

**UNIVERSITY OF MALTA**  
ANNUAL REPORT 2004

## A Word from the Rector



UNIVERSITIES THE WORLD OVER are essentially a place for study, research, learning and formation. However, every university has its own different identity determined by its history, background and areas of excellence. Universities also have a geographical dimension which makes them part of a country and separates them from neighbouring countries. A university is defined not only by what it is but also by where it is.

The University of Malta is one of those institutions that has multiple facets determined by its historical ties and its geographic location. It can be considered as one of the universities in Southern Europe, or a university on an island that is also a nation, or as one of the Commonwealth Universities. However, first and foremost, it must be defined by its region and this precisely because it lies in the heart of its region. This perspective is currently being emphasised and given great importance in the field of education and will probably lead to further political measures being adopted. Malta has both natural and historical advantages that ought to result in its university taking on a regional role.

The University of Malta's rich and chequered history has shown for some time that this is its natural vocation. Within the confines of this region, various traditional disciplines which could be advantageously exploited were identified. All aspects of university life participated in the country's Mediterranean identity as well as in the academic life of the whole region. Academic contacts, certain programmes of regional studies, formal as well as individual exchanges that since accession to the EU are constantly increasing, the actual orientation of various areas of study and research, these are all aspects of our University's Mediterranean dimension which have, over the years, been developed out of a sense of duty and pride. This came about in a natural and organised manner. The University acknowledged this Mediterranean dimension, even within the compass of its Strategic Plan both because this is already a reality and in order to further develop this important aspect. That the University of Malta features prominently in Mediterranean bibliography bears witness to this. It is at once a source of satisfaction as well as encourages us to face tomorrow's challenges.

Today, the notion of "regionality" is being developed and appreciated more than ever before. "Regionality" is not just a concept or a project, but is also a known political and cultural reality. Within the political framework of the European Union, the idea of "regionality," more so than ever before, is receiving wider recognition and support. Collaboration between universities in a region is a useful opportunity and constitutes a basis for teaching, study and research to continuously be converted into better means of understanding, appreciation and peace among nations.

Our University has much to offer to universities in the region. It is in itself a real and historical document, a synthesis of cultures, a disparate joining together which engendered the characteristics of a whole nation. It is also a reflection of the characteristics of an entire region. Our University has always believed in its international dimension from which it also drew its inspiration in the formation of our nation's identity which gives it its credentials on the international stage.

In this edition of UoM's Annual Report, we publish the Oration given by Dr Carmel Borg, Dean of the Faculty of Education, on the occasion of Graduation 2004. His discourse entitled: *The Public University and Market Hegemony – International trends and implications for the future of the University of Malta* shows how the dictates of the global market have placed the public university in a situation where its foremost objective is to reconcile the logic of profit and social service rather than focussing

on the importance of quality as an essential factor in tertiary education. He also insists that in order to compete in the international arena, real autonomy is a pre-requisite for the development of the public university.

Dr Carmel Cassar, a social anthropologist, in his article *Why Anthropological History?* looks at the various approaches available to the historian when researching a topic of historical interest. He states that since history deals with all aspects of human existence, the researcher should experiment with different methods in order to appraise the period being studied holistically.

Professor Alex Felice writes about the significance of the production of haemoglobin in the human body, briefly outlining the development of his interest in the field as well as dwelling on the thrust of his research over the years. Dr Charles V. Sammut from the Department of Physics, discusses the findings of a survey he conducted of electromagnetic fields from mobile phone base stations.

Dr John J. Schranz is interviewed about E-Maps, an innovative European Masters Programme in Performer Studies which he originated. Stefan Aquilina who interviewed him was, at the time, the E-Maps Programme Administrator.

Dr Ing David Zammit Mangion from the University's Faculty of Engineering outlines the details of an EU funded programme he is involved in, by which research seeking to enhance avionics design will lead to improved aviation safety.

Professor Lino Briguglio profiles the University's Gozo Centre of which he is Director. Since its inception, its role has evolved from that of purely dealing administratively with the needs of Gozitan students studying on the main campus. Over the years, various courses have been conducted and the Centre has become a sought after venue for conferences, seminars and workshops.

In conclusion, whilst thanking all the contributors, I would like to congratulate Dr Mark W. Smith who was Visiting Fulbright Senior Scholar in 2003 and whose contribution to UoM's Annual Report 2003 has since won him an *Outstanding Career and Technology Education Writers Award* on his return home.



Roger Ellul-Micallef  
*Rector*

## Round-Up 2004

### January

The Malta Centre for Restoration and the University's Institute for Masonry and Construction Research organized a Management Meeting of the European Programme COST Action G8 *Non-destructive analysis and testing of museum objects*. Within this framework, a one-day workshop was held, entitled: *Benefits of non-destructive analytical techniques for conservation* with presentations by well known European experts in the field.

Dr Karl Gwinnutt, Consultant Anaesthetist, Hope Hospital, Manchester, UK was visiting lecturer in the Department of Surgery. In the course of his visit he gave a public lecture on *Current Concepts in Cardiopulmonary Resuscitation* as well as lecturing medical students on the *Management of the trauma patient* while the subject of a specialist lecture for anaesthetists was *Anaesthesia for total hip replacement surgery*.

The International Ocean Institute - Malta Operational Centre in collaboration with the Malta Council for Science and Technology, organised a half-day seminar at the Corinthia San Gorg, St. Julian's entitled: *Trends in Marine Research and related developments - a challenge for Malta and its role in the Mediterranean*. The seminar sought to give an overview of the key issues and trends in Malta concerning marine research and related developments in marine affairs while assessing the potential role of Malta in the Mediterranean.

The Faculty of Education held its annual seminar: *Our Educators Our Future* which looked at trends in education and discussed the Faculty's draft strategic plan and models for future pre-service teacher training.

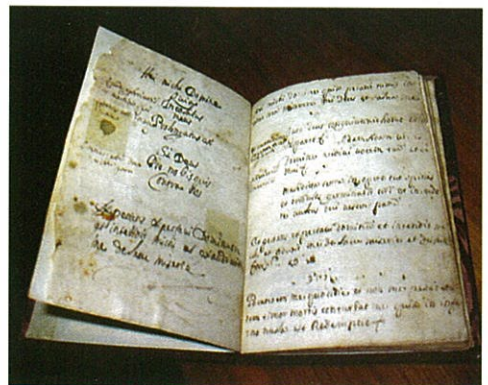
The *Teatro Vivo* (Cotignola, Ravenna) gave two *Commedia dell'Arte* performances: *Comici e Capocomici nella Commedia dell'Arte* directed by

Carlo Boso. This was part of the *Europa in Maschera* project which was brought to Malta by Theatre Traffic (a group which operates under the umbrella of the Mediterranean Institute's Theatre Programme (MITP)), in collaboration with the Manoel Theatre.

Professor Robin Trew and Professor Eyvor Fogarty from the University of Westminster in London conducted a week-long in-service training course for language lecturers in the Faculty of Arts as part of the Diploma in Translation and Interpretation course. This focussed on *Bilingual Translation and Technical and Specialised Translation*. Their visit was sponsored by the British High Commission.



Professor Franco Lanza from *the Università degli Studi della Tuscia* at Viterbo and former Head of the Department of Italian at the University of Malta presented the University Library with a 17th century manuscript *Passionario* attributed to the Rev. Diego Grima, a Cathedral choir chaplain who lived between 1674 and 1723. The *Passionario*, which originally belonged to the late Dr. Victor Captur, gives a dramatic representation of the Gospel narrative of the passion and death of Christ



and is basically a late rendering of a long-standing literary tradition going back to medieval times. From a philological point of view, the Grima text is particularly interesting in the contrasts between the polished Tuscan Italian as spoken by the leading characters of the narrative, and the dialectal rendering of lower class apostles, the crowd and the holy women.

Every year, the Junior College Biology, Philosophy and Physics Departments organise Weekend Seminars for students studying these subjects at Advanced Level. These are normally held at some hotel or other venue external to the College and students are accompanied by three members of staff. The Philosophy department chose the topical issue *Understanding the Refugee* for their weekend seminar held in January. The 2004 Biology Seminar held in March dealt with *Bioethics* while at a value education weekend held in November by the Physics department *The Impact of Scientific Discoveries' on Society* was discussed.

## February

Professor Luigi De Anna from the University of Turku, Finland, delivered a lecture on *Language and Identity in the Literature of Finland* when he visited the Department of Italian in early February. Having been subjected to domination by foreign powers, various parallels can be drawn between Finland and Malta.

Dr Jason Lamprianou, CFAS, School of Education, University of Manchester, was invited to conduct a workshop which served as a practical introduction to test/questionnaire development and analysis using Rasch models: Instrument development, Test equating and Disagreement of Markers. This was organised by the Institute for Physical Education and Sport in collaboration with the Faculty of Education.

4th year Accountancy students organised a seminar entitled: *Management Accounting*

*Practices in the New Millennium: An overview of the scenario/s unfolding in our island home.* After having conducted a detailed analysis of the Management accounting practices within a number of local firms chosen from various sectors of the economy, the students presented their findings to the audience. The presentations focussed mainly on a description and evaluation of the traditional and contemporary Management Accounting techniques used by local concerns to gather the quantitative and qualitative information required to aid management in areas of decision-making, planning and control. The event was sponsored by KPMG, HSBC and APS Bank. The Association of Students of Commercial Studies (ASCS), the Faculty of Economics, Management & Accountancy's student organisation, also supported this event.

Angelo Dalli and Nicholas Sultana, two members of the Department of Computer Science and Artificial Intelligence, each received a T-shirt bearing the inscription "Microsoft Genius," free software and a letter inviting them to participate in Stage 2 of the *Microsoft Imagine Cup UK*. Out of all UK participants, 150 pass stage 1 into stage 2. Angelo Dalli is reading for a PhD at the University of Sheffield, whilst Nicholas Sultana, a third-year undergraduate reading for a BSc IT (Hons) degree was on a Socrates exchange at the University of Kent.

The Islands and Small States Institute, Foundation for International Studies, in collaboration with the Commonwealth Secretariat and the University's Economics Department organised a symposium on Economic Competitiveness on the occasion of the launching of a recently published book entitled: *Maximising Malta's Competitiveness Potential*. The book is the outcome of a collaborative project between the Commonwealth Secretariat, the Government of Malta and the University of Malta. It draws on very useful contributions by a number of business organisations, employee unions, public officials and individuals interested in economic

competitiveness issues and can be considered as a case study in promoting constructive social dialogue on an issue of major importance for small states.

Professor Alain Blondy, professor of History at the *Université de Paris-Sorbonne* (Paris IV) gave a series of lectures under the general title *Histoire de la France*. The aim of these lectures was to provide background knowledge of the evolution of France in order to better situate its literature, philosophy and art in a historical context.

Madame Lise Sabourin, Professor of French Literature at the *Université Nancy II* and a specialist in 19th and 20th century French poetry in which field she has published a number of books and articles, gave a lecture which focussed on the period from Baudelaire to Lautréamont. This was organised on the initiative of the *Conseillère de Coopération et d'Action Culturelle* and Director of the *Alliance Française de Malte*, Madame Anne Lewis-Loubignac in collaboration with the Department of French.

The History of Art Programme within the Faculty of Arts, in collaboration with the Embassy of the Italian Republic and the *Istituto Italiano di Cultura* welcomed Professor Pier Paolo Pancotto from the *Università La Sapienza*, Rome as visiting guest lecturer in Modern and Contemporary Italian Art. In addition to his academic association with several Italian Universities, he is advisor to the *Galleria Nazionale d'Arte Moderna*, Rome and is a leading art critic and historian.

The Malta College of Pathologists in conjunction with the University's Department of Pathology organised a dinner at the Malta Hilton on the occasion of the 10<sup>th</sup> anniversary of the Foundation of the College. The guest speaker was Dr. Natasha Muscat Azzopardi and her presentation which was entitled *Malta: A member state of the European Union – Implications for Pathologists* engendered much discussion.

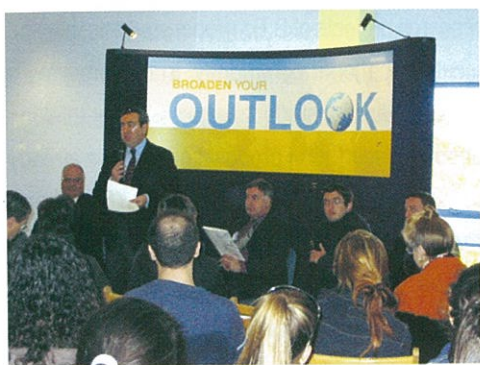
Malta born Professor David Plowman from the Graduate School of Management at the University of Western Australia gave a public lecture entitled: *Echoes of a Distant Policy: Child Migration from Malta* under the auspices of the Department of Public Policy, Faculty of Economics, Management & Accountancy. This is the story of hundreds of children who were migrated from Malta without their consent and sent to institutions in Australia during the 1950s. It was a policy that originated in Britain and which has been making the headlines in the past two years as these former child migrants make their voices heard. Professor Plowman was himself a child migrant from Malta and today chairs the association of Child Migrants of Malta in Australia. His latest publication, *Enduring Struggle*, deals with the history of the child migration institution in Western Australia which he attended. In addition, he is a distinguished academic who has held a number of teaching positions at several universities in Australia. He has published extensively in the field of industrial relations which is his area of specialisation.

Under the auspices of the Department of Italian in conjunction with the Italian Cultural Institute, Professor Massimo Vedovelli from the *Università Per Stranieri di Siena* lectured on *La linguistica acquisizionale vs Glottodidattica*.

The 8th Annual Work in Progress Seminar Series was launched and had as its main theme *Understanding Cultural Diversity*.

On the occasion of her state visit to Malta, H.E. Professor Vaira Vike Freiberga, President of the Republic of Latvia, gave a lecture entitled: *The Role of Small Member States in an expanded E.U.* at the Aula Magna, Foundation for International Studies.

Launch of applications for students interested in participating in the Socrates-Erasmus Programme during the academic year 2004/5. Each year the number of beneficiaries has increased and this



year some 400 placements were available for University of Malta students to choose from. The activity was addressed by the Hon. Dr. Louis Galea, Minister of Education who also gave information about Malta's participation in the *Tempus* and *Erasmus Mundus* Programmes.

H.E. Mr Neil Kinnock, Vice-President of the European Commission and Commissioner Responsible for Administration Reform, lectured at the University on *Malta, the European Commission and Enlargement* when he visited Malta.

The Institute for Masonry and Construction Research welcomed Professor May Cassar, Director of the UCL Centre for Sustainable Heritage, and Dr Nigel Blades, Development Officer, as Visiting Lecturers within the programme leading to the award of an M.Sc. in Conservation Technology for Masonry Buildings. This visit involved three days of intensive lectures, discussions and practicals for the postgraduate students attending the course. Practical sessions with Dr Blades included the monitoring of NO<sub>2</sub> inside and outside the Old University Building in Valletta, with the kind permission of *Heritage Malta*, whose headquarters are based there. During her visit, Professor Cassar also gave a Public Lecture at the headquarters of *Heritage Malta* on *Rethinking Conservation*. This well attended lecture discussed whether the interpretation of conservation needed to be more inclusive; that the barriers between the conservation of the built heritage and the natural environment are artificial and that conservation of the whole context - the cultural landscape is a far more appropriate interpretation of what we do.

The Institute also had the pleasure of welcoming Professor Lorenzo Lazzarini from the *Istituto Universitario di Architettura di Venezia*, Italy (IUAV), who also lectured within the postgraduate programme run by the Institute. Professor Lazzarini is a specialist in Applied Petrography at the IUAV and Director of the *Laboratorio di Analisi dei Materiali Antichi* (L.A.M.A.) of the same Institute. During his visit, Professor Lazzarini gave lectures to the Institute's postgraduate students on processes of stone deterioration. He also gave a Public Lecture on *The most important coloured marbles used by the Romans*. A member of the Scientific Council of the Association for the Study of Marbles and other Stones in Antiquity (ASMOSIA), Professor Lazzarini is internationally known as one of the foremost experts in the study of Roman marble. His lecture, organised in collaboration with *Heritage Malta*, was extremely well attended. A magnificent journey, lasting almost two hours, took the audience to ancient monuments built by the Romans, to the numerous quarries of coloured marble situated all around the Mediterranean and which were used by the Romans and to the Classical Period when Roman marble was extensively reused.

H.E. Professor Guido de Marco, President of Malta delivered the Inaugural Lecture of the Institute for Maltese Studies which had as its title: *My Vision of Malta*. The Institute for Maltese Studies, set up as an interfaculty initiative, is one of the newer entities of the University of Malta. Its chief objective is to promote the pursuit of interdisciplinary academic studies and research on various aspects of Maltese culture and civilization in their widest manifestations. In this way, it hopes to serve as a focal centre for both local and foreign scholars involved in such research.

Dr John A. Schembri from the University's Geography Programme, Mediterranean Institute gave a talk on: *Historical Geography of Settlements in Malta* under the auspices of the *Malta Geographical Society*.

Professor Ivan Gutman from the University of Kragujevac, Serbia & Montenegro lectured to students and staff of the Departments of Mathematics and Chemistry on the History of the Interplay between Mathematics and Chemistry; Applications of Graph Spectral Theory in Chemistry and Chemical Applications of Graph Theory.

Professor François Moureau, professor of eighteenth-century French literature at the *Université de Paris-Sorbonne* (Paris IV) and Director of the *Centre de Recherche sur la littérature des voyages* (CRLV) gave a series of lectures in French under the general title *La Littérature française du Siècle des Lumières*.

A workshop for Theatre Studies students was held. This was conducted by Luca Silvestrini, choreographer of *Publife*, coordinated by *Koperattiva Kulturali Universitarja* in collaboration with Dr Giselle Miggiani and Dr Vicki Ann Cremona of the Theatre Studies Programme.

Dott. Guilio Selvaggi and Roberto Devoti, from the *Istituto Nazionale di Geofisica e Vulcanologia* (INGV) Rome, delivered a presentation entitled: *GPS constraints on the present-day kinematics of the Tyrrhenian Sea and surrounding regions*. The seminar was held in connection with the installation of a fixed GPS station on Malta as part of a Central Mediterranean network designed to study plate motions in this region and also included a talk about larger scale application of GPS regarding global scale problems.

The Mediterranean Master's in Human Rights and Democratisation Programme organised an International Conference on Women's Human Rights: *Women in the Southern Mediterranean - Human Rights Issues in Islamic-Culture Countries*.

Once again the Department of Maths, Science & Technical Education, Faculty of Education, hosted the *DMSTE Dissertation Showcase 2004*. The annual event is an opportunity to share the

research projects of B.Ed.(Hons) students with the local educational community. It also provides a bank of ideas for students who are either thinking about a dissertation proposal or who are already engaged in a research project. This year's research themes included: an agriculture education educational pack; nutritional knowledge and practices of secondary school students; a geography teacher's resource pack; the investigative component in home economics; a portfolio for science teachers; 6th form students' and teachers' views of mathematics; computer teacher certificate courses in Malta and the US; students' achievement and science curricula; an environmental education software package; and teaching physics through history.

Margaret E. Melun, Information Resource Officer, United States Department of State gave two talks *Being a Librarian in the 21st Century* and *The Library of Congress: how it can be useful to Maltese Librarians* under the auspices of the University of Malta Library and the University's Division of Library & Information Studies, CCT, in association with the American Centre.

A cooperation agreement between the University of Malta and the Anhalt University of Applied Sciences, Germany was signed by the Rector of the University of Malta, Professor Roger Ellul-Micallef and the vice-President of Anhalt University, Professor Leo Schwaiger. This covers cooperation in the fields of landscape architecture, geographic information systems (GIS) and their application in Environmental Planning and Architecture and also comprises the exchange of information regarding teaching and research, staff and student exchanges and mutual academic support in identified areas of planning and architecture. Present at the signing of the cooperation agreement were Professor Denis De Lucca, head of the Department of Architecture and Urban Design and Director of the International Institute for Baroque Studies, Professor Erich Buhmann, Director of the Masters course of Landscape Architecture at Anhalt University and



Professor Andrea Haase, architect and city planner, who teaches Architecture in the Department of Architecture, Anhalt University.

