MARCHING TO PRETORIA

Kit Kat Essay — January 19, 1999
by
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We are marching to Pretoria,
Pretoria, Pretoria.
We are marching to Pretoria,
Pretoria here we come

I'm with you and
You're with me and
So we are all together,
So we are all together.

We are marching to Pretoria,
Pretoria, Pretoria.
We are marching to Pretoria,
Pretoria rules the waves.[1]

So, what's it going to be? What could "Marching to Pretoria" represent?

Perhaps a travelogue on South Africa?

No, you don't need to be burdened with my amateur photographs of lions and giraffes and mountains and oceans.

So maybe a discourse on the transitions effected by Nelson Mandela's post-apartheid Pretoria government, focusing on the recently concluded Truth and Reconciliation Commission?

No, not a good choice. Given the events in Washington these days, truth is hard to come by and we seem to be in no mood to achieve reconciliation. Such sermonics might fall on deaf ears.

What's left? Oh, I know! How about a monograph on Dutch or English colonialism during the 17th, 18th, or 19th centuries?

No, I don't think so. Frankly, I don't have the time.

In fact, I'm not sure if any of us have the time.

Allow me to explain.

You see, while the well-known lyrics with which I began this essay — believed to have been written by Pieter Joseph Marais, following his discovery of gold near Johannesburg in 1853[2] — have indelibly imprinted the image of a South African country on our collective consciousness, the words carry another meaning in modern usage, as well. Within the context of religious faith, the lyrics hold millenarian significance. For Christian singers, Pretoria serves as an image for salvation. Therefore, "Marching to Pretoria" bears the connotation of reaching one's final religious goal: namely, the end of time.

And that serves as the springboard for my inaugural Kit Kat essay. For I wish to discuss a particular aspect of the end of time — specifically, the end of this time epoch, this millennium.

From doomsayers to soothsayers, from preachers to politicians, everyone is concerned with what will happen in just a few days. Some have apocalyptic visions: Armageddon is upon us or the Messiah stands on the threshold of appearing. Still others suggest momentous opportunities for peoples and nations to join together, yielding social metamorphosis. All this at the end of time...for this millennium. All this in but 347 days.

But, wait a minute! When does the next millennium start? Is it January 1, 2000? Or is it January 1, 2001?

The answer can be found in tonight's essay. For the answer has to do with a much broader question — that of time. How do we calculate days? What is the nature of the calendar? How many calendars are there? Which one is right? When does the next millennium begin? These questions form the body of this essay, questions we shall attempt to answer in the next several minutes. Hmm...I wonder what a minute is?

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We begin our examination of marking time by understanding what it is we mark. From ancient times, there have been two predominant rhythms - those of light and those of seasons. The two major elements of time-keeping have to do first with days, weeks, and months — a description of human experiences with the sun and moon; and second, with the cyclical nature of the seasons, experienced in every culture. Together, these rhythms have resulted not in one, but in a panoply of calendration systems.

While "we know little about the details of timekeeping in prehistoric eras, ...wherever we turn up records and artifacts, we usually discover that in every culture, some people were preoccupied with measuring and recording the passage of time. Ice-age hunters in Europe over 20,000 years ago scratched lines and gouged holes in sticks and bones, possibly counting the days between phases of the moon. Five thousand years ago, Sumerians in the Tigris-Euphrates valley in today's Iraq had a calendar that divided the year into 30-day months, divided the day into 12 periods (each corresponding to 2 of our hours), and divided these periods into 30 parts (each like 4 of our minutes). We have no written records of Stonehenge, built over 4000 years ago in England, but its alignments show its purposes apparently included the determination of seasonal or celestial events, such as lunar eclipses, solstices and so on."[3]

The word "calendar" itself takes its name from the calare function of the Pontifex Minor, a title of early Roman priests. A priest was assigned to observe the sky. When he first sighted a thin lunar crescent he called out that there was a new moon and declared the next month had started.[4] For centuries afterward, Romans referred to the first day of each month as "kalendae" from the Latin word "calare." meaning "to announce solemnly, to

call out."[5] It is believed that the word calendar was derived from this custom.

