Ganga Sea, formed in 11,587 BP, half the size of the Mediterranean Sea

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Summary

Sumerian deity **Nibiru**, the same as Indian deity **Shiva**, was an incandescent fragment of a supernova. It wandered into the Solar System and picked up four moons. It had ten times the mass of Earth and four times the diameter. Nudged by Jupiter, Nibiru circled around the Sun in an elliptical orbit in the opposite direction of other planets. Every 20 years it passed Earth at the autumn equinox, every 60 years it came very close, and every 1200 years it nearly collided.

In 11,587±1 cal. BP, Nibiru came so close that its tide lifted the Tibetan Plateau an astounding 3 kilometers, where it froze in place. The uplift created a compensating depression south of the Himalayas where the Indian plate subducts below the Eurasian plate. Preceded by tsunamis, water from the Bay of Bengal and the Arabian Sea poured into the depressed region, which created Ganga Sea, over half the size of the Mediterranean Sea.

Sea bottom was 3000 km long, 4.5 to 5.5 km below sea level. Average width of a cross section was 135 km. Average width at the surface was 400 km.

So much water entered Ganga Sea, 2 million km^3, that sea level fell more than 5 m. Entering seawater carved two channels: the Indus Channel 200 m deep and 120 km wide, and the Ganga-Brahmaputra Channel, 100 m deep and 170 km wide. A shoreline at -40 m of the Indus Channel marks where the inflow finally stopped.

One could now sail across India from the Arabian Sea, up the Indus Channel, through Ganga Sea, down the Ganga-Brahmaputra Channel and into the Bay of Bengal, a distance of 3500 km. This distance is the same as from Gibraltar to the Suez Canal.

Heat from the orogeny evaporated incoming sea water. Rising steam created incessant rainfall in the form of hurricanes. These denuded the surrounding territory and washed the sediments into Ganga Sea, its tributary channels and submarine fans. Alternating beds of gravel, sand and silt began to fill the sea and channels. So much gravel was deposited along the north shore that rivers disappear beneath the gravel.

Ganga Sea eventually vanished. Today the sea and its two channels comprise an immense aquifer that supports irrigation farming in India, Pakistan and Bangladesh. Salt left by evaporation has been expunged by fresh water injected at the base of the Himalayas, but still widely prevails in the channels.

Figure 1: Ganga Sea (Floodmap.net)

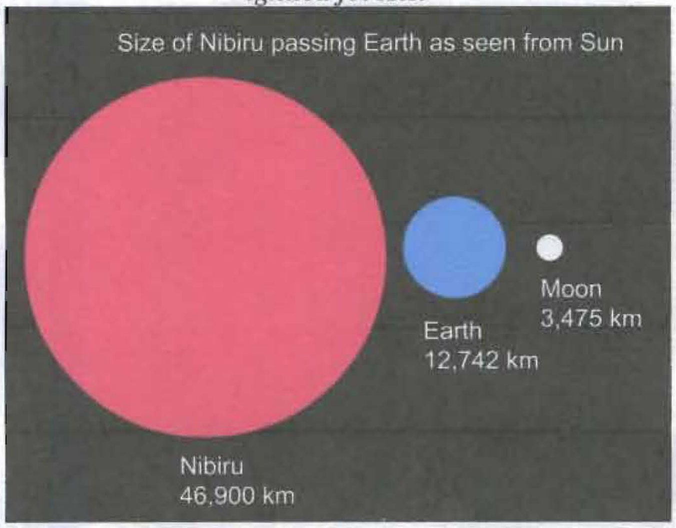
Background

Nibiru, the death planet

Emilio Spedicato (2009) identified a periodic death planet: Sumerian Nibiru, Mesopotamian Marduk, Indian Shiva. This incandescent, sun-like planet, ten times the mass of Earth, nearly four times the diameter, passed Earth every 20 years; every 60 years it got close enough to impact Earth with a satellite; every 1200 years, when the major planets aligned, it came very close, about half the distance to the Moon. Nibiru eventually crashed into Jupiter and left the Big Red Spot.

When Nibiru passed overhead during the day, it took up a large fraction of the sky and scorched the land beneath. Observers said it was as bright as a sun, a second sun. In this case, it appeared many times larger than Sun and radiated much more heat (Figure 2).

Figure 2: Nibiru passing Earth as seen from the Sun. As seen from Earth, Nibiru was 27 times the diameter of Moon. Radiant heat from its incandescent surface ignited forests.



Search for a parallel collision

In order to understand the dimensions of a tidal flood caused by Nibiru in the Great Basin of Nevada and Utah in 17,527 BP, I searched for another near collision above dry land that would have left a measurable imprint. The magnitude of a tide is the same over land or water, so it would have a similar profile.

A tide on dry land creates a mountain range with sharp peaks. These were everywhere I looked. One in particular stood out, the **rise of the Tibetan Plateau**, which emptied an immense lake to the north that became the Taklamakan Desert.

