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World History A Learning Plan

6/9/2024

The Peculiar Unit of Time We Call a Week and How to Fix It

We all live by the calendar, but there is one part of it that has more influence on our lives than any other part. We live by the week, most routines are contained within it and those in schools or jobs yearn for the freedom of Friday. So why is it that the week is so unoptimized? The 7-day week is a bad unit of timekeeping with much better options available and is only kept due to tradition and religious importance.

Calendars have been around as long as human civilization. The first calendars centered around moon cycles. Lunar calendars were the origin of the unit of time we now know as the month. When civilizations started to grow bigger there became a need for calendars that could accurately track the seasons. Many ancient civilizations tried to match up lunar cycles with the seasons to create lunisolar calendars, but there was one exception, The ancient Egyptians were the first to break free from lunar cycles and create a fully solar-based calendar (Breasted 291). The next major calendar was the lunar Roman calendar which was the predecessor to the current worldwide used Gregorian calendar. The Roman calendar at first only had 10 months and was very inaccurate which made it harder to predict seasons. In 45 BC Julius Caesar fixed the Roman calendar turning it into a solar calendar by adding 2 more months and creating leap years. Many years later the Roman calendar was further perfected into the modern Gregorian calendar by Pope Gregory XIII in 1582 AD.

We do not know exactly where 7-day weeks come from. They seem to have started primarily from 2 sources, the Babylonians and the Jewish religion. It is believed although not fully proved that, “The length of the astrological week was largely a result of the fact that the ancient Babylonian Astronomers happened to identify seven planets” (Zerubavel 16). The 7-day week is very important to the Abrahamic religions because God made the world in 7 days. Many Indigenous countries and even major ones did have their own unique week structures. The problem is that most of these week structures followed markets and 2 different market schedules cannot exist simultaneously at the same place. The 7-day week managed to spread worldwide because it popped up in Rome at just the right time and then continued spreading worldwide through the church, “...it was the Church that was responsible for integrating the Jewish and astrological weeks together and spreading the seven-day cycle throughout most of the world” (Zerubavel 20). If it was not for the religious importance of the seven-day week it is unlikely it would have become such a global system.

The 7-day week had conquered all systems around it by refusing to give up and worming its way into places of power. Let us look at one example of how the 7-day week managed to take over Rome and then afterward how it managed to deflect several attempts to remove it. Before the Roman's official week became the Christian 7-day week by decree of Constantine in 321 AD there existed an 8-day week called the Nundinae (Ker 360). The 7-day week was not necessarily better than the 8-day week in any way but the 7-day week was a part of Christianity while the 8-day week was not. After the 7-day week took over the Roman Empire it had almost no chance of failure since the Abrahamic religions would continue to be the primary religions of colonizers. The French attempted to create a new calendar system and kept it for quite a while after their revolution in 1789 AD. The new French calendar was a complete overhaul with 10-day weeks

and standardized months. Why it failed was due to the complete trashing of tradition. No thought was put into the religious spirit of the calendar, “By suggesting some symbolic continuity between the two, they would probably have contributed to further the *legitimacy* of the new system” (Zerubavel 875). To introduce a new major calendar you must draw parallels and introduce it as a successor rather than a replacement.

The 7-day week brought about by chance is very unwieldy. The week is no longer based on anything astrological and does not fit neatly into any other calendrical unit of time. Still, the week is somehow the most important unit of measuring time. According to the data published from a study in the peer-reviewed scientific journal Plos One people work significantly less at work on Fridays (Roh et al.), this is likely due to the anticipation of the workweek ending. Work schedules are almost exclusively tied to the week. The world around you is tied to the week so the routines you create are pushed into it. People shower, schedule events, do laundry and even exercise according to the week. The problem is that the week has a prime number of days making planning a *pain*. Exercise schedules cannot have a perfect every-other-day system for muscles that require it or every 3-day system for that matter. Showering cannot be done every other day unless you want to shower on different days each week. I have found myself frustrated many times from trying to fit activities into the 7 days allotted each week.

Schedules are also extremely important. Studies show that having a good schedule correlates to emotional well-being, and better sleep (Fiese et al. 385). I want to create a calendar that is extremely consistent and easy to schedule with. To make a calendar work you must also keep in mind the past and its traditions. If you want the calendar to stick around it is good to stick it to a religion or major movement too. The calendar I have created is ambitious but does

fulfill each requirement. To reduce discordancy it would be best to introduce different parts of a new calendar slowly over many years.

