ANOTHER LOOK AT THE AGE AND HISTORY OF THE MISSISSIPPI RIVER

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Abstract

Evolutionists claim that the geomorphology of the Mississippi River shows strong evidence of great age. However, studies by creationists indicate that there is good evidence for the reverse conclusion.

Introduction

Historical geologists are fond of pointing to the amount of sedimentary deposits in the region of the delta of the Mississippi River which, they claim would require several millions of years to accumulate at the river's present discharge of approximately two million tons of silt and other material per day. Creationists need not be concerned about arguments as to just how deep the sedimentary deposits are in the deltaic area. Any amount can be easily accounted for in a short time frame.

The Delta, Sedimentary Deposits and Rate of Deposition

At two million tons per day for about 4,000 years, the total sedimentary discharge amounts to a sizeable deposit—730 million tons per year which equals 600 cubic miles in that short time. Over 6,000 years the volume deposited would be on the order of 900 cubic miles.

Further major factors must be assessed. Few modern geologists mention the so-called Teays River referred to by Whitcomb and Morris (1961, pp. 318-20), who quote the writings of geologist Raymond E. Janssen who wrote at length on the subject in 1953. According to the account given by Whitcomb and Morris, at some time in the past, a truly mighty river once coursed across the United States from near the Atlantic coast to the present site of today's Mississippi. This 'super-river' left an enormous valley with thick beds of sand, gravel, water-worn boulders and clastic deposits from the bedrock region of the Blue Ridge Mountains. According to Janssen, only a great and powerful river could have achieved this. Whitcomb and Morris consider this 'Teays' River, as probably a huge channel developed by retreating Flood waters from the present Appalachian region as it was being uplifted. Considering the enormous valley left behind by this super-river, the amount of alluvial and other material it carried would have contributed enormously to the delta formation of the Mississippi—an amount probably beyond calculation. Quoting Janssen (p. 319), Whitcomb and Morris say—

> . . . it seems evident that the greater bulk of the delta was built by the Teays, with the modern stream adding only the latest portion . . . the immense delta area might, more appropriately be called the delta of the Teays.

In this respect it is interesting to note that the middle and lower Mississippi is incising an alluvial fill which had *already been deposited by earlier flows of great magnitude.* This is important because a river cannot, in total, deposit and erode its own sediments at the same time, although it can move material from one place to another. However, if a river's volume is greatly reduced by means such as headwater capture or by a change from alluvial to dry conditions, or if the *relative* sea level changes, then it can cut into its own previously laid sediments when and if it flows again. These qualifications must be kept in mind. Whitcomb and Morris give a great deal of evidence to support the view that this situation has occurred in the Mississippi; that the deltaic deposits can be quite easily explained by the drainage action of this enormous Teays in the early and also post-Flood stages. See Figure 1.

Like Patterns in Other Parts of the World

A similar picture emerges from study of other great world rivers such as the Colorado, the Amazon, the Yangtze Kiang, the Congo and the Nile (Daly, 1972, pp. 254-67). The Nile is known to be cutting into a large *ancestral* drainage system as discovered by Soviet engineers and geologists preparing for the construction of the Aswan Dam in Egypt. It is a fact that most large rivers of the world have their present beds on top of sediments laid down by more ancient and much larger river systems.

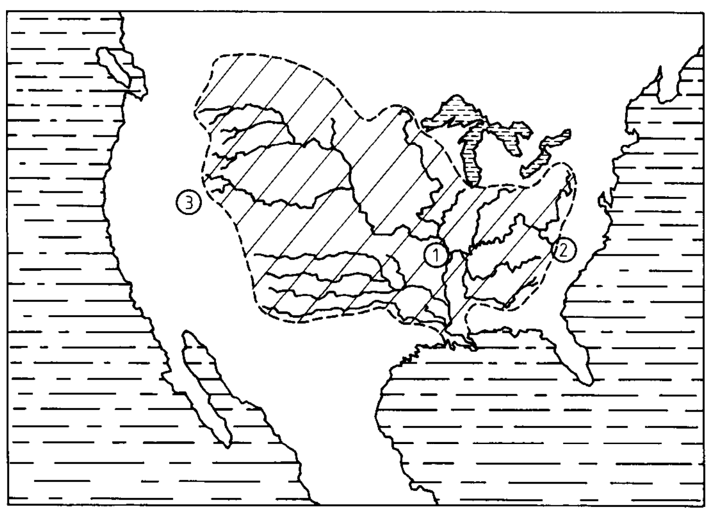

Figure 1. Map of the drainage basin of the entire Mississippi system, possibly the same as existed in pre-Flood times. Likely the so-called Teays system had its source in the East (2) which is the Blue Ridge area of the Appalachians. It is postulated that the flow from (2), when being uplifted would be incalculable, sweeping down from the east into the estuary area from Cairo (1) down to the Gulf. Drawing by Gary Mehlert.