A century ago, geologists measured the rise of the Tibetan Plateau at various points and declared that it was abrupt and very recent. Geologists in the 1950s scoffed at the idea and attributed the rise to slow elevation from plate subduction. No one bothered to measure exactly when the rise occurred. Geologists published their data but refrained from drawing obvious conclusions.

I looked for guidance in Indian mythology and found none, but Sumerian mythology had a wealth of detail. Of critical importance is Sumerian cylinder seal VA-243 that calls Nibiru 'Storm', Jupiter 'Father', and Tiamat 'Mother' (Harris, 2018b). The language is Finnish, the script is Old European.

Sumerian Mythology

In Sumerian mythology, the ancient deities lived in peace around freshwater lake Apsu for a long, long time. Their counterpart in the sky was Father (Jupiter) and Mother (Tiamat). Mars, Venus, Mercury and Moon either did not exist or were of no importance. After some time had passed, a large comet entered the Solar System, broke into large pieces, and began to harass Tiamat. She was a blue-green planet 3 times the mass of Earth with an orbital period of 4 years. More time passed before a large sun-like planet named Nibiru entered the Solar System and began to take out the comet pieces. Not content with that, Nibiru began to menace both Earth and Tiamat. A problem with Apsu forced the deities to move from their lake in the north. On one pass, Nibiru crippled Tiamat. On the next pass it threw one of its moons into the bowels of Tiamat, who exploded. A cascade of debris from the explosion impacted half of Earth. Debris and dust dimmed sunlight. Survivors on the sheltered side moved about half the day and hid underground the other half. On this deadly pass, Nibiru captured Moon from Tiamat, then lost Moon to Earth. In the new location, names of the old Sumerian deities slipped away and were replaced with new names. Jupiter's position as leader of the deities was replaced by Nibiru-Marduk-Shiva.

Preliminary date for Lake Apsu

Emilio Spedicato identified Lake Apsu[1] as the Taklamakan[2] Desert that occupies Tarim[3] Basin. He estimated the name change of the deities to be around 12,000 BP (personal communication).

Plato's tale of Atlantis can help pin down the date.

Poseidon[4] was a giant navigator. Some event forced him and others to resettle. Their ships carried many

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[1] **Apsu** may come from Finnish *Hän puuhu suun* meaning 'He speaks for the clan', title of the chief.

[2] **Takla Makan** comes from Finish *tähkä-lä Maa-akka-n* meaning 'grain farm of Earth Woman', or 'grainery of Mother Earth'. This obviously would predate the desert.

[3] **Tarim** is a river that flows into Tarim Basin. Its name is a kind of joke, to answer the question of thirsty desert travelers, "Do you have any beer?" "The best beer we offer is Tarim'. It comes from Finnish *taari-mme* meaning 'our table beer'.

[4] **Poseidon** comes from Finnish *po sei toen* meaning 'a son seven [fathoms tall] for real'. Height measurements were in hands (4 inches), feet and fathoms (six feet). Seven fathoms would be 42 feet.

people to the island of Atlantis[5] off the west coast of Ireland. Other immortals and mortals joined them. He married a local woman and raised five sets of twins, who each had a productive life before Atlantis sank.

A previous work (Harris, 2018a) describes how Atlantis sank in 11,527±1 cal BP, where it is now called Rockall Plateau. Shock from an impact created a turbidite on a friction-free surface that carried Atlantis beneath the waves. The impacting object was a satellite of Nibiru, which Earth intercepted during a close encounter.

60 years on either side was also a near miss, evidenced by spikes of ammonia in Greenland ice cores.

Immortals routinely lived a thousand years and generally had children before they reached 100 years of age. A date more than 1200 years earlier is not possible because the Clovis Comet created a mega-tsunami that swept across the Atlantic Ocean. This puts Poseidon's arrival between 12,720 and 11,600 BP.

A copper medallion recovered from a well in Illinois is covered with maps and a journal of three ships chartered from Atlantis to sail from Maidenhead on the Thames to Lake Huron around 12,600 BP. At that time, the Clovis impact and its attendant tsunami had etched away the southern edge of the Canadian ice sheet. It was possible to sail along the Ottawa River next to the face of the ice sheet into Lakes Superior, Michigan and Huron. When they passed Atlantis, the scribe looked for the tall men of Atlantis, but saw only mortals tending fields of barley (Harris, unpublished). This narrows the arrival of Poseidon to between 12,720 and 12,600 BP.

Putting these together, I looked for evidence of a near collision at two dates:

11,527 + 60 = 11,587 cal BP (10,013 ^{14}C BP)

12,727 – 60 = 12,667 cal BP (10,673 ^{14}C BP)

As the following analysis will demonstrate, the uplift occurred in 11,587 BP.

