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# ASTRONOMICAL NAMES FOR THE DAYS OF THE WEEK

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**Abstract.** Day names generally follow one of two conventions: *the numerical convention*, in which the days are numbered from one to seven (as in Portuguese, Mandarin, or Swahili), and *the astronomical convention*, in which the days are named after the Sun, the Moon, and the planets (as in English, Hindi, or Quechua). The two naming conventions originated about 2600 years ago and together account for most of the day names in the majority of the world's languages. Day names of specifically religious origin are more recent, and are usually limited to days of religious significance, mainly Friday, Saturday, or Sunday. The survival of the astronomical day names in many of today's languages is remarkable, in view of the passage of time and the many past efforts to eradicate such relics of our ancient past.

**Résumé.** Le nom des jours de la semaine se conforme généralement à l'un de deux usages: soit l'usage numérique selon lequel les jours sont numérotés de un à sept (comme, par exemple, en portuguais, en mandarin, ou en swahili), ou soit l'usage astronomique selon lequel les noms du Soleil, de la Lune, et des planètes servent à nommer les jours (comme, par exemple, en anglais, en hindi, ou en quéchua). L'origine de ces deux usages remonte à environ 2 600 années et ensemble expliquent la grande part des noms des jours dans la majorité des langues à travers le monde. Les noms des jours avec des liens religieux spécifiques sont apparus plus récemment, et ils sont généralement limités aux jours qui ont une portée religieuse particulière, surtout le vendredi, le samedi, et le dimanche. La survie des noms d'origine astronomique dans de nombreuses langues même aujourd'hui est remarquable étant donné le passage du temps et les maintes efforts par le passé de supprimer ces vestiges des anciens temps.

# 1. THE ORIGIN OF THE MODERN SEVEN-DAY WEEK

The lunar month, based on the Moon's cycle of phases and containing on the average 29.53 days, was at one time universal in all cultures. Shorter groupings of days also came widely into existence in early agricultural societies in connection with the need to maintain cycles of market days and other recurring socio-economic and religious activities. Market cycles consisted of different numbers of days in different cultures. An eight-day cycle (nundinae), for example, was commonly used in ancient Rome and a ten-day cycle (decades) in ancient Greece. Some eight-day cycles are still in use today in sub-Saharan Africa and probably elsewhere. Most of the earlier non-sevenday cycles were forgotten, however, along with the names of their days, once the present seven-day week had been adopted.

The modern seven-day week, now very nearly universal, appears to have originated in Babylonia some time between the eighth and sixth century BCE (Duncan 1998; O'Neill 1978). The ninth century BCE Babylonian calendar was based on the lunar month, and is known to have had recurring "bad luck" days, which included the  $7^{\rm th}$ ,  $14^{\rm th}$ ,  $21^{\rm st}$ , and  $28^{\rm th}$  day of each month (Table I). On those days travel was not undertaken, and certain priestly functions, such as divination and healing, were not performed. The Babylonian month being lunar, the four special days corresponded closely (though not exactly) to First Quarter, Full Moon, Last Quarter, and the disappearance of the Moon (New Moon). The Babylonian month therefore contained four seven-day periods, each ending on one of the special days, followed by one or two extra days. It was only a small step to leave out the extra days, making the seven-day cycle continuous and divorced from the lunar cycle.

TABLE I Babylonian Lunar Month

1 2 3 4 5 6 7  First Qi 8 9 10 11 12 13 14  Full Mc 15 16 17 18 19 20 21  Last Qu 22 23 24 25 26 27 28 New M 29 (30)	uarter
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#### 2. Numerical Day Names and the Sabbath

We have no record of when and how the seven-day cycles became continuous. An important contributing event may have been the arrival in Babylon during the reign of Nebuchadnezzar (604-561 BCE) of exiled Judeans, who founded a thriving Jewish community in exile, which lasted many centuries. The Jews made the seven-day week a central feature of their theology. The first chapter of the first book of the Hebrew Bible (Genesis 1) gives an account of the creation of the world in six days, followed by the seventh day on which the Creator rested. In this account the seven days of creation are named numerically, as in Table II. Further along, in Exodus 20, the Bible proclaims the seventh day of the week to be a day of rest for mankind, under the name Shabbat in Hebrew, Shabta in the closely related Aramaic. The name, known in English as "Sabbath," was most likely derived from shabattu or shapattu, a Babylonian word for the feast of the Full Moon (O'Neill 1978). The numerical naming convention, based on the Hebrew Bible, is to number the first six days of the week and to give a special name to the seventh.

It has often been suggested that the word *Shabbat* is of numerical origin, being derived from the Hebrew *sheva* "seven," but the differences in the Hebrew spelling of the two words show that the two roots are distinct. It has also been suggested that *Shabbat* is derived from the Hebrew verb meaning "cease, desist, rest" (*shabbat* in the past tense),

TABLE II
The Day Names in Genesis 1

Hebrew Bible	Meaning	Aramaic Bible
Yom Ekhad	"day one"	Yoma Khad
Yom Sheini	"day two"	Yom Tinyan
Yom Shlishi	"day three"	Yom Tlitai
Yom Revii	"day four"	Yom Reviayi
Yom Khamishi	"day five"	Yom Khamishayi
Yom Hashishi	"day six"	Yom Shetitayi
Yom Hasheviyi	"day seven"	Yoma Sheviyaah

but it seems more likely that it is the verb that is derived from the noun signifying the day of rest. In all probability, the word *Shabbat* is related to the Babylonian *shabattu* and was originally connected with the Full Moon. Later, the meaning could have been extended to all four lunar phases. We should therefore consider "Sabbath" as an astronomical rather than a numerical name.

The name "Sabbath" was borrowed repeatedly from one language to another until today it occurs, in various modified forms, in very many languages. Most commonly it designates Saturday, but sometimes Sunday, and in some languages it also means "week" (Table III).

