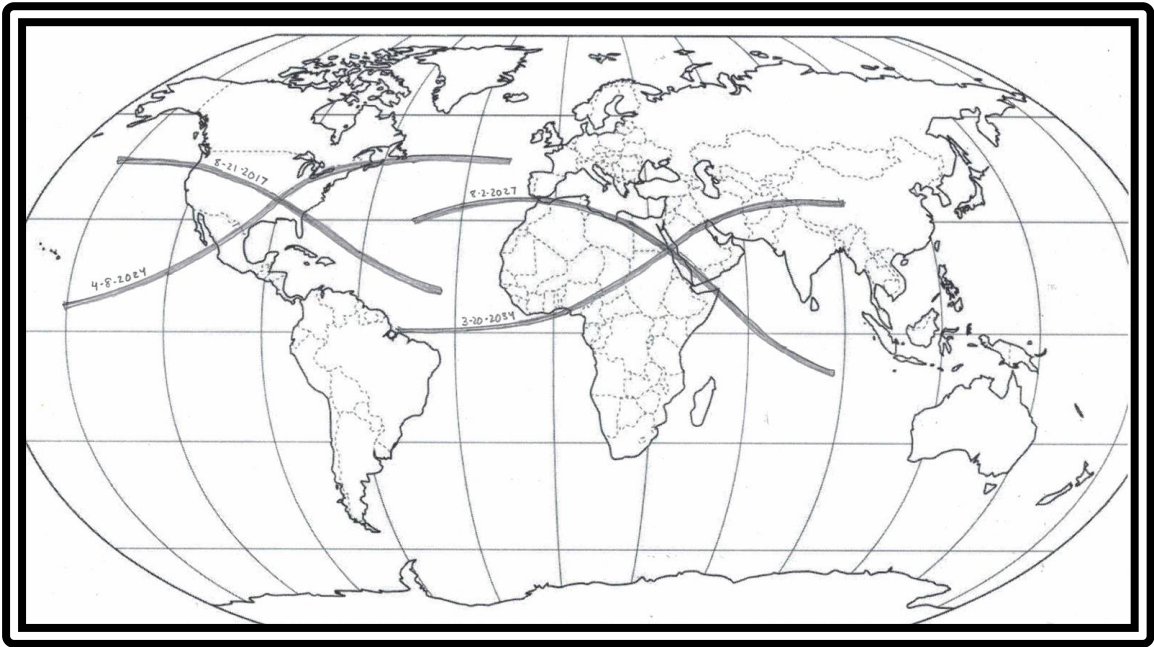
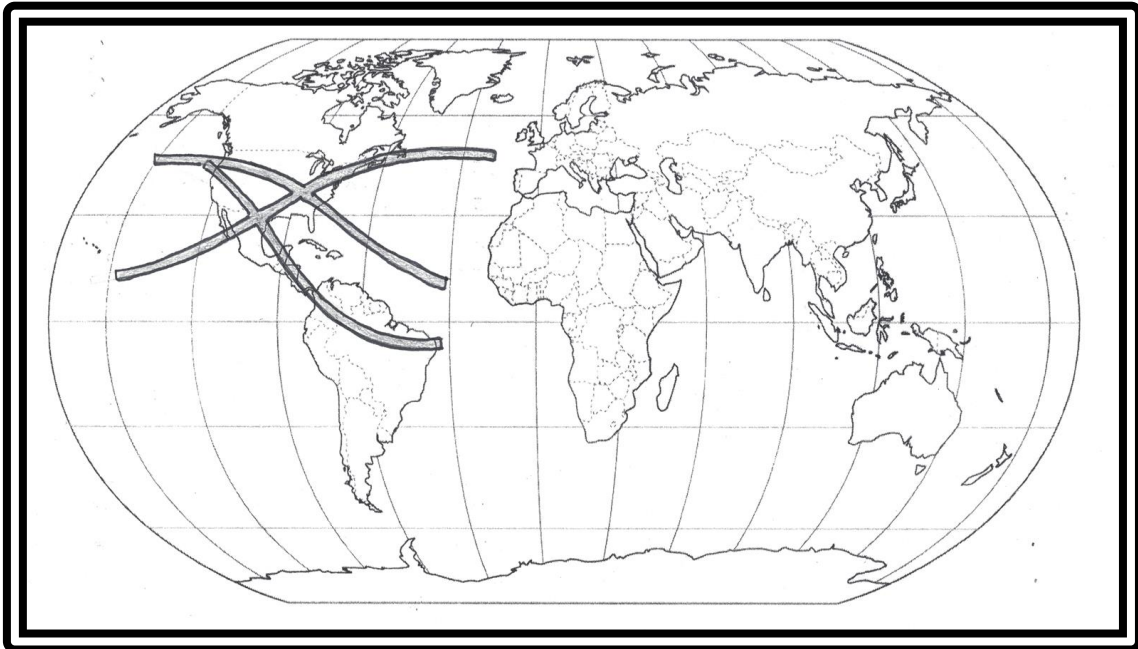


Chapter Six:

**The Great Crossing Eclipses
2017 to 2034 Up Close**



Above, The Hepton Crosses of the Spring Equinox Metonic (2017 to 2034)



Above, the American Aleph of 2017, 2023 and 2024



Great American Eclipse 2017 Aug 21

Hailed as the “Great American Eclipse”, the eclipse of 2017 Aug 21 was by far the most watched solar eclipse in American history. There was a great run-up in publicity to the eclipse, and many towns along its path held watch parties and celebrations. It has been said that the movement of people towards the narrow path of totality was the greatest single short-term migration in the nation's history, with millions positioning themselves for the sight of a lifetime, as daylight turned to darkness with the passing of the moon in front of the face of the sun.

We can use this eclipse as a test case for the idea of “reading” an eclipse like a song or a poem maybe. Three Main Aspects; The Time (History), The Space (Geography) and The Main Characters.

Astronomical facts about the Aug 21 2017 eclipse:

- Type of eclipse: Total
- Saros Number 145
- Duration of totality along center line of maximum eclipse: 2 minutes and 40 seconds
- length of path: perhaps 8000 miles long or so
- width of path, almost exactly 70 miles wide
- Locating: At eclipse, the Sun was in the paws of the lion of the constellation Leo. The star Regulus (the "King Star") was in conjunction with and clearly visible near the eclipsed Sun.
- Maximum Eclipse: Giant City State Park, near Carbondale, Illinois.

Geographical Peculiarities of the August 21 2017 Total Eclipse:

USA Divided: The USA was closely divided geographically by the eclipse. Approximately 2 million square miles of USA were to the north of centerline (including Alaska) and around 1.8 million square miles below. It was also closely divided well along the contiguous 48 states. 23 states had center line of totality either pass through them or were north of the line of totality. 25 states had the center line of totality either pass through them or were south of the line of totality.

Odd Spot of Maximum: Maximum Eclipse of the entire 9000-mile path occurred near Makanda, Illinois. Remarkably, Makanda (known as the "Star of Egypt") is also at the apex of the cross, the intersection of the two eclipses of 2017 and 2024.

Cross in the Cross: In the heart of both eclipses, 10 miles from Makanda, is the Bald Knob Cross of Peace, a 111 foot cross that was once the tallest cross in the western hemisphere.

Relation to 1918 Hepton: First cross-country USA eclipse in 99 years, since June 8 1918. That eclipse had a similar path but slightly convex to this. It featured totality at Mount Saint Helens. The 1918 eclipse was also a Hepton eclipse with a corresponding US eclipse exactly 2422 days later, on Jan 24 1925. Those paths did not touch.

Rare Cross-Country: It was one of only three Pacific to Atlantic USA total solar eclipses since the nation's founding (2017, 1918 and 1806)

Only in the USA: The eclipse touched no other national boundaries besides the USA. The last solar eclipse to have that geographic distinction occurred in 1257 AD (519 years before nation's founding) and it will not happen again until 2316 (199 years after the 2017 eclipse).

Touched most states ever: The eclipse touched 14 states, the most ever up to that time for an American Total eclipse. The April 8 2024 American Eclipse exceeds it, touching 15.

Near the center of the USA: The line of totality went within 50 miles of the geographic center of the contiguous USA (Lebanon, Kansas at 98.4% totality) and within a hundred miles of the population center of the US (Hartville, Missouri at 97.5% totality)

Nice Weather: The weather was exceptionally fair for most of the nation, making for good viewing.

Extended Peculiarities of the August 21 2017 Eclipse

First in 38 years: The 2017 Total Eclipse was the first in the contiguous USA in 38 years. The last one before 2017 was on 1979 Feb 26, with totality in the northwest, including Mt. Saint Helens one year before her eruption. The 2017 eclipse brought 98.4 % coverage to Mt. Saint Helens.

