

The River Arnon

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DURING the year 1905 I twice visited Wâdî el Môjib (وادي الموجب). On the 22d and 23d of February I had an opportunity of exploring the mouth of the river and its lower course for about one third of a mile, as far as to the second waterfall. On the 14th of July I reached the river at the Muhâtet el Hâjj (محطات الحج), coming up from the Lisân (اللسان) and Wâdî Suweil (وادي سويل) by way of Wâdî Jerrah (وادي جرّه) and Jebel Šihân (جبل شيحان).

The streams that unite to form the Môjib have been well described by Brünnow,¹ who also gives extracts from the literature on the subject. My only serious doubts concern the names of the two main tributaries immediately above the junction. Brünnow calls them Šfoyy and Enhêli. These are evidently the Szefye and Enkheyle of Burckhardt.² Tristram,³ Hamilton,⁴ and Bliss⁵ seem to have been told that these rivers just above the junction were called Wâdî el Sa'ideh (وادي السعيدة) and Wâdî Muḥarras (وادي مطرس); and this is in harmony with the information I obtained. It is not quite clear whether Brünnow bases his statement upon that of Burckhardt, or received independent confirmation.

¹ A. E. Brünnow and A. v. Domaszewski, *Die Provincia Arabia*, 1904, pp. 6 ff.

² *Travels in Syria and the Holy Land*, 1822, p. 373.

³ *The Land of Moab*, 1874, p. 131.

⁴ *Oriental Zigzag*, 1875, p. 77.

⁵ *Palestine Exploration Fund, Quarterly Statement*, 1895, p. 215.



FIG. 1. — MOUTH OF THE ARNON FROM THE WEST



FIG. 2. — SOUTHERN WALL BELOW THE BEND OF THE ARNON



FIG. 8. — FIRST BEND OF THE ARNON TO THE SOUTH



FIG. 4. — MOUTH OF THE ARNON FROM THE EAST



FIG. 5.—THE FIRST WATERFALL FROM THE WEST

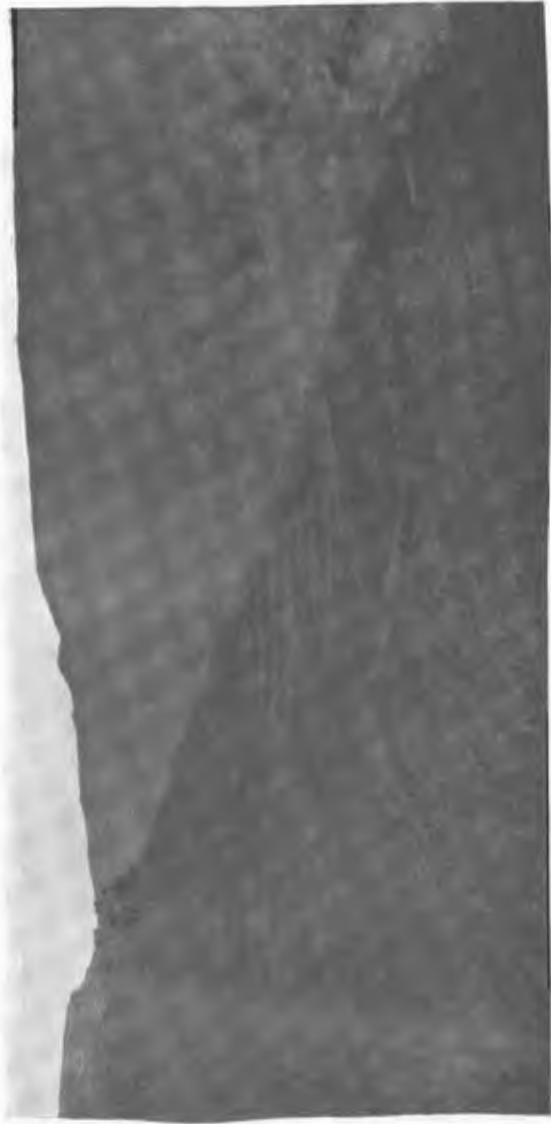


FIG. 6. — SCENE ON THE ARNON BETWEEN THE MOUTH AND THE PLACE OF CROSSING



FIG. 7.—THE ANNON NEAR THE PLACE OF CROSSING



FIG. 8. — MILESTONE ON THE SOUTHERN SIDE OF THE CROSSING



FIG. 9. — MILESTONES ON THE NORTHERN SIDE OF THE CROSSING



FIG. 10. — THE ARNON FROM THE MOUNTAIN NORTH OF THE CROSSING

According to one of his own notes,⁶ Enhéli is the name of a part of the main stream above the part named Wâdi el Sa'ideh.