TABLE III
Some of the Names for Saturday Derived from Babylonian *shabattu* 

ANCIENT LANGU	AGES:	
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About 1000 BCE: Babylonian: shabattu ("Full Moon")

About 500 BCE: **Hebrew:** Shabbat **Aramaic:** Shabta

Middle Ages: Latin: Sabbatum Greek: Sabbaton Arabic: AsSabt
Sabbati Dies (Sambaton)

(Sambati Dies)

# MODERN LANGUAGES:

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Spanish:	Sabado	French:	Samedi	Georgian:	Shabati <sup>3</sup>
Italian:	Sabato	Romanian:	Sîmbata	Chechen:	Shot
Sardo:	Sappadu	German:	Samstag	Ingush:	Shoatta
Russian:	Subbota	Swabian:	Samschdich	Maltese:	Is Sibt
Ukrainian:	Subota	Greek:	Savvaton	Hausa:	Subdu
Czech:	Sobota	Hungarian:	Szombat	Fula:	Aset
Polish:	Sobota	Farsi:	Shambeh <sup>3</sup>	Tuareg:	Essebtin
Slovene:	Sobota	Kyrghiz:	Ishembi <sup>3</sup>	Kabyle:	Sebt
Bizkaian:	Zapatu	Azeri:	Senbe <sup>3</sup>	Malagasy:	Asabotsy
Armenian:	Shapat	Uzbek:	Shanba <sup>3</sup>	Malay:	Sabtu
Tagalog:	Sabado	Tatar:	Shimba <sup>3</sup>	Fulfulde:	Assebdu
Bobangi:	Sabala	Pashto:	Shanba <sup>3</sup>	Teda:	Essebdu
Papua:	Sabat <sup>2</sup>	Baluchi:	Shembe <sup>3</sup>	Harari:	Sabti
Majel:	Jabot <sup>2</sup>	Turkmen:	Shenbe <sup>3</sup>	Mandinka:	Sibitoo
Hebrew:	Shabbat <sup>3</sup>	Kazakh:	Sembi <sup>3</sup>	Egyptian:	Essabt
English:	Sabbath <sup>2</sup>	Amharic:	Senbet <sup>1</sup>	Syrian:	Issabt

Notes:

- <sup>1</sup> Denotes both Saturday and Sunday
- <sup>2</sup> Denotes Sunday
- 3 Also means "week"

# 3. ASTRONOMICAL DAY NAMES

The astronomical day-naming convention, in which the seven days are named after the Sun, the Moon, and the five planets known in antiquity, also arose in Babylonia, though it was totally ignored by the Jews. The Babylonians associated the planets with seven of their important deities. The connection between gods and planets was shared by many early cultures. Partly through independent myth-creating processes and partly by borrowing, the names given to the planets in the Greek, Roman, and Hindu civilizations were those of deities roughly analogous to those of the Babylonian gods (Table IV).

The order of the Sun, the Moon, and the planets in the naming of week days may at first seem strange. An explanation has been provided by Dio Cassius, a Christian historian of the third century (O'Neill 1978). According to Cassius, astrologers assigned the 24 hours of every day of the week to the seven moving celestial objects in the specific cyclic sequence Saturn–Jupiter–Mars–Sun–Venus–Mercury –Moon, which is simply in decreasing order of their sidereal periods. In such fashion, Saturn was assigned the 1<sup>st</sup>, 8<sup>th</sup>, 15<sup>th</sup>, and 22<sup>nd</sup> hours of the first day, and the first hour of the second day fell to the Sun.

Each day of the week was then named in honour of the planet to which its *first hour* was assigned, yielding the current sequence Saturn–Sun–Moon–Mars–Mercury–Jupiter–Venus, as summarized in Table V. Roman calendars have been preserved that show the assignment of the twelve hours of each day and night to the seven planets as described by Cassius (Salzman 1990). The hours assigned to the different planets were understood to be good (*bona*), bad (*noxia*), or indifferent (*communis*). The astrological concept of "lucky" and "unlucky" hours has been strongly ingrained in Western culture, going back to antiquity.

While the seven-day week with astronomical day names appears to have been already in use in Babylonia in the reign of Nebuchadnezzar, no direct evidence exists. The early use of the astronomical day names by the Babylonians may be inferred, however, from the fact that the Hebrew name for the planet Saturn, used for example in the Babylonian Talmud, is *Shabbetai*. The name, meaning "related to Sabbath" or "the Sabbath planet," implies that at the time it was coined by the Jews, presumably in the early stages of the Jewish exile in Babylon, the day celebrated as the Jewish Sabbath was dedicated by the Babylonians to Saturn (Babylonian Ninurta).

 $\label{eq:Table IV} Table IV \\ Names of the Divinities given in Antiquity to the Sun, Moon, and Planets$ 

	Babylonian <sup>1</sup>	Latin	Greek	Sanskrit	Germanic
Sun	Shamash	Sol	Helios	Surya, Aditya, Ravi	Sun
Moon	Sin	Luna	Selene	Chandra, Soma	Moon
Mars	Nergal	Mars	Ares	Angaraka, Mangala	Tiw
Mercury	Nabu	Mercurius	Hermes	Budh	Wotan
Jupiter	Marduk	Iupiter	Zeus	Brihaspati, Cura	Thor
Venus	Ishtar	Venus	Aphrodite	Shukra	Freia
Saturn	Ninurta	Saturnus	Kronos	Shani	2

Notes: 1 Duncan (1998)