Seven Cities named Salem: Salem, Oregon (the capital of Oregon) was the first major city in the US to see totality. Salem is shorthand for Jerusalem, means “peace” in Arabic and is related to the Hebrew “shalom”. The eclipse path passed over 7 towns named Salem in The US. They were nearly evenly spaced along the line —in Oregon, Wyoming, Idaho, Nebraska, Missouri, Kentucky and South Carolina

Echoes of Government and Lincoln: The eclipse was first visible on US soil at Government Point, Oregon. The first town in totality was Lincoln City, Oregon, It also went over Lincoln Point Wyoming and Lincoln Nebraska (the state capital) --99.6% at Lincoln Missouri and 98.4% totality at Lincoln's Birthplace in Kentucky.

Nashville: First total eclipse over area of Nashville, Tennessee since 1478. But, of course everyone knows real country music had already been eclipsed for some time. Country Music Fact: #1 country song at time of eclipse. “Body like a Back Road” (*“I know every curve like the back of my hand”*)

Leaves USA at Slave Port of Charleston: Eclipse exited the USA with center line at Charleston, South Carolina. Charleston was the largest slave port in North America. More than 200,000 Africans passed through the port of Charleston in chains, between the founding of the Carolina colony in 1670 and the prohibition of the Trans-Atlantic slave trade in 1808. Interesting juxtaposition entering US at Salem and exiting at Charleston.

Interesting Historical Yearly Anniversaries of 2017

- 500th anniversary of Protestant Reformation (Began 1517 Oct 31)
- 500th anniversary of first defeat of Spanish Conquistadors in the Americas at Battle of Champton in what is now Mexico (1517 Mar 25)
- 500th Anniversary of first official European delegation to China (1517 Aug 15)
- 100th anniversary of Balfour Declaration proclaiming Jewish homeland (1917 Nov 2)
- 100th anniversary of US entrance into World War One (1917 Apr 6)
- 100th Anniversary of Russian Bolshevik Revolution (Oct 1917)
- 100th anniversary of birth of John F. Kennedy (1917 May 29)
- 50th anniversary of Jewish control of Jerusalem (6-7-1967)
- 50th Anniversary of American “Summer of Love” (1967)

Sevens and 70's

- 7 months exactly after Donald Trump's first full day in office (1-21-2017), who won the presidency by 77 electoral votes, and assumed his first full day when he was 70 years, 7 months and 7 days old. (Trump was born the day of a lunar eclipse Jun 14 1946)
- 70th anniversary of beginning of Israeli war of modern nationhood (November 1947)
- 70th anniversary of the discovery of the Dead Sea Scrolls (early 1947)

- 70th anniversary of founding of CIA (1947 July)
- 70th anniversary of Roswell “Flying Saucer” incident (7-7-1947)
- The eclipse path was 70 miles wide.
- Saros 145, the character eclipse, is composed of 77 events. 2017 Aug 21 is its 22nd.
- 2017 was Hebrew Year 5777.

Historical Calendar Peculiarities—Calendar date August 21st

Two other great eclipses occurred on the date of August 21 in the 20th Century.

August 21 1914 World War One (Saros 124)--One of the most clearly ominous eclipses in modern history. Fighting begins in worst slaughter in human history to that point just as total solar eclipse divides Europe, Ottoman Empire, and Russia.

August 21 1933 Jerusalem Ring of Fire--As Nazis seize control in Germany, ring of fire eclipse in Jerusalem and Baghdad (Babylon).

Saros 145 Recent History and Character

Saros are repeating characters (every 18 years 11 days and 8 hours- or 19 eclipse years). Saros 145 creates the August 21st 2017 Great American Eclipse. Here are last 5 eclipses for Saros 145 before 2017- see them go backwards 18 years at a time:

August 11 1999- Europe/ Mideast/ South Asia---Saros 145 created the last complete solar eclipse of the second millennium. One of the greatest eclipses of all time. Totality from Nineveh, Iraq to Hitler's birthplace in Austria to France and England.

Jul 31 1981 USSR-The last decade of the Soviet Union's power begins with a cross-country eclipse that touches no other nation.

Jul 20 1963 Japan to USA- 18 years after atomic bombs ,total eclipse begins in Japan six years to the day before moon landing

Jul 9 1945 USA to USSR Atom Bomb Eclipse-Total solar eclipse travels from the USA to USSR one week before the detonation of the first atomic bomb.

6-29-1927 England to USA Beatles Premonition Eclipse – Liverpool England to USA exactly 14 eclipse years (4851 days) before the birth of the Beatles oldest member, John Lennon, on 10-9-1940. All the Beatles will be born in Liverpool.

What's next for Saros 145? It is scheduled to return on September 2 2035, when it brings totality for the first time in centuries to Beijing, the capital of China. Totality also in Pyongyang, North Korea and north metropolitan Tokyo.



Great American Ring of Fire 2023 Oct 14

Astronomical facts about the eclipse:

- Type of eclipse: Annular (Ring of Fire)
- Saros Number 134
- Duration of totality along center line of maximum eclipse: 5 minutes 17 seconds
- length of path: perhaps 8000 miles long or so
- width of path, roughly 125 miles wide
- Zodiac: in constellation Libra



Great American Ring of Fire October 14, 2023

Map courtesy of eclipseophile.com

2023 is the Second of Three American eclipses in Seven Years

The above illustration shows how balanced the path itself appears in relation to North and South America. It is the most balanced eclipse path between the continents since Europeans arrived in 1492.

October 14 Facts and Peculiarities

Almost Columbus Day: October 14 2023 is 531 years and two days from the “discovery” of the Americas by Christopher Columbus. 48% sun coverage at his landing site in San Salvador Bahamas.

Anniversary of First Crime of Conquistadors: Oct 14 2023 is the exact 531st anniversary (Oct 14 1492) of Columbus' abduction of 7 native youth to serve as guides; the first colonial crime in the Americas.

The Metonic just left Columbus Day: The last complete eclipse on this eclipse Metonic occurred on Oct 12 1977, the 485th anniversary of Columbus Day. That total eclipse began over open ocean and traversed no land until it crossed Colombia, the only nation on earth named for the explorer.

Eisenhower vs. Hitler Rematch: 2023 Oct 14 is the 133rd Birthday of Dwight Eisenhower, born October 14 1890. Another complete eclipse occurred six months earlier on Adolf Hitler's 134th birthday on April 20. He was born April 20 1889. Eisenhower and Hitler were enemies in World War Two.

Peculiar distance from Mayan Apocalypse: 2023 Oct 14 is exactly 555.5 eclipse years from the “Mayan Apocalypse” total eclipse of August 8 1496 (Saros 127) which brought terror to the Aztec and Mayan tribes just as Spanish Conquistadors were arriving.

Extended Peculiarities of October 14 2023 Ring of Fire

North and South America: This is the first complete solar eclipse to connect the USA and South America (including full annularity at Panama Canal) since the USA's founding in 1776. The path connects North and South America with a complete Solar Eclipse for the first time since Oct 13 1632—391 years and one day before this Oct 14 2023 eclipse. The path touches 9 nations, a difficult geographic tightrope, perhaps the most ever for an eclipse in the Western hemisphere.

Latitude coincidence: The beginning spot of the eclipse in the Pacific Ocean is approximately 49.5 degrees latitude, which is also the same as the northernmost latitude of the northern boundary of the contiguous USA, 49.5 degrees at Angle Inlet, Minnesota.

Lincoln Anniversary: The 2023 eclipse enters the USA 10 miles south of Lincoln City Oregon exactly 167 eclipse years (57,879 days) after the assassination of Abraham Lincoln on April 14/15 1865.

Oregon: Newport, Oregon and a few other small settlements occupy the only tiny strip of land to receive complete eclipses in both the 2017 Aug 21 total and 2023 ring of fire solar eclipses. Salem just misses annularity. Eugene is in path.

Nevada: Annularity misses Las Vegas by a hundred miles (but still has 82 % coverage).

Utah: The eclipse crosses Utah, staying south. where it passes over several national parks and monuments including Bryce Canyon, Capitol Reef, Natural Bridges, Canyonlands and Bears Ears. Only small towns are in the path.

Colorado: Extreme SW Colorado in path, including Cortez. Anasazi ruins of Mesa Verde are in path.

Navajo Nation: Eclipse path crosses 3 of the four sacred Navajo Mountains (“corners of the Navajo Universe”)- Navajo Mountain in Utah, Mount Taylor in New Mexico and Hesperus in Colorado. Passes over Window Rock, Arizona—capitol of the Navajo Nation.