While the term "calendar" is relatively new, the concept — as we have suggested — is quite ancient. Suprisingly, though, there are essentially only three types of calendars which have ever been created: solar, lunar, and lunisolar.

Solar calendars are those with which we are most accustomed. Named as such after the Roman sun-god Sol, these calendars are based on the tropical or sideral year. The tropical year is defined as the mean interval between vernal equinoxes; it corresponds to the cycle of the seasons. Examples are the Julian and Gregorian calendars. Calendars based only on the moon's phases are termed "lunar" after Luna, the Roman moon goddess. The calendar of Islam is strictly lunar. Finally, as the name would suggest, calendars that model apparent motions of both the moon and sun are termed "lunisolar." The Hebrew, Chinese, and Indian calendars are of the lunisolar variety. Because the rhythm of the moon's waning and waxing is not a whole number of days — rather it averages just over 29.53 days — most modern lunar and lunisolar calendars alternate between 29 and 30 days in length.[6]

"The common theme behind the creation of calendars is the desire to organize units of time to satisfy the needs and preoccupations of society. In addition to serving practical purposes, the process of organization provides a sense, however illusory, of understanding and controlling time itself. Thus calendars serve as a link between humanity and the cosmos. It is little wonder that calendars have held a sacred status and have served as a source of social order and cultural identity. Calendars have provided the basis for planning agricultural, hunting, and migration cycles, for divination and prognostication, and for maintaining cycles of religious and civil events.

Whatever their scientific sophistication, calendars must ultimately be judged as social contracts, not as scientific treatises."[7]

As social contract — or perhaps more appropriately, political contract — calendars have served as the vehicles of those in charge: whether they be the priests of ancient Egypt or the rabbis of Israel; whether of Julius Caesar or of Pope Gregory; whether of the king of Sweden or the leaders of the 18th century French Revolution. All wielded the power of calendar-setting as a way of controlling the warp and woof of their societies.

Let us consider some of these calendric changes: who made them, when they occurred, and how it affected society.

Looking only at Western civilization, one of the first major changes in the calendar system occurred in the year 45 B.C.E.…

But, I guess a word is in order here about B.C.E. As we know, the typical expression of dates is offered in relation - supposedly - to the birth of Jesus. B.C. and A.D. are the appellations given to years based on their occurring "B.C. - Before Christ" or A.D. - Anno Domini," Latin for "in the year of the Lord." Since non-Christian cultures would not reference dates based on Jesus' birth, the B.C. and A.D. nomenclature is awkward at best. According to one system — and that employed by this essay — is to use the similar sounding but alternative labels of B.C.E. and C.E., representing "Before the Common Era" and "Common Era." This recognizes both the commonality of our Western dating system and also a multiplicity of religious orientations.

Back to 45 B.C.E. Actually, the story starts probably eight or nine centuries earlier. The oldest Roman calendar we know of "started on March 1st and consisted of only 304 days, divided into 10 months (Martius, Aprilis, Maius, Junius, Quintilis, Sextilis, September, October, November, and December). These 304 days were followed by an unnamed and unnumbered

winter period. The Roman king Numa Pompilius (c. 715-673 B.C.E., although his historicity is disputed) allegedly introduced February and January (in that order) between December and March, increasing the length of the year to 354 or 355 days. In 450 B.C.E., February was moved to its current position between January and March.

In order to make up for the lack of days in a year, an extra month, called Intercalaris, allegedly with 22 or 23 days, was introduced every other year. This is all theory. In practice it was the duty of the priesthood to keep track of the calendars, but they failed miserably, partly due to ignorance, partly because they were bribed to make certain years long and other years short. Furthermore, leap years were considered unlucky and were therefore avoided in time of crisis," such as wars or pestilence. The result was an irregular calendar, often out-of-sync with the flow of the seasons.