A group of visitors from the *Japan-Malta Friendship Association* of Tokyo led by Mrs. Kazuko Sugimoto called at the University Library to present a number of books on Japanese life and culture, in an effort to promote a greater understanding of Japan in Malta. The twenty-four members of the group were on one of their biennial visits to Malta and were accompanied by the founder of the *Maltese Friends of Japan Association*, Mr. Edward Sammut.

Ms. M. A. Sacco Peterson, an Occupational Therapist from the Karolinska Institute in Stockholm lectured on *Struggles for Autonomy in Self-care: The Impact of the Physical and Socio-Cultural Environment in a Long Term care Setting* when she visited the Institute of Health Care.

At the invitation of the Department of Economics at the Junior College, Professor Knut Hanson, Lecturer in Computing & I.T from Hogskolen I. Buskerud in Norway, spent 6 weeks attached to the College lecturing in Computing.

## March

The Institute for Masonry and Construction Research welcomed as visiting lecturer another international expert, Ms Sandra Davison, an authority on glass conservation and author of the definitive work *Conservation and Restoration of Glass*. During her visit, Ms Davison gave lectures to the Institute's postgraduate students on the use, deterioration and conservation of ceramics and glass in ancient and historic buildings. The teaching sessions were followed by discussions on particular case studies (e.g. The Cosmati Pavement of Westminster Abbey and the medieval floor in the Tower of London). Ms Davison also gave a Public Lecture organised by the Institute in collaboration with *Heritage Malta*. The lecture,

*The Conservation and Restoration of Vessel Glass* illustrated in detail how glass objects, ranging from those recovered from archaeological excavations to historic items such as candlesticks, chandeliers and even a light bulb can be restored.

The 2004 Pharmacy Symposium, entitled: *A degree in Pharmacy - a key to improve lives* was held at the University. Forty-three final year students gave a presentation on the findings of their undergraduate project.

Under the auspices of *Din l-Art Helwa*, Professor Peter Vassallo, Head of the Department of English, delivered a public lecture entitled: *Confined to the Lazaretto: Byron and Newman in quarantine in early 19th century Malta*.

The Socrates-Erasmus Thematic Network organised a two-day *Mediterranean South East Dialogue* Workshop in collaboration with the Faculty of Laws.

To mark *2nd European University Day* the University Chaplaincy participated in a satellite connection with University Chaplaincies of most of the countries joining the European Union. His Grace Archbishop Mgr. Joseph Mercieca presided over Malta's prayer.

Dr Amr Mabrouk, an Associate Professor of Plastic Surgery in *Ain Shams* University who has a special interest in Coptic and Islamic architecture, gave a series of lectures including one entitled: *The Glory of Cairo*. His interest in this field is closely linked to the profession he carries out on a daily basis. He sees the validity of combining aesthetic beauty and structure with human appearance. Dr Mabrouk lectures in Egyptian History and contributes regular articles to *Al-Ahram* Newspaper in Cairo. Dr. Mabrouk's visit was organised by the Ministry of Education.

At the invitation of Professor Joe Eynaud, course coordinator, Professor Claudia Monacelli from Rome's *San Pio V* University conducted a week's

course on *Consecutive Interpretation* while Professor J.R. Gerard from Mulhouse University in France conducted practical lectures for students and staff of the Postgraduate Diploma in Translation and Interpreting.

To celebrate *International Women's Day*, *The Women's Study Group* organised a seminar on *Women in Decision-Making*. The Group works towards developing consciousness regarding women's social conditions and strives to achieve women's full participation in all aspects of economic, social and political life.

The Theology Students' Association organised the Annual *Conference* in honour of St Thomas Aquinas. The guest speaker for this year's academic evening was Professor Jos Jannsens sj, professor of Christian Archaeology at the Pontifical Gregorian University, Rome. He spoke on *Space in the Paleochristian Basilica: lights and colours*.

Professor Tim Lang, Professor of Food Policy at the Department of Health Management and Food Policy, Institute of Health Sciences, City University, London, UK gave a public lecture on *Food Policy Challenges for Malta on entering the EU* under the auspices of the Institute of Health Care while Professor Peter Jarvis, Professor of Continuing Education at the University of Surrey and adjunct Professor of Adult Education at the University of Georgia, U.S.A. gave a public lecture on *Practitioner Research*. He also addressed the *Philosophy Society*, the title of his intervention being *Towards a Philosophy of Human Learning: an Existential Perspective*.

On the occasion of the inauguration of the EUROCENTRE at the University of Malta Junior College, an international meeting of students and teachers from seven European countries including Malta was held. The seminar had as its theme: *Youth for a New Europe – Making a Difference*. This initiative was supported by the European Union Programmes Unit within the Ministry of

Education and the University's Socrates Office. The EUROCENTRE is to be responsible for the coordination of all E.U. programmes at the College.

Professor Bert De Vroom, Associate Professor in Sociology at the School of Business Public Administration and Technology University of Twente, The Netherlands gave a public lecture on *Ageing and Work: Concepts, Trends and Policies* under the auspices of the *European Centre for Gerontology*.

Professor Jean-Michel Delacomptée of the *Université Vincennes-Saint-Denis* (Paris 8), gave a series of lectures in French under the general title: *L'Art du portrait dans les lettres françaises au XVIIIe siècle* organised by the Department of French and the Embassy of France

*Bank of Valletta* once again sponsored the academic awards for the *Arts Dean's List 2004*. To feature in the Dean's List, students must achieve high grades and have completed 40 credits with straight "A's". Recipients of the award this year were Ms Jeannine Debattista, Ms Marija Grech, Mr Dennis Mizzi and Mr Justin Schembri who received book tokens whilst Ms Marija Grech, who was chosen by lot, was also presented with a study grant of Lm 200. Present at the ceremony were Mr Paul Gauci, Head of Training & Development at Bank of Valletta, Professor Dominic Fenech, Dean, Faculty of Arts and Professor Roger Ellul-Micallef, Rector of the University of Malta.

The Cleaner Technology Centre of Malta University Services Ltd. in collaboration with *WasteServ Malta Ltd.* organised a half-day seminar entitled: *Waste Separation: What's the Big Deal?!* Officials from WasteServ Malta and the Ministry for Rural Affairs and the Environment highlighted practical information on Sustainable Waste Management and its legal and economic implications. A case study of a local industry practising waste separation was also presented.

Dr. Irene Sciriha organised the *IX Collection* workshop at which established and potential mathematicians shared their discoveries. At such meetings, new ideas and counter examples to published results are presented while new problems are posed. Proceedings and refereed articles of original work have been published.

The *9th European Conference on Epilepsy and Society* was held in Malta. This is a unique conference that allows direct interactions between lay organisations for people with epilepsy and the health care professionals and neurologists involved in the treatment of people with epilepsy. This coincided with the *2004 National Epilepsy Conference* which had as its theme, *Focusing on Change*, and was organised by *Caritas Malta Epilepsy Association* in conjunction with the University's Department of Clinical Pharmacology and Therapeutics. Discussions were held as to how change could come about with regards to the management and treatment of epilepsy, through the sharing of experiences of people with this condition and highlighting developments in care and how to work for change.

*AEGEE - Valletta* in collaboration with *AEGEE - Europe's Human Rights Working Group* organised an international conference on the *Integration of Immigrants: End of the Road? Now What?* which took place at the Villa Rosa Castle in St Julians. Several distinguished local speakers addressed participants. The closing ceremony was addressed by Dr. Vincent Tabone, President Emeritus and a former Minister of Foreign Affairs.

The Department of Statistics and Operations Research, Faculty of Science, hosted two Visiting Lecturers who gave a number of talks in this field of specialisation. Professor Jaroslav Michalek from Brno University of Technology, Czech Republic and Professor Stein Wallace, Molde University College, Norway were guests of this department in the last week of March.

The Department of Chemistry, Faculty of Science organised the *Second National Chemistry Symposium*. These National Chemistry Symposia provide local and international chemists (especially younger chemists) with a unique opportunity to publicly present their work. This year's programme included a keynote presentation, a number of brief oral presentations and a networking poster session. The Symposium was sponsored by *Pharmamed Ltd.* (main sponsor) as well as LEVO Laboratory Services, ORME Laboratory Services, Mireva Bookshop, Agenda Bookshop on campus, Macpherson Mediterranean Ltd., Engineers' Centre, Laboratory Solutions Ltd., Institute of Water Technology, Bank of Valletta on campus and Camray Contractors Ltd.

A seminar on the *Genetics of Mental Retardation* was held to mark the official launching of the project on Mental retardation in Malta organized by the University of Malta's Department of Anatomy and the Department of Clinical Genetics at the *Università Cattolica del Sacro Cuore di Roma* and sponsored by the 5th Italo-Maltese Protocol and the Sovereign Military Order of Malta. The seminar aimed at promoting awareness on the recent genetic technologies being made available to individuals with mental retardation with the ultimate aim of developing strategies for the diagnosis and prevention of mental retardation. The seminar also encouraged a closer cooperation among health professionals, psychologists and teachers caring for individuals with mental retardation.

The Workers' Participation Development Centre and Friedrich Ebert Stiftung (FES) organised a series of tripartite seminars on *Ageing and the Labour Market* at The Crowne Plaza Hotel, Tigne.

The Department of French and *La Petite Auberge de France* celebrated *La Journée de la Francophonie* under the distinguished patronage of the Ambassador of France, H.E. Patrick Chrismant. This coincided with a week of activities

held worldwide marking the *9ième Semaine de la Langue française et de la Francophonie*. B.A. and B.Ed. students of French participated by reading various extracts. The event was very well attended by francophone students from different faculties, including French students on Erasmus/Socrates exchange programmes.

The Home Economics and Human Ecology Department at the Junior College participated in a Comenius Project with Wiesloch–Hockenheim School in Heidelberg, Germany. Some 20 Maltese and German students participated in this Project which involved reciprocal visits. In Malta, besides visiting places of interest, students also toured various “dolcerie” (confectioners) and Maltese “fran” (ovens) where they could witness chocolate Easter eggs, figolli (a decorated Easter biscuit), quaresimal (a Lenten sweet) and Maltese bread in the making. Other excursions took them to various Kindergartens and to Homes for the Elderly where the students could observe the kind of diet followed by a cross-section of the Maltese population. The Maltese participants paid a return visit to Germany in June.

Exchange Visits to various countries have now become a standard feature on the Junior College Agenda. Sweden, France and Italy are destinations where the College has exchange agreements. The Exchange with students from Sweden provides a reciprocal opportunity for the study of Maltese and Swedish Flora and Fauna. In September, a group of College students travelled to Pisa in connection with their Aesthetics /Cultural Systems of Knowledge (SOK) Project.

#### April

As part of the celebrations to mark the bicentenary of Kant's death, Professor David Cooper from the University of Durham, addressed the *Philosophy Society* on *Immanuel Kant: the good European*. The German Ambassador, H.E. Georg Merten was guest of honour for the occasion.

Professor Marinella Galateria expert in Modern and Contemporary Italian Literature and Professor Paolo Balboni from the University Ca' Foscari, Venice gave a series of seminars organised by the Department of Italian in collaboration with the Italian Cultural Institute.

The European Documentation and Research Centre (EDRC), the Jean Monnet Chair and the Malta European Studies Association (MESA) organised a one-day conference on the theme *The Value(s) of a Constitution for Europe*. A number of distinguished overseas and Maltese speakers gave presentations. The proceedings have since been published.

The Department of Primary Education held a three day workshop for primary trainees and practising primary teachers of art which was both practical and relevant to their needs as teachers in this field. This was conducted by Elaine Benbow, an experienced primary art teacher, university lecturer, teacher adviser, Ofsted inspector and senior specialist arts teacher and Steve Blundell, an experienced InSET provider, practising artist and writer. The workshop entitled: *Art in Primary Education*, guided students and teachers in developing their experience in two dimensional art processes: drawing, painting, printing, textiles and three dimensional art processes: ceramics, sculpture and construction.

In the Engineering seminar series, Dr Christian Degriigny from the Diagnostic Science Laboratories, Malta Centre for Restoration gave a lecture entitled: *Understanding the corrosion of archaeological and historical metal artifacts: A need relevant to conservation professionals alone?*

Pierre Mallia, business development manager for *Microsoft* in Malta launched the *.Net Club* at the University, in the presence of the Rector of the University, Professor Roger Ellul-Micallef and Ms Isabelle Bonello from the Ministry of Information Technology & Investments. *.Net Club* provides students with more opportunities for practical

learning and development of career-enhancing skills on Microsoft platforms.

*In-nies tat-tiben and other stories* is a bilingual play (Maltese and English), created by students of the University's Theatre Studies Programme and performed at MITP Theatre, St. Christopher Street, Valletta.

The Institute of Masonry and Construction Research hosted another Visiting Lecturer, Ing. Arch. Gennaro Tampone, a Civil Engineer and Architect who is currently President of the *Collegio degli Ingegneri della Toscana*. An established expert on the conservation of wooden structures, he is the author of three books on the restoration of wooden structures. During his visit to the University of Malta, Ing. Tampone gave a number of lectures to the Institute's postgraduate students on various topics concerning wooden structures, including the degradation of wooden load bearing structures, as well as the repair of such structures. Ing. Arch. Tampone also gave a Public Lecture organised by the Institute in collaboration with *Heritage Malta*. The lecture, entitled *Conservation of the Archaeological Monuments in Rome at the Beginning of the XIX Century* threw light on the ethics, philosophy and techniques of the restoration of Roman archaeological monuments during the 19<sup>th</sup> century.

Under the auspices of the Faculty of Education, Dr Marianna Bultjens, University of Edinburgh, Director of the Scottish Sensory Centre, conducted a lecture-discussion on *The Education of Children with Sensory Impairment: The U.K. Experience* whilst Alison Harland, Specialist teacher of students with severe and multiple learning disability, led a seminar on *Creating Optimum Conditions for Learning: The Education of Children with Severe and Multiple Learning Difficulties*.

The Economics Department and the Islands and Small States Institute in collaboration with the

*European Association of Development Research and Training Institutes (EADI)* organised a one-day Symposium on the Economic and Monetary Union and the New EU Member States at the Foundation for International Studies, Valletta.

*Theatre Traffic on Malta, the EU and the Effects on Theatre* was the subject of a discussion organised by The Theatre Studies Programme, in collaboration with the Manoel Theatre. The Hon. Evarist Bartolo, the Hon. Michael Axiak and Mario Mallia together with representatives from MIC and EUPU participated. The Minister for Tourism and the Culture, Dr. Francis Zammit Dimech attended.

*The European Association for Machine Translation (EAMT)*, in collaboration with the Department of Computer Science and AI, held EAMT-04, the 9th Workshop in the series of annual workshops. This acts as a forum for the exchange of ideas concerning all aspects of machine translation within the European and adjacent regions. This workshop discussed machine-translation-related issues concerning Semitic languages, and the languages of the newly accessioned states of the European Union.

The Literacy Unit hosted a meeting in Malta for all participants involved in the ODISEAME project. The aim of this meeting was to discuss the way forward and to give feedback on the project's online platform. It was also decided that the Malta team, based at the Literacy Unit, would host an on-line course for students wishing to improve their English for technical purposes.



Professor Rino Caputo, from the University of Tor Vergata Rome, lectured on Pirandello and Svevo as well as giving a public talk at the Istituto Italiano di Cultura on the occasion of the 700<sup>th</sup> anniversary of the birth of Francesco Petrarca (1304). He spoke on *Petrarca la poesia per i posteri*.

The Department of English with the collaboration and sponsorship of the American Embassy, organised a videoconference with American novelist, Annie Proulx who won the Pulitzer Prize in 1993 for her novel *The Shipping News*. During the videoconference, Annie Proulx, speaking from the University of Wyoming in Laramie, read extracts from her works, spoke briefly about the importance of the spirit of place in her writings and answered questions on a number of issues related to her fiction and her very individual prose style. The event was organised as part of two undergraduate courses: a course in contemporary American narrative and another focused exclusively on her works and was coordinated by Mr Erik Holm-Olsen, US Embassy Public Affairs Officer and Director of the American Center and Dr Ivan Callus, from the Department of English.

Professor Paul Cooper, Sub-Dean of the Faculty of Education, University of Leicester paid a one-week visit to the Department of Psychology, Faculty of Education where he was involved in teaching the MPsy students on the Psychological Assessment of Children. His visit was made possible through a reciprocal Erasmus exchange programme between the Faculties of Education of the two Universities.

Two groups of students from James Madison University were hosted in the Laboratory of Molecular Genetics. One group worked under the direction of Dr. C. A. Scerri on the molecular genetic risk of celiac disease while the other worked in co-operation with the Edible Oil Refining Company (EORC, Marsa) on the production of bio-diesel from biomass. They produced a documentary DVD for use in dissemination campaigns.

## May

The *1921 Surgical Club of Great Britain* originally founded in Leeds in July 1921 by Lord Moynihan, and the Department of Surgery, Faculty of Medicine & Surgery, Faculty of Medicine & Surgery, held a Joint Meeting in Malta in early May. Over the course of the two-day meeting, several papers, discussing a wide variety of subjects, were delivered by both visiting and Maltese surgeons. The prime objective of the Society is the advancement of surgery and interaction with recognised centres outside the United Kingdom.

The Institute of Health Care welcomed several visitors in the course of the month. Mr John Duijsings from Fontys University of Professional Education, gave a Public Lecture entitled: *The Education of the Health professionals in the Netherlands*. Dr Reg Urbanoswki, Associate Professor, School of Occupational Therapy, Dalhousie University, Nova Scotia lectured on *The use of the virtual world as an educational and therapeutic tool* while Dr. P. P. Dendy, Addenbrookes Hospital, Cambridge gave a public lecture on *The UK Health professionals council*.

In May/June, a group of students from James Madison University, Virginia, USA who were on a Field Study Visit to Malta accompanied by two of their tutors were attached to the Institute. The Summer School Programme was designed and coordinated by Dr Sandra Buttigieg, Director of the Institute of Health Care and included various site visits to both Government and Private Hospitals. Students were lectured to by Maltese experts in both the medical and paramedical fields and were also given two projects to undertake which involved conducting a survey related to Smoking Cessation and Diabetes and Obesity. While in Malta, their tutors also contributed their expertise. Professor Judith Townsend Rocchiccioli gave a public lecture entitled: *Payment across health care systems* while Associate Professor Cynthia R O'Donoghue addressed the issue of *Gerontology care: Team care in the rehabilitation setting*.

*Teatru Qroqq*, a theatre group made up of 4th year B.Ed.(Hons.) students, put on another educational production for schools and the general public which consisted of a performance in Maltese based on Oscar Wilde's *The Birthday of the Infanta*. directed by Isabelle Gatt, lecturer in the Expressive Arts. All performances took place at St. James Centre for Creativity.

The Rector, Professor Roger Ellul-Micallef and Professor Alfred J. Vella, Dean, presented the Science Dean's Awards for excellence in the Natural Sciences and Mathematics. Twelve awards were presented to students placing first, second and third in each of the four years of the B.Sc. (Honours) course during the academic year 2002/2003. The students on the Dean's List were: Year I - Massimo Farrugia and Antoine Grech (Maths & Physics); Mark Anthony Caruana (Maths & Statistics and Operations Research); Year II - Andrew Duncan (CSAI & Maths); Marija Joan Sciberras (Maths & Physics); Rachel Theresa Decelis (Biology & Chemistry); Year III - Nathalie Attard; Sarah Buttigieg; Joel Azzopardi (Maths & Statistics and Operations Research); Year IV - Michael Caruana (Maths & Statistics and Operations Research); Pierre Sandre Farrugia (Maths & Physics); Fiona Farrugia (CSAI & Physics). In congratulating the students on their achievement, the Rector mentioned the new improvements and extensions to the science buildings at the University and Professor Vella thanked HSBC Bank and Agenda Bookshop for sponsoring the event with book tokens for the students.

A meeting of the delegates from European Universities taking part in the project on *Cultural memory in European Countries: Difference and Identity in a United Europe* (ACUME) was held at the University in early May. The symposium constituted part of an original project funded by the European Commission and coordinated by the University of Bologna. One of the main aims of this project is to investigate cultural memory in the various European nations while exploring the



notion of difference and identity in a United Europe. The symposium was addressed by speakers from various European Universities.

