

Women that made a career in the early years of the National Center for Scientific Research “DEMOKRITOS” in Athens, Greece

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ABSTRACT

This paper aims at the presentation of female scientists that made a career in the early years of the National Center for Scientific Research “DEMOKRITOS” in Athens, Greece. DEMOKRITOS is among the oldest Greek National Research Centres, founded in 1959 as a Centre of Excellence for the development of Nuclear Science and Technology in Greece in view of building nuclear power plants in the country. For this scope an experimental nuclear reactor has been donated to Greece by the U.S.A. forming thus the “Nuclear Center DEMOKRITOS” under the auspices of the queen of Greece at the time. Because of the importance placed on the development of such a front end knowledge and technology, DEMOKRITOS had gained high esteem among the scientific community of Greece in the 60’s making the selection of the scientific personnel quite competitive. Despite this constrain, some very brilliant and determined women managed to be among the scientific community of DEMOKRITOS and contributed in the evolution of the Center. As the “nuclear idea” has declined in the 80’s, DEMOKRITOS has been transformed into a multidisciplinary research centre, still the largest in Greece, performing R&D in the area of physical sciences and technology (www.demokritos.gr) in domains ranging from Informatics and Telecommunication to Material Science, Biology, Nuclear Physics and Nuclear Technology- Radiation Protection. It employs about 600 permanent and fixed-term-contract employees, while the men/women ratio in both scientific and technical staff is quite balanced nowadays.

1. INTRODUCTION

1.1 HISTORY

The National Centre of Scientific Research "DEMOKRITOS" was founded at the end of the 1950s, as a decentralized public service and was initially named Nuclear Research Centre "DEMOKRITOS".

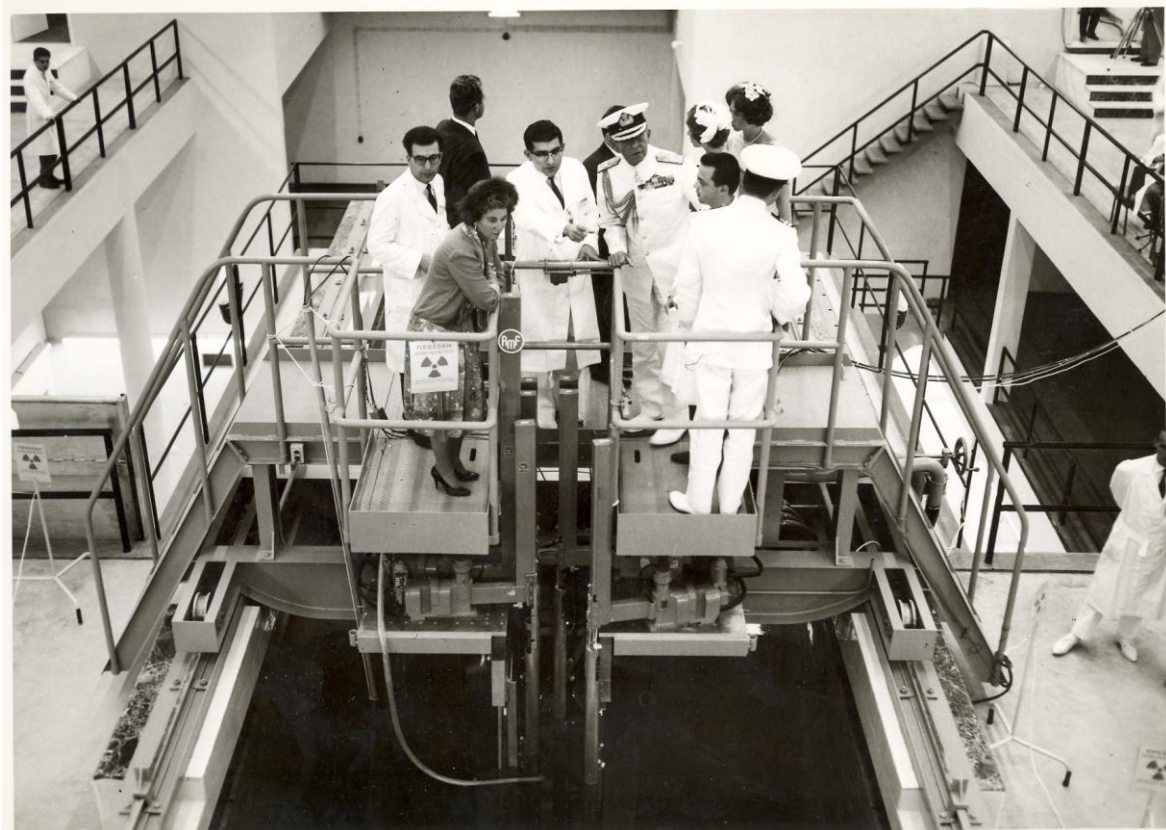
The initial aim of the new centre was the utilisation of the advantages of nuclear energy for peaceful aims. Within this framework, and for the first time in the contemporary history of Greece, the repatriation of many Greek scientists emerged. These scientists gradually developed the structures and the organisation of scientific research in the country and participated in the configuration of the Centre as a really pioneering multi-branch one.



