

SECOND THURSDAY (late morning through night)

CHAPTER 26: *KING SOLOMON'S MINES*

"So King Solomon exceeded all the kings of the earth in riches and in wisdom." (FIRST KINGS 10:23)

"Drink," Shai cautioned. He gulped the full contents of a liter bottle. I took half as much. After three summers together, I still marveled at Shai's water consumption. He seemed to have gotten his capacity from the camels. By normal standards, he drank infrequently, sometimes only once in two or three hours. Yet, when he did so, he consumed copious amounts.

I topped off my two canteens from a water bag. Shai refilled his water bottle. These would suffice us until we returned to the cave sometime in the afternoon.

"Come," Shai motioned. "We shall now explore King Solomon's Mines!"

A chill passed up my spine as the words fell from Shai's lips. Yet, as we both knew, King Solomon's Mines of the popular mind are a figment of imagination.

The legend entered modern mythology in 1885 through the adventure novel of that title written by the Englishman, H. Rider Haggard.

Haggard had joined the British colonial service in 1875, where he was posted to the staff of Sir Henry Bulwer, the Lieutenant-Governor of Natal in South Africa. For the next five years, he traveled throughout the region, immersing himself in the customs, ceremonies, and folk tales of the South African peoples.

Western adventurers had recently discovered the great archeological ruins of Zimbabwe. Romantics had fantasized that these might be the biblical city of Ophir. It was to Ophir that Solomon had sent his fleets and from which came the gold, sandalwood, and precious stones that established his legendary wealth.

Haggard wove this biblical account into his African experiences to produce *King Solomon's Mines*. He placed the mines in the "far interior" of Central Africa—three days' journey beyond a mountain range, which itself lay 130 miles across an almost impassable desert. This would have been north of the Zambezi River, an area that at that time remained "terra

incognito." In Haggard's imagination, the mines produced an untold wealth of diamonds, only a handful of which were recovered by the novel's heroes.

The strands of history that one can tease from the biblical narrative and the archeological record tell a more prosaic tale.

The Bible speaks of "a land whose rocks are iron and from whose hills you can mine copper" (Deuteronomy 8:9), a possible—perhaps likely—reference to Timna. Yet, neither the biblical references nor the archeological record give evidence for Solomon's exploitation of Timna's copper.

If one gives credence to the Bible, it is virtually certain that Solomon controlled the southern Negev and the region of the mines. The Scripture records that "... Solomon became allied to Pharaoh king of Egypt by marriage, and took Pharaoh's daughter...." (First Kings 3:1) and that he "... made a navy of ships in Ezion-Geber, which is beside Eloth, on the shore of the Red Sea, in the land of Edom [the Gulf of Aqaba]" (First Kings 10:26). The trade of this fleet brought wealth to Solomon as did his levies on "... the merchants, and ... the traffic of the traders...." (First Kings 10:14–15). But, the narrative makes no mention of mining, either as a source of Solomon's wealth or the accoutrements of his Sanctuary.

Indeed, for the Sanctuary accoutrements, the Biblical narrative tells a different story. The brass came not from Solomon's imaginary mines, but from David's spoils of war: "And David smote Hadarezer, King of Zobah ... and from Tibhath and from Cun, cities of Hadarezer David took [as booty] very much brass, wherewith Solomon made the brazen sea, and the pillars, and the vessels of brass [for the Sanctuary]. (First Chronicles 18:3,8).

The Temple of Hathor attests that active copper mining took place under the Egyptians. As the cartouches revealed, this was at the time usually attributed to the Exodus, commonly placed 300 years before Solomon. Although there is no biblical reference, one can conjecture that Solomon may have received the area as dowry for his Egyptian wife. But, the absence of archeological traces from his reign implies that mining efforts on his part, if any, would have paled compared to those of his Egyptian predecessors.