The University of Malta Library received a bequest by Mrs. E. Shaw of a collection of books formerly belonging to her late husband Dr. David Henry Shaw, covering aspects of English history, literature and linguistics. Another donation was generously presented by the Engineers' Centre bookshop representative Mr. J. Borg, and is exclusively limited to the rapidly expanding area of information technology.

Dr Roland Z Kozlowski, chief executive officer of Lectus Therapeutics Ltd and Reader with the Department of Pharmacology, University of Bristol delivered a talk entitled: *From the Bench to the Boardroom; biotechnology in action* at the Institute of Agriculture.

Dr. Akos Torok, a geologist who is Associate Professor in the Department of Construction Materials and Engineering Geology at the Budapest University of Technology and Economics, Hungary, visited the Institute of Masonry and Construction Research in May. During his visit, Dr. Torok gave a number of lectures as well as a practical session where the postgraduate students learnt how to recognise various stones through the examination of hand held specimens as well as thin sections. Dr. Torok also gave a Public Lecture organised by the Institute and *Heritage Malta*. This lecture, entitled *Environmental Thinking: Memory of Stones* dealt with what we can learn from the building stones of Budapest through a study of its monuments and their conservation problems, concentrating

in particular on the case study of the Hungarian Houses of Parliament. The audience heard about this magnificent building, which comprises 691 rooms, immense halls and over 12.5 miles of corridors and which is currently undergoing restoration.

Madame Anne Martineau, professor of Medieval Literature at the Université Jean Monnet, Saint Etienne, visited the Department of French, Faculty of Arts where she lectured on *L'Inversion des genres et des rôles dans la chantefable d'Aucassin et Nicolette*. The department also welcomed Madame Jeannine Richard-Zappella, Professor of French Linguistics at the Université Jules Verne, Amiens, who gave a series of lectures on French Linguistics. Their visits were made possible through reciprocal exchange agreements within the framework of the Erasmus/Socrates Staff Mobility Exchange Programme.

Dr Reg Urbanoswki, Associate Professor at the School of Occupational Therapy at Dalhousie University in Halifax, Nova Scotia was a visiting lecturer in the Occupational Therapy Division, Institute of Health Care. He delivered a lecture entitled: *The use of the virtual world as an educational and therapeutic tool*.

In the series of Heritage Malta public lectures, Professor Roger Ellul-Micallef, Rector, gave a lecture on: *The Life and Times of Sir Temi Zammit* in which he outlined the achievements of this former Rector of the University of Malta in the fields of medicine, archaeology and education whilst situating him in the context of late 19<sup>th</sup>, early 20<sup>th</sup> century Malta.

May saw the presentation of Malta's First National Communication to the UN Framework Convention on Climate Change (UNFCCC). Malta had played a very important role in the setting up of the UNFCCC and became signatory to the Convention as non-Annex I country in 1994. As required by Article 12 of the Convention, Malta embarked on a project to prepare its

First National Communication (FNC) in March 2001. The Project is funded by the Global Environment Facility (GEF) through UNDP and is being conducted by the University's Department of Physics in collaboration with the Ministry for Rural Affairs and the Environment. The project, directed by Dr. Godwin Cassar, Director General of MEPA (Malta Environment and Planning Authority) together with Dr. Charles V. Sammut (National Project Manager) and Dr. Alfred Micallef (National Expert) also involved about thirty consultants who contributed to the draft of the FNC. The document was initially presented to the Minister for Rural Affairs and the Environment who in June 2004 presented it to the Conference of Parties of the UNFCCC on behalf of the Maltese Government.

Professor Eugene F. Thuot, Professor of Political Science and Honours Programme Director, Belmont Abbey College, Belmont, North Carolina, U.S.A. gave a public lecture entitled: *Shakespeare and His Politics: Reminders About the Primacy of the Soul*. Professor Thuot was Visiting Fulbright Scholar in the Department of Public Policy, Faculty of Economics, Management & Accountancy where he was teaching Political Thought and Public Policy and American Constitutional Liberties.

Professor Wolfgang Zach, Head of Department of English, University of Innsbruck was visiting guest lecturer in the Department of English. He lectured to students on *Shakespeare and the 'Other': Othello & Henry V; Restoration Drama & Morality: The Jeremy Collier Controversy and Literature & Postcolonialism: Gordimer; Coetzee et al*.

The Institute for Physical Education and Sport organised an abseiling event on campus, the proceeds of which went to charity.





The Literacy Unit launched its publication entitled: *Literacy for School Improvement – Value Added for Malta*. The reviewer of this publication, Professor John Gray, University of Cambridge, described the study as “innovative” and “pioneering” as it employs “methods of sophisticated statistical analysis” and “applies the approach for the first time to Malta’s primary schools.”

The Literacy Unit also organised the second full consortium meeting of the Lingu@net Europa PLUS project, at the Coastline Hotel. This is an EU funded project, which aims to expand access to Lingu@net Europa - a virtual languages resource centre – so that it can be used by more people, accessed via more languages and provide access to more resources (in a wider range of languages).

The Department of Economics in collaboration with the Faculty of Education organised a one-day seminar on *SMEs and EU Enlargement* as part of a Jean Monnet project on the issue. The project is coordinated by the University of Perugia, Italy with the University of Malta, the University of Sofia, Bulgaria and the University of Torino, Italy as partners. Each country is involved in carrying out research on the issue. The Malta seminar was the first of three seminars to be organised by partner Universities. The other two were held in June and July in Bulgaria and Perugia respectively.

*First in the Field: An Exhibition to celebrate the early female graduates of the University of Malta* was mounted in the University Library and remained open until the end of June. Various photos and memorabilia some dating back to the 1920s related to the first Arts graduates, medics, lawyer, pharmacists, dentist, architect, engineer and nurses were on display.

Dr Ing Jonathan C. Borg, Head of the Department of Manufacturing Engineering, presented the University Library with copies of the book *Knowledge Intensive Design Technology* which he edited together with Mr Philip Farrugia and Dr

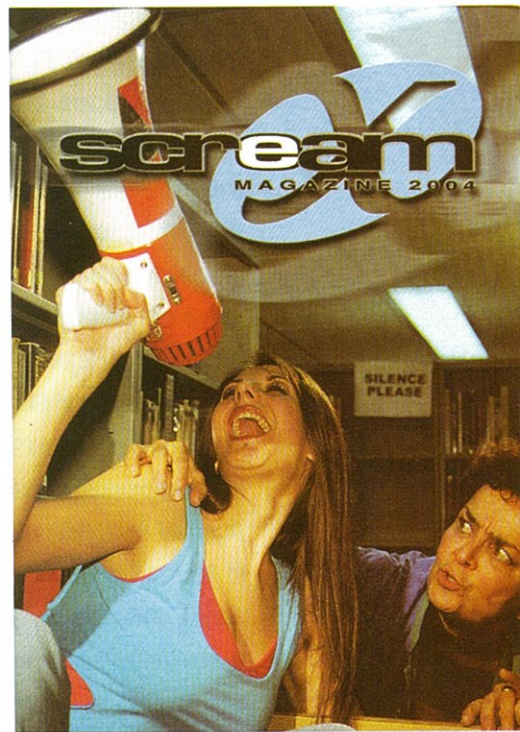
Ing Kenneth P. Camilleri. The book consists of refereed papers selected from those that were presented at the Fifth IFIP WG5.2 Workshop on Knowledge Intensive CAD held in Malta during



2002. Published by Kluwer Academic Press, this book makes essential reading for practising engineers/scientists involved in R&D as well as for Masters and Ph.D. students.

*The Scream* celebrated its 10th birthday. This annual magazine is, as course tutor, Dr Gorg Mallia wrote in his editorial comment, “intended as a hands-on piece for those Communications students (some 100 this year) doing the *Printing Processes* unit who also want to hone their skills in desktop publishing and graphic design. In it students also get experience in selling advertising

space and of course, in writing.” Each year, the class is split into three main departments: Advertising, Editorial and Production, each coordinated by students and each working in its own way to see the publication realised. Dr Mallia goes on to write: “The magazine has always been a labour of blood, sweat and tears by the students who produced it... It has showcased topics too diverse to mention here ... but each was the personal ‘scream’ of individuals caught within a unique moment and space in time.”



2004 ROUND-UP

The Junior College Team representing Poland placed second in the NSTF Mini-European Assembly.

## June

Linda Fursland from Bath Spa University College visited the Faculty of Education in early June. She delivered two talks on *Teacher Training in England* and on *The National Curriculum for England and Wales - Lessons Learned*.

The Department of Arabic and Near Eastern Studies again organised a summer school in Near Eastern studies. The three weeks of lectures covered such themes as the civilizations of ancient Mesopotamia and Egypt, Syria-Palestine in antiquity, an introduction to the Semitic languages, the invention and development of the alphabet, a history of the Hebrew and Arabic languages, ancient Hebrew literature, pre-Islamic literature, the rise of Islam, Islamic philosophy, and Arab Malta. Apart from the taught component, the summer school included a number of guided excursions of Malta and Gozo. Participants came from Finland, Holland, Italy, Kuwait and the USA.

The Department of Surgery in conjunction with the Royal College of Physicians and Surgeons of Glasgow organised the first ever *Basic Surgical Skills* course in Malta. This was held at Medical School and was attended by 14 participants. The 3 day course is the first step towards enabling doctors to qualify as surgeons and covered a range of skills and techniques required for open surgery, dealing with trauma and orthopaedics as well as minimal access surgery. The local co-ordinator is Professor Godfrey LaFerla, Head of Department and Dean of the Faculty of Medicine and Surgery. The visiting Faculty team included Mr Christopher Morran, Mr Andrew Ogden and Mr Paul Teenan as consultant surgeons and Mr Robert McAnnany as the technical officer. The course was sponsored by Johnson & Johnson Professional Export through their local representatives A. M. Mangion Ltd.

150 participants from 36 different countries participated in the *Fifth International Conference on Creative Thinking* organised by The Edward de Bono Institute for the Design and Development of Thinking. The conference theme was entitled: *Designing Future Possibilities* and was opened by Tourism and Culture Minister, Dr. Francis Zammit Dimech. Professor Kevin Warwick, a specialist in cybernetics from the University of Reading, gave a keynote lecture entitled: *Linking Human and Machine Brains – Why you should volunteer*. The conference was followed by the Edward de Bono Seminar which was conducted by Professor de Bono in person.

Publication of *Fora Melitensia*. This is a publication containing a collection of papers and articles written by members of the academic staff of the Maltese Department at Junior College and presented at Fora/Seminars held in Malta or abroad.

## July

The Department of Statistics & Operations Research, Faculty of Science, organised a seminar during which final year students presented research they had conducted for their dissertation.

Final year IT students mounted the annual projects exhibition. This gives a current picture of the projects and research carried out by the students in the B.Sc.I.T.(Hons.) course during the fourth and final year of the course. This year, there were a total of 42 projects covering a wide range of subjects. Each student spends at least six months studying the background, developing methods and designing the application. The aim of this exhibition is always that of showing local entrepreneurs and potential investors in the IT field, the quality of the human resources in this area coming out annually from the University.

The Faculty of Engineering organised the annual exhibition of final year B.Eng.(Hons.) students

projects. The exhibition serves as a showcase for the skills they acquire during their years at University. The impressive display of projects represents months of hard work, perseverance and ingenuity. This year there were over fifty exhibits representing various fields of engineering.

Three seminars on Viticulture by various researchers from the Mediterranean Agronomic Institute of Bari, Italy were conducted under the auspices of the Institute of Agriculture. Issues looked at included: *Irrigation Management in the Vineyard, Equipment and Irrigation Systems used in the Vineyards* and *Vineyard Management in Organic Farming*. Participants included local growers and employees of the Ministry for Rural Affairs and the Environment working in the Viticulture and Oenology section.

*The Evenings on Campus Festival 2004* opened with a Chamber version of Charles Camilleri's and Peter Serracino Inglott's opera *The Maltese Cross* which was held at St. Elmo coordinated by Mario Frendo and Davinia Galea. This year, the Festival was presented through cooperation between the *Koperattiva Kulturali Universitarja* (KKU) and the Manoel Theatre as part of its outreach programme. Other events included a Greek play in Maltese *Shab (Clouds)* based on Aristophanes and directed by Lino Farrugia; solo ballet performances by Françoise Dupriez-Flamand, Prima Ballerina/Creator and Interpreter at spectacular settings such as Fort St Angelo and the Grand Master's Palace Courtyard while this year, *Evenings on Campus* was pleased to present Olga Mishula playing the Cimbaly in the Atriju Vassalli. As in past years, there was also a Film Festival which screened a varied selection of films.

The 4<sup>th</sup> Course in Clinical Pharmacy was organised by the Department of Pharmacy in association with the European Society of Clinical Pharmacy, SIG Education and Training and the University of Strathclyde, UK. The course held at the Medical School drew on practical experience with patients at St Luke's Hospital. An international team of

experts presented care discussions of acute drug treatment strategies during hospitalization and chronic disease management during the long-term care of the patient discharged from hospital. There were 18 participants from six countries.

Book presentations to the University Library were made by the French Ambassador H.E. Patrick Chrismant, Professor Alain Blondy, and Dr Franco Pellegrini Petit. The French Embassy's donation covered texts in French literature and art, while Professor Blondy presented the Library with material bearing on French history as well as a 1926 copy of Jean Vignard's novel *La Maison du Maltais*. Dr Franco Pellegrini donated an interesting range of French literary texts belonging to his late father, novelist, poet and playwright Dr Vincenzo Maria Pellegrini.

The Department of Arabic and Near Eastern Studies signed a Memorandum of Understanding with Notre Dame University, Louaize, Lebanon. This is a preliminary step to developing a mutually beneficial relationship between the two institutions. Both sides will explore and promote areas of mutual interest in liberal and vocational education and will develop their relationship through a range of mutually beneficial and appropriate educational services. They also agreed to cooperate in teacher- and student-exchange programmes, the organization of exhibitions, conferences, seminars, workshops, study tours and other educational activities.

Junior College students forming the Company *Solutions* which produced waste separation bins won the HSBC *Young Enterprise Company of the Year Award*.

## August

The Communication Therapy Division and the EU Unit hosted an intensive ten day programme under the auspices of *the European Thematic Network for Speech Sciences*. Participants included some

100 students and 35 members of the academic staff representing 13 different European University Speech-Language Therapy training programmes, hailing from 10 countries including: Belgium, Finland, France, Germany, Ireland, Italy, Malta, Spain, Sweden and The Netherlands. This intensive programme is hosted by a different University each year. The main issue discussed this year was that of Building Bridges between Research, Assessment and Therapy in European Speech-Language Therapy Educational Programmes.

### September

The University's Communications Office with the assistance of the Conference Unit of the Foundation for International Studies, organised the *European Universities Public Relations and Information Officers Association* annual conference in Malta in early September. The overall theme of the conference: *Communicating Across Cultures* was taken up by six speakers from Malta and abroad who are all experts in their field and was further discussed during a number of workshops. Issues such as: *The search for a common ground in European Higher Education*;



Photo by Austin Tufigno

*Anti-racism advertising: what does it take?* and *Communicating in two cultures: The Franco-German University* were among those considered. The group of 130 delegates from universities in 20 different European countries also enjoyed a social programme that took them to some of the most splendid venues in Malta.

The EDRC completed its final Jean Monnet two-year Project with a meeting of researchers from

the Euro-Mediterranean region in Malta. The proceedings were published under the title *The European Union and the Mediterranean: The Mediterranean's European Challenge, Volume V*, this being the fifth volume of research papers published by the Transnational Regional Research Network coordinated by the EDRC since 1998.

Professor Rebecca Boden from the University of the West of England and Professor Debbie Epstein from Cardiff University led the *The Academic Support Kit (ASK) Workshop*. This practical week-long workshop was designed to help academics in Social Sciences, Humanities and Arts to build their careers.

Due to the lack of physical space, the Library and Museum Sub-Committee of the Faculty of Medicine & Surgery set up a *Virtual Medical History Museum* cataloguing and illustrating various items of historical interest held by the Medical School. The virtual museum can be viewed at <http://home.um.edu.mt/med-surg/museum/>

The *European Early Childhood Education Research Association (EECERA)* organised its 14<sup>th</sup> International Conference which focussed on Quality in Early Childhood Education. The principal theme was *Quality Curricula: the influence of research, policy and praxis* while a number of related aspects such as autonomy and agency; equity and access; working with parents; assessment for learning; and professional development and learning were also discussed. The conference which was convened by Dr Valerie Sollars from the Department of Primary Education and Mr. Mario Camilleri from the Department of Maths, Science and Technical Education attracted some 300 delegates from five continents. It was held under the auspices of the University of Malta with financial support from Maltacom, HSBC, APS, Air Malta, Playmobil and the Ministry for Youth & the Arts.

The 2nd International Conference *on Advances in Medical Signal and Information Processing* -

The History of Art Programme, Faculty of Arts, welcomed Dr Marjorie Trusted FSA, Deputy Curator Sculpture Department, Victoria and Albert Museum, London. Dr. Trusted who is a leading authority on polychrome wood sculpture with a specialisation on the Spanish Counter Reformation gave several lectures on the subject. She is the author of scholarly books on Spanish art and its influence in Europe and its American colonies.

The International Institute on Ageing, United Nations-Malta (INIA) held a conference on *Medicines Management in Older Persons* in collaboration with the University's Department of Pharmacy, Zammit Clapp Hospital, the SIG-Geriatrics of the European Society of Clinical Pharmacy and the Ministry for Health, Elderly and Community Services. Over 70 different health professionals from some 15 developing and developed countries participated. Their multidisciplinary background provided an opportunity for different perspectives to be presented and discussed during the various workshops.

Professor Tim Pedley, University of Cambridge, addressed the first *Malta Mathematical Society* meeting of the new academic year. He screened a video entitled: *Giraffe Blood Flow and Pattern-Forming Bacteria*. He posed the questions: Why is a giraffe's heart so huge and why do swimming bacteria form patterns? And found the answers in Biological fluid dynamics.

Mr Michael Caruana, a graduate of the University of Malta in Statistics & Operations Research and Mathematics and currently a Doctoral student at the University of Oxford working with Professor T. Lyons of the Mathematical Institute, delivered a talk on *Rough Path Theory* under the auspices of the Department of Statistics & Operations Research.

The Faculty of Education was awarded funding for a 3-year Comenius 2.1 project coordinated

by Dr Paul A. Bartolo from the Department of Education Studies, on the production of a *DTPp: Differentiated Teaching Module (Primary) for preparing trainee teachers to respond to pupil diversity*. The other partners in the project are the Universities of Leipzig (Germany), Manchester (UK), Inholland (Netherlands), and Dalarna (Sweden), Marijampole College (Lithuania), and the NGO Motivace-Zivotni Styl (Czech Republic). The project aims to produce a multicultural, multimedia, internet-based teacher-training module to enable trainee teachers to respond to the diversity of pupil needs in primary education. This module will be a tool for all teacher trainers and trainees for primary education.

The Foundation for Human Resources Development (FHRD), the Malta Employers' Association (MEA) and the University's Workers' Participation Development Centre (WPDC) jointly organised a breakfast seminar on the issue of *Work-Life Balance*. This looked at the balance workers have to find between their work and non-work domains and followed on from an empirical study conducted by the WPDC in conjunction with MEA.

With a view to increasing local awareness and promoting research and action by various entities, the Malta National BioPlatform, organised a Biodiversity Conference with the theme: *Our Natural Capital: Research and Actions toward Conservation* in collaboration with the Malta Council for Science and Technology and the Delegation of the European Commission in Malta. This one-day conference examined measures utilized and required for effective long-term survival of species and habitats.

The University Library with the collaboration of the Lija Local Council, the Department of Maltese and the University Herbarium, launched an exhibition on Maltese medicinal herbs at a special evening which featured selections of Maltese folk music and a number of short papers by folklore scholars. The exhibition which was open to the

public until the end of November, included pressed exemplars from the University's Argotti herbarium collection, a selection of publications which have a bearing on the subject as well as a range of specimens of medicinal herbs collected from the south of Malta.