To clean up this mess, Julius Caesar made his now-famous calendar reform in 45 B.C.E.[8] It was labeled the "year of confusion" because Caesar inserted 90 extra days to bring the months of the Roman calendar back to their traditional relationship to the seasons. He decreed that each year was to consist of 365 1/4 days, with every fourth year, a leap year, in which an extra day would be added.[9] Except for some minor fooling around with the calendar by Emperor Augustus, the calendar established by Julius Caesar, known as the Julian Calendar, remained as the standard for European civilization until the calendar reforms of Pope Gregory XIII, in 1582 C.E. — an event which marked the second great calendric change of our western history.

Remember the power-wielding aspect of calendric change? This is the motive behind Pope Gregory's actions. Under the Julian calendar, the dating of Easter had slowly slipped away from its springtime position and was losing its relation with the Hebrew calendar's determination of Passover. This

drifting occurred because the true equinox had regressed from March 21. By the sixteenth century, the equinox had shifted by ten days. Pope Gregory XIII convened a commission to reform the calendar, so that Easter might always be timely observed. On February 24, 1582, he signed a papal bull establishing a new calendar system and eliminating 10 days. This was accomplished seven months later, when October 4, 1582 was followed by October 15, 1582. And it is the Gregorian calendar which western society utilizes to this day in its marking of time.[10]

However, the transition from the Julian calendar to the Gregorian calendar did not proceed smoothly, nor did it occur universally. The change was observed in Italy, Poland, Portugal, and Spain, countries under the direct political and religious influence of Rome. Other Catholic countries followed shortly after, but Protestant countries were reluctant to change, and the Greek orthodox countries didn't change until the start of the twentieth century.[11]

A sampling of reluctant countries and their eventual conversion to the Gregorian calendar include: Czechoslovakia, which waited two years, when January 6, 1584 was followed by January 17. Denmark, and parts of the Nethelands and Germany waited until 1700 to change to the Gregorian calendar. Great Britain and its colonies (including what is now the USA)made the transition in 1752. In that year, September 2 was followed by September 14. Egypt made the move in 1875. Russia, Rumania, and Yugoslavia all made the change very late, in 1919. (Parenthetically, I might add that the so-called October Revolution in Russia actually took place in November!) Turkey and Greece were two of the last major countries to adopt the Gregorian calendar. In Greece, March 9, 1924 was followed by March 23.[12]

Sweden has a curious history in its transition from Julian to Gregorian, one which furthers the thesis that political and social agendas determine

calendar reform, not astronomical accuracy. In the late 1500's, Sweden had just broken free from Danish occupation. They left the Catholic church, and were firmly committed to the Lutheran-Protestant church. Religion was law, and no pope would tell the Swedes how to set their calendar. It was Julian time until the year 1700. Then, it was decided to make a gradual change from the Julian to the Gregorian calendar. "By dropping every leap year from 1700 through 1740 the eleven excess days would be omitted and from March 1, 1740 on, they would be in sync with the Gregorian calendar. So 1700 (which should have been a leap year in the Julian calendar) was not a leap year in Sweden. However, by mistake 1704 and 1708 became leap years. This left Sweden out of synchronization with both the Julian and the Gregorian world, so they decided to go back to the Julian calendar. In order to do this, they inserted an extra day in 1712, making that year a double leap year! So in 1712, February had 30 days in Sweden. Later, in 1753, Sweden changed to the Gregorian calendar by dropping 11 days like everyone else."[13] Talk about time warp!

A third major calendar change occurred relatively recently, in the eighteenth century, as part of the French Revolution. In an attempt to break away from the French elitist past, and to de-Christianize the calendar, the French Revolutionary Calendar (or Republican Calendar) was introduced in France on November 24, 1793 and abolished on January 1, 1806. The calendar year consisted of 365 or 366 days, divided into 12 months of 30 days each, followed by 5 or 6 additional days. The year was not divided into weeks, instead each month was divided into three "decades" of 10 days, of which the final day was a day of rest. The 10-day decade was an unpopular move with the people, because now there were 9 work days between each day of rest, whereas the Gregorian Calendar had only 6 work days between each Sunday. The 5 or 6 additional days followed the last day of the last month had special

titles, clearly connected to the values of the revolution, itself. The six days were called: Virtue Day, Genius Day, Labour Day, Reason Day, Rewards Day, and the last and leap day was called Revolution Day.[14]

Lest we believe that calendar change as a means of social revolution or political spoil is simply part of history, rest assured that there are many who are fomenting plans to change our calendar even as we speak.

