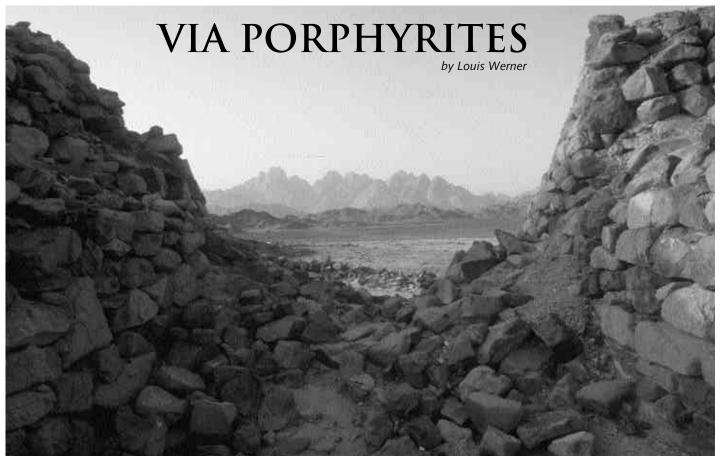
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This gateway opens into the fortress at Badi'a, one of seven hydreumata, or Roman watering stations, along the 150-Kilometer (nearly 100-mile) trek from the quarries to the Nile.

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STONE FOUNDATION HOME PAGE

In the year 18, in Egypt,

a Roman legionnaire named Caius Cominius Leugas found a type of stone he had never seen before. It was purple, flecked with white crystals and very fine-grained. The latter characteristic made it excellent for carving, and it became an imperial prerogative to quarry it, to build or sculpt with it, or even to possess it. This stone soon came to symbolize the nature of rulership itself. We call it imperial porphyry.

The Romans used this porphyry for the Pantheon's inlaid panels, for the togas in the sculpted portraiture of their emperors, and for the monolithic pillars of Baalbek's Temple of Heliopolis in Lebanon. Today there are at least 134 porphyry columns in buildings around Rome, all reused from imperial times, and countless altars, basins and other objects.

Byzantium, too, was enamored of porphyry. Constantine the Great celebrated the founding of his new capital, Constantinople (later Istanbul), in the year 330 of our era by erecting there a 30-meter (100') pillar, built of seven porphyry drums, or cylinders, that still stands. Eight monolithic columns of porphyry support Hagia Sophia's *exedrae*, or semicircular niches. Justinian's chronicler, Procopius, called the columns "a meadow with its flowers in full bloom, surely to make a man marvel at the purple of some and at those on which the crimson glows." Anna Comnena, daughter of the 11th-century emperor Alexius I, described the *porphyra*, a porphyry-veneered room in the palace where women of the ruling family were taken to give birth. The choice of por-

phyry for this room in particular was no accident: It ensured that members of the imperial family were literally *porphyrogenitos*or "born to the purple."

The room is in the form of a perfect square from floor to ceiling, with the letter ending in a pyramid. The stone used was of a purple color throught with white spots like sand sprinkled over it.

Porphyry served the *imperium* in death as well as birth. Nero was the first emperor to be entombed in a porphyry sarcophagus, according to Suetonius. Constantine's porphyry sarcophagus has been lost, but that of his wife Constantia, decorated with peacocks, lambs, and grapes and thought to be a copy of his, is now in the collection of the Vatican Library. Those of the Holy Roman Emperors Frederick II, Henry IV and William I, and that of the Empress Constance, all porphyry, are in Sicily's Palermo and Monreale cathedrals.

In later centuries, porphyry columns and other pieces were widely reused in new constructions, often reappearing far from their original Roman context. In 786, Charlemagne received permission from Pope Hadrian to remove classical columns of porphyry from Rome to build his cathedral at Aachen. The renaissance Medici family commissioned portrait busts carved from porphyry blocks that had been warehoused in Rome since imperial times. Other sources are unknown and unguessable: The Victoria and Albert Museum in London contains a pair of fine porphyry earrings. A church in Kiev is decorated with porphyry wall and floor revetments; how the stone made its way there is probably

an interesting story, but unrecorded.

What makes imperial porphyry so precious and rare is that it is found at only one place on earth, atop a 1600-meter (mile-high) mountain in the eastern province of Egypt. The Romans named the site Mons Porphyrites, or Porphyry Mountain, and the Arabs today call it Jabal Abu Dukhan, or Smoky Mountain.

Thrust to the earth's surface in the same volcanic action that once formed the Red Sea, the porphyry found at Mons Porphyrites is, as far as specialists know, geologically unique. But the site is so barren and so remote that only slave labor could ever have extracted the stone, and even then only for the relatively brief historical moment when Roman power was at its zenith.