The first meeting of the *Philosophy Society* for the academic year was addressed by Professor Timothy Bahti who spoke on *Literature and Philosophy: Problems of Interpretation*. The paper addressed the ostensible differences and conflicts between literature's and philosophy's projects of interpretation. Professor Bahti has taught extensively at Yale University, Cornell University, Northwestern University and more recently, the University of Michigan, Ann Arbor.

Peter Preston, Director, Guardian Foundation lectured Communications Studies students on *The Current situation of the Press in Britain*. In collaboration with the Strickland Foundation, he also gave the second George Sammut Memorial Lecture on the subject of *One Europe: 25 different public opinions*. George Sammut was Editor of The Times and Sunday Times of Malta. Mr Preston is former Editor of The Guardian, former Editor-in-chief, The Guardian & The Observer and former Chairperson, International Press Institute.

Professor Victor G. Griffiths, former head of Anatomy and Surgery, Faculty of Medicine and Surgery presented the University Library with a number of historically important classical texts in these subjects whilst Professor Charles J Camilleri formerly of the University's Department of Mathematics, presented the Library with a copy of his e-textbooks on CD-ROM. This brings together a second edition of his mathematical textbooks *Vector Analysis* and *Tensor Analysis* as well as his latest work on *Classical Mechanics* which introduces Newtonian and Lagrangean methods.

The Board of Studies for IT, in particular through the Department of Communications and



Computer Engineering, launched its evening Diploma in IT using a virtual classroom concept. This means that lectures are being taught simultaneously at the University of Malta main campus as well as at the University Gozo Centre in Xewkija. The initiative has been made possible through an EU 6th Framework project named TWISTER in which various applications of satellite communication are being investigated. The video-conferencing through satellite system enables two-way communications in virtual real-time enabling interaction by all participants, with the lecturer being sited either in Malta or Gozo.

The Malta College of Pathologists and the Department of Pathology in conjunction with the Dental Association organised a well attended public lecture entitled *Diagnostic Problems in Head and Neck Pathology*, by Professor Paul Speight from the School of Clinical Dentistry, University of Sheffield.

## November

The University Welfare Committee organised a Chess Tournament on campus during the month of November which was open to all University staff.

The Institute of Health Care welcomed Dr Elke Jakubowski from WHO Regional Office for Europe in Copenhagen who addressed the topical issue of *Challenges and changes for Health in the 21st Century* while Dr Mary Hayter, Lecturer, Sexual Health Nursing, University of Sheffield spoke on

*Sexual Health Research: Implications for practice and service delivery.*

The University Community Welfare Committee organised a 5-A-Side Football tournament between early November and December in which both academic and administrative & technical staff participated. Teams were made up of between five and eight players.

The University's European Unit together with the Royal Netherlands Embassy in Malta organised a Bologna to Bergen Conference called *The Implications of the Bologna Process and the Lisbon Statement for Higher Education Institutions*. The aim of the conference was to assess the new challenges set out by the Bologna-Berlin Communiqué of Ministers, which European Higher Education institutions are entrusted to undertake. The one-day event tackled issues pertaining to the Bologna Process and the Lisbon Strategy and its relevance to higher education institutions also providing participants with an overview of the progress that has been made and the new initiatives that must be undertaken following the September 2003 meeting of Education Ministers in Berlin.

The Faculty of Theology in conjunction with the Foundation for Theological Studies and the Augustinian Institute held the *8<sup>th</sup> Annual Saint Augustine Lecture* under the distinguished patronage of the President Emeritus, Dr. Ugo Mifsud Bonnici. This was addressed by Professor Pier Franco Beatrice from the University of Padova who discussed St Augustine's *De Doctrina Christiana*.

Professor Dr Ing. Lucienne Theresia Maria Blessing from Berlin University of Technology, Germany gave a public lecture on Environmental Design under the auspices of the Department of Manufacturing Engineering.. To be "green" has become an economic factor. Many methods and guidelines have been proposed to deal with this situation, but implementation is haphazard often

based on the assumption that sustainability and economy cannot go hand in hand. Some of the warnings presented, underlined the increasingly serious nature of this issue and the changes that are required.

The Science Museum at the Physics Department of the Junior College held an exhibition of old scientific apparatus with the general theme *Restoring scientific artefacts helps in research*.

In observance of *International Education Week*, the U.S. Embassy in Malta in collaboration with the Foundation for International Studies and the Reference Section of the University Library, held a seminar on studying in the United States. The main speaker was Ms Kristen Cammarata, US Regional Education Advisor for European countries situated around the Mediterranean, Middle East and North Africa.

Professor Gong Wenxiang, Executive Dean, Peking University, Beijing gave a public lecture about *Food and the Chinese Culture*. This was organised jointly between the University's Institute of Health Care and the Chinese Cultural Centre.

The *X Collection* seminar was held in which established and potential mathematicians shared their discoveries, new ideas and counter examples to published results, particularly on games, interesting numbers and optimization and included a brief session for spontaneous problem solving.

Under the auspices of The Malta Centre for Restoration, Dr Theresa Vann, Curator of the Malta Study Centre, Hill Monastic Manuscript Library, Minnesota, USA and visiting Fulbright professor attached to the Division of Library & Information Studies, Centre for Communication Technology gave a public lecture on The History and the Future of the Hill Manuscript Library's Project to Preserve Malta's Archives.

A Mass of Thanksgiving celebrated by HG The Metropolitan Archbishop of Malta, Mgr. Joseph

Mercieca, was held at St. John's Co-Cathedral, Valletta on the occasion of Graduation 2004. After Mass, 68 new medical graduates took the Hippocratic Oath in the Grand Hall at Palazzo Castellania, seat of the Ministry of Health, the Elderly and Community Care. A record 2710 students graduated in various disciplines.

Chinese students studying at the University of Malta organised a Chinese cultural celebration at the end of November entitled *Close to China*. This was held at various venues on campus. There was an introduction to major Chinese cities: Beijing, Shanghai, Chongqing and Qingdao with activities focussing on Chinese calligraphy, drawing, arts and crafts, Chinese medicine and Chinese food among other interesting subjects. There was a Chinese zither show and the screening of the Chinese movie *The Hero* and also a Chinese Tea ceremony.

The Workers' Participation Development Centre (WPDC) in collaboration with Friedrich Ebert Stiftung (FES) organised a half-day seminar with the theme *The Future of Work: Trends in European Work Organisations*. The seminar offered a critical analysis of the occupation change, particularly with reference to the expansion of higher education and increasing participation of women in the labour force, and the pursuit of employment flexibility. The main speaker at this seminar was Professor Kate Purcell who is the Director of Employment Studies Research Unit (ESRU) at Bristol Business School, University of the West of England.

The Laboratory of Molecular Genetics, Department of Physiology and Biochemistry, the Department of Clinical Pharmacology and Therapeutics and the Department of Anatomy, in collaboration with the Curriculum Committee of the Faculty of Medicine and Surgery organised a programme of life science related research seminars. Each seminar focussed on an individual topic among which neurosciences, cell biology, molecular genetics and protein biochemistry as well as immunology and clinical research and was presented by a researcher currently working in that field.

The Geographic Information Systems (GIS) Laboratory at the University of Malta, supported by the HERODOT Network and Environment Systems Research Institute (ESRI), organised a two-day international workshop on introducing Geographic Information Systems (GIS) in Higher Education Institutions. Training sessions were conducted by Ms Ann Johnson who came from Redlands, California courtesy of ESRI which also supplied textbooks and software evaluation copies for the participants. HERODOT on the other hand provided financial support for the 21 participants who came from 12 different European countries. They were given specific training on how GIS works with practical exercises using Arcview GIS, its application and teaching methods as well as on the use of GPS technology. The workshop coincided with GIS Day, a world-wide event that formalises the practice of GIS users.

The United States Embassy in association with the University of Malta Library and the University's Division of Library & Information Studies together with the Malta Library & Information Association organised a Public Lecture entitled: *Developing Library Collections in Times of Financial Stress* which was delivered by Professor William V. Jackson, Professor Emeritus, University of Texas, Austin, Senior Fellow at Dominican University and Visiting Lecturer, Pratt Institute.

A Public Lecture was organised by the Faculty of Laws within the credit on Refugee Law offered to LL.D. students and students reading for a MA Human Rights and Democratisation. The topic entitled *The UNHCR Mandate* was addressed by Mr Michele Manca di Nissa, Head of the Legal Unit at UNHCR Rome. In another lecture for students, he examined the 1951 Convention and Protocol.

The Research Ethics Committee organised a seminar on research ethics which was addressed by Professor Goran Hermeren, Chairman of the European Group on Ethics in Science and the new





Technologies of the European Commission. Professor Hermeren, Chairman of the EGE since 2001, is a philosopher, and teaches Medical Ethics in the Faculty of Medicine, Lund University. The European Group on Ethics is an independent, pluralist and multidisciplinary body which advises the European Commission on ethical aspects of science and new technologies in connection with the preparation and implementation of Community legislation or policies.

Following the success achieved in Umbria, Italy in 2003, the Junior College organised Master Classes and Instrumental Concerts in Hamburg, Germany. The young musicians had a one-time opportunity to attend a week of Master Classes and to play musical instruments with renowned musicians. Preparations are in hand for further Master Classes to be held in Hamburg.

The EuroBiobank consortium which includes the group in the Laboratory of Molecular genetics, (Biomedical Sciences, University of Malta and Division of Pathology, Department of Health) directed by Professor Alex E. Felice was awarded a prize by the NEWROPEANS organisation for research. Eurobiobank was established to implement high standards in tissue and DNA banking as a service and for research.

## December

Professor Kenneth E.L. McColl, Professor of Gastroenterology at Western Infirmary, Glasgow,

delivered the 9<sup>th</sup> Ralph Arrigo Lecture on *The role of Helicobacter pylori infection in upper gastrointestinal disease*. The Ralph Arrigo Foundation was established in memory of the late Ralph Arrigo, businessman and entrepreneur, specifically to promote medical education and the latest medical advances in Malta. Over the years, several eminent medical practitioners have been invited by the University's Faculty of Medicine and Surgery to deliver this lecture.

The B.Accountancy (Honours) First Year students held a one day seminar on *Budgetary Planning and Control* at the Coastline Hotel.



The *Collegium Musicum*, students of the Diploma in Sacred Music and the *University Vocal Ensemble* participated in the annual Christmas Concert held in St. John's Co-Cathedral under the auspices of The Metropolitan Cathedral Chapter, The Foundation of St. John's Co-Cathedral and The Mediterranean Institute. The combined choirs were under the baton of Dr. Mro Dion Buhagiar. Previously, the *University Vocal Ensemble* had participated in the Music Marathon entitled *Cori in Amicizi* organised by ERSU of the University of Palermo. Other participants included the *Coro dell'ERSU di Catania*; *Coro dell'Università di Palermo* and the *Collegium Musicum* of the University of Bologna. The *University Vocal Ensemble* under the direction of Dr Mro Dion Buhagiar was awarded trophies and medals for its fine performance.

## The Public University and Market Hegemony - International trends and implications for the future of the University of Malta\*



*Dr Carmel Borg*

THE GLOBAL MARKET has placed the public university in a situation where it is forced to reconcile the logic of profit and social service. Caught as it is between forces which often pull in opposite directions, the University of Malta is also burdened with certain endemic problems: smallness of scale, insularity and chronic vulnerability which hinder its rate of development. The international trends in this field indicate that hopes for a better future lie only in a radical transformation of the University of Malta into a site of both academic quality and profitability.

The commodification of the educational process by the World Trade Organization, the proliferation of private educational institutions, the erosion of public funds for tertiary education and the process of devolution of responsibility for fund management and entrepreneurship – all these have edged the public university into a market, both local and foreign, in which the logic of profit and financial viability sometimes tends to dominate the discourse of quality tertiary education.

The logic of the market has swept the public university into an ocean of uncertainty and unpredictability. The very discourse of accessibility, public service, academic autonomy and intellectual independence is being transformed into a predominantly managerial discourse of accountability, competitiveness, efficiency, relevance and flexibility. The principles of social justice and democracy are being bartered for an economic 'realpolitik'. The public university is no longer itself determining the tertiary education agenda.

Real and concrete work opportunities have significantly changed the profile of many public universities. Work and the hope that certification will ensure financial gain are loading the dice in favour of professional courses. In fact the massive increase in enrolment in the public university is positively correlated to the expansion of faculties, departments and institutes which offer courses that are directly related to work. Academia has indubitably become more functional. The root cells of tertiary education are mutating in order to respond to the exigencies of market forces. This is creating a situation in which a number of institutions which offer basic traditional qualifications have either closed shop or become much more low profile.

The market is also exercising a determining influence on research. In many countries, the expansion of tertiary education coupled with the politics of neo-liberalism has led to public universities being expected to supplement funding by the state. For these institutions, research is an important source of their very existence. On the open market of research, researchers freely explore local, national and transnational spaces. In this process they form teams and research communities which

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*Oration delivered on the occasion of Graduation 2004 by Dr Carmel Borg, Dean of the Faculty of Education.*

sell knowledge and skills to institutions that in turn finance this research – industry, trans-national corporations, public institutions, international projects. Thus viable research is up for sale on the open market. In fact, according to the hegemonic logic of the market, researchers are regarded as the clients of remote patrons: the independence of research is being re-moulded in the forge of the financing process.

The logic of the market has led several private entities to compete with public institutions for the allocation of funds for research. International trends indicate that private institutions are constantly increasing their share of the cake, so much so that many researchers are migrating from public sites to private research institutions. In the Anglo-Saxon world, more than in continental Europe, public universities have succeeded in emerging from the shadows of bureaucracy and restructuring their operations. This means that researchers not only abandon the public sphere but also migrate from continental Europe, to the detriment of the economic and social development of the old continent. European research projects, such as FP6, are meant to stop this drain of researchers and to increase the presence of quality researchers from all corners of the world. The impact of such projects still has to be seen – and measured! In the meantime, US, British and Australian universities in particular, are still attracting huge numbers of graduates who want to engage in specialized research, thus profiting from research funds, winning prestigious research awards and extending their operations.

The transformation of the world of research into a competitive market has led to applied research being given a privileged status. This fact is impoverishing even further all those faculties whose learning and research constitute niches of rudimentary investigation rather than temples of applied knowledge. Wherever market forces exert a determining influence on institutions, the existence of certain faculties is neither automatic nor guaranteed. Erosion of quality, impoverished existence and downright closure are the three prices some faculties are having to pay in the name of economic viability.

The discourse of research infrastructure very much resembles tourism discourse. Just as the tourist market distinguishes between quality tourism and bucket-and-spade tourism, so also the market of tertiary education differentiates between quality academic destinations and others which are deemed cheaper and peripheral. Lack of investment in laboratories, in libraries both general and specialized, in information technology and in human resources is also responsible for the continuing marginalization of certain public universities. By contrast, centres of academic excellence are constantly prospering even within economies characterized by an economic slow-down. Blessed with a quality infrastructure, these centres have continued to win millions of pounds in research projects because they managed to attract quality researchers, some of international repute, as well as graduate students with a marked research potential. Publications in renowned journals, the reading of research papers at prestigious conferences and the winning of international research awards have continued to set the seal on the status of these universities as cathedrals in the research market.

The logic of the market imposes a system of auditing on organizations. This auditing system no longer permits institutions of tertiary education to hide behind a smokescreen of false pretences and absence of information. In the future, the academic world is going to be better explained, more transparent. Both academics and students will know better where they are going and what they will find there – much better than they do now. The invisible ceiling of prestige is and will continue separating five-star institutions from those with a lesser grading. The potential for quality research

will continue to function as the major benchmark of status and prestige. The foreseeable scenario, based on what already obtains in various parts of the world, is one in which universities with a weak human and material infrastructure will lose the right of doctoral certification in certain fields of research. Others will have to rely increasingly on bigger universities in order to retain their certification. These seismic shocks have already begun and will continue to afflict those institutions that have not awoken from the comfortable slumber of insularity and provincialism.

In the world of globalization where technology distinguishes countries with highly developed economies from those with under-developed ones, investment in information technology is the prime indicator of the development of tertiary education. Many state universities, including those operating in small markets, have continued extending their operations by means of a strong and constant investment in information technology. This investment has led to an expansion of the geographical spaces of these institutions, enhanced success, ensured lifelong education, created a network of learning communities, problematized the old comforts of a pedagogy built on the transmission of knowledge, and saved several faculties from extinction. Universities with a vision transcending the present have realized that an extension of their operations depends largely on continued professional development, career development and a return to the world of work. So-called mature students make up a big segment of the economics of a university. Universities that understood the importance of a considerable investment in information technology have formulated a clear policy on this subject, specific strategies for continuous training and investment in infrastructure, and a detailed calendar for the different phases of implementation. The use of a completely virtual or a mixed site offers a golden opportunity to these institutions that wish to strengthen their strategic position as centres of academic excellence. Universities that embarked on this route did not need to invest in researchers of world renown. Instead, they opted for an investment in state-of-the-art technology infrastructure, in academics endowed with a techno-positive attitude and mentality, and in a system of continuous support.

Massive enrolment in the public university has led many to think that the liberal principle of equality of opportunity for all is actually being implemented. The results of a study commissioned by the OECD, commonly known as the PISA project, show very clearly that the discourse of equity and accessibility does not begin on the threshold of a tertiary education institution. In other words, educational systems designed on the principle of equity offer a scholastic itinerary that promotes the individual's self-esteem, enhances the will to learn and contributes to the acquisition of a whole profile or range of skills and attitudes that support and inspire the individual all along the educational journey. That there is a link between basic educational structures and accessibility to tertiary education becomes evident in educational contexts where children are streamed according to the false principle of ability. For those who have eyes and want to see, it is clear that educational systems that stream early on in the process tend to exclude rather than include people from tertiary education. Low self-esteem and bottom-line educational expectations – phenomena closely linked to early streaming – are keeping many people away from university and from other institutions of tertiary education. In many parts of the world, managerial discourse about financial sustainability has led to the discussion about the introduction of university fees and other forms of financing. It is a well known fact that the introduction of university fees has meant that a number of students hailing from certain social backgrounds are being excluded or are dropping out of tertiary education. Mature students are among the categories most negatively affected by the introduction of fees.

Human mobility – a major symptom of globalization – raises a number of questions regarding culture. Many feared that the adoption of the logic of the market by the public university might lead to cultural hegemony and standardization of tertiary education. Empirical studies show us that cultural homogeneity is the fruit of a xenophobic imagination rather than an actual cultural phenomenon. While real and virtual mobility introduces both students and academics to aspects of dominant cultures, foreign cultural experiences are interpreted in different and unforeseeable ways. Academic mobility, deliberately temporary, creates spaces at university where cultural diasporas are grafted on local cultural experiences in ways that are both asymmetric and heterogeneous. The return of the academic and the student to the local starting point of cultural experience means cross-pollination and transformation of national boundaries that nowadays are no longer static. The result of this cross-pollination is a public university that resembles a melting pot of dynamically interacting identities rather than photocopies of one hegemonic identity.

International trends and debates about the present and future of the public university offer us several starting points for discussion within the local Maltese context. The present situation shows us a tertiary educational institution with numerous areas of vulnerability: academic infrastructure, ongoing investment, technology and human resources. This situation not only prevents us from having a vision and plans for the future but also keeps us bogged down in a present characterized by fear and low morale – a situation that has a paralyzing rather than an inspiring influence.

There is no doubt that, in the present situation, the University of Malta can neither develop into a centre of excellence nor into foci of quality research. Well-informed predictions indicate that this stagnation will get us stuck at the lowest levels of the international academic classification. In the near future, independent external auditing is expected to inform the international community about our position. In a world which makes no exceptions, we will have to pay a stiff price for lack of investment and quality restructuring. Profitable research and studies at doctoral level will not be attracted to a site where the library has dried up of funds, where laboratories and workshops have basic deficiencies and where academics are having to make ends meet. Nor should we expect to participate prominently in large-scale prestigious research when our university is pawning what remains of its family silver.

The present situation should mobilize the whole nation. The University of Malta is not a lost cause. We should all agree that the University is an institution with strategic value for the development of our country. We should all be convinced that the University can work at a profit. Many should stop looking on academics as a class of pampered, comfort-loving people. Prejudice has to stop if real dialogue between the social partners is ever to begin.