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The present-day Mississippi in its mid and lower reaches winds and twists its way in typical alluvial style, in parts through a much larger valley and could be termed a misfit (underfit) river. There are many cases of underfit rivers throughout the world, especially in the British Isles and eastern Australia, where many present streams are too small for the valleys through which they flow and it is significant that examples of overfit rivers are almost impossible to find. The conclusion therefore is that the great width and depth of sediments through which the Mississippi is now cutting, were laid by a very much larger waterway which at some stage in the fairly recent past, either dried up or became a 'trickle.' That 'trickle' eventually became the present-day drainage system.

A Scenario

After studying a lengthy and informative paper by Allen (1972) and various text-books, I offer the following probable scenario. In pre-Flood times, an ocean estuary extended from about Baton Rouge, Louisiana up to about Cairo near the junction with the Ohio near the southern-most part of Illinois. In this northerly part the estuary narrowed and was fairly shallow throughout its length. At the onset of the Flood a large amount of silt, sand and gravel was washed into the estuary from various sources, including the Appalachian area, covering the marine organisms whose fossils we find in considerable numbers today. As the Flood main-phase retreated to near original sea-level (the ocean floors

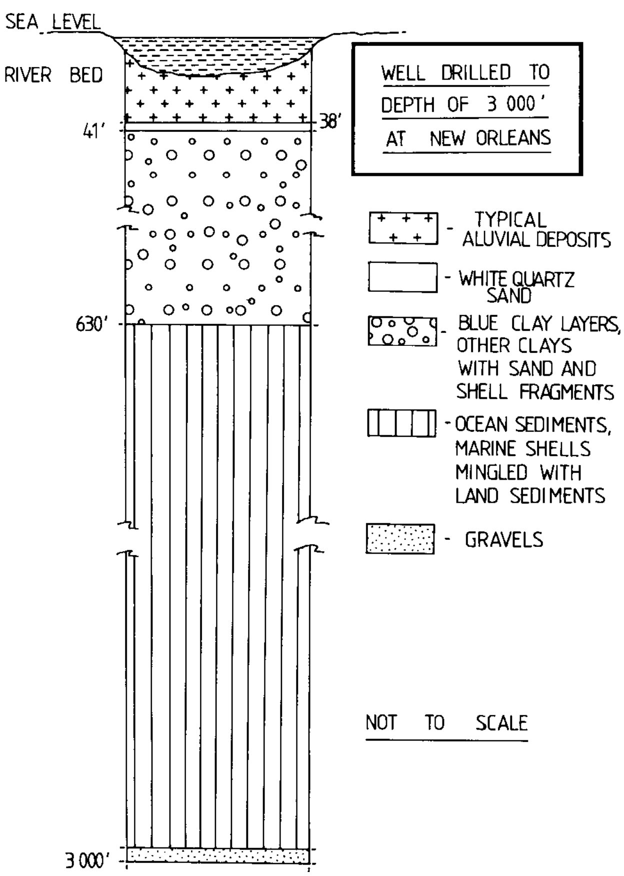

Figure 2. Cross-section of deposits to a depth of 3,000 feet at New Orleans taken from the measurements of Allen (1972, p. 98). Drawing by Gary Mehlert.

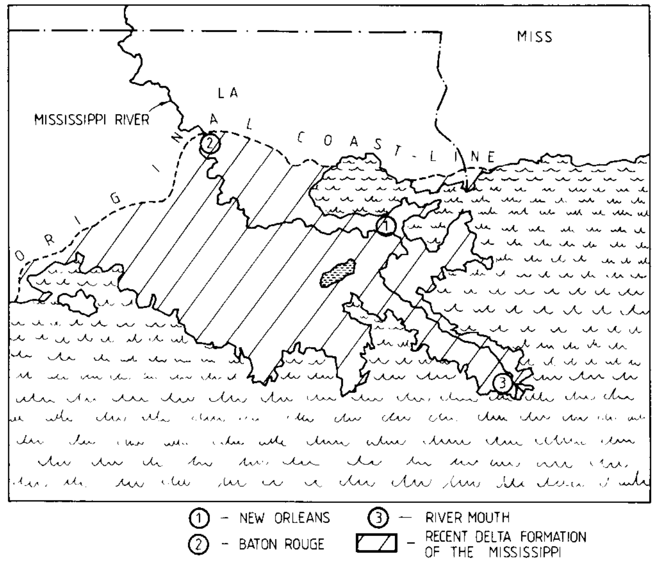

Figure 3. Area of the beginning of the delta at Baton Rouge (2). Drawing by Gary Mehlert.

had subsided gradually), the Rockies and the Appalachians rose, releasing large volumes of escaping water which poured into the valley in which the Mississippi now flows, bringing more sediments which completely filled the old ocean estuary and spilled out into the then Gulf of Mexico, forming large deposits which make up most of the underparts of the present delta. This stage may be called the 'Teays.'

As the continental strata lithified, the volume of water and sediments fell sharply and the river system dwindled. The pre-Mississippi delta was now filled and large alluvial beds had formed. Marine fossils underlie and mingle with these deposits. The present Mississippi, Missouri, Ohio and other tributaries are remnants of the previous cataclysms but are still able to cut through the vast alluvial and other deposits in and over the old estuary, dumping more sediments into the present deltaic area.