[5] Atlantis comes from Finish *haat-lantti-ssa* meaning 'ships for copper'

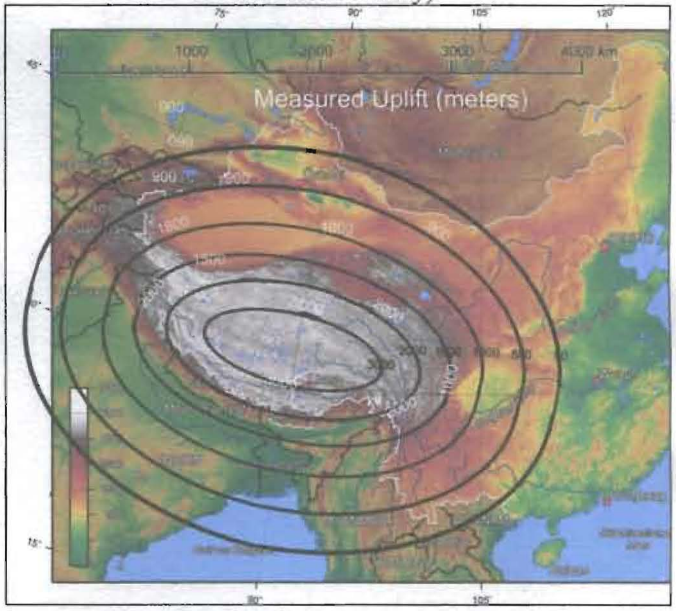
Rise of Tibetan Plateau

Magnitude of the rise

At the end of the Pleistocene and before 11,000 cal BP, planet Nibiru passed close enough to Earth to create a high tide over the Tibetan Plateau. Its height would be the same over land or sea. Its antipode, on the opposite side of the globe, is the Pacific Ocean, of which no trace remains.

A century of observations provides enough data to recreate the tide. Because this tide was on land, it froze in place (Figure 3).

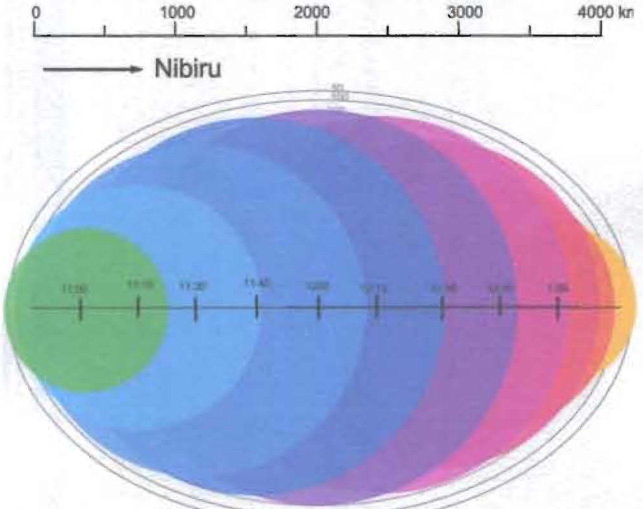
Figure 3: Uplift of the Tibetan Plateau from a close pass of Nibiru. (Data from a variety of geographers in the last century)



The uplift was fairly symmetrical east to west, but not north to south. South of the Himalayas, the land sank to compensate for the Tibetan uplift.

The above tidal profile was made by a continuous moving tide. Nibiru took about two hours to pass Earth. During that time, Earth revolved in the same direction for two hours. Maximum tide would occur at noon in the center of the Tibetan Plateau. Using 15-minute increments, the above oval curve can be realized with a set of circular tides (Figure 4).

Figure 4: Series of tide profiles in fifteen-minute increments. Nibiru passed left to right.



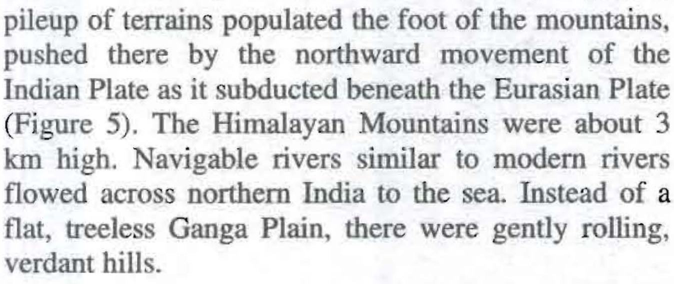
Sinking of the Indus-Ganges Plain

At the same time that the Tibetan plateau rose, a region south of the Himalayas sank below sea level to compensate for the uplift. Preceded by tsunamis, water from the sea rushed in, fell to the bottom, and promptly evaporated, which created immense rainfall. This rain fed many adjacent rivers that slowly filled the valley with sediments.

Indus-Ganges Plain before orogeny

Before Nibiru raised the Tibetan Plateau, a normal pileup of terrains populated the foot of the mountains, pushed there by the northward movement of the Indian Plate as it subducted beneath the Eurasian Plate (Figure 5). The Himalayan Mountains were about 3 km high. Navigable rivers similar to modern rivers flowed across northern India to the sea. Instead of a flat, treeless Ganga Plain, there were gently rolling, verdant hills.

Figure 5: Elevation and geology of the subduction zone beneath the Indus-Ganges plain before the rise of the Himalayas (Rakshit, 2018, after Searle, 2017).