Before embarking on collective restructuring, we have first of all to reach an agreement that social justice is an impregnable value. Thus any attempt to hinder accessibility in the name of financial viability should be put aside. Being the cradle of democracy, the university cannot be seduced by the platonic temptation that some are born to lead and others to serve. We have to accept the fact that democracy is impoverished if participation in university education is allowed to depend on the social background or paying power of the individual.

Financial exigencies should not dictate the very existence of faculties. The commitment to critical thinking is rooted in educational sites where people do not dance to commerce's tune. Traditional arts and social sciences provide the necessary tools for a country to prosper in its democratic culture. In a university context, it is these spheres of learning that can potentially protect society from domination by the market. Thus it is very dangerous that these areas of knowledge should be callously thrown on the dissection table.

While on the one hand we should do our utmost to ensure that Maltese society does not become market dominated, the University of Malta has, on the other hand, to compete in a market economy. The university can only compete successfully if it sets off from a position of strength. This it can do if, together with the social partners, it identifies a number of centres of excellence which can potentially attract research, quality graduate students and local and international investment. These centres would need a massive initial outlay. We cannot put the academic cart before the financial horse. Without the necessary financial investment, these centres will either not function at all or will function in a neo-colonial relationship with universities endowed with funds. Our university must be in a position where it sets down the agenda, rather than picking up the crumbs of research.

Teaching is another way of attracting local and foreign revenue. In this respect the best way is to opt for a mixed educational environment – one which links virtual experience with the concrete. There are many at university who have the vision necessary for the successful implementation of this project. The barriers of lack of funds and the fear of information technology as an intermediary channel of learning are preventing these people from making their contribution to the accomplishment of this great project. We need to prop up this pedagogical vision with the necessary support if we wish to extend our operations without having to build another university campus.

In a context where the operations of the private sector in tertiary education are on the increase, the state has to make up its mind about what type of relationship it wants vis-à-vis the public university. While we can never expect university to generate its own finances, we can and do expect university to be profitable in certain areas. For this to happen, the university must be given the relative flexibility in order to compete on the open economic market. International trends allow no shadow of a doubt about the importance of real autonomy for the development of the public university.

The University of Malta has reached the crossroads. In a context where the country lacks the competitive edge in production and manufacture, research and tertiary education offer concrete possibilities for prosperity in an environment characterized by the values of solidarity, democracy and social justice.

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## Why Anthropological History?



*Dr Carmel Cassar*

MANY PEOPLE LIVE under a misapprehension of what history is all about. It is widely believed, for instance, that the main requirement for the study of history is a good memory so that one can remember all those facts (especially dates). Many cannot be blamed for this misconception since they assume that history deals mainly with political achievements, fundamental government developments, and foreign relations. But few lay persons realize that history deals with all aspects of human existence - not just politics, government, religion and interstate relations, but even the economy, culture, social life, gender relations, the realm of ideas, the human psyche, or the environment. Thus History links well with a number of other disciplines - especially Philosophy, Politics, Anthropology, Sociology, Languages, Economics, Geography, Journalism, Law and Divinity.

Many would recall their only experience in the study of history at junior or middle school when it was considered boring because it involved too much learning of dry facts. In reality one is often reminded that history is about the past - and we need to be concentrating our attention on the present and the future. Courses in History are not considered to be of much value when it comes to applying for jobs. But this is where many are mistaken. History is not just about the past. It may help us to understand ourselves better by examining some of the forces that have shaped our lives. The study of History pulls it all together and helps us place all other academic disciplines in context and perspective. History allows us to get the big picture. It helps people to think creatively, show initiative, investigate, analyze and interpret the world around them. It changes everyday, so one needs to know how to keep fresh. History provides all those skills!

Personally, I must admit that in my lifelong interest in History, I was never driven by the wish to find any easy answers to modern questions of the past, to apply the right formula for a particular political agenda, or to learn clear lessons from my research. History has served me above all, through the perspective it gives, through the vantage points from which one can begin to understand the present, through the wisdom, or the patience, that it provides. I was always fascinated by cultural and social issues and the way these interacted with the masses of the population. In order to study History through this rather unorthodox method I knew that I had to find ways how to clear the high walls of traditional academia which kept each separate discipline of the arts, and the social sciences, apart. And it took me some time to overcome this obstacle.

The answer to my query came in the late 1970s when as an undergraduate I discovered the *Annales* historiographical method. It was a revelation. The journal *Annales* was first published in Strasbourg in 1929. The journal sought to create a new and more open approach to history in a provocatively colloquial style, an approach defined mostly by its search for “a larger and a more human history” (Marc Bloch), by its denial of all historical barriers and by its rejection of the traditional history of politics and government in favour of a deeper analysis of social and economic forces. The editors Lucien Febvre and Marc Bloch were so successful that within a few years *Annales* became one of the boldest and imaginative journals of historical sociology in the world. It proposed the study of *histoire totale* – as the *Annales* method calls ‘total history’. In 1937 Lucien Febvre met Fernand Braudel

on the return trip to France from a lecture tour in Buenos Aires. Braudel was travelling home from Brazil. During the two-week voyage the two became close friends and from this time on Febvre became Braudel's friend, intellectual adviser, and confidant. After World War II the journal was taken over by Fernand Braudel.<sup>1</sup>

In my late teens and early twenties I identified with the heroes of the *Annales* movement, particularly Fernand Braudel, and their struggle against the dominance of a more traditional history - an identification assisted by the fact that the kind of history against which Bloch and Febvre had rebelled - was still dominant in historical circles at the time. I thought vaguely about going to study at the *École des Hautes Études* in Paris, and began to study French. But when the opportunity to study Social Anthropology at Cambridge, combined with a full scholarship from the Cambridge Commonwealth Trust, turned up in 1988, I felt it was too tempting to turn down the offer.<sup>2</sup> My idea was to write history in the *Annales* manner and I was convinced that the Cambridge M.Phil taught course could help me achieve my aim. This is because Social Anthropology has a potential to serve as a stimulus to historical imagination. Social Anthropology could greatly enlarge the historian's agenda. It could help historians to dethrone politics and give a more central place to social history, reinforced by all the social sciences. It could probably sharpen up historians' views of such terms as 'feudalism', 'social class' and 'revolution' and help historians to make more self-conscious and rigorous statements. Historical research would therefore advance, not through individual work, carried out in the *prima donna* fashion, but through cooperation among scholars and organized research, supported by seminars, workshops and graduate programmes.

Of course the Braudelian idea of total history, as developed in Braudel's great book on the Mediterranean, was a permanent inspiration for me, even a kind of obsession, in my student years at Cambridge. I tried to do this in my Ph.D dissertation, guided by Professor Peter Burke, probably one of the major admirers of the *Annales* movement in Cambridge, and possibly one of its major exponents in Britain.<sup>3</sup> But it is obviously impossible to achieve such an ideal in a single project. Furthermore the more I became exposed to the new historiography, the more conscious I became of the need to move away from the original pattern of the master whose second edition was published in 1966! Thus in my doctoral dissertation published as *Society, Culture and Identity in Early Modern Malta* in 2000, I attempted to combine traditional and social history with a cultural approach. The book had originally been submitted to the History Faculty of the University of Cambridge over a decade ago and in my more recent work I have tried to explore different views of what one might call 'varieties of historical experience'. This

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<sup>1</sup> The journal *Annales* moved from Strasbourg to Paris in the 1930s, and took the name, *Annales: Économies, Sociétés, Civilisations*, in 1946. *Annales* became a school when it was institutionally affiliated with the Sixth Section of the *École Pratique des Hautes Études* after World War II. Fernand Braudel provided a sense of unity and continuity by both presiding over the Sixth Section and directing the *Annales* in the 1950s and 1960s. By the 1970s the prestige of the School was international.

<sup>2</sup> In the 1970s Cambridge developed close ties with Paris, probably thanks to the activities of professors like Jack Goody, who worked closely with French historians like the medievalist Georges Duby, and whose interests in cultural studies range from funerary rituals in Africa; to literacy and oral culture; Christianity and kinship patterns in Europe; cooking and cuisine; and the culture of flowers in Asia and Europe. At the time Cambridge University Press co-published with the Editions de la Maison des Sciences de l'Homme of Paris. In my time anthropologist and historian Professor Alan Macfarlane, author of a famous book on witchcraft in Tudor and Stuart England, though not my official supervisor, guided me in the writing phase of my M.Phil thesis on witchcraft practices in seventeenth century Malta.

<sup>3</sup> Peter Burke, presently Emeritus Professor of Cultural History at Cambridge, is recognised as a world leading historian.



was perhaps due to an interest in 'new history' which turned away from the factual certainties of economic and descriptive social history, and explored instead the 'history of mentalities'.

Yet in more recent years I have especially been interested in 'micro-history' whose purpose is to reveal the human dimensions of the past through the intense study of a particular individual community or event. Micro-historians argue rather convincingly that the historical world was created out of perceptions, not out of events, and in order to evaluate the past we need to recognize that the whole of history was a construct of human impressions. Micro-history evolved primarily in Italy during the late 1970s and 1980s among a group of historians associated with the journal *Quaderni Storici* and were originally inspired largely by the *Annales* movement of France. However they moved away from the *longue durée* which had characterized the *Annales* School of historiography. Micro-historians return to interpreting utterances and beliefs and to describing brief dramatic events, depicting a past that is formed more by abrupt changes than by deep structural continuities. It is a history of ordinary people who inhabited the past – peasants; mothers; minority groups; those belonging to specific social groups, like the witches or the heretics – who faced real, sometimes personal, disastrous circumstances.

Some traditional historians used to *histoire événementielle* may argue that writing micro-history is an easy matter, but this is definitely not the case. Micro-history is not just a question of finding an interesting story and telling it. A good micro-history requires details, evidence, and the ambition of *histoire totale*. Naturally anthropology plays an important role in the writing of micro-history. This method of historiography can benefit greatly from anthropological theory by the way it tackles specific issues like marriage rules; customs; social perceptions and values. However it is not possible for historians to make full use of anthropological methods. One of the advantages of anthropologists is that they are trained to observe people and talk to them directly. A good anthropologist must also observe performances which may reveal how things are actually experienced and acted in real life circumstances. This is where history and anthropology must part. Unlike the anthropologist, the historian depends on documents, or manuscripts, or paintings, or diaries, or some other traces from the past. In brief, historians study the past and they cannot theorize on issues that do not show up in the documents they consult.

Most of the historical data on everyday life perceptions is elicited from court records often gleaned as snippets of information. This method has been used successfully particularly over the last couple of decades by European and American historians, as indeed in other parts of the world. It owes its success partly to the appeal it has on the general public, and partly on the ability of the historians themselves to interpret historical data, with anthropological and psychological analysis. The approach is often mixed with art appreciation, literature, philosophy, and other related subjects, all of which may help the reader to understand better a particular situation the writer wishes to convey.

When I began to be interested in anthropology, and in gender history, I also began to look at the role of the Catholic Church in a new light. It was the anthropological approach to religion and the study of many more forms of religion that opened up my horizons. It made me interested in Catholicism not so much as a system but as an actor in social, cultural, and administrative affairs.

The study of witchcraft accusations, for example, provides us with a unique insight into the beliefs and fears of the people. The period I am mostly interested in – the sixteenth and seventeenth

centuries – was the great age of witchcraft trials. In Malta it was a time of great insecurity: the island was beset with economic problems, harvest failures, decimated by the plague in the 1590s. There was the pervasive fear of a Muslim invasion, and besides the Ottoman Siege, of which we are most conscious, slave raids were a common occurrence of the Maltese countryside and Gozo, as anywhere else in the Mediterranean. While relying heavily on their apparent power, Church and society were afraid of witches whom they also saw as a source of evil. In Malta we are lucky that the Inquisition records have survived almost intact and provide a clear picture of this state of affairs. Society at the time believed healing came from the supernatural: that the evil eye made people ill and that mad people were afflicted by the evil eye and the devil, so witches made use of prayers in their healing practices. Even priests went to healers and made use of magic potions. Doctors, who were practically all male at the time, were often very ill-informed about healing and used similar potions to healers without claiming for themselves supernatural intercessions. The Holy Office, as the Roman Inquisition called itself, especially after the Reformation and Counter Reformation, was particularly alarmed by love magic, which it saw as sorcery and inspired by the devil, and it came down heavily on all practitioners. Court documents include a large number of witchcraft trials for the period starting in the 1590s to the end of the eighteenth century. In turn the study of witchcraft led me to the study of women in the period, because women healers and concocters of love potions dominated the craft. In my recent book *Daughters of Eve* (2002) I had to devote a chapter to witchcraft accusations simply because women were continually being accused of witchcraft and brought to trial. Of course a few men were also accused. They could be men who meddled with magic for the love of a woman, to look for hidden treasure, to become invisible at some point, feel less pain when under torture, to learn about weather conditions and similar daily preoccupations. Then there were the Muslim slaves who were often convicted for divination, the preparation of love potions - for women preoccupied that their husbands had left them, or healing potions for their sick children. One may add that most often the repertoire of the medical physicians was not much different from that of the popular healers. Many could not afford to pay the high fees of licensed medical practitioners. Then there were, of course, women witches accused of similar practices. A group, which was particularly prone to accusations of witchcraft at the turn of the seventeenth century, were midwives.

In reality the study of witchcraft trials induced me to study the role of women in past societies. But I prefer to look at gender history rather than just women's history simply because women's history often tends to look at women as victims and this approach fails to appreciate the many occasions in which women act in collaboration with men. Naturally women's history, as it was being written in its heyday - in the 1970s - had the merit of highlighting the exceptional women of the seventeenth, eighteenth or the nineteenth century. But things have changed and a wider perspective that considers the range of relationships and connections that women find themselves in is now being taken into account; otherwise one runs the risk of taking a one-sided view of things without seeing how they were placed.

Human lives have several systems going through them, and one must bear their existence in mind in order to see the whole picture. Personally I believe in cultural mixture projects where close relations across boundaries are often considered. Naturally such an approach cannot be discussed without describing co-operation across these lines. But in order to achieve a proper understanding of such open-ended themes, we need to appreciate the cross-fertilization of ideas coming from people of different ages, genders and cultural backgrounds. There are many conditions in which ideas can get interlaced in the study of so many different aspects of learning in general and in the wide-ranging

view of history. For this reason I do not think it is a good idea for a historian to write only micro-history or any other one kind of history. Ideally, an individual historian should try at some point to work in different modes as a way to see what the stakes are, the relations between the local and the general frame. I can say with confidence that I have never stopped experimenting with different methods and approaches of research.

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DR CARMEL CASSAR has published extensively on Maltese and Mediterranean culture and history. His books include: *Society, Culture and Identity in Early Modern Malta* (2000); *A Concise History of Malta* (2000, 2002); *Daughters of Eve. Women, Gender Roles, and the Impact of the Council of Trent in Catholic Malta* (2002); *Honour & Shame in the Mediterranean* (2003) -translated and published in Spanish (2004) and Italian (2002), French and Arabic (2005); *Witchcraft, Sorcery and the Inquisition* (1996); *Sex, Magic and the Periwinkle* (2000); *Fenkata. An Emblem of Maltese Peasant Resistance?* (1994). He was awarded an ODA (full) Scholarship by the Cambridge Commonwealth Trust to read Anthropology, a Holland Rose Scholarship from the Faculty of History (Cambridge), and several other studentships and bursaries by Cambridge institutions. Cassar was Visiting post-doctoral Fellow at the University of Durham; a University of Wales Visiting Research Fellow, and a Mary Aylwin Cotton Foundation Fellow (Channel Islands), besides receiving other post-doctoral awards. He was also responsible for the development of an Ethnography Section within the Malta Museums Department. His publications have appeared in learned journals in Italy, Britain, France, Spain, the USA and Malta. At present he serves as Senior Lecturer at the University of Malta Junior College.



## The Beautiful World of Haemoglobin

*Professor Alex Felice*

Haemoglobin (Hb) is the respiratory pigment of man and many other mammals. The molecule captures oxygen in the lungs and transports it within the red blood cells for release in the tissues. It is a fascinating molecule. Although deceptively simple in structure, (Fig. 1) it is intriguingly complex in physiology and genetics. Really, the fully functional molecule is one of the smaller proteins known. It is assembled from four subunits; all proteins and known as globins. Each globin resembles the structure of the simpler oxygen storage molecule, myoglobin, mostly found in muscle. Like myoglobin, each subunit bears a small inorganic iron molecule (haeme) that is the actual oxygen ligand-binding site. The four globins thus have four oxygen binding sites on each Haemoglobin molecule. Although essential in metabolism, body defence and vital regulatory processes, free oxygen is very toxic. It would have wrought havoc in human physiology unless significant biochemical mechanisms for safe oxygen binding and processing such as myoglobin and haemoglobin (and others) had not evolved. In fact, as long as the four globin subunits are dissimilar in pairs, they engage in complex interactions that determine the stability and the efficacy of the whole (Hetero)-tetramer to bind and release oxygen. They indulge in intricate mechanisms that regulate the assembly of the hetero-tetramer from its globin monomers and gracious movements among the globins within the molecule. The subunits co-operate as long as the haemoglobin tetramer is composed of two globins of one biochemical type, and two globins of another type. They are said to be “dissimilar in pairs” such that all physiological haemoglobins must have a pair of alpha ( $\alpha$ ) globins, while the other pair could be epsilon ( $\epsilon$ ) as in the embryo, gamma ( $\gamma$ ) as in the foetus (Hb F or  $\alpha_2\gamma_2$ ) or beta ( $\beta$ ) and minor quantities of delta ( $\delta$ ) as in the adult (Hb A or  $\alpha_2\beta_2$  and Hb A<sub>2</sub> or  $\alpha_2\delta_2$ ).

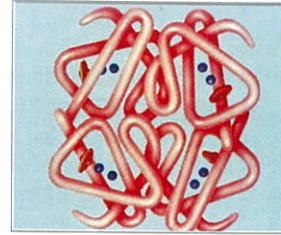


Fig. 1 - The structure of the haemoglobin molecule showing the four globin subunits each having a haem group and attached to each other in the hetero-tetramer.

The genetic control of haemoglobin production i.e. globin bio-synthesis, before and after birth is as complex and demanding as is the physiology of the molecule. Both matters have challenged some of the most leading luminaries in haematology, protein chemistry, physiology and genetics for the large part of the previous century. The molecular details of physiological function and the developmental control of globin gene expression remain fundamental inquiries even in contemporary human biology and medicine. The implications for health and disease are huge.

Congenital disorders of structure or function (or both) known as haemoglobin variants, or of haemoglobin biosynthesis, known as thalassaemia, are among the commonest hereditary disorders of mankind across the entire planet. The most frequent Haemoglobin variant is the Hb S. It is responsible for Sickle Cell Disease among Black and some other peoples. A single nucleotide change occurs in the sequence of the DNA coding for the beta globin gene. It changes the chemical composition (amino acid substitution) of the beta globin subunit. Consequently, the Haemoglobin S molecule assembles into anomalous rods after it unloads the oxygen to the peripheral tissues (deoxygenation). The red blood cells acquire a characteristically abnormal shape (sickle cells) and a shortened life span. Typically, the patients have decreased levels of Haemoglobin in blood (anaemia) and suffer episodes of pain and organ degeneration due to occlusion of blood vessels by the abnormally sickled

red blood cells. A few other Haemoglobin variants have been found in Malta too (Hb F Malta I, Hb Valletta, Hb St. Luke's, Hb Setif and some others). Worldwide, there are over 600 Haemoglobin variants known.

Thalassaemia results in red blood cells that are much smaller than normal (microcytosis), and rapidly destroyed with a shortened life span (haemolysis). The anaemia is due to defective haemoglobinisation of the red blood cells (hypochromia). Since the severe types of thalassaemia found in Malta and the rest of the Mediterranean result from defective beta gene control, it follows, as if it were the "holy grail of Haemoglobin Research" that, if we could understand precisely the biochemical and genetic mechanisms that regulated the physiological developmental transition from embryonic to foetal and subsequently to adult globin biosynthesis, then, we could possibly be able to reverse the perinatal gamma to beta globing gene switch and produce foetal haemoglobin to correct the anaemia of the adult patients. Hb F is a very adequate substitute for the Hb A of adults. The search for therapeutics that could switch Haemoglobin biosynthesis from one gene to another has been pursued for some time in Haemoglobin Research. We have acquired experience with a set of compounds in our clinic but the clinical outcome is not yet completely satisfactory.

