

RESEARCH IN MALTA

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THE history of material progress is almost synonymous with the history of research. Though the accidental has played its part in the development of the various civilizations, much has been the result of painstaking study, reflection and experiment, whether by humble artisans or by university professors. The highly advanced technological societies of the West owe their prominence to the encouragement they have given to the research worker, whilst the endless technological experimentation chronicled so admirably by Joseph Needham was responsible for the richness and strength of China in ancient and medieval times.

Never has so much research been carried out as in our own times. Some of it is highly complex, particularly that on fundamental problems in physics, chemistry and biology. This type of research often calls for large teams of research workers and very costly equipment: only countries with considerable resources can afford to support it, so it is not surprising that most major discoveries are made by scientists in the U.S.A., U.S.S.R., Western Germany, Great Britain, Japan, and a few other countries. Besides research of this type, there is an ocean of less basic but still highly important work to be done, and this is where the powerful and wealthy countries have never had a monopoly.

Hitherto, Malta has not distinguished herself by her contributions to knowledge, theoretical or applied. Such names as those of Sir Themistocles Zammit, Count Luigi Preziosi and John Borg in the past and two or three others at present, are all too exceptional. The dearth of research work, other than of the enumeratory kind in the biological sciences and antiquarian research of the old-fashioned kind, in the past is not difficult to account for. Maltese artisans and architects frequently had to face competition from foreigners and, worse still, to ape foreign methods to gain the favour of the foreign rulers of the time and of the wealthy Maltese patrons, always ready to look down on anything bred in Malta. Moreover, few people capable of creative research found much encouragement or had sufficient time for it. Maltese physicians and surgeons have a long tradition of being overburdened with

work, and until recently our University never had full-time teachers in the medical Faculty. The sorry state in which Science teaching was until recently at all levels of our educational system goes far towards explaining the near nonexistence of scientific research in this country until the past ten years or so.

The picture today is not, of course, half as discouraging as it was, say, even as recently as 1960. One of the reasons is the re-birth of our University, its gradual transformation from what the unkind termed 'a glorified secondary school' into the respectable institution it is today, staffed by a new generation of scholars with research degrees from the best British and American Universities. Another possible reason is the attainment of political independence and the concurrent realisation that henceforth Malta must forge ahead under its own steam. The artistic and literary renaissance of the late '60's and early '70's was accompanied by increased research in the field of Maltese history and the first attempts at research in the social sciences.

There is little about which to be complacent, one ought to add immediately. The University Reports for recent years list the publications – the record of research carried out – of its teaching-staff, so it is easy to find out what is being produced in this institution. The most prolific Faculty is undoubtedly Medicine, followed by the Faculty of Arts, and that of Science. The Polytechnic and the College of Education seem to produce nothing, or next to nothing; at least, they do not seem to publish much. There are, of course, no research institutes, such as are common overseas, and those few governmental and industrial bodies with laboratory faculties and research officers are engaged solely in routine analyses and investigations, or else prefer not to publish their findings. There are then individual research workers, mostly enthusiastic amateurs but some of them worthy of the highest praise, in the field of botany, zoology, Maltese history, and literary history. A few of these have produced work of great value: Father Michael Fsadni's trilogy of books on the Dominicans in Malta has become fundamental for any scholar working on our history, and particularly on our ecclesiastical history.

Maltese research workers, like those in other countries, must work within the limitations set up by laboratory and library facilities, funds available for new equipment and supporting staff and, in some field, the availability of primary research materials. Presumably, the laboratories in the University's Faculty of Science, including the new ones at the Marine Biological Station, and those

at the Polytechnic are reasonably adequate, but the most familiar sound at Tal-Qroqq is the wail of the dedicated research worker who wants an expensive piece of equipment and is told he cannot get it. The University's income from State funds enables it to give limited support to research and even less to publishing, so extensive projects have to seek very often funds from foreign or international foundations or other bodies. Thus the work being carried out in the Department of Physiology and Biochemistry has received substantial grants-in-aid from the Nuffield Foundation, and Britain's Overseas Development Administration has been another important source for the support of research projects. Another way of exceeding local boundaries has been to collaborate with departments in foreign Universities engaged in the same field. Thus the Department of Maltese has been engaged in a dialectal survey in conjunction with the Department of Semitic Languages at Leeds University, and the Department of Physiology and Biochemistry's research project on abnormal haemoglobins in Malta is being carried out in conjunction with the Medical College of Georgia which agreed to support a Research Fellowship in Malta for this purpose.

A serious disadvantage faced by the highly specialised research worker is the dearth of good libraries and the lack of libraries with specialised collections. The only libraries with fairly large collections are the Royal Malta Library and the Royal University of Malta Library, and even their collective resources are highly inadequate if one considers that even scholars in countries with such excellent libraries as those of Great Britain have from time to time to call upon the resources of foreign libraries. In any case, the Royal Malta Library is solely for the humanist: scientists have to rely entirely on the University library. This library can afford to subscribe to fewer than one thousand periodical titles, and though a high proportion of its funds are spent on science periodicals, specialist coverage is often very thin. On the other hand, the main abstracting journals, like *Chemical abstracts* and *Physics abstracts*, are received by this library: they are very good tools for the research worker to trace relevant literature and then obtain it in Xerox form, through the University Library, from the British Library Lending Division in Yorkshire, whose service is normally very efficient. On a few occasions, the University library also helped scientists with requests for computer searches in Britain. Malta does not possess a computer to which her research workers can have access.