The interests of Brünnow and Domaszewski centered upon the Roman road that led over the highlands. Their otherwise so invaluable maps, therefore, throw no new light upon the regions adjoining the 'Arabah and the Dead Sea. A systematic examination of the Môjib has never been undertaken. But each explorer has added something to our knowledge, whether he has approached the river from the sea or from the mountains.

U. J. Seetzen⁷ arrived at the mouth of the Môjib January 27, 1807, in time to see the sun set and to be impressed with the beauty of the delta. He had descended from the table-land to the shore of the sea a short distance south of the river. He learned that the peninsula was called El Hôshgera', and that there was a ruin on the cliff on one side of the entrance to the chasm which was called El Riadschy.⁸ On the same evening he waded across the river in the delta near the gorge, and found that it was about sixty feet across, the stream being forty feet wide and nowhere deeper than to his knee. He found a grotto at the foot of the northern wall, and left by a path that led to the high plateau the following morning.

Lieutenant W. F. Lynch⁹ and his party landed on the shore of the delta in front of Wâdi el Môjib May 3, 1848, at 5.25 P.M., having sailed from the Lisân in three and one half hours without stopping to examine any part of the coast. Just before sunset they went up the gorge. Lynch states

⁶ *Die Provincia Arabia*, p. 6.

⁷ *Reisen*, 1854, ii. p. 364.

⁸ Burckhardt learned on July 14, 1812, in crossing the Wâleh that Dâr el Riâseh (دار الرياشه) is near the entrance of the Seil Heidân in the Môjib, two hours E. of the Dead Sea (*Travels in Syria*, 1822, p. 371). Otto Kersten, on the 24th of April, 1874, looked down into the Wâdi el Riyâsi, a short distance above its entrance into the Môjib (*Zeitschrift des Deutschen Palästina Vereins*, 1879, p. 226).

⁹ *Narrative of the United States Expedition to the River Jordan and the Dead Sea*, 1849, pp. 367 ff.

that the chasm was ninety-seven feet wide and the stream eighty-two feet wide, and that the depth was four feet at the entrance to the chasm and ten feet at the beginning of the delta. In spite of its appearance of accuracy, the width seems to have been only estimated. There probably was fifteen feet of a beach on the southern side, and the stream, which was not crossed in boat or waded, appears to have been supposed to be a little more than five times as wide. The distance to the first bend was estimated at one hundred and fifty yards. Lynch declares that the chasm "turns with a slow and graceful curve to the southeast," and that they "walked and waded up some distance, and found the passage of the same uniform width, turning every one hundred and fifty or two hundred yards gradually to the southeast."¹⁰

On the ground of this statement, Rev. Putnam Cady has ventured to affirm that Lieutenant Lynch "never went up the river one hundred and fifty yards." "As I have shown," he remarks, "at that point it makes a sharp turn to the south and immediately narrows to fourteen feet. Within fifteen yards beyond this turn it narrows to four feet, and gradually turns again to the east. Twenty yards more and progress is stopped."¹¹

Our photograph of the bend will show that it is, indeed, very sharp and not slow, though quite graceful. The "turning every one hundred and fifty or two hundred yards" seems to me a loose and unwarranted generalization. But Lynch evidently did not mean that the passage after the turn was uniform in width with the chasm below. He seems to have used his boat, as we did, until he was beyond the deep water, and walked and waded farther up, gaining the impression that the chasm did not vary materially in width and that it turned to the southeast some distance away. I can see no reason to doubt that Lieutenant Lynch went beyond the first sharp turn.

¹⁰ *Narrative*, p. 368.

¹¹ "Exploration of the Wâdy Môjib from the Dead Sea," in *Palestine Exploration Fund, Quarterly Statement*, 1901, p. 47.

He did not go so far as to see the first waterfall. Arriving as late in the day as he did, he evidently could not have examined the chasm very carefully. He left early the following morning.

On March 30, 1864, the Duc de Luynes¹² arrived early in the morning at the mouth of the Môjib, having passed Point Costigan during the night. He crossed the river below the entrance to the chasm and apparently spent the whole day resting in the grotto on the northern side and examining the luxuriant vegetation of the delta. Lartet went up the chasm some distance, but has left no description. He found the antlers of a chamois (*beden*, بدن), which he supposed had been shed by this animal. The Duc de Luynes estimated the height of the rocks on both sides of the entrance at thirty to fifty meters. This accords with our own estimate. On the 5th of April at 5 P.M. he arrived again at the Môjib, coming from the north, but left at 5 the following morning, without having explored the chasm.

