

IN THE ISLE OF THREE MANIES, THREE NOUGHTS

To the people of Korea the island of Cheju , marked on some maps as Quelpart ,is known as the isle of "three manies and three noughts". It has many winds, many stones and many women. It also has no thieves, no beggars, and no water. Hope that the statement about water may be proved false has been raised as a result of work under an Agency contract. The notes below, from Dr. Chang Kun Lee, of the Korean Atomic Energy Research Institute, give an idea of the work in progress there as well as a picture of the island itself.

To help a project for water development on the island the Agency has sponsored a project which began in November 1965, entitled "Application of environmental isotopes and artificially introduced tracers in the hydrology of a volcanic island". The Atomic Energy Research Institute of Korea has provided facilities and staff and designed some special equipment.

Environmental isotopes are those which occur in the atmosphere, including very heavy hydrogen created by thermonuclear explosions, and find their way into water. By using nuclear methods useful information can be obtained from measurements at different places. Other isotopes can be put into water at various points and measurements taken later to find what has happened to them, and consequently to the water. As a result of detailed experiments guidance can then be given to help in plans for making the best uses of water resources.

It is geologically presumed, says Dr. Lee, that Cheju Island was formed about a million years ago. A cone just off the northwestern end appeared about a thousand years ago and is believed to be the last lava cone formed by volcanic activity. Two catastrophic eruptions and earthquakes occurred in 1455 AD and 1670 AD but there are no records of any since then. In the crater of the main peak of the island, Mt.Halla (1950 metres),stagnant water forms "The Lake of the White Deer".

In shape Cheju is elliptical and has an area of 1972 square kilometres, with an east-west length of 74 km and a north-south breadth of 32 km. Its population of 336694 (census of 1 October 1966) lives in 73547 households around the coastal belt. Life is a constant struggle, partly because a constant



Women at the well. Where water flowing from a spring on Cheju can be conserved it is protected by concrete and stone barriers to save it and guard it from pollution.

(Photo: Dr. Joseph T. Callahan)

westerly wind has prevented formation of adequate topsoil (hence the many stones) and also because of the chronic shortage of water.

The name of Quelpart was used by western mariners in the Middle Ages, and although most tried to avoid it, there were shipwrecks. One of these occurred in 1653 to the Dutch vessel Sparrow Hawk, and resulted in the imprisonment of its captain, H. Hamel. For thirteen years no news reached the ship's owners, but eventually in 1669 the story was published as the "Journal of the Unfortunate Voyage of the Yacht Sparrow Hawk, to Tayowan, in the year 1653; how the said Yacht was stranded on the Island Quelpart. Together with a particular description of the Lands, Provinces, Towns and Fortresses situated in the Kingdom of Korea. By Hendrick Hamel".

From it we learn that in those times the island was used to confine exiles and that conditions have not varied much since then.

Nevertheless it is a fact that there is a great preponderance of women, who make up all the agricultural working forces. They are also world-renowned for their swimming abilities, particularly their capacity for underwater endurance

while diving for shells. A mission from the National Amateur Swimming Association of USA in fact spent some time a few years ago studying this phenomenon. Dr. Lee mentions that in last year's annual contests those taking part ranged from children to 80-year old women. The only other place in the world where women are so generally proficient in this art is Japan.

The women of Cheju are extremely industrious and economically independent. Dr. Lee also found that they regard it as extremely impolite to take photographs without permission and to avoid scolding from older women he took most pictures from behind them.

In examining the water problems, Dr. Lee found that the inland area was completely dry except during and immediately after rainfall. Rivers are dry for almost the entire year. Rainwater is stored in small reservoirs lined with clay or

A point on Cheju where water flows. The pump is at Hallim-ri and is the principal source of water for most of the inhabitants. In the picture (left to right) are Gi Young Nahm, Joseph T. Callahan of the American AID Mission, Dong Hoon Kim and Chang Kun Lee (standing) taking samples.

(Photo: Chang Kun Lee)



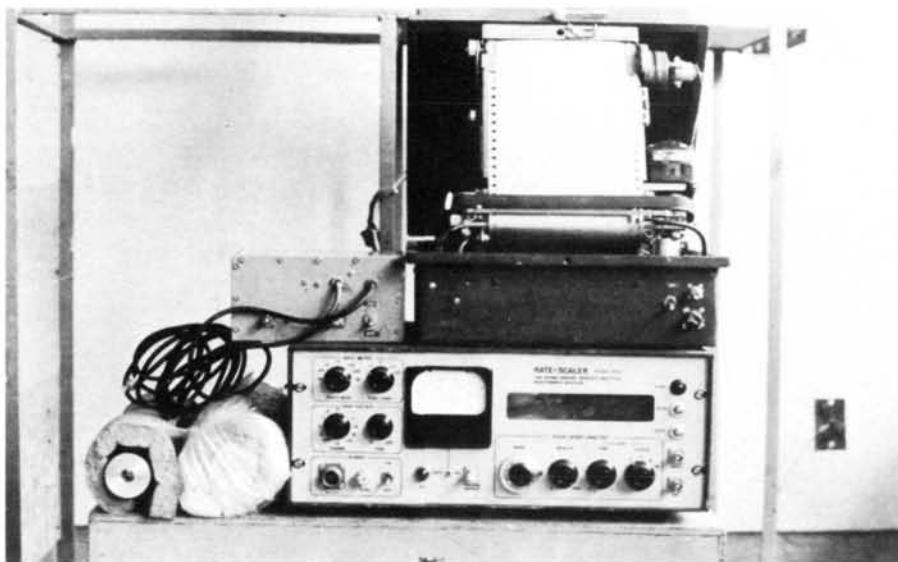


Many stones, which have to be cleared to make room for houses and to build them on Cheju Island. Straw roofing is tied on with ropes to save them from being blown away.

(Photo: Chang Kun Lee)

This portable apparatus for detecting radioactivity to establish fissure and fault zones on Cheju Island was designed by the Atomic Energy Research Institute of Korea.

(Photo: Chang Kun Lee)



Women of the island of Cheju are here preparing their food at a spring which has its outlet at the edge of the sea. The barrier keeps it fresh.



concrete, but in dry weather these dry up or become infested with insects which cause illness. This causes an exodus to the coastal area. According to local inhabitants a bride is given fine cloth in place of a dowry, so that she can trade it for water during continuous dry spells. The art of using a minimum of water for all needs has been perfected in the interior.

Some relief has been provided by the island authorities who, in cooperation with the Korean Ministry of Agriculture, have constructed two open canals to connect the water-blessed mountain areas with the thirsty lower regions. One modern boon for women who have to carry water jars from wells is the introduction of plastic bottles, which are much lighter. But the need to investigate all ways of making the best use of water remains.

There are already indications from the studies made by measuring isotopes under the IAEA contract that fresh water exists below ground in large quantities which could be reached by well-drilling. In time more precise details will be computed, but the results undoubtedly open up hope for the future.

SIERRA LEONE IS THE 98th MEMBER

Sierra Leone has become the 98th member State of the Agency.

The application for membership of this country was approved by the General Conference in September last year, and on 19 June it was announced that the instrument of acceptance of the Statute had been deposited with the Government of the United States.