My biggest problem with the current calendar and why I created this essay is the week having 7 days. As such I will base my entire calendar on a 12-day week. Why a 12-day week? Well, 12 is the best number for creating schedules that could still be considered a week. In the 12-day week, you get patterns of 2, 3, 4, and 6. Within the 12-day week, you can make many patterns within it, including schedules similar to our current week using a 6-day pattern. The number 12 also has some significant religious origins there were both 12 apostles of Jesus and 12 tribes of Israel. These are not quite as significant as the 7-day creation myth but still extremely relevant.

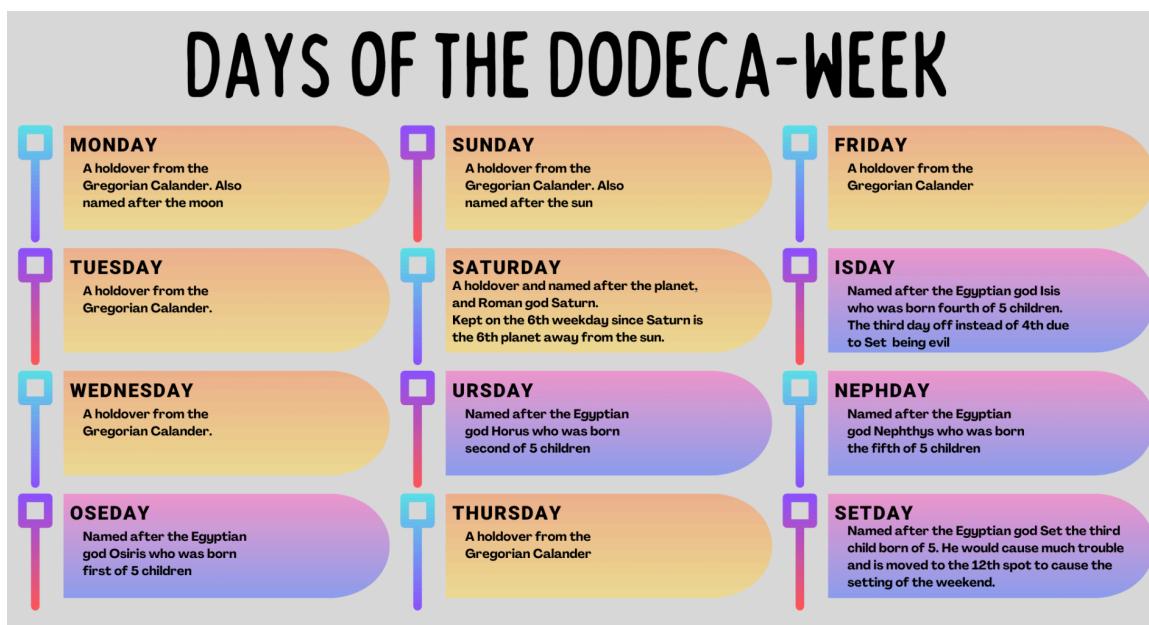


Fig. 1. Dyer, Rowen. "Days of the Dodeca-Week." 9 June 2024. *Canva*, 9 June 2024, www.canva.com/design/DAGHa8c3zhY/aDP_3NnLnJmesCCeuuAmcQ/view?utm_content=DA GHa8c3zhY&utm_campaign=designshare&utm_medium=link&utm_source=editor.

I keep all of the day's names seen in the current 7-day week (see figure. 1). Sunday and Saturday are both misplaced and moved to be workdays to make room for my unique breakday naming scheme. All days in orange blocks are work days and the days in purple blocks are break days (see figure. 1). Mondays are still the beginning of the workweek and Fridays still end the workweek. With a ratio of 7 workdays to 5 breakdays, the amount of time off is almost exactly the same as a 3-day weekend in the current 7-day week. The 5 break days are all named after Egyptian gods due to the fact many of our current days and months are named after Roman gods. In addition, all of the chosen Egyptian gods were born on time created for a loophole since the goddess Nut was not allowed to give birth on any of the 360 days in a year, "Thoth was able to play dice with the moon and granted Nut five extra calendar days in order for her to give birth to the five children: Osiris, Isis, Seth, Nephthys, and Horus the Elder" (Rosicrucian Egyptian Museum). This is how the Egyptian calendar explained why a year had 365 days instead of a more clean 360. It is important to point out that Egyptian mythology is deeply muddled and older accounts contradict this myth. I chose to include this myth even with its inaccuracy due to the fact it is a very popular myth. Even though the original story might be different many ancient Egyptians lived and worshipped under this variation of the story.