The ancient exploitation of Timna's copper stems from the special geology of the area. The Roman Cave and surrounding sandstone rise above the alluvial sediments. In places the sandstone is almost white, and easily crumbles. Veins of copper-rich ore stretch through it. Because of the sandstone's softness, Neolithic men were able to mine the deposits with crude flint implements as long as 6,000 years ago—first for malachite trinkets and later for the copper, itself. But their efforts were inconsequential compared to those of the Egyptians more than 2,000 years afterward and the Romans, yet 1,200 years later.

In addition to cartouches, scarabs found at the site show that Egyptian exploitation of the copper deposits began during the reign of Pharaoh Sethos I (1318–1304 BCE) and continued for more than 150 years through that of Ramesses V (1160–1156 BCE). By then, the Egyptian kingdom was collapsing under the onslaught of the Philistines and the Egyptian presence at Timna disappeared. For a brief period thereafter, Midianites continued to work the mines, leaving the tantalizing remnants of their tented sanctuary at the Temple of Hathor. Then the archeological record becomes blank. Only a millennium or more later does it reemerge when Rome, at its zenith, enters the stage.

Following Trajan's annexation of Nabatea, the Third Legion *Cyrenaica* occupied the area. Its control of Timna marked the most intense and sophisticated exploitation of the copper ores. The Romans dug galleries cut deep into the sandstone as well as shafts, sinking thousands of the latter. The galleries followed the horizontal seams of copper nodules, as had those of the Egyptians more than a thousand years before. The Roman exploitation lasted perhaps 100 to 200 years. Then, like Egypt before it, Rome declined, and its forces withdrew.

As we picked our way through the *wadi*, the evidence of those ancient endeavors lay strewn about us. Stone fragments, opulently veined in blue-green, accumulated where the runoff slowed. Their coloration was more profuse and intense than that of the pieces I had scavenged from the modern pit the day before, suggesting the richness of the original deposits.

Lumps of rounded brown-black crystalline rocks lay about, the largest the size of a

clenched fist. At first glance, they looked like the petrified droppings of an extinct Neolithic beast. However, they were not fossils, but the slag from the primary smelting of the copper. Examined under a lens, they revealed minute globules of glass—evidence of the intense heat that claimed the metal from its ore.

We climbed from the *wadi* and up a flattened hill. Its top was covered with saucer-shaped depressions 8 to 10 feet across. Their tawny hue contrasted against the brown-black patina scorched into the surrounding stone. The light color—yet to be burned by the sun—meant that the depressions had been formed in the past few thousand years. These were the pinpoints of ivory that we had spied from the heights of the Negev more than a week before.

The depressions were void of the coarse rubble that littered the surrounding ground. In the center of each, a pattern of cracks formed miniature polygonal clods, curled at the edges, typical of dried mud. It took little effort to realize that the centers had once been deeper, but had filled with dust deposited by the wind and washed from the higher ground around them.

Shai kneeled down and scraped at a clod, breaking its edge. "These were the shafts of the mines. They were dug for light and air and maybe to remove the ore. A few were as much as a hundred feet deep. They connect to the underground tunnels that followed the ore. The sandstone is very soft, so it was easy to dig the shafts as well as the tunnels.

"As Hathor's Temple shows, much mining took place under the Egyptians. Perhaps they used slaves. However, this was part of the land of Midian. More likely, the mining was a joint venture between Egypt and Midian.

"But they did not dig the shafts. The Romans did that. They may have dug 5,000, maybe 8,000. No one has counted. With so many shafts, you can imagine the organization needed to provide food and water for the miners and fuel to smelt the ore. A little mining took place afterward, during the Arab and Crusader times, but never again on such a great scale."

Shai arose. We crossed over the hill and slipped down its opposite side. Here, tunnel after tunnel broke the north side of the *wadi* wall. As the annual runoffs had eroded the soft sandstone, they had exposed the veins of copper, enabling ancient men to discover them.

The tunnels looked untouched by time. Their entrances remained solid, far different from the wrecks of abandoned mines that I had explored as a youth. In the wet and humid summers of the eastern United States, the mine entrances decayed and collapsed within a few decades. Here

in the Negev, the ravages of nature seemed to stand still. With the exception of a single crow's feather, virtually no debris littered the passage.