As often happens in science, progress in understanding the patho-physiology runs along progress in analytical and related technologies i.e research tools. Undoubtedly, our understanding of Haemoglobin physiology and genetics will gain from the recently published Human Genome Map, just as much as the most modern thoughts and techniques of the time, such as advanced separatory techniques with electrophoresis and chromatography, cell cultures and molecular biology contributed in the past. Often, anecdotal observations on patients, families and populations provide critical clues that push a whole field forward. Above and beyond that which strictly pertains to normal Haemoglobin and Haemoglobinopathies, however, as we look back on the profound knowledge acquired about the assembly and the genetic control of Haemoglobin, we developed paradigms with which to understand other genetic disorders. In particular, we have taken interest in those common complex diseases such as diabetes, heart disease and neuro-degenerative disorders including Parkinson's disease, which are thought to be due to the inheritance of multiple abnormal genes with quantitative effects. It is captivating that many single and multiple gene disorders may have become common in populations because the ancestral genetic abnormality (allele) must have given the carriers of the time (heterozygotes) some selective advantage compared to their contemporaries. Red blood cell parasites such as malaria or leishmaniasis may have been the selective agent in favour of haemoglobinopathies. Although the selective pressure may now be absent from our contemporary human populations, the new ancestral alleles may have become common and carried with them potentially deleterious alleles which happened to be close in the genome with negative impact on body defence mechanisms (inflammation) Sometimes, it looks as if because of discrepancy between the genetic history and the contemporary condition, the human body defences turn upon itself!

From a personal perspective, I was introduced to the challenges of Haemoglobin research in the early seventies during the time that, as a young house-physician at St. Luke's Hospital, I fell under the tutelage of the late Joe Louis Grech who was the Senior Consultant in charge of the Clinical Biochemistry Laboratory at St. Luke's but who also had a great interest in Haematology. We used to spend long hours together setting up the quantification of the minor Haemoglobin with the delta globins, i.e. Hb A<sub>2</sub> which is diagnostic of beta thalassaemia and in separating the blood of many newborn to document the occurrence of the haemoglobin variants already referred to above. Although

there is not any sickle cell disease, the beta thalassaemia is as common in Malta as in other Southern European and Mediterranean peoples (heterozyote carrier rate = 1.2% and there are 36 homozygote patients registered in our clinic).

At that time, Maurice Cauchi had just published in *Nature* together with the Oxford Group about Hb F Malta I, which was found in just fewer than two percent of Maltese newborn. Much later, after I had just returned to the University of Malta from the Medical College of Georgia (Augusta, Georgia, USA), where I had been Assistant and Associate Professor, we could show together with my former colleagues in Augusta that all those who had inherited the Hb F Malta I variant also inherited another variant in the beta globin gene of the same locus and which we then called Hb Valletta. The occurrence of genetic markers like Hb F Malta I and Hb Valletta is the result of genetic events in the course of population movements. Today, we have precise genetic tools for the analysis of certain DNA sequences in the gender determining chromosomes, the X and the Y chromosomes, and the female cognate mitochondrial DNA to correlate with the occurrence of peculiar Haemoglobin variants or indeed many other molecular variants such as blood groups. Together with David Goldstein at University College, London, UK, we have traced the origin of most modern Maltese males, as expected, to Southern Italy and Sicily. It remains to be seen whether we could trace the Hb F Malta I-Hb Valletta locus to an earlier beginning that survived repopulation around the turn of the prior millennium. Joe Louis was also working with William Bannister who had just returned from Oxford as Professor of Physiology on another new Haemoglobin variant which they designated Hb St. Luke's. Traditionally, any new Haemoglobin variant that is discovered is given the name of the place in which it is first described. Later, my group also discovered Hb Setif, Hb Marseilles and a few others among Maltese heterozygotes. Before Cauchi and, Grech and Bannister, Frank Vella had done population level testing for beta thalassaemia among the Maltese.

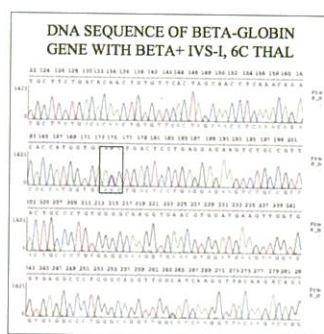
It can be seen that the University of Malta and St. Luke's Hospital have a long tradition of competitive research on Haemoglobin. As far as I know, the only two research manuscripts published from Malta in the prestigious scientific journal "NATURE" deal with Haemoglobin. The first was the Hb F Malta I paper by Maurice Cauchi in 1969 and the second, which I co-authored, concerned the genetics of Hb F and was written in co-operation with the groups from Malta, Augusta, Pasadena and Los Angeles.

Both Hb F Malta I and Hb St. Luke's influenced my professional career and my personal life. When I finished my training at St. Luke's, Joe Louis Grech and William Bannister suggested that I could continue my studies and read for a Master's degree with the external support of the group in Augusta. The director Titus Huisman later became a prominent guide and mentor for me, an academic colleague on the faculty at Augusta and a great personal friend. We lived and worked in Augusta (golf capital of the world!) for around 13 years. I directed the Laboratory of Haemoglobin Research (Molecular Haematology) in the Veterans' Administration Medical Research Service, which was across the road from the Medical School, in which I had my academic appointment. My project was mainly an epidemiological one and related to diagnostics and experimental profiling. We employed the best analytical and quantitative techniques of the time to determine the types of Hb variants and thalassaemia characteristic of certain populations across the world including Malta. Thereby, comparisons of the biochemical and haematological features, even before the advent of direct DNA studies we could infer the structural organisation and physiological control of the globin genes. The proper description today would be to call it genotype-phenotype correlations or molecular expression profiling.

Hb St. Luke's, which is a variant of the alpha globin gene was found among 0.2% of Maltese newborn. We were apprehensive that the proportion of Hb St. Luke's and related Haemoglobin variants from the UK, Georgia and South Carolina in the USA, was always found below those levels consistent with concurrent ideas about the number of alpha globin genes. Later, we established that the low proportion of Hb St. Luke's and some similar alpha globin variants could be explained by assuming that the normal human alpha globin locus carried duplicated alpha globin genes. Thus, red blood cell precursors (erythroblasts) expressed four alpha globin genes, but the assembly of the Hb St. Luke's tetramers from monomers was defective. Eventually we quantified the number of normal alpha globin genes in the DNA of critical families and confirmed the normal genotype. We also showed, however, that the alpha globin gene number could vary due to the inheritance of alpha globin gene deletions ( $\alpha$  thalassaemia), that each alpha globin gene could compensate for the alpha globin deficiency in alpha thalassaemia and that the same mechanism that explained the low proportions of Hb St. Luke's explained the variability in the proportion of other variants including beta globin variants such as Hb S in sickle cell carriers. Furthermore, we could explain the developmental haematology of Sickle Cell Disease, which accounted for discrepancy in the clinical picture on the basis of molecular genetics. Effectively, it resulted in retrospect, that those that we had considered as typical examples of major single gene disorders actually were the product of interaction between multiple genes with quantitative effects.

Today, we use the same model to try to understand the pathogenesis of other complex diseases. We assume that regulatory molecules involved in pathogenesis are also composed of subunits whose biosynthesis is controlled by multiple genes in which DNA sequence variation alters levels of expression and susceptibility or "risk" to disease.

In the course of these many years in the USA and in Malta, there are many anecdotes I can recall, but one stands out in particular. It was a Friday afternoon in the office of Titus Huisman when our close collaborator from Pasadena (Caltech), the late Walter Schroeder faxed to tell us about a graduate seminar he had just attended at which a young post-doc from Yale had shown data pertaining to interruptions in the coding DNA sequence of the globin genes, the exons. He called them intervening sequences or introns. Today we know that almost all human genes are organised in this manner. Indeed, defects at the junctions between exons and introns are among the most common known causes of human genetic disease. Even the most prevalent cause of beta thalassaemia in Malta and the Western Mediterranean is a result of inherited DNA sequence variation (mutation) in the same region (*Fig. 2*) i.e. the junction between the first exon and the first intron of the beta globin gene.



*Fig. 2* - DNA sequence of the  $\beta$  globin genes from a Maltese  $\beta$  Thalassaemia heterozygote showing the normal and abnormal nucleotides (boxed) overlapping in the read-out.

In the case of thalassaemia, we have determined the profile of different DNA mutations in Malta and genotyped all patients. In 1997 we hosted a very successful International Thalassaemia Meeting. Many thalassaemia patients have intractable ankle ulcers because of the severe anaemia. When Dragana Josifova was training in our clinic we evaluated the production and use of extracts from blood platelets in promoting wound healing. The study introduced us to the challenges of wound management and bio-manufacturing. Dragana is now consultant in Genetics Medicine at Guy's Hospital in London. It is gratifying to appreciate the number of graduate students and other

trainees who passed through my programmes in Augusta and in Malta. These included the first Ph.D.s from our own Faculty of Medicine; Christian Scerri from the Malta Department of Health and the University of Malta, Mohammed Marwan at the Tripoli Biotechnology Research Centre and Connie Bezzina who is now Assistant Professor at the Academic Medical Centre in Amsterdam. Others have conducted undergraduate projects on Haemoglobin or have read for Masters' degrees with us and are now pursuing further studies in other universities or through joint doctoral programmes. They continue to contribute to further develop the programme in Malta.

The main challenges for the future concern the understanding of globin gene control and genetics therapeutics, the bio-manufacturing of genetic therapeutic molecules, the documentation of molecular epidemiology and expression profiling for a number of significant disorders and the further development of genetics services with advanced molecular biology tools.

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PROFESSOR ALEX. E. FELICE graduated M.D. and M.Phil. from the University of Malta, subsequently proceeding to the U.S.A. to pursue his doctoral studies. He obtained his Ph.D. from the School of Graduate Studies of the Medical College of Georgia in 1981. In 1986, he was appointed Associate Professor at MCG. In 1992 he was appointed Professor (Biomedical Sciences) at the University of Malta where he teaches Molecular Genetics and Haematology. Here, he directed the establishment of the Thalassaemia and Molecular Genetics services and the development of a Molecular Biotechnology Program. His research in Malta has been, in part, funded by competitive awards of the EU framework and other R & D programmes. He is the author of numerous research manuscripts on the genetics of haemoglobin disorders including thalassaemia and sickle cell disease and human molecular genetics.



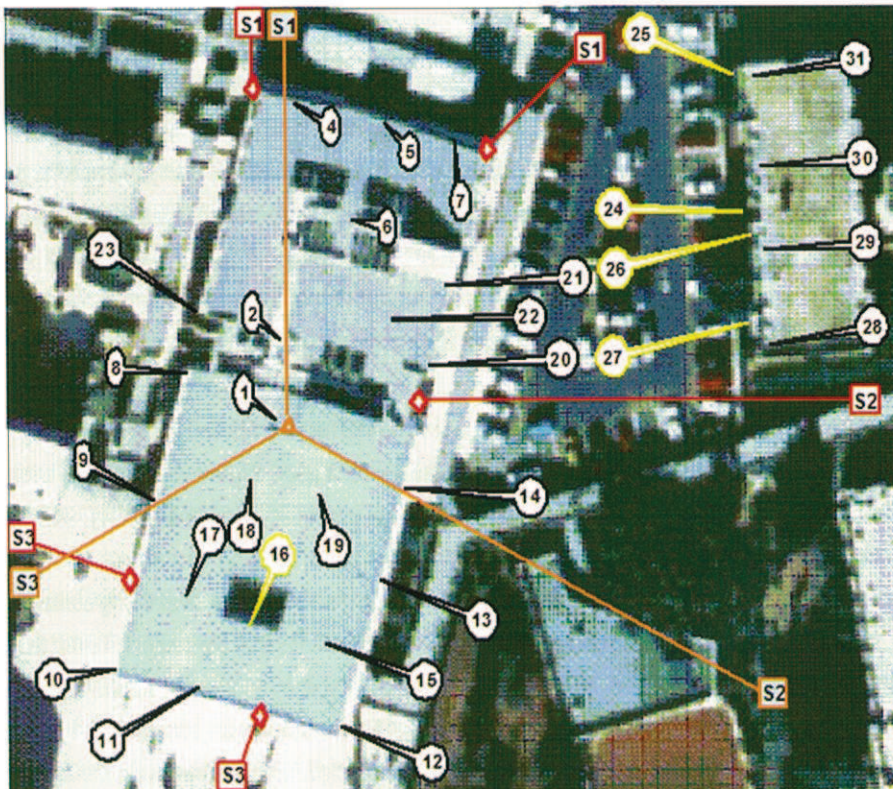


## Survey of electromagnetic fields from mobile phone base stations

*Dr. Charles V. Sammut reports*

THE DEPARTMENT OF PHYSICS recently conducted detailed measurements of electromagnetic field power density over the University Library and surrounding areas. This followed concerns expressed by some Library staff. Dr Charles V Sammut included the University as one of the 150 chosen transmission sites in a three-year national survey of electromagnetic field emissions at mobile phone base station sites. The survey, which was completed earlier this year, was planned and conducted by Dr Sammut, with the assistance of Dr Alfred Micallef and in collaboration with Malta National Laboratory (MNL). The project consisted of three main tasks. The first was the compilation of a detailed database of base station sites, including physical and transmission characteristics of the transmitting antennas. The second task was field calculation and simulation at each base station site in Malta and Gozo (almost 300) but the most difficult tasks were field measurement, analysis and reporting. The field survey equipment and logistical support were provided by MNL. A summary of the results is featured on the Malta Communications Authority website at <http://www.mca.org.mt/emfaudit/>. Some of the results, measurement and analysis techniques were presented in papers at the 2<sup>nd</sup> and 3<sup>rd</sup> International Workshop on Biological Effects of electromagnetic fields held respectively in Rhodes in October 2003 and in Kos, in October 2004.

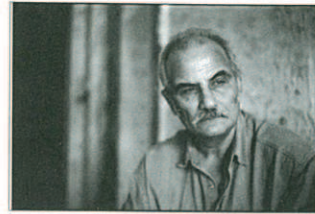
All tested sites were found to be within the International Commission for Non Ionising Radiation Protection (ICNIRP) reference levels for public exposure.



The figure shows the measurement plan for the University survey. It consists of an aerial photograph marked with the antenna locations and the measurement points. The average field intensity in percentage of ICNIRP public exposure levels was 0.32% and the maximum was 1.8%.

DR SAMMUT is a Senior Lecturer in the Department of Physics, Faculty of Science.

## E-Maps – A European Masters Inquiring into Innovation and Creativity



*Stefan Aquilina interviews Dr John J. Schranz*

OCTOBER 2007 will see the launching of E-MAPS, a European Masters Programme, which will award a joint degree in Performer Studies and which will have a totally unique nature and dynamic. E-MAPS is not a Masters degree programme in history, theory or praxis of performance in general, nor in some specific discipline of performance, whether it be music, dance, theatre, singing, sport or whatever. It is, instead, an invitation to would-be researchers to start considering the highly complex training processes which contemporary performers undertake in their respective disciplines as a locus for research in the fields of Memory, Learning and Creativity. Academics in a network of five universities – Roma “La Sapienza” (Professor Clelia Falletti), Paris XIII (Dr Cecile Vallet), De Montfort, Leicester, UK (Professor Nicholas Arnold), Adam Mickiewicz, Poznan, Poland (Professor Juliusz Tyszka) and the University of Malta (Professor Richard Muscat and Dr John J. Schranz), which will function as its co-ordinating base – are converging their separate, ongoing research into a unique, interdisciplinary programme embracing no less than five disciplines: Cognitive Neuroscience, Cognitive Psychology, Philosophy, Sports Sciences and Performer Studies. In this interview, Stefan Aquilina, M.A., formerly E-MAPS’ Programme Administrator, speaks to the person who originated the programme, Dr John J Schranz, Senior Lecturer in the Theatre Studies Programme of the University of Malta’s Mediterranean Institute, Co-Director of E-MAPS and theatre practitioner and researcher within Groups for Human Encounter, the independent, performance-research structure which he has now been directing for many years.

**Stefan Aquilina:** *Those working in the Arts traditionally seek to improve their work by constantly refining their techniques and methods. Apart from practising this approach, you are moreover also seeking to collaborate with the Sciences. What prompted this collaboration? Can you trace the genesis of your collaboration with the Sciences, especially with neuroscientist and fellow E-MAPS Co-Director Professor Richard Muscat?*

**John J. Schranz:** It would seem that the artist is looking for the innovative and the unpredictable, for the new, for continuous change. The scientist, on the other hand, would seem to be working in his laboratory to confirm something which happens and which he can predict will go on happening. Tests and experiments are carried out so that one could say – with a good degree of certitude – that given certain conditions, such and such an outcome is to be expected... a repeatability, therefore, a predictability. In point of fact, the work of the artist is an act of refining carried out by what, with language, one calls “repeating”. One refines by undertaking a series of efforts at doing something, by “repeating”. One of the very first lessons we learn in our childhood is that we can only come to writing a relatively straight, clean number “1” by having several goes at it, by “doing it a number of times”, as we say. Of course, each effort is not quite a number “1” but, rather, an unsuccessful attempt at executing that ideal figure we somehow have in mind. In somewhat the same way, the artist would seem to be repeating a series of events that would seem to be predictable – the playing of scales on a piano, for instance – and the “predictability” of that work would seem to be of a very similar kind to the predictability of the outcome of an experiment: that outcome that one can predict, given that set of operant conditions which would have been identified in the stages of experimentation. Nobody can

ever truly repeat something, however; what happens, rather, is that by the highly iterative process of what would appear to be “repeating”, one is continually refining, and thus, seeking innovation and change. I am sure, however, that neither are the Arts nor the Sciences looking for innovation for innovation’s sake. What each is truly doing is seeking to obtain a deeper look into itself.

The genesis of the collaboration with Professor Muscat reaches back to sometime around March 1993, when I was working on my thesis for the University of Bologna. I had just taken a daring step – I had chosen to change completely the direction of my thesis, pulling it away from the pure analysis of the theories of theatre makers as reflected in the history and documentation of theatre-making, to a point where I would reflect on the theories of the theatre makers by looking into the latest theories and discoveries of the cognitive sciences. I was looking for somebody who could be my mentor on the neuroscientific discourse of the functions of the brain. Primarily the very leading question with which I faced Professor Muscat was “If it is true that our brain templates for decision making, for learning processes, are fixed as a consequence of releases of endorphins which occur whenever we experience pleasure, then would it be at all possible for that process to be “switched around”, by hysteresis; would it be at all possible, that is, for me to intervene wilfully and knowingly on my habits of gaining pleasure in such a manner that I would change my templates?” I then went on to extend that question to make it reflect on the work of the performer: “what I would like to look into is whether it could be that the performer discovers (and teaches himself) new ways of giving himself joy and fulfilment, and whether it thus could be that it is for that reason that the performer can persevere in the excruciating regimen of training which contemporary research theatre demands of him, that highly demanding regimen that otherwise makes so many others give up.” It is from there that our collaboration started. Eventually then, some eighteen months later, I happened to be addressing a conference which was also being addressed by the world famous Swedish theatre director-pedagogue Ingemar Lindh. I had known Ingemar for some years, but it was only at that conference at the University of Urbino, in 1994, that we came to realise that we were asking very much the same questions to ourselves. As a result of the encounter with Richard – which gave both of us the deep joy of finding that we were, each from within his own discipline (so disparate, the one from the other), posing ourselves questions that clearly lived in the same street – and as a result of the other meeting with Ingemar, who at that time was one of the most important theatre makers and researchers in the world, the xHCA brain research programme was born – *Questioning Human Creativity as Acting*. That inquiring thrust is now moving on to become E-MAPS.