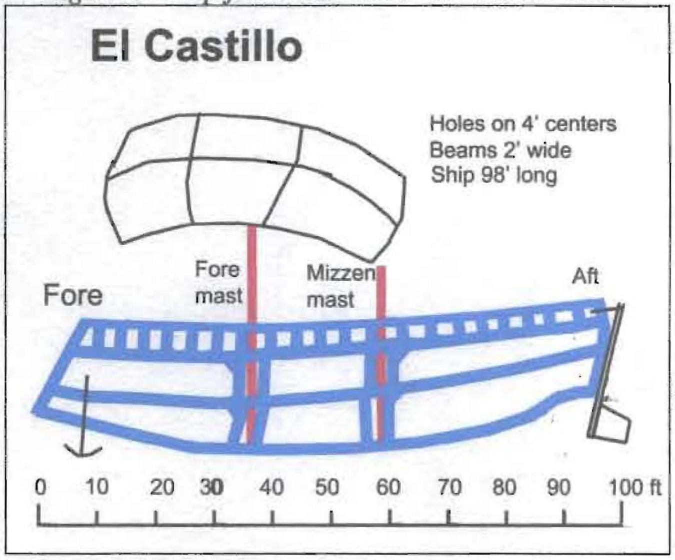
Lands north of the mountains received abundant rainfall that supported forests, grasslands and lakes. The region teemed with life. Further north, large, shallow lakes formed against a melting ice sheet. Instead of the Baltic Sea there was Baltic Ice Lake.

Men built big ships to travel around the inland seas as well as the oceans. An image of one of these ships survives in Cueva del Castillo in Spain (Figure 6). A paraphrase of the captain's inscription says:

> We carried 100 big barrels of copper before a storm drove us against the coast, where we were forced to throw the copper overboard to survive. Only I was strong enough to lift and throw a barrel. We await rescue from Atlantis.

Based on this description, each barrel weighed 1.35 tons, and the captain was at least 6 meters tall.

Figure 6: Ship from Atlantis in El Castillo Cave.



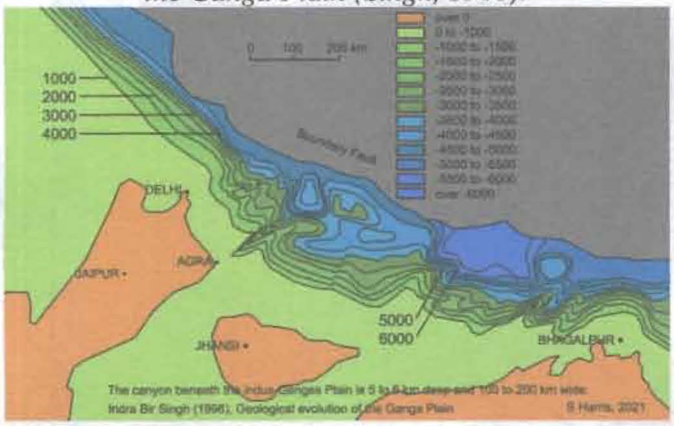
Creation of Ganga Canyon

Uplift of the Tibetan Plateau created a compensating basin at the subduction zone.

Indra Bir Singh (1966) constructed a topographic map of part of Ganga Plain (Figures 7 and 8). Beginning at Delhi, for instance, the original flat surface of the plain now sloped downward at a rate of 1.5 km per 100 km. Abruptly the slope steepened to 9%. Over the next 33 km, elevation dropped 3 km to a rough surface 4.5 km beneath sea level. The slope continued downward beneath the Tibetan Plateau.

Over this thousand-mile stretch, Singh identified eight major faults. A major earthquake accompanied each fault slippage. One fault slipped 40 km; even this pales in comparison to yanking up the plateau.

Figure 7: Topography beneath Holocene sediments of the Ganga Plain (Singh, 1966).



Depth of Ganga Canyon

A cross-section of Ganga Plain at Delhi shows how the missing craton material was sucked down and under the Himalayas (Figure 8). This structure may be unique; underthrusts typically pile up terrains against the non-descending mantle.

Figure 8: Cross section of Ganga Plain at Delhi (based on Singh, 1966).