Moving on, my months are all 36 days long and composed of exactly 3 weeks. This schedule makes weeks fit perfectly into months and prevents Friday the 13th from ever occurring. A year is composed of 10 months. I used the normal names for the months and removed March and August. I removed March because it is named after a god of war and August due to the fact it was named after a random Roman leader who has nothing to do with the calendar. Then I replaced March's spot with July and slid back September, October, etc... which

made all of the month's names correct. September for instance means 7 in Latin and now is the 7th month same thing with October, November, and December. All other months are left alone. This calendar is easy to remember and more correct to the month's original meaning.

Ten months of 36 days only make 360 days so to make up for this we have an extra intercalary Sabbatical week at the start of the year separate from the other months. This week is to celebrate the start of a new year and give you time off to find hobbies and interests to pursue over the course of that year. In addition, it can act as a large religious celebration of God's creation of the Earth. To make sure the seasons do not drift, every 4 years there is a 360-day year with no sabbatical. This makes the calendar stay on pace with the Gregorian calendar and is proven by simple math. Every 4 years in the Gregorian calendar three sets of 365 days and one year of 366 days pass, Added together that makes 1461 days in total. In my calendar, each 4 years has three sets of 367 days and one year of 360 days which added together also makes 1461 days in total. In addition, every 100 years besides years that are multiples of 400 one of the 367-day years is shortened to 366 this is necessary because a year is not exactly 365.25 days long but instead around 365.24 days long. With these rules, my calendar stays in line with the Earth's real position around the sun as well as the Gregorian calendar. During the 4 year cycle, my calendar gets up to 3 days off while the Gregorian calendar only gets off by one day, this difference is not very relevant and worth it for the extra organization. To get a calendar like this into widespread practice would still take a crazy amount of work even with religious integration and keeping as much as possible from the old system, however, it just might be possible if enough people become disillusioned with the current calendar.

The 7-day week formed due to being at the right place at the right time. It has many problems when it comes to organizing your life around it but you are forced to. Attempts to

replace it were overly ambitious and failed due to that fact. There are better calendar systems out there we could use, maybe my calendar maybe someone else's, but no one talks about it. Maybe now that you know of these problems you might talk to some other people about how weird the week is and if enough people start wishing for a better week someone just might pick up the movement and lead us into a new better calendar. I sure hope someone does, all we can do for now is prepare the world so it is possible for someone in the future.

Bibliography

Arlinghaus, Katherine R., and Craig A. Johnston. "The Importance of Creating Habits and Routine." *American Journal of Lifestyle Medicine*, vol. 13, no. 2, 29 Dec. 2018, pp. 142-44, <https://doi.org/10.1177/1559827618818044>.

Was published in a peer-reviewed journal. This article shows the importance of making routines and how hard it can be to start good routines. This shows that if the 7-day week messes with your ability to generate routines it could be a notable problem.

Breasted, James Henry. "The Beginnings of Time-Measurement and the Origins of Our Calendar." *The Scientific Monthly*, vol. 41, no. 4, 1935, pp. 289–304. JSTOR, <http://www.jstor.org/stable/15981>. Accessed 10 June 2024.

An article from a peer-reviewed journal. Went into much of the history of the calendar. Was especially useful in the differentiation between Lunar and Solar calendars along with what civilizations used them.

Dyer, Rowen. "Days of the Dodeca-Week." 9 June 2024. *Canva*, 9 June 2024, www.canva.com/design/DAGHa8c3zhY/aDP_3NnLnJmesCCeuuAmcQ/view?utm_content=...

nt=DAGHa8c3zhY&utm_campaign=designshare&utm_medium=link&utm_source=edit
or.

An image created by me to help show the structure of my 12-day week.