**S. A.:** *It is therefore clear that your collaboration has been operating for several years now. Why was it felt necessary by you and by Professor Muscat, in 2002, to formalise this collaboration in the E-MAPS network that is funded by the European Commission?*

**J. J. S.:** The first thing that would come to mind would be to say that in our country we are out on a limb, that we are at the very edge of the growth of a tree and not at its core, where the energies flow, that in 12 years the results of our research and collaboration should have made it easier for us as we go along, and that instead we are finding it progressively more difficult to persist in our collaboration... the context is small, students seem to be untouched by daring concepts, not sufficiently provoked by daring careers, somewhat seemingly prone to treading well-worn paths... it is difficult to obtain research funds...and all this because we are small. That would be quite banal, however; there was much more behind the way things developed. The feedback I was continually being given by many colleagues from many points in Europe indicated that similar difficulties obtained. The E-MAPS network

as it has developed is bringing about a convergence between various lines of research of colleagues with whom I had been collaborating for a long time. I had brought Professor Arnold twice to Malta. Dr Vallet had worked on her Masters thesis in close contact with me, and she had sought my guidance in the course of her work on her Ph.D. thesis. Professor Tyszka has invited me several times to Poland, to address conferences on our research, to present my work on pedagogy and dramaturgy, to give public lectures and to lecture to his students. Professor Falletti came to Malta a number of times, in her own capacity and also with the well known Italian theatre theoretician, the late Professor Fabrizio Cruciani, her late husband, and she has also invited me to Rome a number of times, again to present my research in academic contexts and in public. Often enough, all had shared with me a general sense of a profound need for that “something else” that would bestow a certain aura of difference on what each and all of us were doing. We gradually came to realise that if we were to be in a network woven around the new paths that were being formulated by the collaboration between Professor Muscat and I, then we would probably stand more chance to concretise that which our individual, private collaborations were sketching out as being possible. We would meet each other more, we would meet each other’s students more, and they would feel a certain strength in their professor collaborating with others from four other countries and from five diverse disciplines. Students in France, in Italy, in Poland, in England would become conscious of sharing interests and cutting edge concepts with fellow students in the four other countries, this feeling of being part of a network – of a vital network. In this global village it is important that one does get this “international” feel that transcends frontiers and boundaries – both national boundaries as well as boundaries of thought, of inquiry. I would say that this is the true reason why we set up the network.

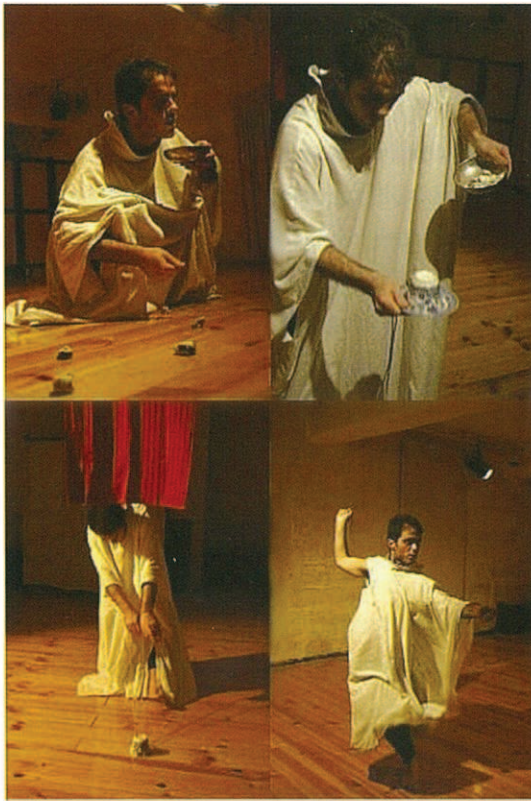
**S. A.:** *By knowingly seeking to collaborate with such diverse disciplines, and by bringing this synergy of the work, energies, research, various partners, you are making a very specific statement: that the way forward for academia is to seek new collaborative programmes, where ideas are shared and, more importantly, where new inroads are made. Some words about this.*

**J. J. S.:** In 1943 Konrad Lorenz posits Man as “the only living creature to have specialised in not specialising.”<sup>1</sup> Perhaps we risk forgetting this in academia, perhaps we have been running the risk of forgetting that the most important question which any one of us, in whichever discipline and in whichever faculty, should ask is: “what does it mean to be human?” Jerzy Grotowski says: “I want to be honest with you. Theatre does not interest me any longer. What interests me is what I could do leaving theatre behind me.’ If we are honest with ourselves we should make that statement of Grotowski’s ours, seeking a true convergence between disciplines so as to ask what it could truly mean, in our time, to say that one is human. Vilhem Flusser, in perhaps one of the most incisive books I have read written and published in the 20<sup>th</sup> century says that “human decisions are now being made on the basis of apparatus decisions, and human intention has evaporated.”<sup>2</sup> Human intention is evaporating. The

<sup>1</sup> *Psychologie und Stammesgeschichte (Die Evolution der Organismen* – G Heberer, ed. – published by Gustav Fischer, Jena, 1943, pp 105-127). Lorenz makes this provocative statement after having seen his native Germany’s industry “specialising” itself into a war machine. He colours the statement with an example of a hypothetical competition between any “simple employee” (by which he means someone with no athletic training) and any animal. The human being, he says, would indeed lose a swimming race with a dolphin, or a running race with a gazelle, or a climbing race with a monkey . . . but no other animal would beat him in a chase where both would have to run a 100 metres, and then climb a rope, dive headfirst into a river, recover three objects from its bed, swim across that river, and finally walk for a distance of 10 kilometres. Only the human being can do all those equally well.

<sup>2</sup> Flusser, V., *Towards a Philosophy of Photography*, European Photography, Andreas Müller-Pohle, (West Germany, 1984), p. 53.

apparatus has weaned itself of human intention. It is functioning autonomously. Human decisions are in function of the apparatus. They are, therefore, no longer decisions. What does it mean to be human? "Apparatus now function solely for themselves ("automatically"), with the aim of perpetuating and improving themselves automatically. It is precisely this stupid, unintentional, functional automation which is the true subject of apparatus criticism"<sup>3</sup>. The task of a philosophy of photography, he holds, "is to analyse the possibility of freedom in a world dominated by apparatus; to think about how it is possible to give meaning to human life in the face of the accidental necessity of death. We need such a philosophy because it is the last form of revolution which is still accessible for us"<sup>4</sup>.



Four instances from the latest work by Groups for Human Encounter, Glen Calleja's one-man performance *Ir-Rikkiebat-Tempesta*, directed by John J Schranz and presented at the group's studio, ActionBase, in January 2005.

What does it mean to be human? The only way to ask and face the question is by making disciplines converge. The sciences must need the arts. A CIBA Foundation conference in London in 1992 called philosophers and scientists from all over the world to discuss the "body-mind problem and the conscious/unconscious processes" – John Searle, Max Vellmans, Jeffrey Gray, Daniel Dennet... French neurologist Yves Rossetti, reporting the conference proceedings, wrote that "*The most exciting thing still remains that the gap between the two disciplines always seems to shrink.*"<sup>5</sup> Interdisciplinarity is the only way in which the human being can still remain human.

**S. A.:** *In such an interdisciplinary collaboration between such distinct fields of research as the Sciences, the Arts, Psychology and Sports, some problems will necessarily arise. How do you navigate the obstacles to communication that present themselves in the encounters between your different fields?*

**J. J. S.:** When we launched it in February 1995, **xHCA** constituted an encounter between two disciplines – neuroscience and theatre. I will never forget Ingemar Lindh, with the mischievous twinkle that always lit his eyes and revealed his acumen, looking at me as we came out of the meeting in which our proposal had just been accepted for the programme to be given the go-ahead. "We've done it – and we do not yet know what it is!" That led to a quick exchange. We stopped outside my car for about half an hour, discussing this 'we do not yet know what it is'. Those words captured the essence of an interdisciplinary research programme which was bringing together two disciplines which, on the face of it, seemed to be so disparate, and that half-hour discussion saw us deciding that for the following six months we would do nothing but have a series of meetings in which to come to a shared

<sup>3</sup> *ibid.*, p. 53.

<sup>4</sup> *ibid.*, p. 59.

<sup>5</sup> Rossetti, Y., *A multidisciplinary approach to consciousness: the mind-brain problem and conscious-unconscious processing*, in *Trends in Neuroscience*, Vol. 15, No. 12, (1992), pp. 467-468.

terminological corpus, a terminology with which the two disciplines would, as far as humanly possible, not misunderstand each other. And that is what we did.

Something very similar occurred during our third E-MAPS colloquium, in France, when a considerable difference emerged in the usage of a term in the two disciplines of cognitive psychology and theatre studies and it happened again more recently, when I realised that Dr Vallet was not understanding with sufficient clarity what is implied by the word “training” in theatre. This was more extraordinary, because I had been discussing training with her (not as a term but in the praxis!) since 1995, when I was advising her on her Masters thesis. The interesting discourse that ensued showed how easily communication can be short circuited, even at these levels, and we are now moving towards formulating a document that will bridge most of the terminological differences between the five disciplines that constitute E-MAPS: cognitive neuroscience, cognitive psychology, philosophy, theatre studies and sports sciences.

**S. A.:** *The programme’s rationale states that E-MAPS ‘is an invitation to would-be researchers to start considering the highly complex training process which contemporary performers undertake (be they active in theatre, dance, sports...) as a locus for research in the fields of Memory, Learning and Creativity.’ Such research is already carried out in other contexts, of course, on animals for instance. What unique contribution can the research on the performer’s work make?*

**J. J. S.:** It would not be correct of me to say that the animal cannot be creative – even if only because for the evolutionary leap to have happened, from the ape to the human being – and that was a very creative leap – it was the ape that had to make it. Animals do learn, of course – although clearly, the kind of learning that interests us in the animal is not that which one can observe in circus performing dogs. There is a very interesting passage in Gregory Bateson’s *Angels Fear, Towards an Epistemology of the Sacred*. The discourse is about a porpoise in a dolphinarium where, for some days, a special demonstration was being staged so that audiences could see how dolphins are trained. During the demonstration, the trainer only rewarded novel patterns of behaviour; when, in the course of the demonstration, therefore, the dolphin happened to come up with a new doing, the trainer would reinforce it by throwing in a fish for it to eat. It is important to understand the difference between, on the one hand, the dolphin being rewarded each time it **repeated** an interesting pattern of behaviour in the course of **normal shows** staged in the dolphinarium and, on the other hand, the dolphin being rewarded for an absolutely novel pattern of behaviour executed in the course of the demonstration of training. During demonstrations of training, the trainer would not reward established, “normal” patterns, but only novel doings – because it was by his doing so that the audience at the demonstration of training would understand that the dolphin would learn to repeat regularly, in the daily shows, those patterns which its trainer would have approved of, during training, by giving it a reward. For the dolphin, Bateson points out, this must have been extremely disconcerting – because “this meant that whatever was right and rewarded in the previous session was now wrong and not rewarded, because it was no longer ‘new’.”<sup>6</sup> But then Bateson goes on to tell us that after about a dozen demonstration of training sessions, one day, the dolphin got all excited in the holding tank, which is the tank where it used to be kept before being released into the dolphinarium where the shows were held. It started splashing around all over the place until, when it was finally released into the pool for the demonstration

<sup>6</sup> Bateson, G. & Bateson, M.C., *Angels Fear, Towards an Epistemology of the Sacred* (Macmillan Publishing Company, NY, 1987), p. 129.

“it immediately did a whole series of new behaviours that no one had ever seen in the species before.” And Bateson adds “it got the idea”. The dolphin, of course, is the closest to human intelligence in the animal world. It is the closest to speech, too. So I think that I would be safe in saying such events are rare.<sup>7</sup>

To be creative does not imply the making of something out of nothing, of course. It always is a question of reformulation, realignment, a reassessment, a setting out afresh, anew, in a way that it could have never happened before, in which it might never had happened, in awarenesses that open new horizons, new vistas.<sup>8</sup> Yes of course, it is undoubtedly interesting and invaluable to carry out research on learning patterns in animals. Moreover, there is an ever growing corpus of research carried out on human beings, too – it has to be kept in mind, however, that there has recently been an explosion in brain research, ever since UNESCO declared the 1990s as the decade of the brain and even more so since the advent of MRI (Magnetic Resonance Imaging) which allows us to have a good peek into the brain at work. Before that, however, most research carried out on human beings was carried out upon pathology. I am in no way to be interpreted as playing down research carried out upon pathology, of course. The territory of contemporary theatre, however, provides a very unique context. Unlike all other fields of the arts, in the discourse of theatre there is a very particular turn of phrase which is a pointer to this unique nature of the discipline. In discussing the quality of execution of practitioners of other artistic disciplines, such as painting, music, sculpture, dance, one does not use such phrases as “that’s not how one paints in life”, or “that’s not how one sculpts in life”, or “that’s not how one plays (say, the violin) in life”, or “that’s not how one dances in life”, or “that’s not how one sings in life”. Such phrases are totally devoid of meaning. In discussing the work of the theatre performer, however, ever since the brilliant writings of Stanislavski and, even more, the sheer genius of his work on performer pedagogy and dramaturgy, one continually utilises one of his key phrases: “I don’t believe you,” he used to shout at those performers who, while working with him, used to care more for imitation and demonstration, “I don’t believe you – that’s not how you would do it in life!” That telling off of his was dreaded by all performers working with him, and since then, great efforts have been made by theatre makers to discuss the complexities hidden inside the phrase – such fundamental issues as truth-for-the-actor, artistic truth, or such failings of performers as imitation, illustration, unethical practices, and many others – the complexity is great. In the discipline of theatre-making – even more so in that of contemporary research theatre – the performer would seem (to the uninformed) to be “duplicating life”. In point of fact, one cannot be more off the mark – what the performer is doing, instead, is handling those very actions which one engages in every day and elevating them to the plane of a work of art! More – this art form has no medium. The performer is his own medium. In creating his art, the performer is doing something extraordinary – he is bestowing a quality of being artistic upon his very “beingness.” He is, to put it in precise terms, elevating the very matter that constitutes him up to a plane where “it” – that is, he – becomes a work of art, an Opus. In the making of theatre, the artistic product is one thing with the creative event – it is there only for that time when the creative act is occurring. Each creative instant irrevocably cancels out completely the

<sup>7</sup> From the animal literature, the neuroscientific underpinning of novelty would appear to be the release of the dopaminic signal in the reward pathway. This has two consequences – on the one hand, it provides the “feel good factor” whilst, on the other hand, it provokes the seeking of the “repeat” of that “novelty”. If, however, the same “novel” stimulus is presented, the signal habituates – which in turn means that the “feel good factor” reward would be no longer experienced.

<sup>8</sup> Francis Crick’s suggestion, in *The Astonishing Hypothesis* (Simon & Schuster, New York, 1994), is that the creative moment may be exemplified by the fact that neurons or nerve cells in various sectors of the brain happen to resonate at a frequency of 50 Hz – what has for hundreds of years been spoken of as one “having a flash of inspiration”.

creative instant that preceded it, only to be, in turn, completely elided by the one following it. In the theatre maker all is process and nothing is product.

Of course we do speak of a performance as a “something”, as if it were a product. In reality, however, there is no such thing. Today’s event will cease to be, and it will be radically and completely written afresh in the flesh tomorrow, when a new event will appear, with equal ephemerality. In such a unique scenario, where artist, medium, event and opus are one, and where, moreover, they are in eternal flux, science can find an absolutely unique model for the Human Being *per se* – here is a “laboratory” context where man is bent upon refining himself ceaselessly, in a never-flagging effort at generating beauty. He is, moreover, doing so collectively, more often than not – unlike what normally happens in many art forms, which would seem to be contexts which are designed to enable the individual to excel – if not over others, at least over his own prowess... but all too often, alas, over others. In the performative act, on the contrary, the performer invites the beholder to behold him create. “When you radiate beauty,” Stanislavski insisted to the performers of the Bolshoi Opera at a time when Moscow was reeling in the wake of the revolution, afflicted by failure of one five-year plan after another, afflicted by hunger, by poverty, “you will draw others towards you, making them want to radiate beauty too. Of what use is it to create beauty on stage... and then to go out in your life and destroy it?” Unfortunately, the discourse requires much more space than this space allows us... so I will suspend my reflection here... but I will add that with the performer endeavouring to do this, contemporary research theatre must be an excellent locus for one (indeed, not only for science) to conduct research upon what it means to be human, upon pushing back the frontiers of that which seems to be the edge of creativity, going beyond it, transcending it all the time.

**S. A.:** *Will this research benefit in some ways the work of the performers themselves, on a technical level or even on a level which goes beyond that of mere technique?*

**J. J. S.:** It is an acknowledged fact that when a performer starts transmitting his know-how to others he immediately starts attaining deeper insights which lead him on to make dramatic leaps of quality. As soon as he starts guiding others and becoming a pedagogue to new apprentices his own prowess deepens and acquires depth and richness. In transmitting to others, he grows. Why is it? Primarily it is because he sees what it means for others to understand. He sees in others the overcoming of obstacles. He sees in others the moment of change. He sees growth happening. He therefore starts understanding what processes are at work when one learns. If the performer starts getting feedback from the scientist as to what it means “to learn” then he would necessarily be empowered. It cannot but empower him, because it works somewhat similarly to the eye-opening insights he gains from seeing others learning underneath his guidance.

For many years, many misunderstood what it was that Richard and I have been trying to do; indeed, some were even aggressively sceptical, others were militantly against, seeking to convince us not to go on, because “you cannot explain creativity”, they used to chide us. Stanislavski himself seems to have been chided likewise, no less than a hundred years ago, otherwise he would not have written, so many times, that he was “not trying to bring about inspiration at will”; indeed, he so often insisted that such a project can never be realised. Like Stanislavski, we hold, however, that if we see the conditions under which sometimes, often enough, creativity does occur, then, if those conditions were to be provided, one would be making it, perhaps, more possible for the miracle to occur, although



in no way would that stop it from being an unknown. If one were to succeed in identifying some of the conditions that encourage it, well then – one could work at removing those conditions which inhibit it. Removing the conditions which inhibit it does not mean discovering what its secret is – I have elsewhere described the performer as he who, having no medium, can only make himself creative by creating obstacles for him to overcome. Creating the obstacles and making oneself overcome them means looking squarely at what may be inhibiting one's creativity. It means creating an "inhibition" – an "obstacle" - and learning to overcome it.

**S. A.:** *The unique nature of the programme speaks for itself, but I cannot fail to note what appears to be a particular lack: the programme would appear to fail to respond to employability. I am speaking of the importance all too often attached to everything having a specific product, a specific goal for which to aim. Is this the case? How is the team seeking to rectify this position? How is the team tackling the issue of product, and then, of its opposite, process?*

**J. J. S.:** Once upon a time the Faculty of Education used to guarantee immediate employability to all its students – each student automatically knew that on graduating s/he would be employed as a teacher. It is not like that any longer. A student does not go into the Faculty of Education to be guaranteed employment as a teacher in a state school immediately upon graduating, but to gain the knowledge with which he can teach others. The Faculty of Education is not there to create jobs for teachers – and it surely does not consider it to be its job to do so. It considers its task to be that of instilling in others the love for teaching and the ability to satisfy that love. The need for teachers, for educators, is always there. We have to, perhaps, also discover that the need for discovery, for innovation, for creativity, is always there. Without these, we stop being human, because we would start to merely repeat ourselves. "The only evil is repetition", said Kierkegaard. What E-MAPS is setting out to do is to facilitate and empower people to be innovative. We need to respond by saying we need innovators.

**S. A.:** *What is the current stage of the programme's development?*

**J. J. S.:** For the first twelve months we clearly concentrated on coming to understand each other's interests, research and disciplines; after that we started designing the curriculum. In the current stage we have come to the important moment where we can say that we have created a curriculum which meets certain expectations. We must now redesign that curriculum to fit what we expect from it. That is our top priority.

The second part of the current stage is that of attempting to answer the question: what are we doing this for? That question was addressed in the Rome colloquium in February 2005, where we identified as a fundamental interest underlying all we are trying to do in E-MAPS the confrontation of the question "what does it mean to be human?" That question opens the door to other questions. What does it mean to be innovative? What does it mean to be not repetitive? What does it mean to not fall into a conveyer-belt system for living one's life? What does it mean not to think in terms of screwing 10,000 screws a day? What does it mean to be creative, human?