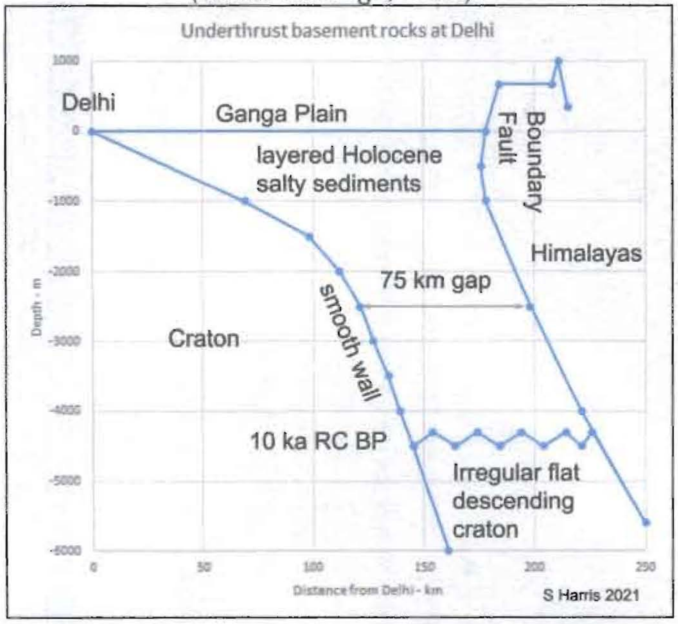
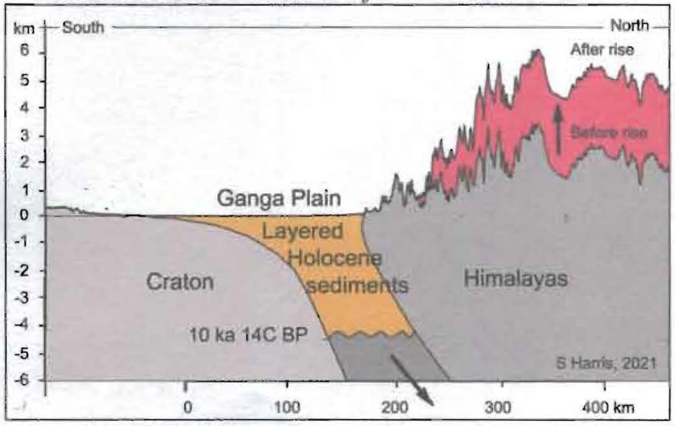


Figure 9 compares the Ganga Plain and the Tibetan Plateau before and after the rise.

Figure 9: Canyon below the Ganga Plain caused by the increase in elevation of the Tibetan Plateau.



Flood channels into Ganga Canyon

This kind of crustal movement spawned catastrophic tsunamis in the Bay of Bengal and the Arabian Sea. These returned and swept into Ganga Canyon. Their power cut two channels through bedrock that allowed the sea to enter and deepen the channels:

> the western channel from the Arabian Sea became the outlet of the Indus River;
>
> the eastern channel from the Bay of Bengal became the outlet of the Ganges-Brahmaputra Rivers.

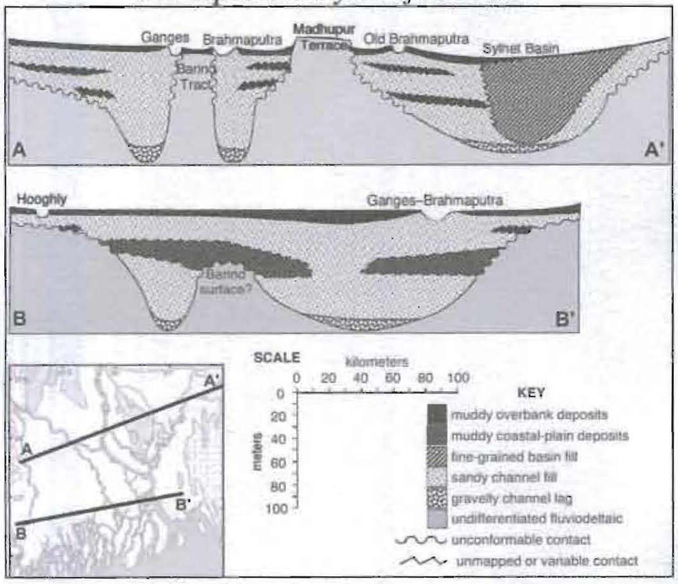
Ganges-Brahmaputra channels

Steven Kuehl et al. (2005) mapped two transects across the Ganges and Brahmaputra Rivers that revealed wide and deep channels beneath the rivers, filled with layered quaternary sediments (Figure 10). These channels are 100 m deep and up to 170 km wide. By way of comparison, the buried Mississippi River channel at Biloxi is 100 m deep and 38 km wide.

Gravel fills the bottom of each channel, followed by alternating beds of sand and silt. These were deposited after the canyon filled and the flow of water reversed. Water trapped in these beds forms a valuable aquifer for Indian farmers. Only some sediments lie in the channels; the rest spread out in a submarine fan beyond the delta.

Figure 10: Two transects across the Ganges-Brahmaputra rivers reveal immense channels carved by in-rushing water from the Bengal Sea. The lower channel is 170 km wide by -102 m deep. Sea level was

-39 m. Once the Ganga Sea filled, the flow reversed and deposited layers of sediment.