At noon, April 28, 1874, H. Rothe¹³ came to the mouth of the Môjib. He evidently waded across the river, as he climbed the rocks on the other side the next morning. Whether he counted his steps is uncertain. He declares that "the Arnon fills a slit in the rock forty steps wide, and is at the mouth about twice as wide, before it divides itself into several arms, of which the largest is ten to fifteen steps wide and one and one-half feet deep." The exact statement of the depth of the water in the largest arm may indicate that the crossing took place at that point. The width at the entrance of the gorge may then have been estimated. It is the lowest of all estimates. Apparently, the entire river-bed between the cliffs was filled with water, as on our visit, and the river, for some distance below the chasm, was considerably wider, as on the occasion when the accompanying photograph was taken.

¹² *Voyage d'exploration à la Mer Morte, à Petra, et sur la rive gauche du Jourdain*, 1874, pp. 114 ff., 128.

¹³ Otto Kersten, "Umwanderung des Todten Meeres," in *Zeitschrift des Deutschen Palästina Vereins*, 1879, p. 222.

On February 28, 1897, Sir Gray Hill¹⁴ landed at the mouth of the river at noon, having left the Jordan in a boat the preceding day. He was in search of an inscription and was led to a grotto some distance to the south without finding it. Returning, he crossed the river in the delta, the water reaching up to the armpits. The entrance to the gorge seemed to him "as narrow as the s'ik at Petra." He evidently did not go close to it. Yet he thought he could hear the sound of the waterfall.

Rev. Putnam Cady¹⁵ arrived at the Mójib in a boat on February 10, 1898, at noon. He accepted Lieutenant Lynch's estimate of the width of the chasm (about one hundred feet) and of the distance to the first bend (four hundred and fifty feet). The stream appeared to him to be forty feet wide and one foot deep. As it went close to the northern wall, sixty feet of dry ground extended on the southern side. It would be interesting to know whether this land was actually measured from the mountain wall to the stream. Just above the mouth of the chasm there was a "swift rapid, with the water tumbling over the rocks." This shows that the water must have been very low at the time. Another indication of this is the appearance of a pool around the bend. The width of the passage was found to be fourteen feet. About fifteen yards beyond the turn the walls seemed to come within four feet of each other, and about twenty yards farther up all progress was stopped. The waterfall of which Mr. Cady just caught a glimpse cannot have been the one shown in the photograph accompanying this article, as that is much higher up. Possibly water tumbling over rocks farther down may have seemed more impressive when the stream was less swollen. The reconnoissance seems to have occupied the entire afternoon.

In the course of our circumnavigation of the Dead Sea, of which a preliminary account has been given in my Director's

¹⁴ "The Dead Sea," in *Palestine Exploration Fund, Quarterly Statement*, 1900, pp. 273 ff.

¹⁵ *Palestine Exploration Fund, Quarterly Statement*, 1901, pp. 44 ff.

Report,¹⁶ I and my three students, A. T. Olmstead, B. B. Charles, and J. E. Wrench, arrived at the mouth of the Mójib on the 22d of February at 4.20 P.M. We found the river bed filled with water from cliff to cliff. Hence the rocks mentioned by Mr. Cady were not seen. As the middle of the stream was about two boat lengths from the southern wall, and our boat was sixteen feet long, we judged that the width of the chasm at the entrance was not less than sixty nor more than seventy-five feet. We rowed up the river, but attempted in vain to get our boat so far as to the sharp turn, and returned to our camp in the delta. The next morning at 6 we began to examine the delta, and at 7.25 started up the stream with two cameras. After about two hundred feet we landed on a sandy beach on the southern side of the river. On the opposite side there was a similar cove with a beach in front. We rowed across and having climbed up the little ravine secured the accompanying photograph of the southern cove and beach. One hundred and fifty feet farther east we landed on the rocks. Mr. Charles and Mr. Wrench climbed along the cliffs and saw the narrow and deep gorge beyond the bend. After their return to the boat, we rowed one hundred and fifty feet farther and then fastened the boat to the rocks. Mr. Olmstead, Mr. Charles, and I climbed up to the high plateau, whence the accompanying photograph of the mouth of the river from the east was taken. The prow of the boat is visible. Another photograph of the river between the first bend to the south and the next turn to the east did not come out so well. We saw no signs of ruins on the mountains south of the entrance to the chasm.

