once a year the constellation *Balatic* rises at 7:00 P.M., and this is in the first week of December. It is the time for the yearly sacrifice of the tribe and for the workers to place in readiness the tools needed in making new clearings. The Balatik is a grouping of seven stars, three at right angles to the other four. It is so named, for the Bagobos could see in it their *balatik*, a trap which when sprung throws a spear. It may be identified with Orion, so easily recognizable in the winter nights.

Stonehenge, the ruins of a megalithic structure in Wiltshire, England, is considered to have served as a solar calendar. From a fixed sighting point, the sun has a different rising point each day

of the year. Stonehenge makes use of this fact. And so do the less imposing stone "medicine wheels" left by ancient Indians in Wyoming and in various places in the United States and Canada. Now there is a report of ruins similar to these stone medicine wheels in Barrio Gueday in Besao, Bontoc, which the National Museum plans to restore. This is another method of telling the solar year, by using the sun itself. But today's Bontocs, like to-day's Indians and Englishmen, have no memory of the use of these patterns in stone. What were the schedules of activities that required the precise knowledge of the day of the solar year?

In summary, this paper records a variety of interesting ways that were worked out to keep track of the different times: the day, the month and the year. The methods, showing a sense of interrelation with nature, are expected of peoples engaged in agriculture, hunting and fishing. There were many other ways, more interesting perhaps, but still to be uncovered and recorded. As it is, so much has already been forgotten. It may help to recall a quaint custom in the Ilocos. When one sees a *layap* (shooting star), he hurries to make a knot in his handkerchief, or some other piece of cloth. The *layap* is beautiful, swift moving, evanescent. Can one tie the knot before the *layap* disappears? Can we capture in writing ancient time telling methods before they vanish?