<sup>&</sup>lt;sup>2</sup> Not known

Table V Astronomical Names for the Hours and the Days

Hour				Day			
I	Sat	Sol	Luna	Mars	Merc	Jup	Venus
II	Jup	Venus	Sat	Sol	Luna	Mars	Merc
III	Mars	Merc			Sat	Sol	
			Jup	Venus			Luna
IV	Sol	Luna	Mars	Merc	Jup	Venus	Sat
V	Venus	Sat	Sol	Luna	Mars	Merc	Jup
VI	Merc	Jup	Venus	Sat	Sol	Luna	Mars
VII	Luna	Mars	Merc	Jup	Venus	Sat	Sol
VIII	Sat	Sol	Luna	Mars	Merc	Jup	Venus
IX	Jup	Venus	Sat	Sol	Luna	Mars	Merc
X	Mars	Merc	Jup	Venus	Sat	Sol	Luna
XI	Sol	Luna	Mars	Merc	Jup	Venus	Sat
XII	Venus	Sat	Sol	Luna	Mars	Merc	Jup
XIII	Merc	Jup	Venus	Sat	Sol	Luna	Mars
XIV	Luna	Mars	Merc	Jup	Venus	Sat	Sol
XV	Sat	Sol	Luna	Mars	Merc	Jup	Venus
XVI	Jup	Venus	Sat	Sol	Luna	Mars	Merc
XVII	Mars	Merc	Jup	Venus	Sat	Sol	Luna
XVIII	Sol	Luna	Mars	Merc	Jup	Venus	Sat
XIX	Venus	Sat	Sol	Luna	Mars	Merc	Jup
XX	Merc	Jup	Venus	Sat	Sol	Luna	Mars
XXI	Luna	Mars	Merc	Jup	Venus	Sat	Sol
XXII	Sat	Sol	Luna	Mars	Merc	Jup	Venus
XXIII	Jup	Venus	Sat	Sol	Luna	Mars	Merc
XXIV	Mars	Merc	Jup	Venus	Sat	Sol	Luna

#### 4. THE SPREAD OF THE ASTRONOMICAL DAY NAMES

The spread of the seven-day week over the entire Mediterranean region took place about six centuries later, at the beginning of the Christian Era. One of the factors that may have helped the spread was the dispersal of Jews over the whole Roman Empire, especially after the destruction of the Second Temple in 70 ce. Another factor may have been a rising popular interest in astrology. The common use of the seven-day week with the astronomical day names in the first century CE was clearly shown by the discovery in the excavations in Pompeii of bilingual graffiti containing the Greek and Latin day names given in Table VI (O'Neill 1978). The graffiti must have been scrawled during or before the year 79 CE, when Pompeii was buried under a thick layer of volcanic ash in the eruption of Vesuvius. It is also recorded that the Jews, who first appeared in Rome during the first century BCE, were thought to be worshippers of Saturn (O'Neill 1978). That confirms the fact that the Jewish Sabbath coincided with the Roman Dies Saturnis. As Christianity spread across the Roman Empire over the following two centuries, the astronomical day names were apparently already well entrenched. Emperor Constantine legally incorporated the seven-day week into the Roman calendar in the year 321 ce, declaring *Dies Solis* an official day of rest and worship.

TABLE VI
Early Astronomical Day Names

	Latin (79 ce)	Greek (79 ce)	Sanskrit
Sun	Dies Solis	Heliu Hemera	Adityavaara or Ravivaara
Moon	Dies Lunae	Selenes Hemera	Somavaara
Mars	Dies Martis	Areos Hemera	Angarakavaara or Mangalavaara
Mercury	Dies Mercurii	Hermu Hemera	Budhavaara
Jupiter	Dies Iovis	Dios Hemera	Brihaspativaara or Curuvaara
Venus	Dies Veneris	Aphrodites Hemera	Shukravaara
Saturn	Dies Saturnis	Khronu Hemera	Shanivaara

### 5. THE IMPACT OF CHRISTIANITY

The early Church recognized the pagan origin of the astronomical day names and tried very hard to replace them by a numerical system based on the Bible. The attitude of the Church is shown by the following two passages.

- 1. Ascribed to Pope Sylvester, 314-335 CE (O'Croinin 1981): "The Blessed Pope thus instructed Christians... that they should not name the seven days of the week according to the pagan custom, but name them instead *Prima Feria i.e. Dominicus, Secunda Feria, Tertia Feria ...*"
- 2. Ascribed to Caesarius, Bishop of Arles, Fifth Century CE (Holman 1994): "Truly, brothers, we must scorn and reject those filthy names (*ipsa sordissima nomina dedignemur*)... and never say *Dies Martis, Dies Mercurii, Dies Iovis,* ... but name the days *Prima Feria, Secunda Feria, Tertia Feria,* ... according to what is written in the Bible."

The Church-sponsored terminology generally prevailed in Eastern Europe. The original set of seven astronomical day names in

Greek, for example, was replaced by four numerical names for Monday through Thursday, and three religion-related names for Friday, Saturday, and Sunday (Table VII). In contrast, the impact of Christianity on the languages of Western Europe was relatively minor (Table VIII). Five of the seven astronomical day names in Latin were retained through the middle ages, religion-related names being adopted only for Saturday and Sunday. One exception in Western Europe was the adoption of numerical names in Portuguese, which replaced astronomical names altogether. It is not clear why the Church was so uniquely successful in Portugal.

Day names did not undergo any changes in the Romance languages since the early medieval period. The majority still reveal their astronomical origin (Table IX). The word *Dies* ("day"), which was optionally added to Latin day names (*Dies Martis* or *Martis Dies*, or *Martis*), became incorporated at the beginning of the day names in Catalan (*Dimarts*) and Provençal (*Dimars*), at the end of the day names in French (*Mardi*) and Italian (*Martedi*), but does not appear at all in Spanish (*Martes*), Romanian (*Marti*), or Sardinian (*Martis*). The history underlying the associated geographic distribution has been much discussed (Holman 1994; Dardel 1996).