The second stage we are in at the moment is therefore seeking support for the fact that this pedagogical tool we are designing is looking towards creativity. The support we are seeking needs to recognise clearly the dangers inherent in going for immediate employability – a trap that carries a

punitive price: the vital striving after creativity would fall by the wayside, whilst repetitiveness, predictability, would dominate.

“It would be worth asking whether what is produced nowadays is, indeed, goods and commodities, or whether, rather, the very objective of production is work itself, production itself,”<sup>9</sup> says philosopher Umberto Galimberti, and he goes on “If work has an aim it certainly is not that of production; if at all, production has, as its aim, the generation of jobs as an essential and effective instrument of social control. Once it is shorn of its true value, work is mirrored in production, in the same way as production is mirrored in work; lacking objective and perspective, each is reflected in the other, in nothing but an empty mirroring of the very structure that binds them together.”<sup>10</sup>

The answer to your question, however, is an unequivocal “Yes”, really – however, it is a “yes” with a difference, a provocative difference. Yes, of course, E-MAPS **will be** looking for employability. It will be struggling to make innovative people necessary. It will struggle to make it clear that innovative minds are necessary. It will struggle to make it possible for this world of ours to have creative human beings. It will struggle to show that there are openings for creativity everywhere.

**S. A.:** *Would you like to add anything as a conclusion?*

**J. J. S.:** It is most important that one realises that we are not trying to change things. It is the usual misconception that makes one think that we are. We are not, however. What we are doing is very conservative – we are trying to respect the very foundations and structure of the Human Being. Man’s very nature is Change. We are not trying to change things. We are simply trying to respect and facilitate the very structure, basis and foundations of what it is to be human, which is to be in continuous change and growth. We are not trying to change anything.



*This series of photographs documents different stages in the elaboration of the same moment of the performance. The instant (it is a very short moment in the work) is recorded as it gradually developed in the long process of rehearsals, in the course of which the Performer kept investigating the instant and looking for its dynamic possibilities. In itself this manifests the supreme rigour with which the compositional nature of dramaturgy is engaged in contemporary research performance.*

<sup>9</sup> Galimberti, U., *Il Corpo* (Feltrinelli, Milano, 1987), p. 250 – “Vien infatti da chiedersi se oggi ciò che si produce sono veramente i beni o non piuttosto, come vedremo, il lavoro stesso e la stessa produzione.”

<sup>10</sup> *ibid.*, p. 258 – “Se il lavoro ha uno scopo non è certo nella direzione della produzione, se mai è la produzione che ha per scopo la creazione di posti di lavoro come strumento essenziale ed efficace del controllo sociale. Svuotato del suo valore, il lavoro si specchia nella produzione, come la produzione nel lavoro; l’uno si riflette nell’altra senza alcuna finalità e in nessun orizzonte se non in quello della specularità vuota della struttura che li annoda”.

## Contributing to aviation safety through avionics design



*Dr Ing David Zammit Mangion*

AS I FIND MY SEAT, stow my hand luggage and make myself comfortable, a typically confident voice comes over the intercom “Ladies and gentlemen .... your captain from the flight deck. Welcome to this flight to Los Angeles. We are currently making the final preparations for our departure and will shortly be on our way. Flight time today will be eleven hours and fifteen minutes and we shall be flying at an altitude of thirty nine thousand feet. ....” I have hardly settled down and been through the movie list of the in-flight entertainment than the aircraft is pushed back and we are on our way. Throughout the eleven hour flight, I have had lunch and dinner, watched three movies, listened to several sound tracks, seen icebergs and vast plains and had a nap. Soon we are starting our descent into Los Angeles International Airport and my thoughts stray to my itinerary ahead. We touch down, taxi to the gate, come to a full stop and the engines are shut down. The seatbelt light goes off. I stand up, collect my hand luggage, wait for disembarkation and finally find myself walking out of the aircraft and up the tunnel of the airbridge, onward to the rest of my journey.

Another flight has been safely completed. One of several tens of millions flown every year. Few, if any, of the few billion passengers flying every year give a thought of what goes into ensuring that over 400 people cramped inside a metal cylinder for the best part of half a day, hurtling along at over 800 kilometres per hour in an environment naturally hostile to the human being, are kept in relative comfort and safety. Of course, we think nothing of it. We take technology for granted. What we tend not to realise is that this is only achieved through success in engineering and the meticulous attention given to safety in every aspect of the industry, starting with the design process of the aircraft, right down to its manufacture, certification, operation and maintenance. The industry goes to great lengths to ensure safety and does so to a level that is difficult for the average passenger to comprehend. For example, a 2-engined jet can take-off on one engine should the other fail, safety-critical electronics are equipped in triplicate, just in case one breaks down and the aircraft is checked for damage and malfunction before and after every flight. Try to compare that with motoring. Cars do not have two engines to ensure that at least one will get you back home, nor does the average motorist extensively check out the car after each journey, but then this explains why air travel is the safest mode of travel.

Statistically, a serious accident in commercial aviation occurs about once in every 1 million flights. That implies that if an individual were to take 3 flights a day, one would expect to be involved in an accident only once in a thousand years (and even then, one would probably survive). Although this is a tenfold increase in the safety record of the 1960s, the aviation sector is focussing on further improving the present record by a target fivefold within fifteen years. This is desired not only to further improve the track record of air travel, but also because the traffic density is expected to triple from 2000 levels by 2020. Indeed, the Strategic Research Agenda (SRA), published by the Advisory Council for Aeronautics Research in Europe (ACARE), identifies safety as one of the five major challenges in air travel.

The aeroplane is a complex machine that has evolved remarkably in the hundred years of its existence. A major and core component of today's machine is its avionics systems. Avionics, which broadly refers to the electronic systems and instrumentation on board the aircraft, are effectively the brain and the nervous and sensory systems of the aircraft. Without avionics, the aircraft today is useless, incapable of completing its intended mission. Avionics systems provide the necessary functions to support navigation, communication, flight control, cockpit instrumentation, flight and system management... virtually everything on board a modern aircraft has an electronic system associated with it. It would not be surprising, therefore, to expect that new avionics functions would be called upon to contribute to improving the safety record. Indeed, this is the case, with avionics featuring heavily in the 'key enablers' identified in the SRA that can support the challenge associated with improving safety.

A major area where avionics is contributing to improved safety in air transport is that of surveillance. In this context, surveillance refers to the monitoring of the situation and the environment. The concept of surveillance functions is to ensure that the aircraft does not enter into a situation that may jeopardise the safe continuation of the flight. To this effect, surveillance functions can be classified by the threat they mitigate or the entity monitored: traffic, terrain, weather, crew action (human error) and aircraft health. Traffic surveillance functions are associated with ensuring that the aircraft does not inadvertently enter a situation of potential conflict with other traffic. In simple terms, this means that the function identifies a potential risk of collision with other traffic. Likewise, terrain and weather surveillance function are intended to provide sufficient situational awareness and advice to allow the flight crew to successfully avoid bad weather, turbulence and high ground. The flight crew, being human, is vulnerable to human error and thus avionics systems surveilling their activity and warning them of any undesirable action will contribute to improved safety. The aircraft, being a machine, is also liable to malfunction or failure and the identification of a failure or its impending occurrence, together with an indication of the implications can also significantly contribute to improved safety. The formulation of prototypes of such new avionics functions constitutes what, in European jargon, is often referred to as down-stream research, which is very close to and focuses on, end-product design.

Research and development in aeronautics requires a mix of very specialised and multi-disciplinary skills. This mix of skills is very much sought after and highly regarded in industry and professional engineering circles. It is, perhaps, the pinnacle of the profession, for it is this mix of qualities that has sustained the continuous progress and achievement in aviation. Aviation enjoys a high profile with the general public and it is often considered as a showcase of technological achievement and capability. This is clearly reflected in political circles, for all leading countries take pride in their strong capability in the field, whilst emerging countries strive to develop the capability.

The involvement of the University of Malta in the field of safety avionics reflects the quality and potential of the institution and strategically also contributes to the country's innovation portfolio. We are entrusted with the national responsibility of representing Maltese interests in EU Framework Programme 6 on matters relating to aeronautics and have very successfully led the country to participations worth €850,000, with further bids in the 2005 calls that may overall top the €1 Million mark in the 4 years of the framework programme. Most of these funds are involved with research in avionics and on-board electronic systems. This is a significant achievement for the country and indeed also for the University of Malta, which is the major national participant in these activities.

I have had the pleasure of leading the University of Malta into the field of aeronautics, an effort that is also reflected in the success of our participation in Framework Programme 6. We have, for several years, been collaborating with Cranfield University in the development and evaluation of aircraft monitoring systems and have developed a niche expertise in safety and crew alerting systems that are used in situations of high workload such as the take-off environment. The two universities are now jointly involved in a large EU programme involving the major European players in avionics, including Airbus, Thales Avionics, BAE Systems and Diehl Avionik Systeme. The programme focuses on the design of prototype, next generation safety systems for commercial aircraft. Building on its experience of developing prototype systems, the University of Malta is tasked with developing new functions to mitigate the risk of collision with other traffic during take-off and landing, whilst Cranfield University will be developing the cockpit instrumentation, referred to as the human-machine interface in technical terms. The University of Malta's work will involve the development of new concepts of surveillance and new complex algorithms that detect the hazard of a potential collision and advise the pilot on an optimal escape route to ensure the collision is averted.



These algorithms will be implemented in software and evaluated formally with the help of pilots on flight simulators to demonstrate the function and capability of the new system. The programme will continue into 2009, by which time, the new capabilities developed will be available for further development into new products that may reach the market in the first half of the next decade. Runway collisions are rare, but can have catastrophic effects with a high number of fatalities. Indeed, the worst air disaster of all time involved a runway collision, resulting in over 500 fatalities. If the new system we are contracted to develop will successfully avert a repeat occurrence even just the once, it will have been well worth the while researching into developing the new technologies required to mitigate such hazards. I have met many engineers involved in the design of aircraft, systems and components and all have one common character: a deep sense of pride in their work and great satisfaction in seeing their creations on board aircraft. One day, we may also be able to walk into a cockpit and tell the pilot with pride "The University of Malta was involved in the development of the concept of your instrument there". Until then, we remain happy to continue contributing to global knowledge that supports a safer record in air travel, so the general public will be able to live longer and travel more often to maintain the already excellent level of safety in flight.

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DR ING DAVID ZAMMIT-MANGION graduated with a Bachelor's degree in Electrical Engineering from the University of Malta and worked in the semi-conductor manufacturing industry before joining the University in 1992 to lecture in electronics and electronic systems. Graduating with a Master's degree in Electronic System Design from the College of Aeronautics, Cranfield University in 1996, Dr. Zammit-Mangion returned to Cranfield to conduct research in aircraft performance monitoring and cockpit display design. He was awarded a doctorate degree for his work in 2001. He has since continued his research in the field of aviation safety, airborne surveillance systems and cockpit display design and has been involved in a number of large research contracts in aeronautics. A Chevening and Commonwealth scholar, Dr Zammit-Mangion is a member of the Advisory Council for Aeronautics Research in Europe, represents Malta in Brussels on issues relating to research in aeronautics and is also Lecturer of Avionics at Cranfield University.

## University of Malta Gozo Centre

*Professor P L Briguglio, Director of the Centre writes:*

THE GOZO CENTRE is housed in a converted, refurbished 19<sup>th</sup> century building at Xewkija in Gozo on the way from the harbour at Mgarr to the capital Victoria. It was established in 1992 to offer part-time courses in Gozo and to deal administratively with the needs of Gozitan students studying on the main campus at Msida. The Centre offers a number of Degree and Diploma courses, some at postgraduate level. This necessitates staff who lecture on the main campus travelling to Gozo though there is now also a video conferencing link. The Centre has also become a venue for conferences, seminars and workshops many of which have participants from overseas.



### ROUND-UP 2004

The Centre has become a bee-hive of activity with the following events occurring in 2004:

#### March

The University of Malta Gozo Centre hosted an International Workshop organised by the Commonwealth Secretariat in collaboration with the Islands and Small States Institute and the Economics Department. The workshop, which focussed on economic vulnerability and resilience building of small states, was inaugurated by H.E. Jagdish Koonjul, the Chairman of the Alliance of Small Island States (AOSIS) which represents forty states in the United Nations. Twenty-six experts from all Commonwealth regions participated. This included academics, practitioners, policy makers, and representatives of international and regional organisations from the Caribbean, Pacific, Indian Ocean and Mediterranean region as well as from UNDP, UNCTAD, UNDESA, the Commonwealth Secretariat and other international organisations.



#### April

The 8th annual *Gozo Lace Day* was organised at the Gozo Centre in Xewkija. The Hon. Anton Tabone was guest of honour. The event included exhibitions of various aspects of Maltese Lace produced by students as Lace Programme projects; demonstrations of pillow covering, card weaving, cord making, Tulle Lace and a number of talks on matters related to lace making.

## July

An Expert's Workshop on *Competitiveness Strategies of Small States* was held at the Gozo Centre in mid-July. It was inaugurated by Minister Censu Galea whose portfolio includes competitiveness. The workshop was attended by senior officials and experts from different Commonwealth countries.

## August

In August, the Gozo Centre organised its annual summer activity in the Central Courtyard, entitled: *An Evening with Walter Micallef u l-hbieb*. The programme included songs by Walter Micallef accompanied by his friends Renzo Spiteri, Pawlu Camilleri, Jesmond Psaila, Albert Garzia and Eric Wadge. Walter Micallef is considered by many as Malta's leading singer songwriter. Performing in Maltese, he has over eighty original songs. He was also shortlisted as *Best Male Artist* at the 2004 *Malta Music Awards* and has won the *Ghanja Tal-Poplu* on several occasions.

## September

A two-day well attended seminar entitled: *Working with Children with Dyslexia* was organised at the Gozo Centre coordinated by Ms Ruth Falzon from the University's Department of Psychology and Ms Carmen Muscat.

## October

The Board of Studies for IT, in particular through the Department of Communications and Computer Engineering, launched its evening Diploma in IT using a virtual classroom concept. This means that lectures are being taught simultaneously at the University of Malta main campus as well as at the University Gozo Centre in Xewkija. The initiative has been made possible through an EU 6<sup>th</sup> Framework project named TWISTER in which various applications of satellite communication are being investigated. The video-conferencing through satellite system enables two-way communications in virtual real-time enabling interaction by all participants, with the lecturer being sited either in Malta or Gozo.

## November



At the annual Graduation Ceremony, nine students were awarded the Diploma in Commerce after having successfully completed the course offered at the University Gozo Centre between October 2002 and July 2004.

## December

An *Award of Certificates* ceremony was held at the University Gozo Centre. The Hon. Giovanna Debono, Minister for Gozo, distributed certificates to 150 candidates who had followed courses at the University Gozo Centre during 2004.



## COURSES

During 2004, the following courses were conducted at the Gozo Centre:

Diploma and Certificate Courses which were completed:

- The Certificate in Lace Studies Course came to an end in June 2004. 9 students completed the course successfully and in December they were awarded their certificate.
- The Diploma in Commerce Course came to an end in June 2004. 9 students completed the course successfully and were conferred with their diploma at the Graduation Ceremony in November held on the main campus.

## New Degree and Diploma Courses

- In October, a 2-year course leading to an MA in Islands and Small States Studies and a 3-year course leading to the degree of Bachelor of Commerce commenced. The Centre also offers 2-year courses leading either to a Diploma in Information Technology or a Diploma in Commerce.

## Short Courses and Publications

A varied range of short courses was offered at the University Gozo Centre during 2004. The Centre also publishes *The Gozo Observer*. This journal carries a variety of articles related to various aspects involving Gozo. The Centre has also published the proceedings of several conferences which it has hosted.



For further information and *The Gozo Observer* online visit the website at:  
<http://home.um.edu.mt/ugc/>



## Award for article published in UoM's Annual Report 2003

**An opportunity for excellence: Moving into the World of on-line course delivery** was the title of an article contributed by **Dr. Mark W. Smith** from

Trident Technical College, South Carolina, USA and published in the University of Malta's *Annual Report 2003*. Dr. Smith was Visiting Fulbright Senior Scholar in the Department of Information Systems, Faculty of Science at UoM, between

February and June 2003. In the article, Dr. Smith evaluated the feasibility of his belief that the University of Malta is in a unique position to assume a leadership role in higher education as a regional centre for distance learning, looking at the means available to implement this new paradigm while examining both the pros and cons of the idea and the technologies available.



He has since received an *Outstanding Career and Technology Education Writers Award* for this article, from the South Carolina State Department of Education Office of Career and Technology Education at the 2005 *Education and Business Summit* held at the Palmetto Expo Center in Greenville, SC on 28 June, 2005. The citation read as follows:

### **Career and Technology Education Writers Award**

The Office of Career and Technology Education recognizes the significance of sharing the message of career and technical education with other educators, business and industry leadership, and other local, state, and national agencies. One of the many ways of accomplishing this is by developing written documents highlighting one or more of the many initiatives, programs, best practices, and/or successes in the area of career and technology education. This takes time, and, in most cases, time beyond the day-to-day activities and responsibilities of the workday. This award is presented as a special commendation to those who have taken the time to focus attention on academic and skills education training and delivery. Your efforts to share your expertise, examples, and encouragement are necessary and appreciated.

Dr. James Couch, Director of the Office of Career and Technology Education for the South Carolina Department of Education presented the award.

Congratulations Dr. Smith!

## Student Statistics

### Student Intake 2003/2004

<i>Undergraduate</i>	m	f	Total
Humanities	638	1038	1676
Sciences	265	175	440
Other disciplines	97	209	306

<i>Postgraduate</i>	m	f	Total
Humanities	225	263	488
Sciences	27	7	34
Other disciplines	28	35	63

### Student Population 2004

<i>Undergraduate</i>	m	f	Total
Humanities	2034	3398	5432
Sciences	999	642	1641
Other disciplines	334	658	992

<i>Postgraduate</i>	m	f	Total
Humanities	501	487	988
Sciences	130	63	193
Other disciplines	148	157	305

### New Graduates 2004

<i>Undergraduate</i>	m	f	Total
Humanities	351	642	993
Sciences	147	118	265
Other disciplines	36	71	107

<i>Postgraduate</i>	m	f	Total
Humanities	176	155	331
Sciences	46	21	67
Other disciplines	21	16	37

also awarded:

**2004:** 798 diplomas; 52 diplomas (postgraduate); 60 certificates (postgraduate)

Degrees conferred, Diplomas awarded 2000-2003:

	m	f	Total
<b>2000</b>	645	660	1305
<b>2001</b>	943	1029	1972
<b>2002</b>	937	1096	2033
<b>2003</b>	965	1248	2213

## Income and Expenditure Account

	2004 Lm	2003 Lm
<b>Income</b>	13,332,598	12,992,900
<b>Expenditure</b>		
Staff costs	10,980,895	10,813,480
General Expenses	2,631,478	2,800,328
	13,612,373	13,613,808
<b>Deficit for the year</b>	(279,775)	(620,908)
<b>CAPITAL PROJECTS FUNDING</b>		
Balance at 1 January	(48,871)	(107,001)
Capital projects payments effected by the University during the year	716,735	778,143
	667,864	671,142
Remittances received from Govt.	(754,974)	(720,013)
Balance at 31 December	(87,110)	(48,871)
<b>BALANCE SHEET</b>		
<b>Fixed assets</b>		
Quoted investments	151,800	151,800
Unquoted investments	256,450	256,450
	408,250	408,250
<b>Current assets</b>		
Loans	184,800	152,961
Debtors	220,260	196,893
Prepayments	259,048	246,939
Cash at bank and in hand	1,355,629	1,275,636
	2,019,737	1,872,429
<b>Current Liabilities</b>		
Funds designated for specific purposes:		
Academic	791,800	763,354
Operational resources	951,047	761,990
Other	1,361,167	949,045
Capital Projects funding	87,110	48,871
Creditors	165,977	406,758
	3,357,101	2,930,018
<b>Net current liabilities</b>	(1,337,364)	(1,057,589)
<b>Total assets less current liabilities</b>	(929,114)	(649,339)
<b>Represented by:</b>		
Specific endowment funds	96,444	96,444
<b>Other funds</b>		
Capital fund	59,500	59,500
Net deficit	(1,085,058)	(805,283)
	(929,114)	(649,339)