Picture 1 The Nuclear Research Centre "DEMOKRITOS" in the 60's

More specifically, in October 1952 the initiative has been undertaken for the foundation of the Greek Atomic Energy Authority (EEAE), as a result of the recent participation of Greece in the European Centre for Nuclear Research (CERN 1951-1952). The special committee appointed for this purpose had as its president an army General (Ch. Drivas), and as executive secretary the Professor of Physics in Athens University, Th. Kouglioumzelis. Among the first actions of the newly formed committee was to select a number of promising young scientists (among them some women) and send them as grantees to universities in the USA and Europe, so as to obtain a background in nuclear science and engineering.

The agreement between the Greek government of the time (Prime Minister K. Karamanlis) and the USA government for Greece to accept the donation of 6 kg of Uranium together with the amount of 350000 US dollars gave significant thrust to the construction of the new Experimental Nuclear Reactor in the country. The type of the reactor selected was similar to the ones already working in Munich, Germany and in Israel, manufactured by the American company AMF.



Picture 2 Inauguration of the Nuclear Reactor in the Nuclear Research Centre "DEMOKRITOS" by the then royal couple on Greece, July 31, 1961.

For the new reactor installation a lot of land has been allowed by the ministry of agriculture at the base of mount Hymettus, in the region of Aghia Paraskevi, covering a surface of about 60.000 sq meters.

From this point onwards a titanic effort (for the capabilities of Greece at the time) has been undertaken by the members of the EEAE to implement all the project of the construction of the first Greek nuclear reactor. Most experienced Greek engineers and University Professors of the time have contributed to this project and among them several women worked either as architects or as translators to allow the communication among Greeks and the foreign consultants.

For the setting off of the Reactor Greek scientists working abroad, like K. Laskaris from Phillips the Netherlands, were inspired to return home and undertake the unique project of start up, which took place on July 31, 1961. Around this date another eminent Greek scientist of the time, Themis Kanellopoulos, quitted his job in CERN and was appointed as Scientific Director of "DEMOKRITOS" aiming mainly at the organisation of a library at the Centre and at the invitation of young scientists from abroad (among them several women), so as to form a competent personnel structure for the accomplishment of the Centre's mission. In parallel, he encouraged scientists working already in the Centre to go abroad so as to elaborate a Doctoral thesis in areas related to Nuclear Science and Technology.

All this concerted effort led to the creation of both the Nuclear Research Centre "DEMOKRITOS" and the first post graduate studies Centre in Greece, namely the Centre for higher Natural Sciences and Science Philosophy.