Path covers the entirety of **Lake Powell** in Utah, site of the damming of the Colorado River canyon system, perhaps the greatest ecological catastrophe in the history of America.

It passes over the center of the cross of the **Four Corners**, the only place in the USA (and the world?) where state political boundaries form a cross.

New Mexico. Annularity includes Chaco Canyon; ceremonial center of the lost Anasazi civilization. Acoma Pueblo is in Annularity, the oldest continuously inhabited village in North America (since 1150 AD). Eclipse passes over Santa Fe—the oldest and highest capitol city in America. Annularity in Albuquerque. Path crosses Los Alamos NM Laboratory (birthplace of Atom Bomb) and Roswell, NM where “flying saucer” event occurred in 1947, and real space aliens have shops on Main Street.

Oct 14 2023 in Texas:

Midland Again: Path heads over West Texas, crosses Midland, home of George HW Bush's oil business in the 1950's and the boyhood home of George W. Bush. Second USA annular eclipse in a row to touch Midland (and third in a row to directly impact it).

Columbus and Midland: May 20 2012 ring of fire ended at sunset over Midland, making Columbus Death day (May 20) and Columbus Crime Day (Oct 14) anniversaries enshrined in consecutive Ring of Fire eclipses both crossing Midland. The two Midland rings of fires are exactly 12 eclipse years apart.

Intersection with 2024 Total: The path intersects with upcoming 2024 April 8 eclipse path in the hill country west of San Antonio. Apex of intersection is just north of the town of Utopia. Exact apex appears to be Sabinal River south of Lost Maples State Park. Sabinal means "Cypresses" in Spanish. Exact Apex is near Piece of Heaven RV park and Hacienda Del Sol (Plantation of the Sun) Cabins.

Uvalde: The town of Uvalde, where 19 children were massacred in 2022, is in path of both eclipses.

San Antonio: is in Annularity, the largest city in the nation to receive annularity in this eclipse.

The Body of Christ: Perhaps most striking of all, precise centerline of eclipse path exits the USA directly over Corpus Christi, or "Body of Christ", one of the only towns named that in the world.

Central America: Annularity in every nation in Central America except El Salvador (the Savior).

South America: Of course, being a Columbus Anniversary Eclipse, the path bisects the nation of Colombia 46 years and two days after their unique Columbus Day eclipse of Oct 12 1977

Brazil: The Ring of Fire crosses the northern entirety of the Brazilian state of Amazonas to exit the Americas at city of Natal (Nativity), very near the extreme northeastern tip of South America, the closest spot in the Americas to Europe. The eclipse also covers city of Joao Pessoa, the easternmost spot in all the Americas and the 3rd oldest city in Brazil.

Saros 134 Recent History and Character

Saros are repeating characters (every 18 years 11 days and 8 hours- or 19 eclipse years). Saros 134 creates the October 14 2023 Great American Ring of Fire.

Here are the last 5 eclipses for Saros 134 - see them go backwards 18 years at a time:

- **2005 October 3-Madrid Ring of Fire:** Madrid Spain directly in Totality, along with Algiers...path cuts through Africa, including Kenya.
- **1987 Sep 23- USSR Fall Equinox:** 7 weeks before Estonia became the first state of USSR to declare its independence. Eclipse also over China.
- **1969 September 11- South America:** Just missing the northern border of Chile, where a CIA coup ousts and kills President Salvador Allende four years later on September 11th 1973. 9-11 Metonic's first appearance in centuries.
- **1951 Sep 1 -Jamestown, Virginia to Africa Ring of Fire:** Eclipse path traces path of the first slaves brought by British colonists on 8-20- 1619 back to their homeland of Angola 331 years and 11 days later -see also **7-11-1619 Luanda Angola Eclipse**
- **1933 Aug 21 Jerusalem Ring of Fire** -mentioned earlier.



Great North American Eclipse: April 8 2024

Astronomical facts about the eclipse:

- Type of eclipse: Total
- Saros Number 139
- Duration of totality along center line of maximum eclipse: 4 minutes and 27 seconds
- length of path: perhaps 10,000 miles long
- width of path: 124 miles wide
- Maximum eclipse occurs near Nazas, Mexico
- Locater: Sun and Moon eclipse in Pisces between Mercury and Venus

Peculiarities Apr 8 2024 Total Eclipse

Easter: Occurs eight days after Easter, the closest any solar eclipse can astronomically occur to Easter. Easter is March 31, the first Sunday after full moon after Spring Equinox.

Buddha Birthday: April 8 is traditional birthday celebration of Buddha (Japan)

All three Nations of North America: April 8 2024 eclipse is the first total solar eclipse to cross all three nations of Mexico, USA and Canada overland since their founding. You have to go back to 664 AD for any path like the 2024 path. It will be the last total eclipse to touch all three nations until 2316. It is the only total solar eclipse to travel south to north overland border to border in US history.

The Most states ever for Total: The 2017 USA eclipse touched 14 states, the most states of any total eclipse in US history. The 2024 eclipse outdoes it by one, touching 15 states.

Last US Eclipse for a long While: It will be the last complete solar eclipse in USA for 20 years (until Aug 22 2044). This will be the longest stretch without an eclipse in USA since 1782 to 1806 24-year stretch.

New Madrid Fault: Totality over New Madrid, Mo, epicenter of largest earthquakes in USA history (1811/1812)

The Most People Ever in USA: The eclipse will cover far more metropolitan cities and go over more Americans in one path than any total eclipse in the nation's history.

Lots of Cities: Just some of the cities in the path of Totality-: Del Rio, Dallas-Ft. Worth, San Antonio, Austin, Waco, Texarkana, Little Rock, Terre Haute, Indianapolis, Dayton, Akron, Cleveland, Buffalo, Syracuse, Rochester, Burlington, Montpelier.

Near the Center again: The path passes within 50 miles of the geographic population center of the USA (Hartville, Missouri—with 99% totality)

Second line of Tav: It forms a balanced curved cross or x (Hebrew Tav) with the August 21 2017 eclipse

Mexico and Canada too: Crosses more metropolitan populations across nations of Mexico. USA and Canada than any other complete solar eclipse in the history of the western hemisphere.

Mexico: the eclipse first enters the North American continent with centerline directly over resort city of Mazatlán, it also traverses cities of Durango and Torreon (“tower”), site of the 3rd tallest statue of Christ in Latin America. Maximum Eclipse (4 minutes 27 seconds) of entire eclipse occurs near city of Nazas, an Arabic word for evil eye and shorthand for Nazareth. The eclipse exits Mexico at Ciudad Acuna to enter USA at Del Rio.

Canada: the eclipse scrapes the northern Toronto Metro area, and fully covers Montreal (founded in 1642 as Villa Marie or City of Mary).

Exits at St.John's: Eclipse exits North American north (99.24% eclipse) at St. John's, Newfoundland. St. John's is the oldest city in Canada, and one of the oldest European settlements in the New World, founded by the British in 1497. Saint John as in John the Apostle, writer of the Book of Revelation.

First Canadian Total in 45 years: This is the first Total Eclipse visible from Canada since February 26, 1979, more than 45 years.

Specific US Geographical Peculiarities of the April 8 2024 Total Solar Eclipse

Let's trace the path from Texas to Maine and look at peculiarities in each of the 15 states

Texas Historical and Geographical Peculiarities April 8 2024

Big Texas Cities: Path manages to pass over 3 of the four largest cities in Texas—San Antonio, Austin and Dallas-Fort Worth. Together they are home to more than 12 million people. Also in the path are several other large cities, including Plano, Del Rio, Waco, and Texarkana.

Texas Tav: the two eclipses of 2023 Oct 14 (Ring of Fire) and 2024 Apr 8 make a geographical X over south Texas. Texas is the only state in the USA with the letter x in its name. The center of the X of those two paths is near town of Utopia.

Uvalde Again: The eclipse passes over the town of Uvalde, site of the massacre of 19 schoolchildren in 2022 just as the 2023 Ring of Fire does.

Odd Waco Anniversary: Eclipse passes over the site of the Mount Carmel Branch Davidian Massacre in Waco, Texas, where 76 people, including 25 children, were burned to death exactly 30 solar years plus one lunar year before this eclipse (30 Years 11 months and 20 days) on 1993 April 19.