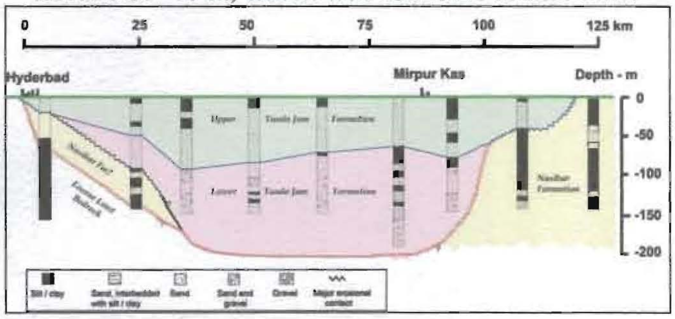
Indus channel

S. Naseem and J. M. McArthur (2018) drew a cross section of the Indus River channel based on well logs collected by A. H. Kazmi in 1984 (Figures 11 and 12).

Figure 11: Location of the cross section of the Indus River shown in Figure 12. (Naseem & McArthur, 2018)

Initially, the Indus channel was 200 m deep and 70 km wide. A terrace at -40 m correlates with sea level of -39.5 m (Figure 13). Rapid down-cutting ceased when the lake was full.

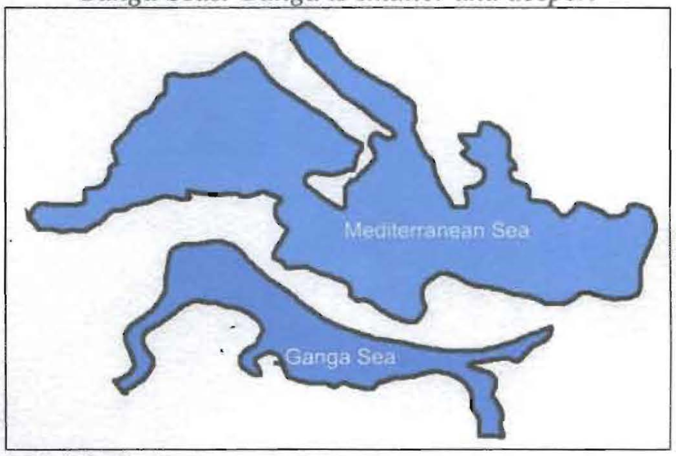
Figure 12: Cross section of the Indus channel east of Hyderabad (Naseem & McArthur, 2018). Note the terrace at -40 m, which was sea level at that time.



Ganga Sea volume

When infilling stopped, the resulting Ganga[6] Sea was 3000 km long, 400 km wide and 4.5 to 5.5 km deep. If its average width was 135 km, then it held 2.0 million km^3 of water. It dwarfed other inland bodies of water such as Lake Apsu (modern Taklamakan Desert) with a volume of 150,000 km^3, or the Black Sea 550,000 km^3, but not the Mediterranean Sea with 3.75 million km^3 (Figure 13).

Figure 13: Comparison of the Mediterranean and Ganga Seas. Ganga is smaller and deeper.



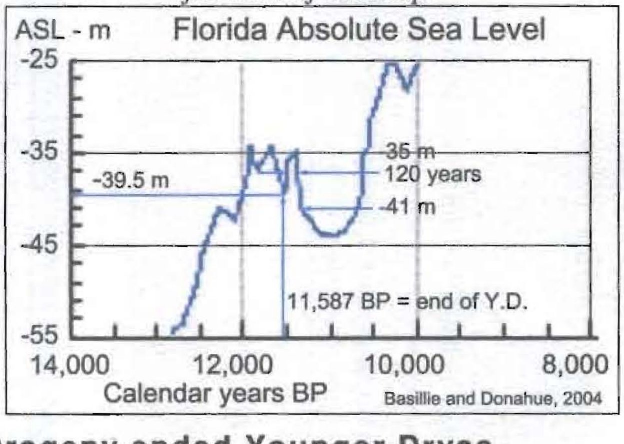
Effect on sea level

Loss of water to Ganga Sea lowered sea level by 5.5 m (Figure 14).

Area of oceans: 361.6 million km^3.
Loss to Ganga Sea: -2.0 million km^3
Change in sea level: -5.5 m.

[6] **Ganga** or Ganges < Kan-gas. Khan means 'emperor, king of kings'; -gas means 'the embodiment of the [noun]'. If Khan is the all-encompasing deity, then the river or sea Kangas is the embodiment of Khan.

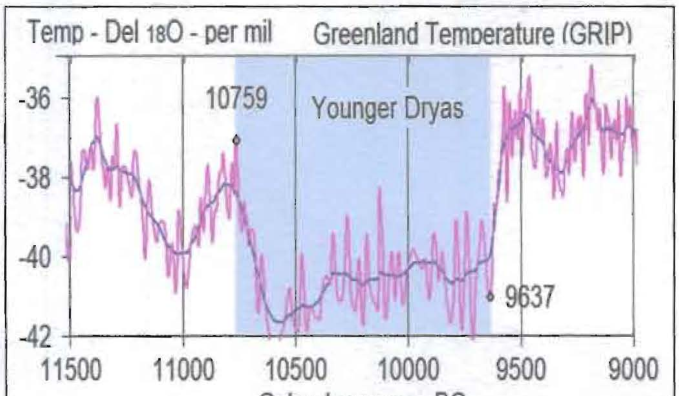
Figure 14: At the end of the Younger Dryas cold spell, Absolute Sea Level rose 4.5 m as ice sheets melted, then fell -6 m. Infilling of Ganga Sea would account for most of the drop.