Imperial porphyry glowing purple flecked with white — is found in only one place: atop a few barren peaks in Egypt's Eastern Desert. At the apogee of Roman power, the the porphyry carts, and that in the following three centuries, when beautiful stone became a jealously guarded symbol of rulership itself. It was quarried in Egypt under appallingly difficult conditions and carted to the Nile along the Via Porphyrites, the Porphyry Road. Today, the overhead, riding thermal currents on their way from the Sinai to central area is a fascinating — and still very harsh — early industrial landscape.

When George Murray, chief of the Egyptian Geographical Survey in the 1930's, visited the quarry, he found a place so barren that it made him shudder. A ruined fortress, three lifeless villages, abandoned temples and shrines, dry wells, broken pillars, cracked stone baths—"the fossil whims of three centuries of Emperors," he called it. The local Ma'aza Bedouin have a similar saying about the place: "The Romans left; only the ibex remained."

But geographers and Bedouin see things differently from archeologists. David Peacock of the University of Southampton in England is co-director of the Egypt Exploration Society's Mons Porphyrites Project, and he finds it "the most remarkable Roman industrial landscape in the world." Some of his recent finds, including the stela inscribed by the Roman discoverer of the quarry, help to explain how the work was carried out under conditions that would be daunting even

Among the more startling finds are a hair-pin, cosmetic brush, and

toy comb made from oyster shell—evidence that women and children may have lived here alongside the men. Also surprising is written evidence, on inscribed pottery shards, or ostraca, that work proceeded here even during the sun-scorched summer.

Labor involved more than mere quarrying. After cutting and rough-dressing the blocks and column drums—and apparently also such larger pieces as the monolithic pillars eventually used in Hagia Sophia—the pieces were loaded onto oxcarts, which were driven 150 kilometers (about 100 mi) to the Nile at Qena (Kainopolis of the Ptolemaic era), where they were shipped downstream by barge and then by sea to their final destinations. Byzantine poet Paul Silentarius refers to this in his ode to Constantinople's porphyry, "powdered with bright stars, that has laden the river-boat on the broad Nile."

The road from the quarry westward to Qena, which Ptolemy the Geographer put on his second-century map, was a route described first by Strabo, and it is to this day known as the Via Porphyrites, the Porphyry Road. Along the way are seven hydreumata, or fortified wells, each one a day's march from the next. Outside the fortifications are lines of large stones to which oxen were tethered at night.

Archeologist Steven Sidebotham of the University of Delaware, an authority on the Roman roads of the Red Sea mountains, surveyed the Via Porphyrites in 1989. He concluded that from the first to the third centuries of our era, the hydreumata were used as watering stations for quarrying had ceased and tribal raiding from the south had commenced, they became Roman border posts and strong points along the line of communication between the Nile and the fort at Abu Sha'ar on the Red

Today the area is uninhabited except for the occasional Ma'aza Bedouin grazing his camels. Ibex, hyrax, and rabbit live here now. Around water holes, trumpeter bullfinches, desert larks, and mourning chats flock in sayaal trees (Acacia raddiana) and the wispy-needled yasar trees (Moringa peregrin). In the fall, thousands of white storks cross

The Via Porphyrites follows three major systems of wadis, or streambeds: Wadi Belih, Wadi al-Attrash and Wadi Qena. Between the first two it crosses the divide between the Red Sea watershed and that of the Nile. From Wadi Belih, there are two approaches to the quarry. One is a winding route up Wadi Umm Sidri and into Wadi Abu Mu'amal ("Workplace Wadi"), and it is this route that the oxcarts followed. The other is a steep but more direct footpath over a 950-meter (3000') pass.

A late-winter trek along the route in the company of two Ma'aza Bedouin, 72-year-old Salaama Mir'i and his 18-year-old son Suleiman, provides ample opportunity to reflect on the hardships faced nearly 2000 years ago by Rome's mostly Christian slaves, the thousands damnati ad metalla, or "condemned to the mines" in Egypt.

In walking to Mons Porphyrites, I follow in the footsteps of two British explorers, Sir John Wilkinson, a former president of the Royal Geographical Society, who rediscovered the quarry in 1823, and Leo Tregenza, a Qena-based schoolteacher who, in the 1940's, spent his summers in these parts and wrote of them in his classic account The Red Sea Mountains of Egypt Oxford University Press, 1955).

When I tell Salaama of my intended route, he startles me by saying, "Yes, I know it, I came this way years ago with an ingilizi named Genza." "Leo Tregenza?" I ask. "Yes," he says, "A man always writing