Dallas and JFK: The eclipse passes directly over Dallas, their first total solar eclipse since 1878 and only their third total eclipse in nearly 500 years. Dallas is the site of the most notorious murder in modern American history, the assassination of John F. Kennedy on 1963 Nov 22. Total eclipse occurs in Dealey Plaza, site of the shooting, 60 years and 137 days later at 1:40 pm Daylight Savings Time, very near the time of the shooting, which was at 12:30 pm Standard Time.

LBJ in the Path: The eclipse passes over both the birthplace/boyhood home (Stonewall, Texas) and death place (Johnson City, Texas) of Lyndon B. Johnson, Kennedy's successor to the Presidency.

Interesting anniversary of JFK Eclipse: The eclipse of April 8, 2024 is separated by exactly 110 eclipse years (which is 220 eclipse seasons) from the Kennedy Death Premonition Eclipse of 11-22-1919. That amazing 1919 eclipse occurred exactly 44 years before the murder of JFK and passed over both the Texas Capital of Austin and Stonewall, Texas, home to a then ten-year-old Lyndon B. Johnson, who would replace Kennedy on 11-22-1963. See USA Eclipses and Kennedy section.

More Bush in the Path:The Eclipse passes over ranch of George W. Bush in Crawford, Texas and his family's current residence in Dallas. The preceding Ring of Fire 177 days earlier on 2023 Oct 14 passes directly over his boyhood Home of Midland/Odessa Texas.

Space Shuttle Columbia: The eclipse passes over site of Columbia Space Shuttle disaster near Dallas on 2003 Feb 1, during George W. Bush's Presidency, seven weeks before the US invaded Iraq in March of 2003. Columbia is the female national personification of the United States, a historical name also applied to the Americas and to the New World.

Arkansas and Clinton: Totality over the birthplace/boyhood home of President Bill Clinton (Hope) as well as his adult and governor's home in Little Rock. Also passes over the town of Clinton, Arkansas.

Tennessee sees totality in only a few square miles, touching only a tiny corner of the state, the port of Cates Landing, one side of an oxbow of the Mississippi River across from New Madrid, Missouri...epicenter of the great New Madrid earthquakes (Dec 16 1811 to Feb 7 1812)

Little Egypt Apex: Sections of Missouri, Illinois, and Kentucky will see their second total eclipse in 7 years. That area is known as "Little Egypt". Center of the apex of the USA total eclipse cross is very near the township of Makanda, Illinois—once known as the "Star of Egypt". The exact apex appears to be on the east side of Cedar Lake at Salem Road.

Missouri is the state crossed most dramatically by the X created by the two eclipses of 2017 and 2024. The 2024 eclipse touches no major cities in Missouri, though many smaller towns.

Kentucky: Paducah is eclipsed for the second time in 7 years, the largest city in USA to receive totality in both eclipses. Farther to northeast, Abe Lincoln's birthplace receives 98% coverage.

Illinois and Bald Knob Cross: Carbondale and Chester Illinois receive totality for the second time in seven years. As in the 2017 eclipse, the path passes over Bald Knob Cross, near Alto Pass Illinois, once the largest cross in North America and still one of the biggest at 111 feet tall. It is situated on a hill at the highest point in southern Illinois, near Makanda.

Indiana: Most of the state sees Totality, including Columbus, birthplace of Trump's Vice-President Mike Pence. Also in path is Indianapolis, home of ex Vice-President Dan Quayle and politician Pete Buttigieg. Totality over site of Battle of Tippecanoe (1811 Nov 7) in Battle Ground, Indiana at Prophetstown State Park. That battle was one of the turning points in the wars for domination of the American Indians. Prophetstown was founded by Tecumseh, the great Shawnee warrior and Chief.

Ohio: the eclipse hits or scrapes nearly all major cities (totality in Cleveland), though barely the north Cincinnati Metro and bisecting Columbus Metro area. Eclipse occurs exactly 233 eclipse years after the founding of Ohio on 1803 Mar 1. Crosses site of Kent State killings of 1970 near Akron. Ohio was the home of 8 US Presidents.

Mormon Associations: In **Ohio**, path goes over Kirtland, the early home of the Mormon Church and Joseph Smith from 1831 to 1837. Path goes over **Hiram, Ohio** where Joseph Smith was famously tarred and feathered. Eclipse Totality goes over **Manchester, New York**, where Smith claimed to have found the golden tablets from which the Mormon religion is founded. The path very nearly goes over Joseph Smith birthplace of **Sharon, Vermont** (99.13%). 97% coverage at Brigham Young Birthplace of **Whitingham VT**.

Michigan sees even less totality than Tennessee, and only the barest few square miles experience total eclipse, in the area of Lost Peninsula.

Pennsylvania: crosses city of Erie. 94.7% at Biden birthplace of Scranton.

New York State: In New York, the path follows entire northern border of the state. Totality at Niagara Falls. Centerline of totality in Rochester, Buffalo and Watertown, home of Allen Dulles who headed the CIA from 1953 to 1961. Dulles was born April 7 1893, 131 years and one day before eclipse.

Vermont: Total eclipse in Vermont's two largest cities, Burlington and Montpelier.

New Hampshire: Crosses the little populated extreme north.

Maine: Maine is one of the states most crossed by eclipses in the history of USA. Caribou, Maine is the last major town in the USA to experience totality in the 2024 eclipse.

US/ Canada Border: The eclipse path straddles the USA/ Canada Border for nearly 700 miles—from Toledo Ohio to just south of Quebec City Canada. The path exits Maine, about 100 miles from the easternmost point of the USA, then travels across extreme eastern Canada. The eclipse will have spent only about an hour and a half crossing North America.

Date Peculiarities of April 8 2024 and 2024 in general

Monday: Like 2017 Aug 21 USA Eclipse and both Mideast Cross eclipses, this eclipse also occurs on Monday. It is a Hepton Cycle Eclipse.

Anniversary of Titanic Eclipse: The Titanic Hybrid Eclipse of 1912 Apr 17 (60 hours after the sinking) and the 2024 Apr 8 total eclipse are exactly 118 eclipse years apart—40,902 days

Anniversary of New World Eclipse: The New World Eclipse (1492 Oct 21), which occurred nine days after Columbus landed in the Americas and the 2024 Apr 8 eclipse are exactly 560 eclipse years apart (194,104 days). Eclipse coverage in 2024 is 31% at Columbus landing site in Bahamas

500th Anniversary of sighting of Manhattan: Apr 8 2024 is nine days shy of exactly 500 years from the sighting of Manhattan Island by the explorer Verrazano on Apr 17 1524. New York City sees 90% coverage in the 2024 Eclipse. **400 Years** since the first Dutch colonists arrive in New York (1624)

100th Anniversary of end of Indian Wars: 2024 is 100 years after the final US Army skirmish with the Apache tribe, which ended more than 400 years of the North American conquest. (1924)

The character of Saros 139 History and Peculiarities

Saros 139 creates the April 8 2024 Great American Eclipse. Here is the recent past of Saros 139,

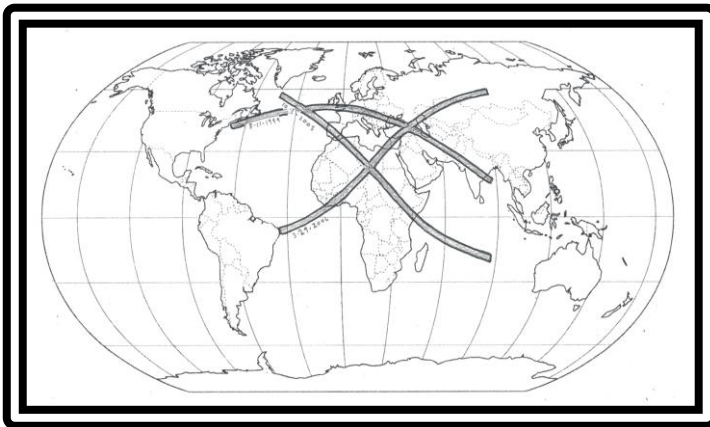
Turkish Cross March 29 2006: Began at sunrise over east coast city of Natal (“Nativity”), Brazil— It crossed the Atlantic, Africa, Turkey and Georgia, Kazakhstan, including totality at their unusual Capital of Nur-Sultan, home of the 203 ft Palace of Peace and Reconciliation, a pyramid devoted to reconciliation of the world religions. Paired with **Aug 11 1999 End of Millennium Eclipse**. The extraordinary design they create is nearly identical to the one they recreate over America between 2017 and 2024. See next page.

1988 Mar 18 Total eclipse in Indonesia, Malay and southern Philippines. Mount Pinatubo of the Philippines erupts 3 years, 3 months and 3 days later in the 2nd largest eruption of the 20th century.