For primary materials, the historian and the social scientist are placed best of all. The historian has an abundance of archival material to draw upon for some periods in our history: other periods, like the Arab period, are notoriously undocumented in this country. The social scientist is just as well off, having a good range of statistical publications to work on, and almost virgin territory to explore. Both the historian and the social scientist do find it difficult at times, however, to make comparative studies with other countries, because of a dearth of published foreign sources in Maltese libraries.

The Maltese research worker has also to face a difficulty with which foreign scholars are also familiar nowadays. He finds that his research is regarded in official, fund-providing circles, as being 'unproductive' and thus an unworthy recipient of public monies or even of monies administered by private organisations. It is hardly surprising that the research workers in the various technologies, including medicine, and in some of the social sciences, such as economics, find it much easier to convince the holders of the purse-strings of their work's social relevance, than it is for someone in many fields of pure science, or in most arts subjects.

In a way, this difficulty is the basic one, particularly for those doing research in the institutes of higher education, all of which are funded either completely or to a large extent by the State. This is understandable in a country which is far from wealthy, but there is an obvious danger to research which may subsequently be of great practical importance, although this may not be evident at the moment. Still, it is difficult not to give priority to work which may have direct, beneficial influence on the agricultural, industrial or social development of the country. Part I of the Dahrendorf Report on the University spoke of the need for the 'identification of the needs of the country and the society of Malta as they become relevant to developments in higher education' and of the 'initiative of new developments within the fields of training and research ... and phasing out of activities which are no longer relevant'. It ought to be one of the main functions of the newly set up Council for Higher Education to provide a forum for the discussion of the country's needs in the various public and private spheres, for the State is represented on this Council by senior civil servants from various Ministries who can put forward governmental views on aims towards which research ought to be directed, whilst the three institutions of higher learning, represented by

their Heads, can comment on feasibility and put forward their institutions' views regarding the priorities desired. Only dispassioned, objective discussion at this level can ensure that the best possible decisions are reached. Alternatively, an independent body could be set up, on the lines of France's *Centre Nationale pour la Recherche Scientifique* (C.N.R.S.), which would consider requests for support of research projects not only from Higher Education but from all sectors. This body would have to administer its own funds, and would have to be composed of first-rate academics, as well as civil servants, representatives of industry and of trade unions. The sources of the funds should not be solely public: it is in private industry's interests to supply part of them. The C.N.R.S. in France does a considerable amount of publishing of research and thus makes it possible for works to be published which would never have been looked at by a commercial publisher. Something similar is badly needed in Malta. The present system of awarding sums of under £M100 to one or two books a year (which need not be research works at all) is praiseworthy, but grossly inadequate. The funds available for publishing by research workers at the University are also too small. The Gollcher Foundation also subsidises scholarly publications, but has done very little so far.

Once clear objectives in the national research policy have been set up, it is necessary to take steps to reach them and to direct one's main resources and energy in that direction. Presumably, research projects will have been costed, though obviously without certainty of accuracy, before they are approved, and each approved project will have its budget, with headings for research staff, equipment, books, purchase of microfilms and/or Xerox copies, and (in certain cases) travel.

Apart from subsidising individual projects within the framework of a national research policy, the State should also take measures for the strengthening of the country's library network. Whilst administrative centralisation would be highly detrimental to efficiency, a central policy-making body would be beneficial, for though some libraries have made informal attempts to cooperate, systematic measures are possible only if there are clear directives and, more important yet, funds made available to carry them out. Thus, the existing agreement between the Royal Malta Library and the University Library for the cooperative purchasing of scholarly works has not functioned very well largely because the former's inadequate funds have made it difficult for that Library to carry

out its side of the agreement.

For the history research worker and for the social scientist, the centralisation of public archives in a Public Record Office would be a great boon. The papers published in the University publication, *Maltese history what future?* provide ample evidence for the need felt for such an institution, and for the benefits that would accrue from it. Such an institution, preferably with air-conditioned and dehumidified repositories, would for one thing save much of our precious archives from rotting away in the manner described almost macabrely by Godfrey Wettinger.

Little is known of the research, if there is any, being carried out in our industries. It is known, however, that one or two have research officers; a well-known brewery recently sent its research officer for postgraduate training in the chemistry of brewing in Scotland. If it should prove economically impossible for individual industries to finance entirely this research, which would enable them to improve their products, contributions to, say, a University department and cooperation between the factory's laboratory and that University department might be the solution.

What is needed above all is for more people and institutions to realise that if they want research tailored to their needs, it has to be done mostly in this country. Money spent judiciously on it, far from being wasted, ought to bring in rich dividends.