Orogeny ended Younger Dryas

Sea water poured into the canyon slowly at first, then more rapidly as the channels deepened. The water vaporized into steam from heat of the mantle (130°C) and friction from the orogeny. Rising steam created colossal hurricanes that dumped their water across the northern hemisphere, and especially on the newly risen mountains. Mountainous lands north and west are completely stripped of soil. This continuous heat ended the Younger Dryas cold spell (Figure 15).

Figure 15: Younger Dryas cold era ended in 11,587 cal BP after a close encounter with Nibiru. temperature rose steeply over the next 20 years.

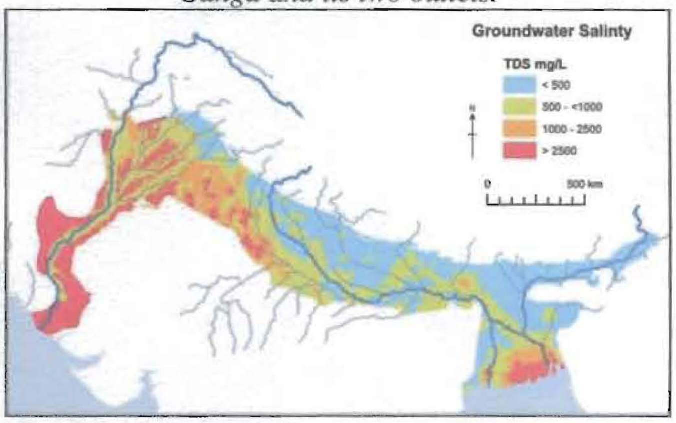


Violent storms swept the northern hemisphere

The maximum rainfall recorded in the US is 12 inches per hour at Holt, Missouri in 1947. Perhaps half this amount, 6 inches per hour, fell during endless storms for twenty years. The result was innumerable canyons carved into recently uplifted land on the southern slope of the Himalayas. Sediment from both the mountains and craton gradually filled the canyon. The sediment lies in thin layers of gravel, sand and silt, often salty. Along the northern coast, there is so much gravel that rivers disappear and flow beneath the surface.

Fresh water from the mountains has not entirely flushed out salt left behind after evaporation of Ganga Sea. In underground aquifers, the purest water abuts the mountains, while the saltiest is at the mouths of the Indus and Ganges Rivers (Figure 16).

Figure 16: Distribution of groundwater salinity in the top 200 m of the IGB aquifer. This map reflects Lake Ganga and its two outlets.



Date of Tibetan orogeny

Dates are hard to come by. No one has reliably dated a deep borehole.

Lacking a direct date, indirect dates are:
older than 10,000 ^{14}C BP
10,300 ±300 ^{14}C BP
12.3 ±1.1 ka cal BP
Between 11 and 14 ka cal BP

These suggest 11,587±1 cal BP (9637 BC), whose radiocarbon age is 10,012 ^{14}C BP (INTCAL13).

Using this date solves a number of problems:

- a rapid temperature increase at the end of the Younger Dryas beginning 11,587 cal BP;
- first a rise then a fall in sea level 120 years after the end of the Younger Dryas;
- emplacement of both the Indus and Ganges deltas after 10,000 ^{14}C BP;

- emptying of Lake Apsu between 11 and 14 ka cal BP;
- highest shoreline of Lake Balkhash at 10 ka ^{14}C BP.

Ganga-Ramganga interfluve: 12.3 ± 1.1 ka cal. BP

The oldest directly dated alluvium is a field of linear eolian sand dunes around Amroha east of Delhi. These are broadly parallel to the drainage lines, with discontinuous, gently sloping sand ridges, 100-500 m wide and 3-12 m high. An OSL sample dates 12.3 ±1.1 ka (Mayank Jain, unpublished results).

Because of early saturation of quartz, no reliable OSL age estimation is generally possible beyond 15 ka with quartz samples (Tandon, 2008).

Son-Belan Basin: 10 ka ^{14}C BP

Along the Belan River, terraces were incised after 10 ka ^{14}C BP. (Tandon, 2008).