1970 Mar 7 End of 60's USA eclipse...Total Eclipse across southeastern seaboard of USA. 93% totality at Cape Canaveral/ Cape Kennedy 234 days after first rocket to the moon. Totality at Charleston South Carolina, the greatest Slave Port in North America (totality again in 2017). The end of the sixties.

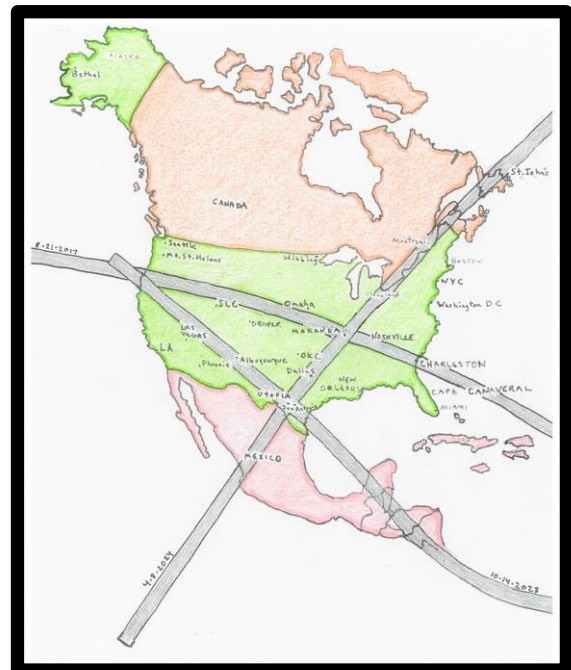
1952 Feb 25 Iranian Shahrud Eclipse ---one of the eclipses that make up the great **Shahrud Iran Cross of 1952 and 1954**, bordering the US led coup that established the reign of Shah Reza Pahlavi (see historical eclipses for more info).

Turkish Aleph formed by Saros 145, 134 and 139 as they appeared 1999 to 2006.



At left: Turkish Alef 1999 to 2006
Compare with American Aleph in color below formed by same Saros members

American Aleph 2017, 2023 and 2024



The Texas Tav: 2023 and 2024



2023 Oct 14 Ring of Fire (Saros 134) and 2024 Apr 8 Total (Saros 139)

Two extraordinary eclipses intersect in extraordinary fashion over South Texas. San Antonio sees two eclipses in six years.

Exact apex apparently near Lost Maples State Park; near Texas town of Utopia, in the hill country west of San Antonio.

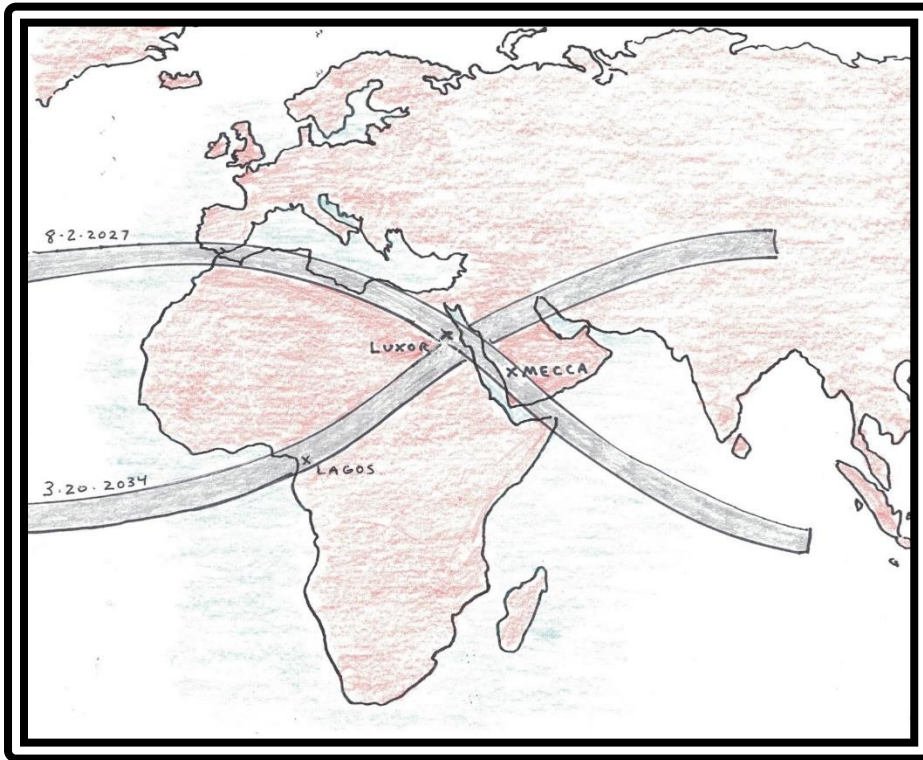


American Total Hepton Cross 2017 and 2024

Two unique total eclipses- Aug 21 2017 and Apr 8 2024- cross exactly 7 eclipse years apart over the area known as Little Egypt. Apex near the town of Makanda ("Star of Egypt") 8 days after Easter at the most critical time in the history of the United States. These two eclipses are separated precisely at midpoint by a total eclipse in the Southern Hemisphere on Dec 14 2020 (not pictured), which occurs simultaneously with the electoral college of the USA electing the Biden/Harris ticket on the 221st anniversary of George Washington's death.

The next Hepton Cross begins in Egypt at the Valley of the Kings 1211 days later on August 2 2027.

The Great Mideast Cross 2027 and 2034



The Mideast Cross is formed by two Hepton Cycle eclipses of Aug 2027 and Mar 20 2034. They are part of the Hepton Cycle which creates the two Total American eclipses we just studied but are different Saros personalities. Like those two eclipses, these two happen on Mondays.

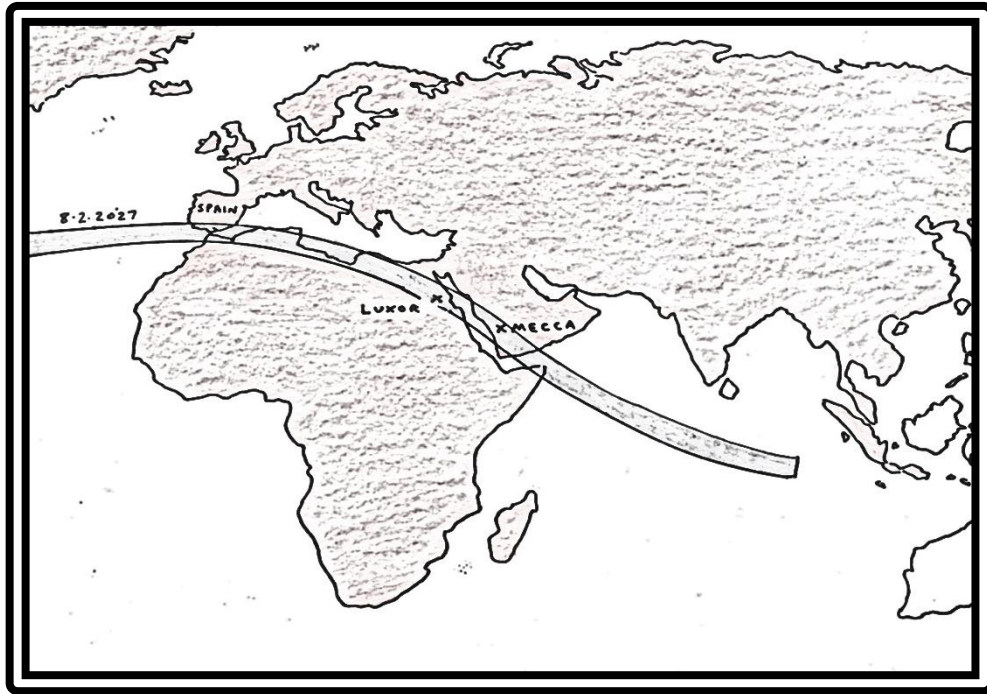
The precise apex of the two paths is southeast of the Valley of the Kings in the Red Sea near St. John's island almost precisely on the Tropic of Cancer. This cross mimics the nearly identically shaped Hepton Cross formed by the American eclipses of 2017 and 2024.

Like the American cross, these two eclipses are 2422 days apart and both appear on a Monday. Also, like the American cross, they are separated at the 1211-day midpoint by another significant Total Eclipse in the same hemisphere, in this case the Nov 25 2030 British Empire Eclipse from South Africa to Australia, which we will study later. They also have a significant Ring of Fire event in their midst, in this case a Jun 01 2030 Ring of Fire through all Eurasia, including Athens and Istanbul.

The 2027 Valley of the Kings Eclipse is 1211 days from the 2024 Easter North American Eclipse.

