Mysterious Tablets

The tablets you have discovered contain three things:

1. A list of dates, in a calendar system that you need to decipher (partial list on each tablet).
2. An image (different for each tablet).
3. A list of partial dates, in the same calendar system (partial list on each tablet).

Calendar System

We'll start by explaining the calendar system. It uses five distinct symbols. The symbols each have a horizontal or vertical element (the "count element") that may appear in single, double, or triple form; this carries meaning. The symbols are either underlined or overlined; this also carries meaning.

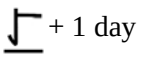
Units of time

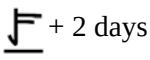
Let's use the familiar terms "day", "week", "month", and "year", even though the meanings of everything except day will be different from the Gregorian calendar. We also need to introduce new units – "quad" (which would be like our decade, in being a group of years), and "era" (like a century, but made of quads).

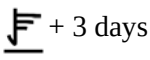
In this system, there are 4 days in a week, 10 weeks in a month, and 10 months in a year. There are 4 years in a quad, 10 quads in an era, and 10 eras in the timespan our calendar covers (call it the "age"). The current age began on our October 20, 1588 (Gregorian): the 0^{th} day of the 0^{th} week of the 0^{th} month of the 0^{th} year of the 0^{th} quad of the 0^{th} era. We are currently nearing the end of the age: we're in the 9^{th} era, which began in Gregorian year 1983 and will end in Gregorian year 2026.

Days

Days are pretty easy. The initial day of the week (day 0) is unwritten. (You'll see this again; this culture pretty much always omits zeroes.) All other days of the week are a symbol that is underlined. As the day of the week increases, the count element also increases:

 + 1 day

 + 2 days

 + 3 days

Weeks

The week is written in a sort of base 3, with each symbol having three possible states of the count element. It's not entirely base three, though – again, a zero week is unwritten; the right symbol can represent values of +1, 2, or 3 weeks; and the left symbol can represent values of +0, 3, or 6 weeks. Like days, weeks are underlined. Thus the number of days they add is:

 + 4 days

 + 16 days

 + 28 days

 + 8 days

 + 20 days

 + 32 days

 + 12 days

 + 24 days

 + 36 days

Months

Months work just like weeks, except they use different symbols (again underlined, count elements increasing, and zero is unwritten). Thus the number of days they add is:

 + 40 days

 + 160 days

 + 280 days

 + 80 days

 + 200 days

 + 320 days

 + 120 days

 + 240 days

 + 360 days

Other Units

Years look and work exactly like days, except the symbols are overlined instead of underlined. Quads look and work like weeks except overlined, and eras look and work like months except overlined.

Writing Complete Dates

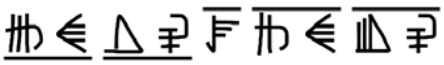
Units are written left to right in increasing order of size: day, week, month, year, quad, and era. If a date is in the zeroth day of a week, zeroth week of a month, zeroth month of a year, etc, then the zero portion of the date is omitted completely; no space is left for it.

Examples

The start of era 1 is August 10, 1632 (16,000 days after October 20, 1588) and it's written like this:

(day 0, week 0, month 0, year 0, quad 0) era 1

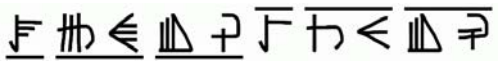
January 21, 2013 (the start of the Mystery Hunt) is 154,956 days from the start of the age. This puts it in era 9, quad 6, year 3, month 3, week 9, and day 0, and it's written like this:



(day 0) wk 9, mth 3, yr 3, quad 6, era 9

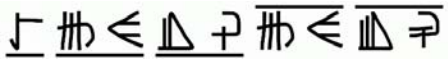
List of Dates

Together, the three artifacts contain this list of 12 dates. The dates correspond to historical events that can be named with a combination of two answers.