TABLE VII
Impact of Christianity on Greek Day Names

Pre-Christian	ı Greek	Modern G	reek
Sunday	Heliu <sup>1</sup>	Kyriake	("Lord's day")
Monday	Selenes <sup>1</sup>	Deftera	(2)
Tuesday	Areos <sup>1</sup>	Triti	(3)
Wednesday	Hermu <sup>1</sup>	Tetarti	(4)
Thursday	$\mathrm{Dios}^1$	Pempti	(5)
Friday	Aphrodites <sup>1</sup>	Paraskevi	("preparation")
Saturday	Khronu <sup>1</sup>	Savvaton1	(from Sabbaton)

Notes: 1 Name of astronomical origin

TABLE VIII
Impact of Christianity on Latin Day Names

Pre-Christian Latin	Church Usage	Medieval Latin	Modern Spanish	Modern Portuguese
Dies Solis <sup>1</sup>	Dominica	Dominica	Domingo	Domingo
Dies Lunae <sup>1</sup>	Secunda Feria	Lunis <sup>1</sup>	Lunes <sup>1</sup>	Segunda-feira
Dies Martis <sup>1</sup>	Tertia Feria	Martis <sup>1</sup>	Martes <sup>1</sup>	Têrça-feira
Dies Mercurii <sup>1</sup>	Quarta Feria	Mercuris <sup>1</sup>	Miércoles <sup>1</sup>	Quarta-feira
Dies Iovis <sup>1</sup>	Quinta Feria	Iovis <sup>1</sup>	Jueves <sup>1</sup>	Quinta-feira
Dies Veneris <sup>1</sup>	Sexta Feria	Veneris <sup>1</sup>	Viernes <sup>1</sup>	Sexta-feira
Dies Saturnis <sup>1</sup>	Sabbatum <sup>1</sup>	Sabbata <sup>1</sup>	Sábado <sup>1</sup>	Sábado <sup>1</sup>

Notes: <sup>1</sup>Name of astronomical origin

TABLE IX
Day Names in Some Romance Languages

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Late Latin	Dominica	Lunis <sup>1</sup>	Martis <sup>1</sup>	Mercuris <sup>1</sup>	Jovis <sup>1</sup>	Veneris <sup>1</sup>	Sabatu <sup>1</sup>
French	Dimanche	Lundi <sup>1</sup>	$Mardi^1$	Mercredi <sup>1</sup>	Jeudi¹	Vendredi <sup>1</sup>	$Samedi^1$
Italian	Domenica	Lunedi <sup>1</sup>	Martedi <sup>1</sup>	Mercoledi <sup>1</sup>	Giovedi <sup>1</sup>	Venerdi <sup>1</sup>	Sabato1
Spanish	Domingo	Lunes <sup>1</sup>	Martes1	Miércoles <sup>1</sup>	Jueves <sup>1</sup>	Viernes <sup>1</sup>	Sábado1
Romanian	Duminică	Luni <sup>1</sup>	Marti <sup>1</sup>	Miercuri <sup>1</sup>	Joi <sup>1</sup>	$\operatorname{Vineri}^1$	Simbătă <sup>1</sup>
Sardinian	Duminica	$Lunis^1$	Martis <sup>1</sup>	Merculis <sup>1</sup>	Zobia <sup>1</sup>	Chenapura	Sappadu
Catalan	Diumenge	$Diluns^1$	Dimarts <sup>1</sup>	Dimecres <sup>1</sup>	Dijous¹	Divendres <sup>1</sup>	Dissabte
Provençal	Dimenge	$\mathrm{Diluns}^1$	Dimars <sup>1</sup>	Dimercres <sup>1</sup>	Dijous <sup>1</sup>	Divenres <sup>1</sup>	Disapte <sup>1</sup>

Notes: 1 Name of astronomical origin

# 6. Day Names in German, Celtic, and Balto-Slavic Languages

Germanic languages adopted the astronomical day names in pre-Christian or early Christian times. Dies Solis and Dies Lunae were simply translated as "Sun-day" and "Moon-day," while the names of the five planets were given the names of Germanic deities, substituted for those of the Roman gods (Table X). In Old English all seven days bore astronomical names, while in Old High German and Old Norse only six days did, the exception being Saturday, which was replaced at an early date by Sambaztag (from Greek Sambaton and ultimately from Babylonian shabattu) and Laugardagr (meaning "bath-day") respectively. Later, under Church influence, German Wodenstag was replaced by Mittawecha "mid-week," which later became Mittwoch, but the other astronomical day names remained. Only in Icelandic did a more substantial replacement of astronomical names occur. Sunday and Monday were retained, but the names of the other days were replaced by numbers (Tuesday and Thursday) or by other churchapproved terms (Table XI). The renaming of Wednesday as the "midweek day" (German *Mittwoch* and Icelandic *Miðvikudagur*) follows the popular late Latin *Media Hebdoma*, still found regionally as Tuscan *Mezzedima*, Dolomite *Mesaledema*, and Dalmatian *Misedma* (Holman 1994). Names for Wednesday signifying "mid-week day" were also coined in all Slavic languages, as well as in Finnish and Estonian.

Celtic languages fall into two distinct groups (Table XII). Breton and Welsh were subjected to early Romanization, and borrowed all seven astronomical day names from pre-Christian Latin. Several centuries later, the Scots and Irish acquired only three of the original seven Roman astronomical names (Monday, Tuesday, and Saturday), adopting religion-related names for the other four days.

The Slavs were gradually converted to Christianity during the years 863 to 988, and adopted a single set of day names now used over a very wide area. The uniformity of Slav day names (Table XIII) is remarkable, in view of the fact that the Slavs spoke more than a dozen mutually unintelligible dialects and came under the influence of either the Western Church or the Eastern Church. The names used in Ukrainian, Belarus, Slovak, Sorbian, Serbo-Croat, and Slovene are very similar to the ones listed in Table XIII. The set of names, clearly

coined under a strong Church influence, contains special names for Saturday and Sunday, the remaining days being numbered. The name for Sunday, *Niedziela* in Polish, means "no work" or "no activity." Analogous names have been coined in Manx (*Yn Doonaght*) and in some Amerindian languages. The name for Wednesday, Środa ("middle"), follows *Mittwoch*, *Miðvikudagur* and *Media-Hebdoma*. The persistence of the same set of names in so many languages for over 1000 years is remarkable. The only innovation during that period has been the replacement of the early Russian word for Sunday, *Nyedyelya* ("nowork"), by the current *Voskresyenye* ("resurrection"). (*Nyedyelya* is still

used in Russian to mean "week," however.) The replacement of *Nyedyelya* by *Voskresyenye* represents a substitution of one religion-related name by another. There are no astronomical names in Slavic languages, except for *Sobota* (Saturday).