Returning to the boat, we worked our way up along the cliffs by rowing on one side and holding on to the wall on the other side. After strenuous efforts we succeeded in getting around the curve to the south, but did not reach shallow water until we had gone about five hundred feet from the last stopping place. We pulled the boat up twenty-

¹⁶ *Fifth Annual Report of the Director of the American School for Oriental Study and Research in Palestine, 1905.*

five feet farther, and then, having fastened it to a rock, waded for four hundred feet through water, varying from a few inches to three feet. Here we came upon the small waterfall represented in the photograph. It was six feet high in one part, three feet in another. The roar of the falling water had given an impression of something far greater. The water was very swift, and it was with great difficulty we could pass through the fall on the southern side. By wading and jumping from rock to rock we reached a point three hundred feet up stream from the first fall. Here a somewhat larger fall made progress difficult. Anxiety about our boat and the supplies led us to return. We were under the impression that it would not be impossible to ascend the river. In all this distance we did not find any place where the passage narrowed down to anything like four feet, but in some places the cliffs at the top seemed to come very close together. We returned to the delta at 1.05 P.M.

On my trip from Kerak to Ghor el Mezra'ah (غور المزراة) and Wâdî Suweil, I was accompanied by Mr. Wrench, Mr. John Whiting, and two soldiers. Partly on the way back from Abu'l Felus to Wâdî Beni Hammîdeh, and partly at Jebel Šihân, where we spent the night of the 13th of July, I gathered some information concerning the tributaries to the Môjib below the Muhâtet el Hajj. There are three streams emptying into the Môjib from the south below Wâdî Jedeirah (وادي جديرة). Brünnow¹⁷ is not right in his suspicion that this Wâdî Jedeirah is identical with Burckhardt's Seil Jerrah. Wâdî Jerrah is, indeed, incorrectly located on the maps just south of the Môjib. In reality the only Wâdî Jerrah known to the Arabs of the region is the river bed bearing that name which runs parallel with Wâdî Beni Hammîdeh, a short distance to the north of it. While Wâdî Beni Hammîdeh is a perennial stream sending a considerable amount of water constantly into the Dead Sea, Wâdî Jerrah is dry at least in the summer, but has some springs in it.

¹⁷ *Die Provincia Arabia*, p. 6.

Wâdi Jedeirah is no doubt the same as Seetzen's El Schdër.¹⁸ The tributary nearest to the sea entering the Môjib from the south is called Wâdi Bediyeh (وادي بديه).¹⁹ Above this flows the Wâdi Defaleh (وادي دفاله), and, between this and Wâdi Jedeirah, a stream called Wâdi Deraifeh (وادي دريفه). From the north there is a tributary near the sea called Wâdi Bertah (وادي برته); above it another named Wâdi El Rammim (وادي الرميم), and still higher up Wâdi El Birfataš (وادي البير فتش). The greatest tributary is, of course, Seil Heidân (سيل حيدان).

It seems to me probable that the real name of the wâdi figuring on our maps as Wâdi Jerrah is Wâdi Šeķeik (وادي شقيب), and that this is, in some way, connected with the 'Ain Sgek which Seetzen²⁰ visited south of the Môjib. This is probably the wâdi whose delta is the most striking feature of the coast between the Môjib and the Lisân, bordered on the south by a long line of hills so even in height as to present the picture of the ramparts of a fortress. It is possible that between Wâdi Šeķeik and Wâdi Suweil, there is a Wâdi Mirrah (وادي مره), also called Seil Sebaieh (سيل سبيه), but this is uncertain.

The Môjib is undoubtedly identical with the Arnon of the Old Testament (אֲרֹנּוֹ) and of the Meša' inscription (אֲרֹנּוֹ). The name is probably derived from the root אֲרַב and characterizes the river as a "roaring" stream. Jerome still knew this name in its Aramaized form אֲרֹנּוֹ, Arnonas. El Môjib seems to be a translation. It probably comes from the root وجب which means to "fall with a great noise." The difference in vocalization seems to go back to a difference in actual pronunciation. Seetzen heard it pronounced Maujêb (مَوْجِب), Burckhardt, Môjêb (مَوْجِب), others have heard it Mûjâb (مَوْجِب) and Mûjîb (مَوْجِب). The unnatural

¹⁸ *Reisen*, ii. p. 347.

¹⁹ Seetzen's Ain Bediyeh (*Reisen*, p. 347).

²⁰ *Reisen*, ii. pp. 349, 362. Šeķeik is, of course, pronounced Sgeig.

lengthening of the second vowel and the vacillation in the case of the first may be due to attempts to avoid such a pronunciation of the name as would suggest El Mújib (الموجب) = "the first cause," "God." It is perhaps permissible to infer that the new name goes back to a period when the philosophical term was not yet in use, so that there could be no suggestion of a blasphemy, and to a people familiar with the lower course of the river, where alone the water falls with a wild crash. In earliest times Arnon may have been the name of the river god.