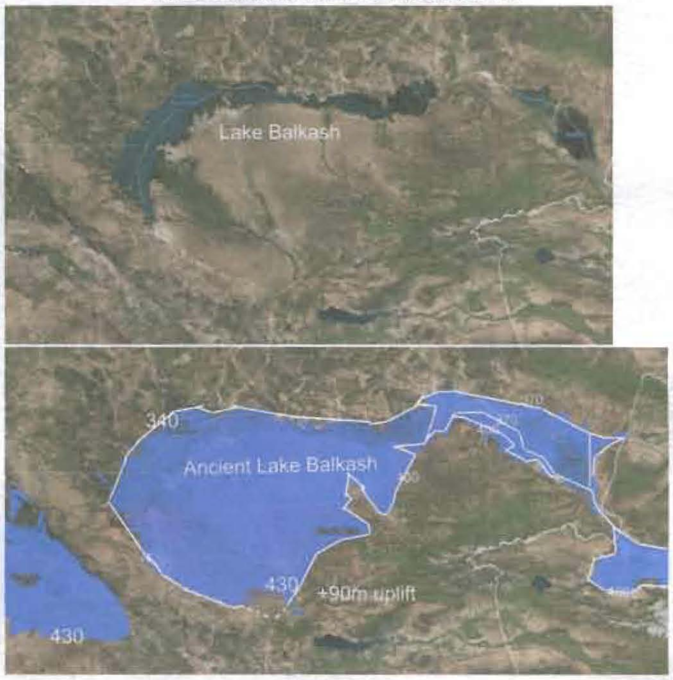
Ganga-Brahmaputra Delta: 11.5 - 10.0 ka ^{14}C BP

The Ganga-Brahmaputra Delta started to accrete between 11.5 to 10.0 ka ^{14}C BP (Rajaguru, 2011).

Lake Balkhash: 12,070±500 cal BP

The uplift affected Lake Balkhash north of Tibet, which tilts higher to the south. Dzhurkashev (1965) traced late Pleistocene terraces of Ancient Lake Balkhash along the entire coast. Terraces on the south coast lie 90 m higher than terraces on the north coast. Dzhurkashev (1972) dated the highest transgression of these terraces to 10,300 ±200 RC BP, which equates to 12,070 ± 500 cal BP. Shortly afterward, the lake shrank to its present size, a sliver against the north shore (Figure 17).

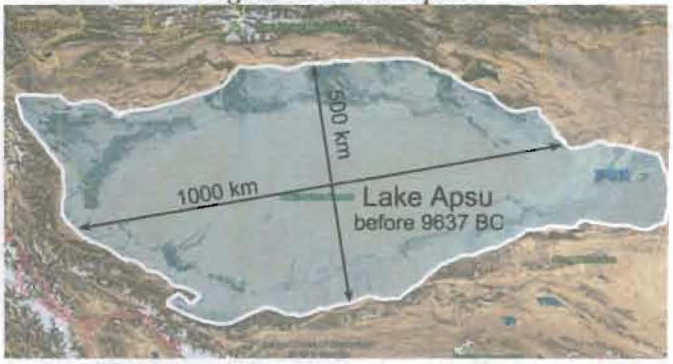
Figure 17: Since 12 ka cal BP, the south shore of Lake Balkhash has risen 90 m.



Lake Apsu: 11 to 14 ka cal BP

The Taklamakan Desert occupies the sloping floor of Tarim Basin, whose bottom varies from 830 m to 1400 m asl. Before the Tibetan orogeny uplifted the south shore, Tarim Basin held Lake Apsu, home to the earliest Sumerian deities.

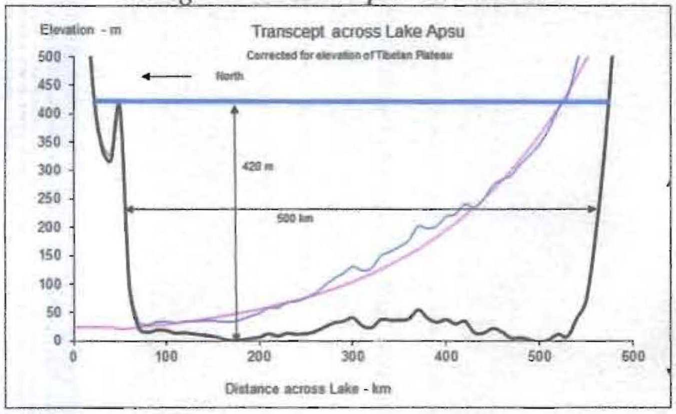
Figure 18: Lake Apsu.



Exactly when the basin tilted remains an enigma. Two millennia ago, a remnant lake survived along the north shore; visitors described wooden boats and docks. Flood water from its emptying inundated large parts of western China, but the literature lacks dates. Old dates from concretions found in sand dunes do not reflect when the sand dune formed.

Shumef, a Russian expert cited by Zhu (1981), proposed that in the early Pleistocene, the maximum elevation of the lake was 1250 m asl and extended to the Turpan-Hami depression. Its lowest point is 830 m, which gives a depth of 420 m. This is borne out by a transect across the lake using Google Earth (Figure 19).

Figure 19: Cross section of Lake Apsu, corrected for tilting. Maximum depth was 420 m.



B. Q. Zhu (2016) used three methods to narrow the date of the tilt to 11-14 ka cal. BP.

Two sand layers above and below a lacustrine layer in the Yaogan-VIII section, give a calibrated OSL range between 2,000 and 14,000 cal. BP.

The south shore was wet between 8700 and 23,700 BP. This narrows the range to 8700 to 14,000 cal. BP.

Salinity of the surviving lake greatly increased about 10 to 11 ka BP. This narrows the range to 11 to 14 ka cal. BP.

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