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The Balts were Christianized later than the Slavs (1259–1385). The Lithuanian and Latvian day names (not shown) are entirely numerical, except for Sunday, called "holy day." The Balts have no equivalent for Środa or Niedziela and, unlike the Slavs, simply number Saturday as the sixth day, their numbering starting with Monday.

TABLE X
Early Germanic Day Names

Pre-Christian Latin	Old High German	Old English	Old Norse
Dies Solis <sup>1</sup>	Sunnuntag <sup>1</sup>	Sunnandaeg <sup>1</sup>	Sunnundagr <sup>1</sup>
Dies Lunae <sup>1</sup>	Mānetag¹	Mónandaeg¹	Mánadagr <sup>1</sup>
Dies Martis <sup>1</sup>	Ziestag <sup>1</sup>	Tiwesdaeg <sup>1</sup>	Tysdagr <sup>1</sup>
Dies Mercurii <sup>1</sup>	Wodenstag <sup>1</sup>	Wódnesdaeg¹	Óŏensdagr¹
Dies Iovis <sup>1</sup>	Donerestag <sup>1</sup>	Thunresdaeg <sup>1</sup>	Thorsdagr <sup>1</sup>
Dies Veneris¹	Friatag <sup>1</sup>	Frigedaeg <sup>1</sup>	Friádagr <sup>1</sup>
Dies Saturnis <sup>1</sup>	Sambaztag <sup>1</sup>	Saternesdaeg <sup>1</sup>	Laugardagr

Notes: <sup>1</sup>Name of astronomical origin

TABLE XI
Later Developments in Germanic Day Names

Dutch	German	Swedish	Icelandic
Zontag <sup>1</sup>	Sonntag <sup>1</sup>	Söndag <sup>1</sup>	Sunnudagur <sup>1</sup>
Maandag <sup>1</sup>	Montag <sup>1</sup>	$Måndag^1$	Mánudagur¹
Dinsdag <sup>1</sup>	Dienstag <sup>1</sup>	Tisdag <sup>1</sup>	þriðjudagur ("third-day")
Woendag <sup>1</sup>	Mittwoch ("mid-week")	Onsdag <sup>1</sup>	Miðvikudagur ("mid-week-day'
Donderdag <sup>1</sup>	Donnerstag <sup>1</sup>	Torsdag <sup>1</sup>	Fimmtudagur ("fifth-day")
Vrijdag <sup>1</sup>	Freitag <sup>1</sup>	Fredag <sup>1</sup>	Föstudagur("fast-day")
Zaterdag <sup>1</sup>	Sonnabend <sup>1</sup>	Lördag	Laugardagur ("bath-day")

Notes: 1 Name of astronomical origin

TABLE XII
Day Names in Some Celtic Languages

Latin	Breton	Welsh	Irish Gaelic	Scots Gaelic
Dies Solis¹	$Sul^1$	DyddSul <sup>1</sup>	AnDomhnach	Di-Domnaich (Dominica)
Dies Lunae <sup>1</sup>	$\operatorname{Lun}^1$	DyddLlun <sup>1</sup>	$AnLuan^1$	Di-Luain <sup>1</sup>
Dies Martis <sup>1</sup>	$Meurz^1$	DyddMawrth <sup>1</sup>	${\sf AnMh\'airt}^{\scriptscriptstyle  m I}$	Di-Màirt¹
Dies Mercurii <sup>1</sup>	Marker <sup>1</sup>	DyddMercher <sup>1</sup>	AnChéadaoin	Di-Ciadaoin ("first-fast")
Dies Iovis <sup>1</sup>	Diryaou <sup>1</sup>	DyddIau <sup>1</sup>	AnDéardaoin	Di-Ardaoin (?)
Dies Veneris <sup>1</sup>	Gwener <sup>1</sup>	DyddGwener <sup>1</sup>	AnAoine	Di-Haoine ("fast")
Dies Saturnis <sup>1</sup>	Sadorn <sup>1</sup>	DyddSadwrn <sup>1</sup>	AnSatharn <sup>1</sup>	Di-Sathurn <sup>1</sup>

Notes: 1 Name of astronomical origin

TABLE XIII Day Names in Some Slavonic Languages

Polish	Czech	Bulgarian	Macedonian	Russian
Niedziela <sup>1</sup>	Nedĕle¹	Nedelja <sup>1</sup>	Nedela <sup>1</sup>	Voskresyenye <sup>2</sup>
Poniedziałek	Pondělí	Ponedelnik	Ponedelnik	Ponyedyelnik ("after-niedziela")
Wtorek	Úterý	Vtornik	Vtornik	Vtornik ("second")
Środa	Středa	Sryada	Sreda	Sreda ("middle")
Czwartek	Čtvrtek	Chetvyrtyk	Chetvrtok	Chetverg ("fourth")
Piątek	Pátek	Petyak	Petok	Pyatnitsa ("fifth")
Sobota <sup>3</sup>	Sobota <sup>3</sup>	Sobota <sup>3</sup>	Sobota <sup>3</sup>	Subbota¹(from Latin Sabbata)

#### 7. DAY NAMES IN OTHER EUROPEAN LANGUAGES

Estonians and Finns live in close proximity, and the two languages are closely related but use very different day names. Finnish has simply borrowed the Scandinavian set of astronomical names, while Estonian has borrowed only the names of Friday and Saturday, the other days being named according to a numerical system that recalls the Slavic model (Table XIV).

Hungarian day names (Table XV) include only one of clearly astronomical origin, Szombat (Saturday), borrowed from Greek Sambaton.

Basque day names (Table XV) are interesting in that they contain a possible trace of an ancient three-day week. Such a short week is implied by the names for Monday, Tuesday, and Wednesday (Astelehen, Astearte, Asteazken). The etymology of several other Basque names is uncertain and they could be of astronomical origin. Ortzegun (Thursday), for example, could have meant either "sky-day" or "thunderday," so it may have been named after Jupiter (Trask 1998).

Albanian day names (Table XV) are largely astronomical. The

names for Tuesday, Wednesday, and Saturday are derived from Mars, Mercury, and Saturn, while the names for Sunday and Monday carry the Albanian words for "Sun" and "Moon." The names of Thursday and Friday, Enjte and Prémte, are of uncertain etymology and may also be astronomical.