Consider the proposal for the New Millennium Calendar. It consists of 365 days and 12 months. Each month has 30 days, except April, which has 35. Each month consists of 5 weeks. Each week has 6 days, Tuesday through Sunday — no Mondays. According to the material reviewed, this calendar offers the same work time in a year through a four-day work week over 61 weeks, as a five-day work week over 52 weeks. Advantages offered include "16% more weekends, greater leisure and quality of life; refreshed performance, time for life and learning." Add to this a promised 5% productivity increase and it is a system guaranteed to please the masses in the next millennium.[15]

Or perhaps you would be interested in living based upon a Bioregional Calendar. This system of time counted from the nuclear bombing of Hiroshima and Nagasaki. Its manifesto states: "Humanity has come of age. The use of technology has made humanity immensely powerful. The question is will this power be used to create or destroy. This is like an adolescent marveling in new abilities of strength and intelligence. But will this child survive when there is no wisdom to moderate behavior? Modern society is at this point in development. This will always be demonstrated by the phenomenon of technological warfare and the development of nuclear energy." However, we must live within the environment to survive, Reflecting this, the Bioregional Calendar has only a four-day week. The days

are named Sunday, Airday, Waterday and Grounday. This emphasizes a social orientation towards preservation of the biosphere. Individuals and communities further refine this structure to suit their needs."[16]

Other standing proposals for calendar reform include the World Calendar, which calls for a 12-month scheme with identical quarters; and the International Fixed Calendar of 13 months, with identical months. These proposals all work from the ideal premise of uniformity. The more uniform the calendar remains, the more even productivity stays within the workplace and the stress of calendar fluctuations is reduced for the population.[17]

With the exception of the French Revolutionary calendar and the — admittedly— fringe Bioregional Calendar, all of the calendars in this survey operate from a similar accounting of time, fixing the date of the year in relation to a particular event, the birth of Jesus. Prior to this system of accounting, most calendars were more regionally centered. Dating was relative to a local sovereign's rule or a unique event in the history of the particular culture. Currently active calendar systems we have not explored from other cultures compute their dating in similar fashion. The Hebrew calendar year is calculated from the presumed date of creation. Chinese calendars determined dating based on imperial dynasties. The Islamic calendar is reckoned from the Era of the Hijra, commemorating the migration of the Prophet Mohammed and his followers from Mecca to Medina.

Thus, while we can argue that millennialism or millenarianism is based on a fabricated belief system no more or less significant than any of these other dating models, the fact that the vast majority - well into the 90% range - of the world operates on the Christian-based scheme of counting years

from Jesus' birth. Common usage dictates that this is 1999, and next year begins the new millennium. Or does it?

Interestingly enough, it does not. Our current basis for accounting years was developed in the sixth century by a monk, Dionysius. When he was asked to calculate Easter, he chose to count time not as customarily done for those years — from the reign of the emperor, Diocletian — but from another reference point. The why is not recorded in history. Some presume it is related to Diocletian's rabid persecution of Christianity, and the monk's revulsion at marking time based on this persecuotor's reign.[18] The what, however, is recorded. Dionysius chose the birth of Jesus as his alternative reference year, and he added to the newly-proclaimed year 523, the postscript A.D., standing for Anno Domini, "the year of the Lord."

Strangely, though, Dionysius miscalculated the year of Jesus' birth. From early on, Dionysius' calculations were challenged. As Biblical historical research developed, questions of Jesus' birthdate continued to arise. Based on the accounts of the Gospels, much scholarship today argues that the historical Jesus was born during the reign of King Herod. We know that Herod died in 4 B.C.E. Therefore, the argument has been made for an earlier dating of Jesus' birth. And, in fact, the Anglican Archbishop James Ussher in 1650 stated that Jesus was born actually on October 23, 4 B.C.E.[19]

So...when does the next millennium begin? If we base our calendric calculations from the birth of Jesus...well, the bad news is that we all missed it! It came in with a whimper on October 23, 1997![20]

But for those who still want the opportunity to "March to Pretoria," into the next millennium all hope is not lost. We acknowledge that the world will not antedate our calendar by 3 years. So, in 347 days, the year 2000 will be upon us.