There are great peculiarities in the relations of all these eclipses, but first we will take a quick look at the individual eclipses themselves.

2027 August 2 —The Valley of the Kings and Mecca



Introduction

The most powerful Saros Character of them all, Saros 136, which is creating the longest eclipses of the last thousand years, makes a powerful statement across the center of the world.

Maximum Eclipse occurs almost directly over Luxor, Egypt the Valley of the Kings, perhaps the greatest symbol of ancient Imperial Power, magic arts and mystery religion in the history of the world.

Prior to reaching there, the path straddles the Straits of Gibraltar and follows the coastline of North Africa. After exiting Egypt in the Red Sea, it passes directly over the Holiest City of Islam, Mecca.

Not long after, it crosses Yemen and the Gulf of Oman. It exits land at the easternmost tip of Africa at the Horn of Somalia and dies at sunset in the Indian Ocean.

Astronomical facts about the Aug 2 2027 eclipse:

- Type of eclipse: Total
- Saros Number 136
- Duration of totality along center line of maximum eclipse: 6 minutes and 23 seconds—this will be the longest eclipse on Earth until 2114
- length of path: perhaps 8500 miles long
- width of path, 160 miles wide
- Maximum eclipse occurs 37 miles southeast of Luxor, Egypt
- Zodiac Locater: Eclipse occurs in Cancer

Geographical and Historical peculiarities of August 2 2027 Total Eclipse

Two continents at once: Eclipse begins over open Atlantic Ocean and first hits land at the Straits of Gibraltar, simultaneously straddling Europe and Africa at their closest point.

North Africa: Totality at or very near most major cities on the north coast of Africa except Egypt. The eclipse touches every nation on the North coast of the African continent, Morocco, Tunisia, Algeria, Libya and Egypt.

Close to Total at Pyramids: Cairo Egypt has 95% totality. 94% at Pyramids of Giza.

Spanish Swarm: Extreme Southern Spain experiences a total eclipse exactly one lunar year after Spain's first Total eclipse in 128 years (which occurred 2026 Aug 12)

The Rock of Gibraltar: perhaps the most famous rock in the world. Rock of Gibraltar is one of the two traditional Pillars of Hercules. According to ancient myths of Greeks and the Romans, it marked the limit to the known world.

Algeria: path cuts just south of Algiers with totality over Constantine, Oran, Sidi Bel Abbes and others, covering virtually all the major cities of Algeria besides Algiers.

Tunisia: Eclipse bisects Tunisia, including ruins of Carthage.

Libya: Crosses Libya at Tripoli then Benghazi. Libya's 3rd eclipse in 22 years.

Egypt: crosses the famous Siwa Oasis, the most remote settlement in Egypt, populated for 3,000 years, also known as the Oasis of Amun-Ra, home to Oracle of the Egyptian god Ammon, visited by Alexander the Great in quest to conquer the Persian Empire.

- Crosses Asyut, Egypt ("guardian" in ancient Egypt) a 5,000 year old city founded by the banks of the Nile, now containing the largest concentration of Christians in Egypt. Mummies of wolves have been found there and apparently the god Osiris was worshipped there as a wolf.

Valley of the Kings: Maximum eclipse of the path occurs almost directly on Luxor, Egypt, (ancient name Thebes), the "Valley of the Kings". This necropolis has frequently been characterized as the "world's greatest open-air museum", the first center of human empire. The Egyptian temple complexes of Karnak and Luxor stand within the modern city. All of it is in total eclipse. More than 65 Royal burials took place in the Valley of the Kings.

Pharaoh Ramses of the Biblical story of Exodus and his extended family were buried in the Valley of the Kings, along with many structures built by the Hebrew slave labor depicted in the Bible. Ramses II is the Pharaoh confronted by Moses and the plagues of God. Nearly all burials have since been "excavated". Ramses tomb was apparently robbed beginning in late 1800's, and his body taken away in 1881 and now resides in a Cairo, Egypt museum.

The Valley of the Kings is also home of the tomb of 19 year old Pharaoh Tutankhamen. In the greatest

authorized grave robbery of the 20th century, his tomb was opened on 1922 Nov 4, 7 months and 7 days after a Ring of Fire Eclipse bisected Egypt on 1922 Mar 28. That eclipse was the last great complete eclipse to cross Egypt before this one.

Mecca: Path crosses Red Sea into Saudi Arabia. Mecca, the holiest city of Islam, receives totality for the first time since Aug 30 1905.

Yemen: Path crosses ancient city of Sanaa, Yemen, then the Horn of Africa and exits into Indian Ocean. The last land touched at sunset is Nelson's Island in the Indian Ocean, the most northern and easternmost island of the Great Chagos Bank, the world's largest coral atoll structure.

Metonic and Historical Peculiarities for August 2nd 2027

Jesus: 2027 is the first reasonable possible 2,000th anniversary of the Crucifixion and resurrection of Jesus Christ, which necessarily occurred sometime between 27 and 34 AD.

Been a Long Time: This is the first appearance of an August 2 Solar Eclipse since Aug 2 1674.

Iraq War Anniversary : August 2 2027 is the 37th Anniversary of the invasion of Kuwait by Iraq on 1990 Aug 2, the beginning of the USA's attempted occupation of Babylon. Eclipse has 60% coverage at Kuwait City. 56% in Baghdad.

Declaration of independence Signing: August 2 2027 is the 251st anniversary of the final signing of the Declaration of Independence. Most signers signed it on Aug 2 1776.

Hitler becomes Fuhrer: August 2 2027 is the 93rd anniversary of the ascension of Adolf Hitler to the title of Fuhrer upon the death of Hindenburg. (Aug 2 1934)

Einstein promotes A-Bomb: August 2 2027 is the 88th anniversary of Albert Einstein's letter to Franklin Roosevelt encouraging the development of an atomic bomb (8-2-1939)

JFK and PT 109: August 2 2027 is the 84th anniversary of the sinking of PT-109 in the Solomon Islands on 8-2-1943, where the legendary heroics of future President John F. Kennedy saved the lives of his crew mates. That event is in itself shadowed in eclipses (see Kennedy Connections)

Gulf of Tonkin: August 2 2027 is the 63rd Anniversary of the Gulf of Tonkin "incident", which was used as the pretext for massive involvement by the USA in Vietnam.

Zodiac Peculiarity

- The Valley of the Kings eclipse of 2027 sees the sun and moon eclipse in Cancer, where Venus will be as well.
- Cancer faces Leo the Lion in the Zodiac. The eclipse of 2017 featured sun and moon in the paws of Leo.
- The constellation Cancer (the Crab) was considered a Scarab Beetle by the Egyptians. The Egyptian scarab (or dung beetle) was linked with the god Khepri, who presided over the sun, sunrise, and the renewal of life.
- Cancer is next to Leo in the Zodiac.
- The constellation Leo was home to the 2017 Aug 21 Eclipse. Leo is the Lion as symbolized in Judeo/Christianity as the Lion of Judah. To Jews, this Lion is yet to come. To Christians, The Lion is Jesus who will return again. These two great symbols, Lion and Crab, face each other with matching Total solar eclipses ten years minus 19 days apart.

Saros 136 Recent History and Character

Saros are repeating characters (every 18 years 11 days and 8 hours- or 19 eclipse years). Saros 136 creates the August 2nd, 2027 Valley of the Kings Eclipse. For visual depiction, see Saros Section. For detailed descriptions of these individual eclipses see World Section.

