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REPORT OF REGIONAL GEOLOGIST
ON GRAN QUIVIRA NATIONAL MONUMENT, NEW MEXICO

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Chas. N. Gould

Chas. N. Gould
Regional Geologist
Region III
Oklahoma City, Oklahoma

ON MICROFILM

GRAN QUIVIRA NATIONAL MONUMENT, NEW MEXICO

This monument is situated in northern Torrence County in central New Mexico. It contains 610 acres, and is located on a ^{low} rounded, cedar-covered hill overlooking a broad valley. The interest is largely historical and archaeological, it being the site of one of the earliest Spanish Mission ruins in the southwest. It was formerly known as Tabira and is built on the site of earlier pre-historic Pueblo ruins.

The rocks in this part of New Mexico are largely gray to drab-colored limestones of Permian age. The formation is known as the ^UChapadera, and consists of alternating beds of clay, limestone, sandstone and gypsum. Fossils from the limestone indicate that the rocks are of about the same age as the Kaibab limestone at Grand Canyon. The hill at Gran Quivira and is composed of limestone and gypsum, with one or two dikes or sills of ^{py}rophyritic igneous rocks. The gypsum and limestone being soluble in water have been dissolved out in many places, forming sink holes and underground caverns, the extent of which are unknown.

On the hill at Gran Quivira there are about 20 groups of prehistoric ruins. For the greater part, these ruins have not been excavated. Neither have they been dated. 26

kivas have been located. The archaeologist Bandelier who visited the ruins in 1890 estimates the former population at 1800.

The objects of most striking interest at Gran Quivira are two Spanish mission churches. A general view of the structures is shown in Figure 1. The first or "Little Church" was built by Indian women under the direction of Spanish padres in 1629. The larger church was built in 1650. Figure 2 shows a view taken from the altar. It is believed that the mission was abandoned at the time of the Indian uprising in 1680.

The walls of both the ancient pueblos and of the two churches have been built very largely of rough blocks of Chapadera limestone, as shown in Figures 3 and 4. A very few pieces of igneous rock or of red sandstone are found, but 99% of the stone was obtained near at hand.

Several shafts have been sunk by "treasure hunters" seeking buried gold. One such shaft near the mission building is 40 feet deep, with a tunnel 50 feet long leading off from the bottom of the pit. This shaft and tunnel penetrated limestone, gypsum and igneous rock.

In 1932-33 a well was drilled to a depth of 900 feet, near the custodian's resident. Neither the quality nor the quantity of water is satisfactory. The custodian uses cistern water.

Chas. N. Gould
Regional Geologist.



Fig. 1. General view of the ruins at Gran Quivira, showing the larger church at the left and the "Little Church" at right.



Fig. 2. View of the inside of the larger church taken from the altar.



Fig. 3. Detail of walls of the church showing the long passage way separating the priest's quarters from the church.



Fig. 4. View of the larger church showing remains of the tower.