Finally, the large continental glaciers in the northern U.S. and Canada began to melt, producing more heavy discharges of water into the seas, raising ocean levels—a process which ended fairly recently. The Mississippi reached its current observed rate of flow within the last few thousand years and its present bed lies on top of the previous system. The famous Blue Clay stratum seems to have appeared toward the end of the previous system, at levels about 40 feet deeper than the present bed in the Baton Rouge area. The Blue Clay, as pointed out by Allen (p. 100), underlies New Orleans below 41 feet alternating with sand and marine shells up to 630 feet and obviously was not deposited by the present river. See Figure 2.

Allen (p. 102) quotes Troubridge as stating that *the true Mississippi delta begins near Baton Rouge and not far up the river as some textbooks teach.* (Figure 3) This is most important to remember. Again Allen (p. 102) quotes geologist, Dana, who noted that if the Mississippi was responsible for *all* the deltaic deposits at the current rate of 2 million tons per day, it would require only 10 million years to fill the *entire Gulf of Mexico* even from its original boundary near Baton Rouge! As it has only filled a very miniscule portion of the Gulf so far, it must be only a tiny fraction of the 10 million years in age. Again, Serventy (1967, p. 33) pointedly informs us that "The Mississippi is pushing its delta into the sea at the rate of a *mile every 16 years."* The conclusion is obvious: at this rate it represents an advance of over 250 miles in only a few thousand years, and the river cannot be older than those few thousand years.

Conclusion

The events described in the above scenario fit well with the observed facts and can account for any depth of sediments in the past and present delta regions. There is thus no need to postulate on the basis of those sediments, that the Mississippi River system must be millions of years old.

References

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PANORAMA OF SCIENCE

Spider Webs

One of the truly marvelous engineering feats performed by living organisms is the construction of webs by many types of spiders (as illustrated on the cover). Spider webs have been classified as sheet, funnel, tube, reticular and orb types to name a few. Witt, Reed and Peakall (1968) state that throughout its life a spider's contact with the outside world is through the silk that it produces in its silk glands. Shear (1988, p. 1) claims that spiders use the web constructed from protein fibers in highly adaptive ways, i.e., as a dragline, marker and path for potential mates, hiding places, egg masses, for protection, communication and for snaring prey. The European and Asiatic aquatic spider, *Argyoneta aquatica* builds a tent under water, filling it with air (Petrunkevitch, 1957, p. 215A).

Young spiders make their webs, even the most complicated ones, without significant experience and these webs are similar in design to those made by their parents (Shear, 1986, p. 364). Also Shear says that the type of web built is largely inherited and the program for building it develops without the need for practice. This behavior is species specific (Shear, 1986, p. 364).

Could such behavior and engineering ability have evolved? Witt, Reed and Peakall (1968) claim that evolution in the *Arachnidae* has been in the direction of making the greatest use of silk fibroins. Shear (1986, pp. 1, 2) speculates that the earliest (and of course the simplest) webs were mere accidental extensions from a hiding place—actually triplines to warn of approaching prey. Natural selection was involved and as time passed, the elaborate webs we see today developed. Shear admits that the above postulation is an oversimplification.

Shear (1986, pp. 364-400) presents a history of the concept of web evolution. For instance, in stating that the orb web appears to be a perfect achievement and the chance of it having evolved twice seems slight, but this is exactly one of the evolutionary hypotheses. Two spider families, under similar selection pressures, invented the orb web (Shear, 1986, p. 5). Another evolutionary scenario has the orb arising only once (p. 6). Coyle (1986, p. 301) suggests that in the study of silk entrance structures employed by certain spiders the evidence indicates ". . . that the phylogeny-construction utility of some of these behavioral characteristics may be low because they are prone to rapid evolution . . ."

Shear claims (1986, p. 366) that both convergence and parallelism have been important in the evolution of web building with convergence occurring many times. Two of several assumptions used by writers on web evolution have been (p. 366):

1. Web building in individual spiders is dependent on genetic programs impervious to learning (permanent environmental influence).
2. The sequence of steps in the evolution of web building is from irregular to regular webs.

Shear (1986, p. 367) admits that there is little evidence to support these and the other assumptions used by evolutionists. "Primitive" webs are not necessarily structurally simpler or less complex than "advanced" webs. Very little is known about the fundamental behavior and silks of webs or even the basic features of web architecture that might have caused the evolution of the orb (Coddington, 1986, p. 363). Shear (1986, p. 400) warns that the observations from his study of spiders should make scientists cautious about drawing evolutionary conclusions later to be translated into a taxonomic scheme.

He (1986, p. 2) admits that evolutionists often assume adaptation without really testing for its presence and this naturalistic fallacy has proven very tempting to evolutionary biologists. Petrunkevitch (1957, p. 215A) notes:

> In the early days of arachnology spiders were even classified in accordance with the type of web they

Figure 1. A spider web approximately two feet in length found near Dog Canyon, Big Bend National Park, Texas (May 1988). Arrows indicate extremities of the web.