I elbowed my way several feet into the confines of the largest entrance. My shoulders squeezed against the wall, blocking almost all light. I closed my eyes to adjust to the dimness. I fought to control my claustrophobia. As I lay in the tunnel, I surmised that the ancient miners must have been similar in build to modern *Bedu*, in many cases a foot or more shorter than I and half my weight. Or they may have been children. With such slight stature, they could have readily crawled through the tunnels and kneeled as they worked.

As I reopened my eyes, the dim light revealed faint bands of green pigment embedded in the walls. These were remnants of the ore vein that the ancient miners had followed. Long incisions, punctuated with deeper circular gouges, cut into the green. The incisions moved from right to left. These were the tool marks left by the miners as they chiseled the ore, still sharp after 20 centuries or more.

We continued along the *wadi*. Suddenly before us, in what otherwise remained the unbroken face of the *wadi* wall, vertical shadows outlined a series of ascending indentations. As we moved closer, my pulse quickened. Carved in the *wadi* wall by the erosion of millennia, was the perfect cross-section of an ancient shaft.

The shadows outlined the foot- and handholds cut by the miners to climb the shaft. A series of three, or possibly four, smaller circular shadows bounded part of the shaft. They appeared to be notches, which had once supported horizontal beams. These, I surmised, had been used to hoist the ore from the tunnel.

The upper part of the exposed shaft and the *wadi* wall around it were light brown. The wall just below and the *wadi* floor were a shade lighter. The sun-baked patina was beginning to form over the upper part of the shaft. The lower area was still being scoured by the annual floods.

This revealed how the shaft had become so perfectly sectioned. The floodwaters were

cutting the *wadi* deeper. As they did so, they no longer swept the upper part of the shaft, thus preserving the exposed cross-section.

The sun now stood overhead. Our water was nearly spent. We turned back to the shelter of the cave.

The darkness of the cave offered respite from the heat. I gazed out at the tied camels. As I had observed before, they crawled on their haunches, positioning their heads, or today their backs, directly toward the sun, thus minimizing the exposure of their flanks. As the sun moved, they adjusted. They shifted in unison, like awkward ballet dancers. Later, they laid their necks straight out in the shadow of their humps and, along with their human masters, fell asleep.

The comfort of the cave enticed us, as it had enticed others for eons before. We remained until late afternoon. It meant that we would travel by night. However, in the flat expanse of the Arava no trails followed *wadi* walls. There was little chance that a misstep in the dark would mean plunging into an unseen abyss.

As the *wadi* sank into shadows, we trekked northeast, toward the center of the Arava. Shai led Louis with Vered mounted. I followed, leading Samech. We would camp near Kibbutz Samar, where tomorrow we would rendezvous with Jane. There we would replenish our water and allow the animals to drink their full.

By the time the stars appeared, the wall of the Arava had receded. Our trail was less defined than most we had followed, a forgotten caravan route abandoned in antiquity. The night was moonless. As darkness encompassed us, the trail faded. I lost the trail and stumbled over the rubble as I followed the dark form of Louis in front of me. Vered was dressed in white. Yet, I could not discern her. I thought back to Shai's lesson, that black is more perceptible in the dark

of night.

Without the sun, my body cooled. I no longer pushed the limits of my endurance. I breathed heavily, but did not gasp. My heart pounded, but did not race. I sweated, but my jacket was no longer soaked.

We trekked over the desert floor. The North Star stood fixed above my left shoulder. The few features around us were swallowed by the nothingness through which we passed. The night accentuated the emptiness. With the unchanging North Star and the unending void, I felt as if we were traveling through infinity. Again, I experienced the vast emptiness that contains all.

For more than two hours, we traveled through the black space. At last, we made camp in a shallow *wadi*. We ate a light supper. The heat of the sand and rocks radiated into the clear sky. It became cool enough to sleep.