The languages of the Caucasus region belong to several unrelated language families, but they have all borrowed the Hebrew Shabbat or Aramaic Shabta for Saturday (Table XVI). Armenian and Georgian also use shapti or shabati as a counter (meaning "week") to form the names of Monday through Thursday. Most of the day names in the two languages therefore contain the root shabbat of astronomical origin. The names for Monday through Thursday are numerical, and those for Friday and Sunday are religion-related, borrowed from medieval Greek. For Monday, Chechen and Ingush have apparently borrowed the Georgian Orshabati, or "day two," but they call Tuesday Shinara, which also means "two" in their own language. There are many examples of this type of confusion involving separate daycounting systems.

TABLE XIV Day Names in Estonian and Finnish

Old Norse	Finnish	Estonian
Sunnundagr <sup>1</sup>	Sunnuntai <sup>1</sup>	Pühapäev ( <i>püha</i> = holy, <i>päev</i> = day)
Mánadagr <sup>1</sup>	$Maanantai^1$	Esmaspäev ("first-day")
Tysdagr <sup>1</sup>	Tiistai <sup>1</sup>	Teisipäev ("second-day")
Óoendagr <sup>1</sup>	Keskiviikko	Kesknädal ("mid-week")
Thorsdagr <sup>1</sup>	Torstai <sup>1</sup>	Neljapäev ("fourth-day")
Friadagr <sup>1</sup>	Perjântai¹	Reĕde¹ (from Friadagr)
Laugardagr	Lauantai	Laupäev ("bath-day")

Notes: <sup>1</sup>Name of astronomical origin

Notes: 1"no-work"

<sup>&</sup>lt;sup>2</sup> "Resurrection"

<sup>&</sup>lt;sup>3</sup>Name of astronomical origin

### 8. ISLAMIC DAY NAMES

Under Islam, Friday became the all-important day of the week and has been named *Juma'a*, "assembly" in Arabic. Islam has also borrowed the name of Sabbath from Hebrew or Aramaic for the seventh day of the week, *As Sabt* in Arabic ("*As*" is the Arabic article "*al*," with "*l*" assimilated to "*s*"). That is the only day name of astronomical origin. For the other days, Arabic adopted the numerical system of day naming, closely following the Hebrew Bible (Table XVII).

In many languages in the Islamic world, the day names were borrowed from Arabic. The word *yaum* (day) was usually omitted, but the Arabic article "*Al*" was often retained (Table XVIII).

Not all Islamic day names are borrowed from Arabic. In modern Persian (Farsi) only one day name is borrowed from Arabic, *Juma'a* (Friday). The other days are numbered in a system analogous to that in Armenian and Georgian (Table XVI) that uses a numeral plus *shambeh*, a counter meaning "week," borrowed from Greek *Sambaton*, ultimately from Babylonian *shabattu*. Table

TABLE XV
Day Names in Hungarian, Basque and Albanian

Hungarian	Basque	Albanian
Vasárnap ("market-day") Hétfö ("week-head") Kedd (?) Szerda ("middle" Slavic) Csütörtök (4, Slavic) Péntek (5, Slavic) Szombat <sup>1</sup> ("Sambaton")	Igande ("resurrection"?) Astelehen ("week-first") Astearte ("week-middle") Asteazken ("week-last") Ortzegun² ("sky-day") Ortzirale² ("sky"-?) Larunbat² (?)	Diel¹ ("Sun") Hënë¹ ("Moon") Martë¹ ("Mars") Mërkurë¹ ("Mercury") Enjte² (?) Prémte² (?) Shtunë² ("Saturn"?)

Notes: 1 Name of astronomical origin

XIX indicates some of the Persian day names adopted by Indo-European languages closely related to Persian, like Kurdish, Baluchi, and Tajik, or by entirely unrelated Turkic languages like Uzbek, Kyrghyz, Uighur, Kazakh, Turkmen, Bashkir, Tatar or Turkish.

TABLE XVI
Day Names in Four Languages of the Caucasus

Armenian	Georgian	Chechen	Ingush
Giragi	K'wira	K'irande	K'irandi (Greek <i>Kyriake)</i>
Yergushapti (2)	Orshabati (2)	Orshot (2)	Oarshuot (2)
Yerekshapti (3)	Samshabati (3)	Shinara (2)	Shinara (2)
Chorekshapti (4)	Otkhshabati (4)	Qaara (3)	Qeara (3)
Hinkshapti (5)	Khutshabati (5)	Eara (4)	Jiera (4)
Urpat	P'arask'evi	P'eraska	Ruzba (Greek Paraskevi
Shapat	Shabati	Shot	Shoatta ("Sabbath")

TABLE XVII
Day Names in Modern Arabic

Day	Name	Meaning
Sunday	Yaum Al-Ahad	"day one"
Monday	Yaum Al-Itsnain	"day two"
Tuesday	Yaum At-Tsoulatsa	"day three"
Wednesday	Yaum Al-Arbaa	"day four"
Thursday	Yaum Al-Khamiis	"day five"
Friday	Yaum Al-Joumaa	"day of assembly"
Saturday	Yaum As-Sabt	"day of Sabbath"