Ferguson, Ty, et al. "How Do 24-h Movement Behaviours Change during and after Vacation? A Cohort Study." *International Journal of Behavioral Nutrition and Physical Activity*, vol. 20, no. 1, 1 Mar. 2023, <https://doi.org/10.1186/s12966-023-01416-2>.

A peer-reviewed article. Looks into how important holidays are for workers and finds that they are very important. This source helped me decide how to space out my break days in the new 12-day week and made me decide to use 5 break days instead of 4.

Fiese, Barbara H., et al. "A Review of 50 Years of Research on Naturally Occurring Family Routines and Rituals: Cause for Celebration?" *Journal of Family Psychology*, vol. 16, no. 4, 2002, pp. 381-90, <https://doi.org/10.1037/0893-3200.16.4.381>.

An article from a peer-reviewed journal. A major overview of many previous studies that showed family routines are at least correlated to many good effects. Was used to double-check the claims from other smaller studies on routines.

Ker, James. "'Nundinae': The Culture of the Roman Week." *Phoenix*, vol. 64, no. 3/4, 2010, pp. 360–85. *JSTOR*, <http://www.jstor.org/stable/23074751>. Accessed 10 June 2024.

An article from a peer-reviewed journal. I had heard many times of the old Roman 8-day week in other sources but not many details about it. This article talked much more in-depth about the Roman 8-day week. It also provided further proof that weeks are shaped primarily by markets and religion.

Roh, Taehyun, et al. "Examining Workweek Variations in Computer Usage Patterns: An Application of Ergonomic Monitoring Software." *PLOS One*, vol. 18, no. 7, 6 July 2023, <https://doi.org/10.1371/journal.pone.0287976>.

Published in a peer-reviewed journal. This article finally gave me empirical data on productivity throughout the week. The data in this study showed just how much the week affects how we live especially when it comes to Friday productivity.

Rosicrucian Egyptian Museum. "Deities in Ancient Egypt - Nut." *Rosicrucian Egyptian Museum*, egyptianmuseum.org/deities-nut. Accessed 10 June 2024.

This museum is one of the biggest ancient Egyptian museums in the Americas. Museums are generally trusted since their job is to educate and show you cool historical artifacts. I do not trust museums when it comes to ancient religious myths since they often leave out complex nuances. This article does leave out a lot of info when it comes to the specific myth. That being said their lies are mainly by omission instead of using false info. Due to these reasons, I made sure to put a disclaimer about the problems with this source under my quote from it.

U.S. Naval Observatory: Astronomical Applications Department. "Introduction to Calendars." *Astronomical Applications Department*, U.S. Naval Observatory, aa.usno.navy.mil/faq/calendars. Accessed 10 June 2024.

This source is an official U.S. Navy source of information. Since this article has nothing directly to do with the U.S. or its navy it is a very trustworthy source. This source gives general info about the major calendars in the world. It provided me with some dates for events.

Zerubavel, Eviatar. "The French Republican Calendar: A Case Study in the Sociology of Time."

American Sociological Review, vol. 42, no. 6, 1977, pp. 868–77. JSTOR,

<https://doi.org/10.2307/2094573>. Accessed 10 June 2024.

This article was published in a peer-reviewed journal. This source was extremely important to me. The article gives an overview of an attempt to introduce a new calendar and why it failed. Using this failure of calendar replacement I avoided making the same mistakes the French made. The primary takeaway was to make sure that my calendar uses as much of the previous calendar as possible. I made sure to carry over month names and week-day names due to this fact when previously I had planned on fully replacing them.

Zerubavel, Eviatar. *The Seven Day Circle: The History and Meaning of the Week*. New York City,

Free Press; Collier Macmillan, 1985. *Archive.org*,

archive.org/details/sevendaycircleth00zeru/mode/2up?view=theater.

This book was published by an author who would also publish one of my favorite peer-reviewed articles on the subject of calendars labeled, The French Republican Calendar: A Case Study in the Sociology of Time. The author had many of the same questions as me and used many reliable sources to explore the calendar. He talked about everything from the mysterious possible Babylonian origin, to how the Jewish 7-day week managed to take over the Romans, and the failed calendar reforms of recent history. A big thanks to Archive.org for their online book burrowing service letting me read through this masterpiece when at first I did not know if I could find access to it.

