

FROM FUNDAMENTAL

# "LE CENTRE SCIENTIFIQUE DE MONACO" MAKES ITS WEALTH OF EXPERIENCE AVAILABLE TO COMPAGNIES

"Le Centre scientifique de Monaco" (CSM) is an autonomous public establishment. It was created in 1960 by SAS Rainier III to continue the work of his ancestor, Prince Albert I. Protecting and preserving marine life have always been amongst the Centre's major preoccupations, although the scope of its investigations is vast. Examples include:

- Radioactivity the dangers and pacifistic usage thereof;
- Environmental pollution and modelling marine eco systems;
- Developing free-floating buoys for tracking tropical currents.

# RESEARCH TO APPLIED SCIENCE

# CSM is the only laboratory in Europe able to grow coral

Mineral in skeleton, vegetable in appearance and animal in reality, coral has fascinated mankind since prehistoric times. There is a zone in Monaco where red coral can still be found in abundance: the cliff below Loews (Pointe Focignana), declared an underwater sanctuary. The CSM quite naturally became very interested in red coral, and even more so in the corals reefs that account for half of the calcium deposits on the surface of the globe. This process, called bio-mineralization, occurs in the CO2 cycle and greenhouse effect. The CSM has developed a method for propagating coral in culture rooms. As a result, it has been able to study calcification on scales ranging from the molecular to the cellular organisms through to and up to the ecosystem (see article on page 54).

In another field, studies on coral's high resistance to ultraviolet rays and excessive oxygen have spurred on the development of high-performance pharmaceutical and cosmetic products to combat the aging effects of sunstroke and free radicals on skin.

# "Le Centre Scientifique de Monaco" also dispenses training in scientific research.

It runs short courses for under-graduate students and participates in post-graduate training (DEA, Tesi di Laurea, PhD). CSM researchers also lecture at universities.

Students participating in CSM courses have come from the following countries: Canada, England, France, Germany, Greece, Italy, Jordan, Monaco, Poland.

## **Business and the CSM**

Apart from pursuing fundamental research, the CSM also endeavours to contribute to Monaco's economic fabric. Its expertise and technical skills boost the research and development programmes of Monegasque companies.

Many big brand laboratories in the biomedical, pharmaceutical, cosmetic and – more recently – jewellery sectors have already incorporated CSM's know-how into their product development. The CSM is keen to multiply such joint projects with commercial companies seeking effective products.

"Le Centre Scientifique de Monaco" has the structure, the scientific facilities, and the researchers to assist companies in their search for high-performance products.



Confocal microscopy room.

### Centre Scientifique de Monaco

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