TABLE XVIII
Some Numerical Day Names Borrowed from Arabic

Language	Sunday	Monday	Tuesday	Wednesday	Thursday
Arabic	Al-Ahad	Al-Itsnain	Al-Tsoulatsa	Al-Arbaa	Al-Khamiis
Maltese	Il-Hadd	It-Tnejn	It-Tlieta	L-Erbgħa	Il-Ħamis
Harari (Ethiopia)	Alkhad	Isniin	Säläsa	Arba'a	Khamiish
Somali	Akhad	Isniin	Talaado	Arbaco	Khamiis
Tuareg (Sahara)	Elkhedden	Lîtniten	Ettenâtetîn	Inardâten	Elremîsen
Kabyle (Algeria)	Elkhad	Tnain	Tlata	Elarbâa	Khmis
Amharic (Ethiopia)	Ikhud	Senio	Makseniu	Rebuu	Khamus
Hausa (Nigeria)	Lahadi	LÌtÌnĩ n	Tàlata	Laraba	Alhamis
Bahasa Malasia	Ahad	Isnin	Selasa	Rabu	Kamis
Maranao (Phil.)	Akad	Isnin	Salasa	Arbaqa	Hamis
Indonesian	Ahad	Senin	Selasa	Rabu	Kamis
Javanese (Indon.)	Ngahad	Senèn	Selôsô	Rebo	Kemés
Malagasy (Madag.)	Alahady	Alatsinainy	Atalata	Alarobia	Alakamisy
Mandinka (Gambia)	Alahadoo	Tenan	Talatoo	Araboo	Araamisoo

<sup>&</sup>lt;sup>2</sup>Name possibly of astronomical origin

TABLE XIX
Some Day Names Borrowed from Persian

Language	Sunday	Monday	Tuesday	Wednesday	Thursday	Saturday
Farsi	Yekshambeh	Doshambeh	Seshambeh	Chaharshambeh	Panjshambeh	Shambeh
Kurdish	Yekshemmé	Dushemmé	Seshemmé	Chwarshemmé	Penjshemmé	Shemme
Baluchi	Yekshembe	Dwshembe	Seyshembe	Charshembe	Penchshembe	Shembe
Tajik	Yakshanbe	Dushanbe	Seshanbe	Chorshanbe	Panjshanbe	Shanbe
Uzbek	Yakshanba	Dushanba	Seshanba	Chorshanba	Panjshanba	Shanba
Kyrghiz	Jekshembi	Düyshümbü	Sheyshembi	Charshembi	Beyshembi	Ishembi
Uighur	Yäkshänbä	Düshänbä	Sayshänbä	Charshänbä	Päyshänbä	Shänbä
Kazakh	Jekshembi	Düysembi	Seysembi	Särsembi	Beysembi	Sembi
Turkmen	Ekshenbe	Düshenbe	Siishenbe	Charshenbe	Penshenbe	Shenbe
Bashkir	Yäkshämbe	Düshämbe	Shishämbe	Shärshambe	Kesadna <sup>1</sup>	Shämbe
Tatar	Yäkshämbe	Dushämbe	Sishämbe	Chärshämbe	Pänjshämbe	Shimbä
Turkish	Pazar <sup>1</sup>	Pazartesi <sup>1</sup>	Sali	Çarşamba	Perşembe	Cumartes

Notes:

<sup>1</sup> Non-Persian name

#### 9. DAY NAMES IN OTHER NON-EUROPEAN LANGUAGES

The astronomical day names spread to India in pre-Christian times. Variants of Sanskrit day names (*Adityavaara*, *Somavaara*, ...) are used today in all the Indo-European languages of India, in many of the unrelated Dravidian languages like Telugu and Tamil, and also in the Mon-Khmer languages of Indochina, including Cambodian, Lao, and Thai (Table XX), as well as in the Batak dialects of Sumatra.

Many of the Bantu languages of southern Africa borrowed the name of Sunday from English, and it is their only day name of astronomical origin. For the other days they developed a numerical system, starting the day count with Monday (Table XXI). Swahili is exceptional. Under the Islamic influence, it named Friday *Ijumaa* and numbered the other days of the week, starting the count with Saturday so that its numbering is at odds with that of the other Bantu languages. Wednesday in Swahili is *Jumatano*, which contains the numeral *tano* (five). For Thursday, Swahili borrowed the Arabic name *Alhamisi*, so that it has two consecutive days named "the fifth day," another confusion of separate day-counting systems.

Modern Chinese uses a numerical system of day naming for Monday through Saturday, but Sunday is given an astronomical name, containing "Sun" in Cantonese and "sky" in Mandarin (Table XXII). Japanese and Quechua are two unrelated languages, half a world apart. They have both independently adopted day names following the astronomical convention (Table XXIII), however. The first two days follow the convention explicitly, "Sun-day" and "Moon-day" in both languages. In Quechua, the language of the Inca empire still spoken in Peru and Bolivia, the series continues with other sky-related names, where "wizard" could probably be translated "astronomer." In Japanese, the series continues with the five elements that were believed to make up the physical world.

In many languages around the world, the seven-day week was adopted and the seven day-names borrowed from the language of cultural colonizers. The languages that have frequently served as a source of such borrowings are Arabic, Russian, Persian, English (Table XXIV), Spanish (Table XXV), and French (Table XXVI). In some languages all seven day names have been borrowed, as in Majel (Table XXIV), Tzotzil (Table XXV), or Michif (Table XXVI). In other languages only some of the names have been borrowed, native names having been developed for the remaining days, as in Tongan and Maori (Table XXIV) or in Carrier (Table XXVI). The names borrowed from Russian and Arabic are largely numerical, but those borrowed from English, Spanish, and French are mostly astronomical.

 $\begin{tabular}{ll} Table XX\\ Astronomical Day Names Borrowed from Sanskrit \\ \end{tabular}$ 

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sanskrit	Aditya	Soma	Mangala	Budha	Brihaspati	Shukra	Shani
	or Ravi ("Sun")	("Moon")	or Angaraka ("Mars")	("Mercury")	or Curu ("Jupiter")	("Venus")	("Saturn")
Hindi	Ravivaar	Somvaar	Mangalvaar	Budhvaar	Brihaspativaar	Shukravaar	Shanivaar
Marathi	Rawiwar	Somwar	Mangalwar	Budhwar	Gurwar	Shukrawar	Shaniwar
Bengali	Robibar	Shombar	Mongalbar	Budhbar	Brihaspatibar	Shukrabar	Shonibar
Assamese	Rabibar	Hombar	Mangalbar	Budhbar	Brihaspatibar	Hukurbar	Hanibar
Panjabi	Aitwaar	Somwaar	Mangalwaar	Budhwaar	Wiirwaar	Shukkarwaar	Haftaa <sup>1</sup>
Urdu	Itwaar	$\mathrm{Piir}^1$	Mangal	Budh	Jumaraat <sup>1</sup>	Juma <sup>1</sup>	Sanichar
Telugu	Aadivaaram	Somavaaram	Mangalvaaram	Budhavaaram	Guruvaaram	Shukruvaaram	Sanivaaram
Cambodian	Tngay-Qaattit	Tngay-Chun	Tngay-Ong'kea	Tngay-Puut	Tngay-Prohoa	Tngay-Sok	Tngay-Saw
Lao	Wan-Aathit	Wan-Jan	Wan-Angkhan	Wan-Phut	Wan-Phahat	Wan-Suk	Wan-Sao
Thai	Wun-Ahtit	Wun-Jun	Wun-Umgkahn	Wun-Poot	Wun-Pareuhut	Wun-Sook	Wun-Sao