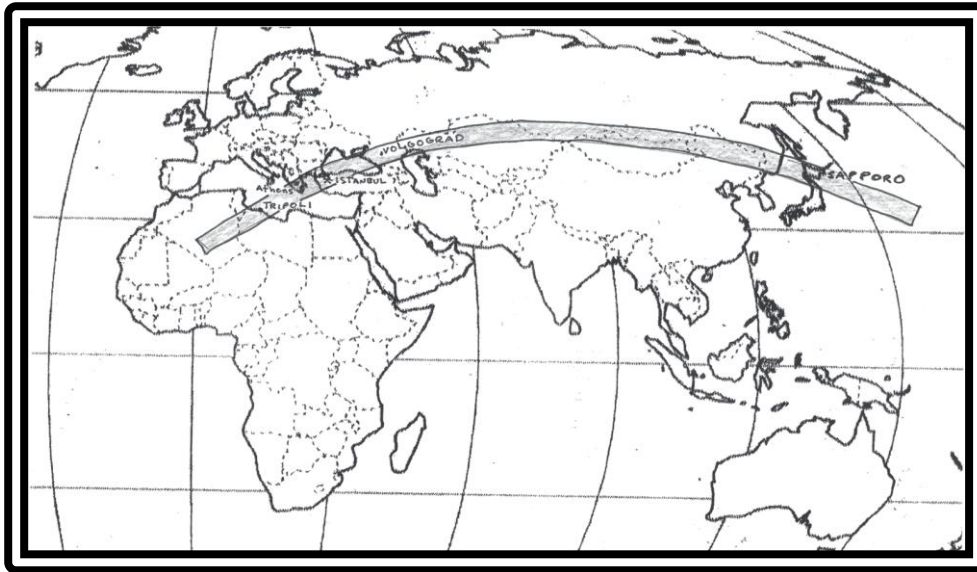
Solar **Saros 136** produced the six longest total solar eclipses of the 20th century, three of them over seven minutes long. It also produced the longest total eclipse of the 21st century at 6 min 38.86 sec on July 22 2009 (The **Wuhan Eclipse**). It will produce this century's three longest total eclipses. Saros 136 will ultimately produce a total of 44 total eclipses. It produced the most central total eclipses of any Saros between the years 1209 and 2718 and produced the greatest magnitude of any eclipse since the year 540 on July 11 1991. ***Clearly this is a peculiar Saros.***

Here are last three Saros 136 eclipses, going backwards in time

2009 Jul 22 The Wuhan Eclipse: Wuhan, China experiences the longest total eclipse of the 21st century along with Shanghai and many other great cities. Totality over many big cities in India. Ten years before pandemic.

1991 Jul 11 Hawaii and Central America: Big Island of Hawaii has totality. Totality in Mexico City over the Aztec Pyramids and most of the nations of Central America, many embroiled in civil war.

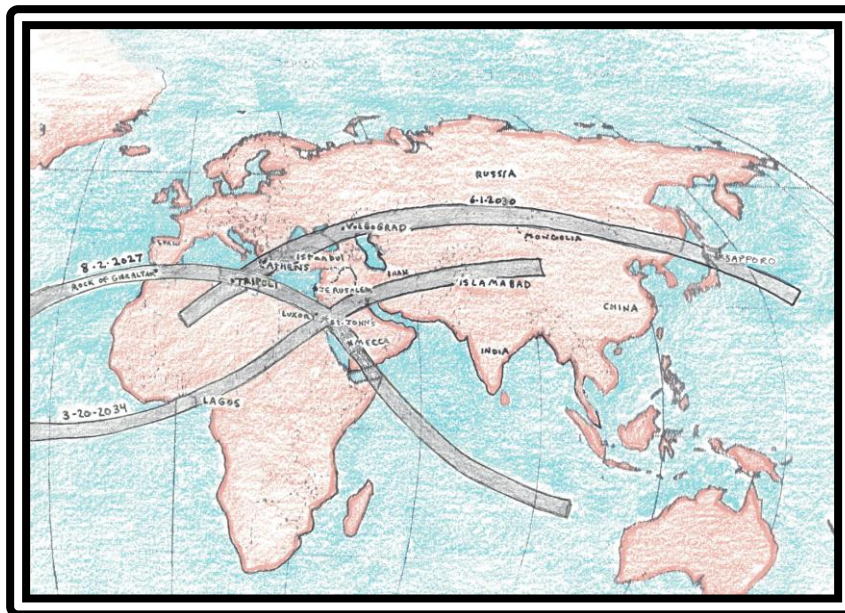
1955 June 20 Southeast Asia: Saros 136 produces the longest total eclipse (7 minutes, 7 seconds) since the 11th Century with center over Southeast Asia, totality bisecting Vietnam and Cambodia. Centerpiece of a six-eclipse swarm over that region of the world-- just as it plunges most deeply into the nightmare of modern war..



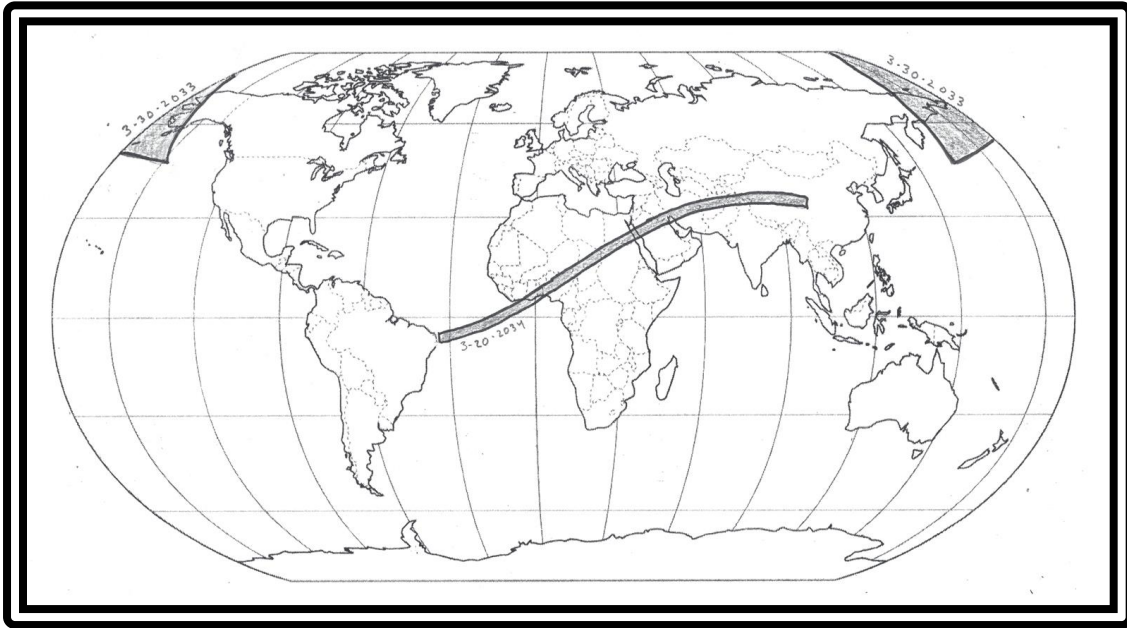
June 1 2030 Athens/Constantinople Ring of Fire.

2030 Jun 1 Athens/Constantinople Ring of Fire. Extraordinary path beginning in Algeria and ending in Japan. Great cities along the path include Tripoli, Athens, Istanbul (Constantinople), Sevastopol, Volgograd and Sapporo. This Ring of Fire occurs 3 eclipse years after August 2 2027 Valley of the Kings

Here's all three Mediterranean Eclipses Together



March 20 2034 Spring Equinox



The Great Civilization Eclipse of March 20 2034 completes the Spring Equinox Metonic we will look at later which began in 2015. It is pictured in the center of map. Let's look at its peculiarities.

Astronomical facts about the eclipse:

- Type of eclipse: Total
- Saros Number 130
- Duration of totality along center line of maximum eclipse: 4 minutes and 9 seconds—
- length of path: perhaps 8500 miles long
- width of path, 99 miles wide
- Maximum eclipse occurs over Toungouni Mountain in nation of Chad
- Zodiac: eclipse occurs in Pisces

Date Peculiarities March 20, 2034

Spring Equinox: March 20^t 2034 is the Spring (Vernal) Equinox. The Spring Equinox is the traditional first day of the year for many cultures, ancient and modern.

Nineteen Years after North Pole Eclipse: There was a Spring Equinox Total Eclipse (Saros 120) 19 years prior on 2015 Mar 20. That eclipse ended directly at the North Pole, perhaps the first eclipse in human history to do so.

Happy New Years: March 20 2034 marks New Year or New Year's Eve for Muslim, Hindu, Zoroastrian and Bahai Calendars. 2034 Mar 20 marks the 307th anniversary of the death of Sir Isaac Newton, probably the most famous scientist of all time (1727 Mar 20 Julian Calendar). Newton calculated the Crucifixion of Jesus at Apr 23 34 AD, which would make the 2034 Mar 20 eclipse occur 34 days prior to his calculation of 2000th anniversary of Crucifixion and Resurrection.

March 20 Eclipses are Rare: There have been only 7 complete eclipses on the exact March 20 date between 403 BC and 2014 AD (2417 years). Of those: 3 were total, 2 hybrid and two annular. Only two touched major civilizations and empires of earth. There was a Mar 20 total eclipse in 1662, prior to that, there were two total eclipses on March 20 since the birth of Jesus. One was on 1140 Mar 20 over England and Germany, near the beginning of the war called “The Anarchy”, which featured a total breakdown in law and order.