The culmination period of this effort was around late 70s, when still there was a discussion about the installation of a nuclear power reactor in Greece. However, the "nuclear idea" has declined in the 80's and DEMOKRITOS lost its initial focus.

1.2 LATER PERIOD

In 1985, the Centre was renamed in National Centre of Scientific Research "DEMOKRITOS" (N.C.S.R. "D") and became a self-administered governmental legal entity, under the supervision of the General Secretariat of Research and Technology (G.S.R.T.) of the Ministry of Development. It has been turned into a multidisciplinary research centre, still the largest in Greece, performing R&D in the area of physical sciences and technology (www.demokritos.gr).

Nowadays, the scientific activities of the Centre take place in eight administratively independent Institutes: Institute of Nuclear Physics, Institute of Nuclear Technology and Radiation Protection, Institute of Materials Science, Institute of Telecommunications and Informatics, Institute of Microelectronics, Institute of Physics/Chemistry, Institute of Biology and the Institute of Radioisotopes and Radiodiagnostic Products.

The activities of these Institutes concern sectors such as: nanotechnology, microsystems, integrated telecommunications and informatics technology systems, modern technologies for cultural heritage, control of environmental pollutants, nuclear technology and radiation protection, accelerative systems technologies and detector devices, generation and characterization of innovative materials, bioactive molecules, natural products and biotechnology, medicines and diagnostics technologies, telemedicine, etc.

It employs about 600 permanent and fixed-term-contract employees, while the men/women ratio in both scientific and technical staff is quite balanced nowadays.

The a green campus of DEMOKRITOS (after a systematic pine trees plantation in 1960) is 10 km away from the center of Athens and 10 minutes away from the new Eleftherios Venizelos Airport, making it readily accessible to all its domestic and international partners.



Picture 3 The NCSR “DEMOKRITOS” today

2. PERSONEL IN NCSR DEMOKRITOS

2.1 FROM 1960 TO 1978

According to the personnel archives of the NCSR DEMOKRITOS in the early period of the Centre (1960-1978) a total number of 1380 employees have been assumed of all specialties, ranging from scientists and engineers to foremen and technicians. Most of them served in the Centre until their retirement in the early 90s. The percentage of women in this staff was quite high since the settling off of the Centre varying from scientist and engineers to specialised technicians, secretaries and cleaning personnel. Actually, figure 1 gives the percentage of men to women working in DEMOKRITOS in this period, figure 2 gives the percentage of men scientists to women scientists in the same period, while figure 3 presents a breakdown of the various specialisations of women working in DEMOKRITOS in the same period.

The scientific community of DEMOKRITOS of this time was highly esteemed and recognised by the rest of the Greek society and had a financial status superior to the rest of public employees, while it was considered an honor to work in the

premises of the Centre. According to the sayings of old women scientists, there was no discrimination between men and women, and the latter were well received by their male colleagues. Owing to its special status, the personnel of DEMOKRITOS at the early period was not allowed to form neither a workers' union, nor a scientific association of its members. It was only at the early 70's when scientists working at the Nuclear Research Centre DEMOKRITOS created a scientific association registered at the Law Court of Athens with the aim to evaluate its members and decide on their career evolution. This was the preamble of Law 1514 of 1985, which gave to DEMOKRITOS its present form and for which women scientists struggled equally bravely with their male colleagues.