Notes: <sup>1</sup> Non-Sanskrit name

 $\begin{array}{c} \textbf{TABLE XXI} \\ \textbf{Day Names in Some Bantu Languages} \end{array}$ 

Shona (Zimbabwe)	Zulu (Southern Africa)	Bemba (Zambia)	Tonga (N. Zimbabwe)	Swahili (Eastern Africa)
$Svondo^1$	iSonto <sup>1</sup>	Mulungu	Nsondo <sup>1</sup>	Jumapili (2)
Muvhuro	uMsombuluko	Cimo (1)	Musumbuluko	Jumatatu (3)
Chipiri (2)	oLwesibili (2)	Cibili (2)	Bwabili (2)	Jumanne (4)
Chitatu (3)	oLwesithatu (3)	Citatu (3)	Bwatatu (3)	Jumatano (5)
China (4)	oLwesine (4)	Cine (4)	Bwane (4)	Alhamisi (Arabic, 5
Chisanu (5)	oLwesihlanu (5)	Cisano (5)	Bwasanu (5)	Ijumaa (Islamic)
Mugovera	iMigqibelo	Cibelushi (6?)	Mujibelo	Jumamosi (1)

Notes:

TABLE XXII
Day Names in Mandarin

Day	Name	Meaning
Sunday	Xing"qi"tian	"week-sky"
Monday	Xing"qi"yi"	"week-1"
Tuesday	Xing"qi"er`	"week-2"
Wednesday	Xing"qi"san"	"week-3"
Thursday	Xing"qi"si`	"week-4"
Friday	Xing"qi"wu <sup>v</sup>	"week-5"
Saturday	Xing"qi"liu`	"week-6"

 $<sup>^{\</sup>rm 1}\,{\rm Name}$  of astronomical origin

TABLE XXIII
Day Names in Japanese and Quechua

Day	Japanese	Quechua
Sunday Monday	Nichiyoobi ("Sun-day") Getsuyoobi ("Moon-day")	Intichay ("Sun-day") Killachay ("Moon-day")
Tuesday	Kayoobi ("fire-day") Suiyoobi ("water-day")	Atipachay ("wizard-day")  Qoyllurchay ("star-day")
Thursday	Mokuyoobi ("wood-day")	Ch'askachay ("Venus-day")
Friday Saturday	Kinyoobi ("gold-day")¹ Doyoobi ("earth-day")	Illapachay ("lightning-day") K'uyichichay ("rainbow-day")

Notes: 1 Or "metal-day"

TABLE XXIV
Some Day Names Borrowed from English

Papua-Pidgin (Torres- Strait)	Papua-Pidą (Port- Moresby	gin Tongan )	Majel (Marshall Islands)	Maori (New Zealand)
Sande Mande	Sande Mande	Sapate Monite	Jabot Manre	Ratapu¹ ("holy-day") Mane
Tyuzde	Tunde	Tusite	Juje	Turei
Wenezde	Trinde	Pulelulu <sup>1</sup>	Wonje	Wenerei
Tazde	Fonde	Tuapulelulu <sup>1</sup>	Taije	Taite
Praide	Fraide	Falaite	Balaire	Paraire
Satade	Sarere	Tokonaki <sup>1</sup>	Jarere	Rahoroi¹ ("clean-day")

Notes: <sup>1</sup> Name not borrowed from English

TABLE XXV Some Day Names Borrowed from Spanish

Tzotzil (Mexico)	Papago-Pima (Arizona)	a Papiamentu (Curaçao)	Chamorro (Marianas)	Tagalog (Philippines)
Rominko	Domig	Djadumingu	Damenggo	Linggo
Lunes	Luhnas	Djaluna	Lunes	Lunes
Martes	Mahltis	Djamars	Mattes	Martes
Melkukes	s Mialklos	Djarason <sup>1</sup>	Metkoles	Miyerkules
Hweves	Huiwis	Djaweps	Huebes	Huwebes
Byernes	Wialos	Djabierne	Betnes	Biyernes
Savaro	Shawai	Djasabra	Sabalu	Sabado

Notes: <sup>1</sup> Origin uncertain

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TABLE XXVI
Some Day Names Borrowed from French

Haiti	Michif	Carrier	Esperanto
Creole	(N.Dakota)	(Central BC)	(Invented 1887)
Dimanche Lindi Madi Mecredi Jodi Venneredi Sâmedi	Jimawnsh Laenjee Marjee Mikarjee Zhweejee Vawndarjee Samjee	Dimosdzin ( $dzin = "day"$ ) Landi Whulhnatdzin <sup>1</sup> ( $nat = 2$ ) Whulhtatdzin <sup>1</sup> ( $tat = 3$ ) Whulditdzin <sup>1</sup> ( $dit = 4$ ) <sup>2</sup> Sumdi	Lundo

Notes: <sup>1</sup>Name not borrowed from French

#### 10. Conclusions

The ancient planetary names of the days of the week still survive in many of the world's languages. The survival is remarkable, in view of the many past efforts to eradicate such relics of our ancient past. The form of the names has undergone such changes with the passage of time, however, that today's speakers are usually unaware of their astronomical origin.

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<sup>&</sup>lt;sup>2</sup> Name not in dictionary