

## The Great Rift and the Jordan

The story of the violent changes that occurred in the Jordan Valley, the memory of which is connected with the time of the patriarchs and in which Sodom and Gomorrah were overturned, does not mention that the Valley of Sittim, where the cities were located, became an inner sea. Sulphur and brimstone fell from heaven, one of the best cultivated areas was overturned, fire from beneath and fire from above accomplished the desolation—all this is described; but not the appearance of a sea. However, when the Israelites under Moses and Joshua reached the area in their flight from Egypt, they found the lake there. It seems to have appeared after a catastrophe later than the one that destroyed Sodom and Gomorrah.

But if there was no Dead Sea before the time of the Exodus, whither did the Jordan flow, assuming it was already in existence? The Jordan might not have existed at all, or it could have flowed into the open sea, the Mediterranean. It probably did not flow along the Rift over the Arabah into the Agaba Gulf of the Red Sea, as no traces of marine life are found at the height of the watershed of Arabah. The barrier between the Dead Sea and the Agaba Gulf is about 500 meters high. The watershed between the Jordan River and the Kishon River which flows into the Mediterranean, at Mount Gilboa, is 500 meters above the ocean level. The topographical shape of the region of the Beth Shan Valley, stretching from the Jordan towards the Esdraelon Valley, makes the flow of the Jordan into the Mediterranean a far more acceptable conjecture than a presumed flow of the Jordan over the slopes of the mountain of Hor into the Red Sea. Of course, it can be regarded as certain that the geography of the environs of the Red Sea and of the continents in general was quite different before and after the catastrophe that resulted in the formation of the Dead Sea.

The Great Rift, which begins in Syria between the Lebanon and Anti-Lebanon, runs along the Jordan Valley, the Dead Sea, the Arabah, the Aqaba gulf, the Red Sea, and continues through the continent of Africa as far as Zimbabwe, is generally regarded as the product of a grandiose revolution in the shell of the Earth: for many thousands of kilometers the Great Rift runs from Asia to Africa.

Prehistoric man witnessed the latest phases of widespread tectonic movements which convulsed East Africa and provoked great subsidences (of as much as 1500 feet or more) in the early Quarternary strata, whereby was occasioned the discharge of lava and erupted scoriae, modifying notably the courses of the rivers and the circumstances in which the lakes rose or fell in level, and even changing the outlines of these bodies of water. (2)

Changes in the watercourses and lakes took place along the entire length of the Rift. The deepest place in the Rift on land is the valley of the Jordan and the Dead Sea. It appears that the catastrophe which originated the Dead Sea, caused also the origin of the Great Rift.

Beyond the Red Sea, which stretches for several hundred kilometers and has not a single affluent river, the aquatic life of the African lakes and rivers belongs to the so-called Ethiopian zoogeographical region. According to Annandale "the explanation of the Ethiopian affinity of the fish fauna of the Jordan is that the Jordan formed at one time merely part of

a river system that ran down the Great Rift Valley. The Jordan was one branch of this huge river system, the chain of lakes in East Africa represents the other; and together they opened into the Indian Ocean." (3)

Whatever the structural changes of the earth in the catastrophes before that which I describe here, there must have been some time when the Jordan streamed into the valley of Sittim (the name of the plain before the Dead Sea originated) and continued into the Mediterranean, most probably through the Jezreel Valley.

Legendary reminiscences from the patriarchal age indicate that the Jordan existed before the Dead Sea came into being. (4) It appears that the coming out of Paddan-aram to Canaan required the passage of a river. Today the the way from Palestine to the north does not require the crossing of water. But if the Jordan did flow through the Esdraelon Valley into the Mediterranean, it had to flow in a direction opposite to the one in which it flows today.

Does there exist any reminiscence about the Jordan changing the direction of its flow?

It is not the story in the book of Joshua about the Jordan halting its flow—there it is told that the water was stopped at Adama, north of Jericho. This indicates that the flow of the Jordan was already from north to south, as today. The existence of the Dead Sea is also mentioned at the time the Israelites approached Canaan, but it is described as recent: it is called "the sea of the plain." (6)

The blocking of the Jordan River by falling slices of the banks happened a number of times. The stoppage referred to in the book of Joshua is described as a temporary blocking of the Jordan River in a time of frequent earthquakes, and not as a reversal of the flow.

But there are, in Scripture, references to the reversal of the flow of the Jordan:

When Israel went out of Egypt. . . The sea saw and fled: Jordan was driven back. The mountains skipped like rams, the little hills like lambs. What ailed thee, o thou sea, that thou fleddest? thou Jordan that thou was driven back? Tremble, thou earth, at the presence of the Lord . . . Which turned the rock into a standing water, the flint into a fountain of waters. (8)

Here the reversal of the flow of the Jordan is associated in time not only with the Exodus and the catastrophe of the Sea of Passage, but also with the appearance of a new inner sea ("standing water").

A river that changed the direction of its flow must have been regarded as a very remarkable phenomenon.

An inscription of Thutmose I reads: "Frontier northern, as far as that inverted water which goeth down in going up." <sup>(9)</sup> In order to explain this passage it was supposed that the Egyptians could not imagine that a river flows otherwise that from south to north, as does the Nile, and they wondered at a river flowing in another direction. The Euphrates flows from the north-west to the south-east; the Oronotes north to south for part of its course, afterwards turning west and emptying into the Mediterranean. The explanation is obviously inadequate. There are many rivers in the world and they flow in all directions. The river that reversed its direction is the Jordan.

Prior to the Exodus, the Jordan Valley was on a higher level than the Mediterranean Sea. With the rupture of the tectonic structure along the

river and the dropping of the Dead Sea chasm, many brooks in southern Palestine which had been flowing to the south must have changed their direction and started to flow towards Palestine, emptying into the southern shore of the Dead Sea. This occurrence served as a symbolic picture for the dispersed Children of Israel, who also will return to their homeland: "Turn again our captivity as the streams in the south." (10)

The plain of Siddim became a sea. When Israel "wandered into the wilderness in a solitary way [the Lord turned] rivers into the wilderness, and the watersprings into dry ground; and fruitful land into barrenness; [but elsewhere he turned] the wilderness into standing water, and the dry ground into watersprings." (11)

The opening of the Great Rift, or its further expansion, accompanied by the overturning of the plain and the origin of the Dead Sea, was a catastrophe that ended an era. In my understanding the end of the Early Bronze Age or the Old Kingdom in Egypt coincided with these events.

## References

- 1. Joshua 3:16; Numbers 34:12; Deuteronomy 3:17.
- 2. H. Alimen, The Prehistory of East Africa (London, 1957), p. 194.
- 3. See R. Washbourn, "The Percy Sladen Expedition to Lake Huleh, 1935," *Palestine Exploration Fund, Quarterly Statements*, (1936), p. 209.
- 4. Genesis 13:10, 11; cf. Genesis 14:3.
- 5. Joshua 3:16.
- 6. Joshua 12:3.
- 7. J. Garstang, *The Foundations of Bible History* (1931), p. 137; cf. *Worlds in Collision*, section "Jericho," and my article "Jericho" in *KRONOS* II:4 (1977), pp. 64-69.
- 8. Psalm 114.
- 9. Breasted, Ancient Records of Egypt, Vol. III, par. 73.
- 10. Psalm 126:4.
- 11. Psalm 104:4, 33-35.