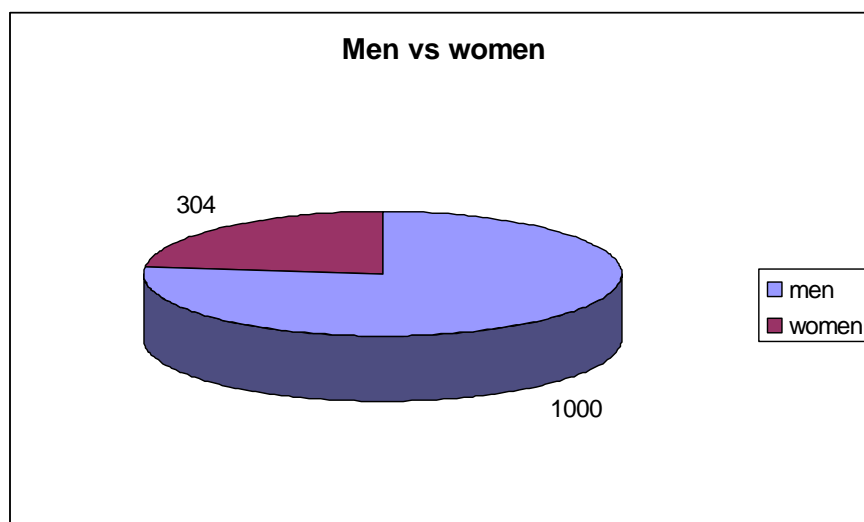


Figure 1 Ratio of men to women working in DEMOKRITOS in the 60's

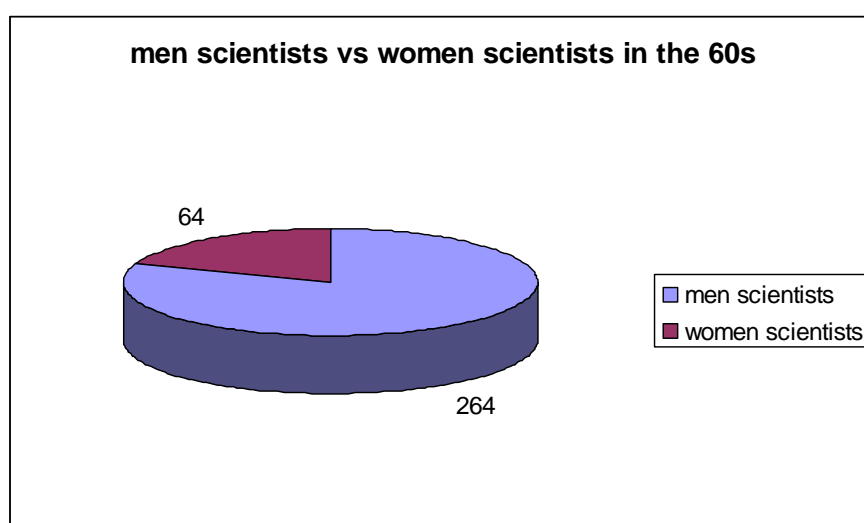


Figure 2 Ratio of men scientists to women scientists working in DEMOKRITOS in the 60's