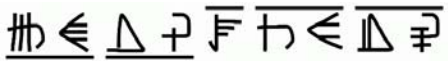


August 9, 1945
(FAT / MAN)

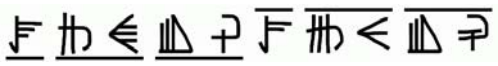
June 28, 1778
(MOLLY / PITCHER)



October 30, 1974
(ALI / FOREMAN)



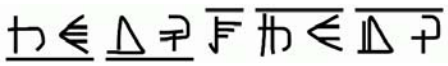
November 24, 1863
(LOOKOUT / MOUNTAIN)



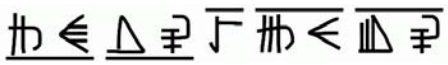
December 13, 1972
(LAST / MOONWALK)

February 28, 1983
(MASH / FINALE)

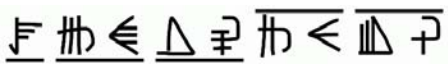
November 5, 1605
(GUNPOWDER / PLOT)



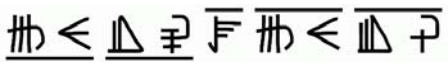
June 20, 1789
(TENNIS COURT / OATH)



March 20, 2015
(SVALBARD / TOTAL ECLIPSE)



May 29, 1913
(STRAVINSKY / RIOT)



February 18, 1930
(PLUTO / DISCOVERY)

April 17, 1978
(CARL SAGAN / PULITZER)

Images

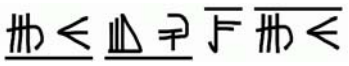
There is one image on each artifact. The images depict: a sun shining over a Stonehenge-type lintel; a ray travelling through a long corridor; and the floorplan of the Infinite Corridor at MIT.

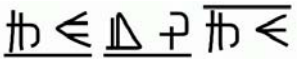
Together, you should arrive at the concept of MIThenge: the phenomenon where twice a year, the sun aligns with the Infinite Corridor.

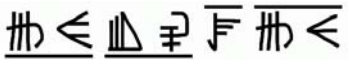
List of Partial Dates

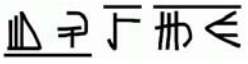
Together, the three artifacts contain a list of 18 partial dates. Above these partial dates on each tablet is written the symbol for era 9 (the current era): 

Upon examination, each date is missing its quad symbols, although the overline is present. You must fill in the needed quad symbols to make each date correspond with an occurrence of MIThenge – that is, at the end of January or the middle of November in some Gregorian year. After filling in the quad symbols (done for you below), identify the Gregorian years, and read the last two digits as letters to spell the answer: “Partnership With BOA” (i.e. Bank of America).

 11/13/2016 P

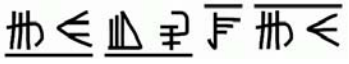
 1/28/2001 a

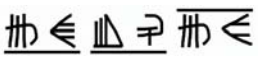
 1/31/2018 r

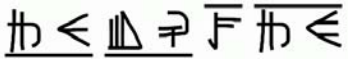
 1/29/2020 t

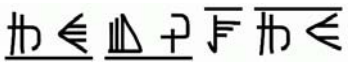
 1/28/2014 n

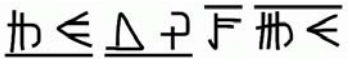
 1/31/2005 e

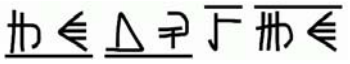
 1/31/2018 r

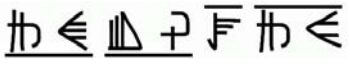
 1/30/2019 s

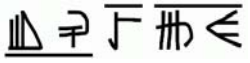
 1/28/2008 h

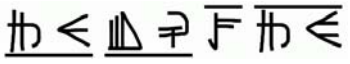
 1/30/2009 i

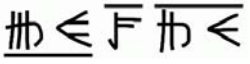
 1/30/2016 p

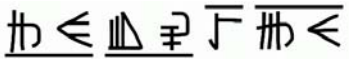
 11/13/2023 W

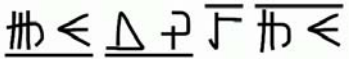
 1/30/2009 i

 1/29/2020 t

 1/28/2008 h

 11/11/2002 B

 11/11/2015 O

 11/12/2001 A