However, this is not the begining of the new millennium, or even of the 21st century. The Roman system of numbering did not have the notion of zero. Treating zero as a number on an equal footing with other numbers was not common in the 6th century. The years, according to Dionysius, jumped from 1 B.C. to 1 A.D. One week following the end of 1 B.C., 1 A.D. began. Since we know for certain that the first century started in 1 A.D., or C.E., the second century must therefore have started a hundred years later, in 101 C.E., and the 21st century must start 2000 years after the first century, i.e. in the year 2001.[21]

This has been the cause of some heated debate, especially since some dictionaries and encyclopaedias say that a century starts in years that end in double-zero.

To resolve this conundrum, let me suggest we take a lesson from history. When 1899 became 1900, we know people celebrated their entrance into the 20th century. When 1900 turned to 1901, we know that other people celebrated the start of the next century. Let each of us celebrate whenever desired. And I thank all of you who have made plans to celebrate at the end of 1999. That will just leave me with many more open opportunities when I celebrate the new millennium one year and 347 days hence.

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As we have suggested earlier, most of the 40+ calendar systems which exist today in the world, including the Hebrew, Islamic, Indian, and Chinese calendars, as well as other ancient calendars, including those of the Babylonian, Aztec, and Mayan civilizations, do not mark their years based on the salvation of Pretoria, namely the birth of Jesus. In doffing our time-pieces to these other significant methods of marking time, allow me to conclude by submitting this essay to the archives of Kit Kat, presented on this:

- 19th day of January, in the year 1999 C.E., Gregorian calendar

- 6th day of January, in the year 1999 C.E., Julian calendar
- 11th day of Tubah, in the year 1715, Coptic calendar
- 11th day of Ter, in the year 1991, Ethiopic calendar
- 1st day of Shawwal, in the year 1419, Islamic calendar
- 29th day of Dey, in the year 1377, Persian calendar
- 2nd day of Shevat, in the year 5759, Hebrew calendar
- Tzolkin count - 2 Men, Mayan calendar
- 29th day of Pausa, in the year 1920, Indian calendar
- 2nd day of Magha, in the year 2055, Hindu Lunar calendar
- 3rd day of the 12th month of the 15th year of the 78th cycle, the year of the Tiger, Chinese calendar
- the day of Baha of the month of Sultan of the year Ab of the 9th Vahid of the 1st Kull-i-Shay, Bahai calendar

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[1]Joseph Marais
[2]Encylopedia Britannica CD, 1998 Standard Edition; "Johannesburg: History - The Early Period, 1853-1930"
[3]Bill Hollon
[4]Bickerman, Elias Joseph. Chronology of the Ancient World; Cornell University Press; Ithica; 1968. p. 17
[5]Webster's New World Dictionary; Conpton's NewMedia, Inc.; 1964
[6]Seidelmann, P. Kenneth. Explanatory Supplement to the Astronimical Almanac; University Science Books; Sausalito.
[7]Ibid.
[8]Claus Tondering. Frequently Asked Questions on Calendars; WWW; November, 1998.
[9]Seidelmann, op. cit.
[10]Seidelmann, op. cit.
[11]Tondering, op. cit.
[12]Tondering, op. cit.
[13]Tondering, op. cit.
[14]Tondering, op. cit.
[15]S. P. Markham, New Millennium Calendar, WWW.
[16]Wilford M. Shiell. A Bioregional Calendar; WWW.
[17]Rick McCarty. Calendar Reform; WWW.
[18]Encyclopedia Britannica, op. cit. "Diocletian"
[19]Newquist, Colleen. "Calendar." Education World; 1998.
[20]Larry Freeman. Larry Freeman's Calendar Home Page; WWW.
[21]Tondering, op. cit.