Jesus: The most obvious Solar Eclipse near possible Jesus Crucifixion was on March 19/20 33 AD had a total eclipse (only visible in Antarctica and Indian Ocean) one day prior to Spring Equinox and 14 days prior to the traditional Crucifixion date of Friday 33 April 3 AD, when a partial lunar eclipse was visible from Jerusalem. In 2034, exactly 2,001 years later, there will be both a March 20 solar eclipse and an April 3 Lunar eclipse

Temple Destruction: On Mar 20, 71 AD, the day of Spring Equinox, a hybrid total crossed Greece and Turkey, 143 days after the destruction of the Jewish Temple by Rome featuring totality in Greece (very near Athens—and directly over Artemida, named for the goddess of the moon. In other words, The Crucifixion of Jesus Eclipse (33 AD) and the destruction of the Temple Eclipse (70 AD) are framed by March 19/20 Spring Equinox eclipses occurring 38 years apart. 38 years is two Metonic Cycles.

One Lunar Year after Great Bering Strait Eclipse: Exactly one lunar year prior to the Mar 20 2034 eclipse is a Total Eclipse on Mar 30 2033 which straddles the Bering Strait between the USA and Russia, linking both hemispheres simultaneously. That eclipse is only four days from the traditional 2,000th anniversary of the Crucifixion and 7 days from the traditional Resurrection.

Path of the Mar 20 2034 Solar Eclipse.

Brazil: Begins just offshore of Brazil near Fortaleza-” Fortress” (90% coverage)

Africa: Crosses Atlantic and enters Africa, rapidly crossing 3 national capitals along the “slave coast”. The first two capitals are Porto Novo, capital of Benin, the infamous Portuguese slave port, the second is Lome, capital of Togo. The third African capital is Lagos, Nigeria, the largest metropolitan area in Africa (nearly 25 million people), also once a slave port. Its native name is “Eko” which means “war camp”. Path crosses Chad, with maximum eclipse in Chad near Tougouni Mountain—then continues through war-torn Darfur and Sudan, before entering southern Egypt.

Egypt: Path crosses southern Egypt

Saudi Arabia: The eclipse crosses the Red Sea (85% eclipse at both possible Mt. Sinai locations in Sinai Peninsula and Saudi Arabia) and enters Saudi at Yanbu, an important site in Islamic history just north of Medina. Totality scrapes northern metro area of Medina, Saudi Arabia, where the Prophet Mohammed died and the second most holy city in Islam. He died on June 8 632 AD- almost exactly 1477 eclipse years and 1445 lunar years prior to this eclipse.

Kuwait: Path crosses southern Kuwait City, 44 years after Iraq invasion of 1990.

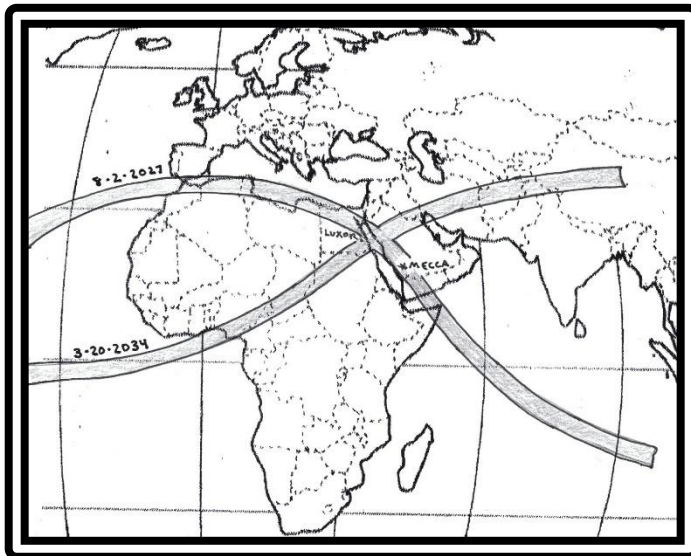
Iran: Path bisects Iran, entering at Bandar Ganauch and crossing Shiraz, one of Iran's oldest cities. Path bisects southern Afghanistan, including city of Farah, founded by Alexander the Great.

Pakistan: Path crosses northern Pakistan, including Peshawar, one of the oldest cities in south Asia and over the planned city of Islamabad (means "City of Islam"), the capital of Pakistan.

Kashmir: Path continues over Kashmir, the disputed mountain region of Pakistan and India, including its largest city, Srinagar.

Tibet: Eclipse ends in Tibet at sunset, in an area now controlled by China.

Crosses: 2027 and 2034 Hepton Eclipses



The 2034 path crosses the 2027 eclipse path just south of the Valley of the Kings and creates apex in the Red Sea over St. John's Island just east of Egypt. The 2030 path crosses the 2027 path over Tripoli.

Only two towns of any decent size are in both eclipse paths, Ras Banas and Al Shalateen, both in Egypt though Shalateen is a disputed territory with Sudan. Ras Banas is on a peninsula north of an inlet called "Foul Bay", by the ancient port of Berenice, founded by Ptolemy in the 3rd century BC and home of the famous troglodytes. Berenice was a critical trading port for several empires. Its most famous ruin is that of an Egyptian style Temple featuring the name of Tiberius. Tiberius was Caesar during the last days of Jesus of Nazareth. Both eclipses of 2027 and 2034 cover this same temple in totality. Little has been written about Al-Shalateen, but apparently, they have several markets there, and it is known as a place of camel trading.

The true apex of the two eclipses occurs in the Red Sea near St. John's Island (Zabargad), a small yet somewhat famous island known for its now submerged topaz mines. It is presumably named after Saint John, who wrote the Book of Revelation. St. John's, Canada was the last town touched by the 2024 USA eclipse.

Further Peculiarities during 2027 and 2034 Solar Eclipses

Apex is Right on the Tropic of Cancer: Apex of the two eclipses of 2027 and 2034 is directly on the Tropic of Cancer (23.5 degrees North). The Tropic of Cancer is the northernmost latitude on Earth where the Sun can be directly overhead, which occurs on Summer Solstice. It was named in the last centuries before Christ, when the sun was in constellation Cancer. It has since shifted to Gemini.

Eclipse of 2027 is in Sign of Cancer: The Eclipse of 2027 sees the sun and moon eclipse in Cancer, near the planet Venus. Cancer faces Leo the Lion in the Zodiac. The eclipse of 2017 Aug 21 featured sun and moon in the paws of Leo.

Cancer is the Egyptian gods Khepri and Atum-Re: The constellation Cancer (the Crab) was considered to be the Scarab Beetle by the Egyptians. The Egyptian scarab (or dung beetle) was linked with the god Khepri, who presided over the sun, sunrise, and the renewal of life. Ancient Egyptians believed that scarabs were the reincarnations of Khepri himself, and depictions of the god often show him with the head of a scarab. The scarab beetle was also associated with the gods Atum and Re, who represented primordial creation and the sun, respectively. Together, the gods formed Atum-Re, which illustrated the joint power of the sun and creation.

2034 Eclipse in Pisces: In the March 20 2034, the sun and moon eclipse just below Pisces near the planet Jupiter. Pisces is considered the sign of the fish. The age of Pisces apparently began around 68 BC, and thus close to the birth of Christ. It's one of many reasons Christians are associated with fish.

Saros 130 Recent History and Character

Saros 130 began its life with a partial eclipse on Aug 20 1096, five days after the First Crusade began on August 15, 1096. Saros 130 brought the first total eclipse on Earth after the discovery of the New World—Apr 16 1493. Exactly 570 eclipse years separate that eclipse and the March 20 2034 eclipse.

Saros 130 brought the longest total eclipse of the 17th Century, on Jul 11 1619, at 6 minutes and 41 seconds in duration. That path connected the Americas and Africa. It crossed the port of Luanda, Angola close to the exact day that African Ndongo slaves loaded there were brought to Jamestown. They were put on the Spanish slave ship San Juan Bautista probably bound for South America. Some of those slaves was taken aboard an English ship, White Lion, bound for Jamestown in North America. They arrived on August 20 1619. That arrival was 398 years and one day before the Aug 21 2017 USA eclipse, which featured totality in Charleston SC, North America's largest slave port. This was likely Saros 130's most extraordinary moment until 2034.

Recent history-last two events:

March 9 2016 Nyepi Eclipse was seen almost exclusively in Indonesia though it traveled for thousands of miles of open ocean. The eclipse occurred on Nyepi, a public holiday in Indonesia and the end of the Balinese Saka calendar. Nyepi is a day of silence, intended for self-reflection.

February 26 1998 Panama Isthmus Eclipse occurs over a tiny portion of land, at isthmus of the Americas 19 years to the day after the Mt. Saint Helens Eclipse of February 26 1979.