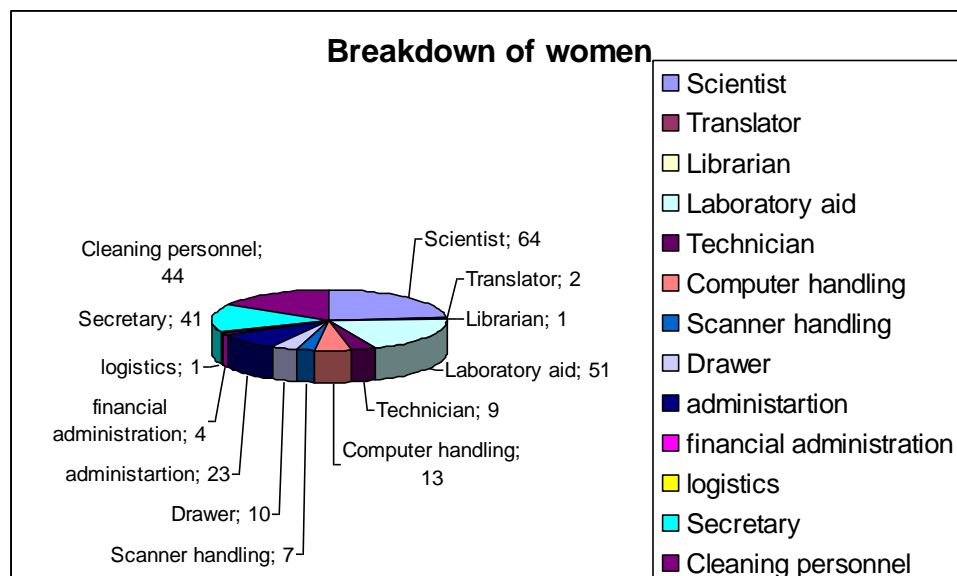


Figure 3 Breakdown of women working in DEMOKRITOS in the 60's

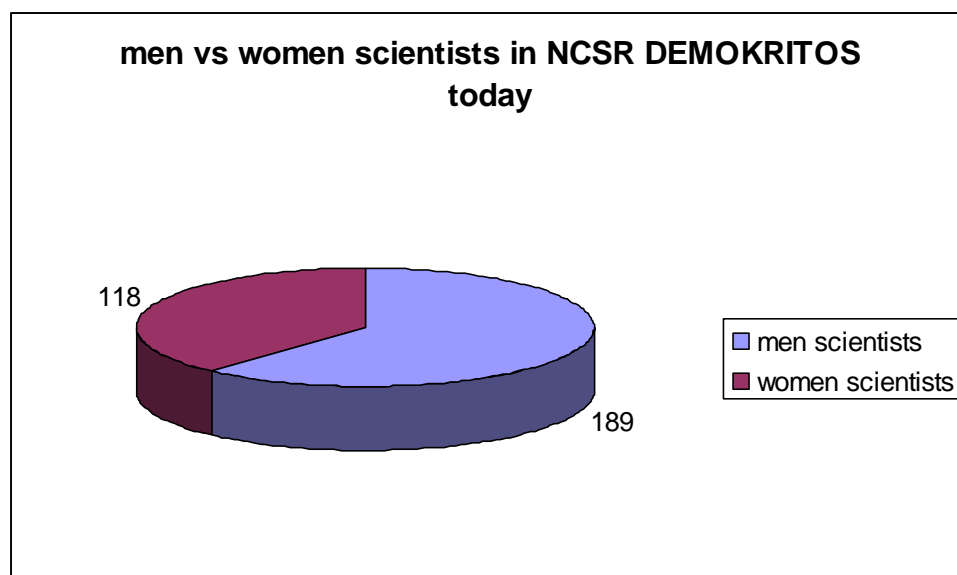


Figure 4 Ratio of men scientists to women scientists working in DEMOKRITOS today



Picture 4 The Library of NCSR "DEMOKRITOS" in the 60's





Pictures 5, 6 & 7 Women scientists and laboratory aid at NCSR "DEMOKRITOS" in the 70's

2.2 FROM 1985 ONWARDS

After the passing of Law 1514 in 1985, men and women scientists filled the positions of the new organigramme of DEMOKRITOS.

In the first place these positions have been filled through the evaluation and placement of all scientists serving till the re-organisation of the Centre. After this milestone, positions have been filled through the open call to the entire scientific community in areas that are currently elaborated in the Centre. In the early 90's there has been a good refreshment of the scientific staff of DEMOKRITOS mostly with young scientists coming from abroad. Figure 4 presents the number of men and women scientists in the Center in the current period. One could notice in this figure that men scientists still outnumber women scientists, but this may be attributed to the fact that still less women than men choose to study natural sciences

However, in the present time, the Centre suffers from understaffing owing to the general financial situation of Greece, as it is state owned. Major efforts are being done to cover this lack in resources from European projects funding, which, though, is becoming a constantly harder exercise.

3. EPILOG

National Centre of Scientific Research "DEMOKRITOS" is among the pillars of scientific research in Greece having developed expertise in domains than are crucial for the technological development of Greece.

In addition, it has always been a working place of no discrimination for women scientist, especially in times, when this statement was not that straightforward.

LITERATURE

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